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Personality traits and leadership style among school administrators

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PERSONALITY TRAITS AND LEADERSHIP STYLE AMONG SCHOOL ADMINISTRATORS

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ABSTRACT

Educational administrators are expected to provide guidance to various stakeholders within the school environment. Educational administrator personality traits and leadership style were the focus of this study. Two research questions guided the focus of the current study. The first question examines the association between the degree of the transformational leadership style, the transactional leadership style and the laissez-faire leadership/non-leadership style and the magnitude of the Big Five personality traits of California unified school district administrators. The second question explored the relationship between educational administrator school type (elementary, middle and high school) with leadership style as well as personality traits. Although several studies focus on leadership style and personality traits independently, little is known about the interaction between school administrator's leadership style in relation to their personality traits. Additionally, few studies have investigated the relationship between administrator school type (elementary, middle and high school) with leadership style as well as personality traits. This quantitative study utilizes a self-report survey design with a sampling of 376 California unified school district educational administrators. Study data was collected using the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) to measure leadership style as well as the Tem Item Personality Inventory (TIPI) used to measure personality traits. Findings from this study indicate a statistically significant relationship between educational administrators' leadership style and personality traits. Furthermore, results indicate a statistically significant difference detected between the educational administrators' school type (elementary, middle, high school) and leadership style in relation to their personality traits.

Chapter 1: Introduction

Educational administrators are tasked with the responsibility of overseeing the complex structure of the school system on a day to day basis. An understanding of how personality traits and leadership style impacts interactions with others and how we make decisions may be beneficial to support stakeholders within the school environment. Personality appears to be a product of various life experiences as well as many innate characteristics that come together to create whomever we are and how we interact with our surroundings (Jung, 1971a). Due to this connection between personality and behavior, it is important for educational leaders to engage in professional development to cultivate a better understanding about personality (Rychlak, 1968). School administrators are tasked with overseeing various components of an organization and must lead others to promote an optimal learning environment (Schneider & Burton, 2001). It is beneficial for school administrators to know their leadership style, as well as the ability to decipher the leadership style of those around them, in order to make the most of individual strengths and to motivate others to be their best (Andersen, 2006).

Considering the relationship between personality and decision-making, it is reasonable to assert that personality has an impact on a school administrator's leadership style. Leadership style is developed around motivating others, creating a mission and vision for the school, empowering others and creating collaboration (Hanbury, 2001). Leadership style is unique to each particular educational leader and their personality traits have an impact on how they see their subordinates and how they chose to lead others (Holland, 1973). School administrators who know their personality traits can utilize this information to understand how their personality preferences affect how they make decisions (Oplatka, 2004).

An educational leader's personality and beliefs are illustrated in many ways throughout their school. When hiring for a position or when the human resources department is placing an administrator at a school site, finding the correct personality trait fit at a particular school site should be considered (Collins, 2001). Both the personality traits and leadership style of the educational administrators, as well as the individual personalities of the people who work with the leader, are important elements to take into account when hiring in order to find the best fit inside the organization. Personalities of leaders and their followers both come with a unique set of gifts and goals, and leaders are influenced daily, both by their personality traits in regards to how they make decisions as well as the personalities around them that influence their ability to lead (Silverthorne, 2001). It may be beneficial for educational leaders to acknowledge their innate personality trait tendencies and attempt to understand how they perceive the world around them (Drummond & Stoddard, 1992). This introspection can assist administrators in recognizing possible biases, personal preferences and/or other tendencies as a leader (Myers-Briggs & McCaully, 1985).

Bass (1985) illustrated that leadership behaviors can be influenced by situational factors and the leader's surroundings. These factors should be considered before a school administrator is placed within a school site or in a leadership position. Collins (2001) described the necessity to first find the right people for a team and then place them in the environment where they will be most successful according to their personality preferences. In order for an educational administrator to thrive in their position, it is helpful if their personal fit within the school's community is harmonious (Brown, Riley, Walrath, Leaf & Valdez, 2008). Without the right balance for all parties involved it can become difficult for any kind of influential understanding to emerge. If personalities between educators and administrators clash and growth cannot occur,

then it can become clear that the wrong person is currently occupying the position at that particular school. In some cases, it may simply be a case of the follower's personalities clashing with the leader's personality resulting in conflict. Understanding personality traits and personal preferences, then, can assist administrators in anticipating teachers, students, parents and community members and other stakeholders' needs, behaviors and drives (Cerit, 2009).

Problem Statement

School administrators are expected to provide leadership and guidance to the teachers, students and parents in their learning community in order to sustain the most optimal learning environment. While many school districts offer various trainings, professional development opportunities and guidance in terms of leadership, the notion of personality traits and its affects on leadership style is neither discussed nor formally explored by most school districts. Due to this, there is varying information available regarding the impact on leadership style in terms of personality traits within the educational community.

Nevertheless, there are various scholarly articles available postulating the notion that personality traits do impact leadership style as well as the various ways that the leaders relate to other people (Brown et al., 2008; Hautala, 2005). Educational leaders may not recognize how their particular personality traits influence their decisions as well as their overall leadership style. Educational administrators would benefit if they directed attention towards those internal motivations that personality traits represent, especially those drives that influence decision-making (Brown-Ferrigno, 2007). It is therefore imperative that leaders understand how they see through their own lens and how it ultimately affects their direct and indirect subordinates.

School administrators should not only know and understand about personality traits and leadership style, but also how they interact and influence one another. Widiger & Trull (1997)

reported that knowing one's own personality traits allows the leader to better understanding their follower's personality traits and underlying motivations. Silverhorne (1999) provided support for personality traits as a predictor of leader effectiveness and for the usage of personality trait measures to predict potentially effective leaders. Research regarding an understanding of the connection between leadership style and personality traits is crucial. Andersen (2006) reported that understanding personality type and having the ability to identify particular personality traits that are indicative of potential leaders can ultimately create coaching possibilities to cultivate talent. Exploring this pivotal relationship between leadership style and personality traits may provide a fresh perspective on how we can improve the educational environment for students, parents and teachers.

Purpose Statement

The purpose of the study is to identify what relationships, if any, exists between the magnitude of five personality traits and the degree of three leadership styles among school administrators. In addition, the study aims to examine what differences, if any, exist among the magnitude of five personality traits and the degree of three leadership styles between elementary, middle and high school educational administrators. The study was quantitative in nature and, as it did not involve an intervention, examined variables not manipulated by the researcher but rather only measured by the through cross-sectional data collection. Research data collected from this study attempted to provide evidence regarding the importance of educational leaders' awareness of their personality traits and how their personality traits relate to their leadership style and/or how their professional leadership style relates to their personality traits. By doing so, leaders may be able to identify biases and inborn personal tendencies and can strive to become a more well-rounded leader.

Research Questions

1. What relationships, if any, exist between the magnitude of five personality traits and the degree of three leadership styles among school administrators?
2. What differences, if any, exist among the magnitude of five personality traits and the degree of three leadership styles between elementary, middle and high school administrators?

Hypotheses

Ha1. It is hypothesized that non-zero relationships exist between the magnitude of five personality traits and the degree of three leadership styles among school administrators.

Ho1. It is hypothesized that no relationships exist between the magnitude of five personality traits and the degree of three leadership styles among school administrators.

Ha2. It is hypothesized that differences exist among the magnitude of five personality traits and the degree of three leadership styles between elementary, middle and high school administrators.

Ho2. It is hypothesized that no differences exist among the magnitude of five personality traits and the degree of three leadership styles between elementary, middle and high school administrators.

Importance of the Study

It is hoped that the results collected from the study accurately portrays personality traits and leadership style as well as how they interact within the educational setting. Furthermore, the information gathered from this study contributes to the body of knowledge regarding educational

administrators and how their personality traits influence decision-making and problem solving. Additionally, the data gathered from this study also adds to the information available regarding varying leadership styles of educational leaders and how those particular styles affect school leadership.

Using information regarding personality traits, educational leaders may be better at understanding their personal preferences in the workplace and how it impacts their leadership style. Conjointly, educational leaders are able to influence their followers through various mechanisms and influence the success of the school site. This influence may be positive, negative or no influence at all depending on the administrators' leadership style. Fundamentally, these two concepts may interact with one another in regards to overall leadership capabilities. It is the hope of the researcher that the study contributed to the information available to educational leaders regarding their leadership style in relation to their personality traits. In addition, it is the aim of the researcher that any information gathered in the study may also be employed to implement professional development opportunities for school administrators.

Operational Definitions

Leadership Style: A leader's style of providing direction and motivating followers. A leader is seen by their subordinates as a role-model. Leadership includes patterns of actions performed by a leader which inspires and creates enthusiasm in their followers (Davis & Newstrom, 1993). In this study, leadership style was measured by the Multifactor Leadership Questionnaire (MLQ:5X – Self), a research tool consisting of forty-five items used to evaluate three different leadership styles: transformational leadership style, transactional leadership style and the laissez-faire

leadership/non-leadership style. It allows individuals to measure how they are perceived or how they perceive themselves with regards to specific leadership behaviors.

Personality Traits: Psychological classification of different types of individuals including a collection of traits occurring consistently together thus creating a pattern (Fouad et al., 2010). In this study, personality was measured by the Ten Item Personality Inventory (TIPI), a research tool consisting of ten items used to evaluate five different personality trait domains: extraversion personality trait, agreeableness personality trait, conscientiousness personality trait, neuroticism personality trait, and the openness to experience personality trait. It allows individuals to measure how they perceive their own personality traits.

Key Terms

Educational Leadership: Individual responsible for guiding teachers, students and parents toward achieving common educational goals (Marzano, Waters & McNulty, 2005).

Transformational Leadership Style: Leaders influence followers by getting them to transcend for the good of the group above their own self interests. (Bass & Avolio, 1996).

Charismatic Leader: Highly esteemed, followers see them as a role model and strive to emulate the leader and align around a common purpose (Bass & Avolio, 1996).

Inspirational Leader: Provides optimism but followers may not necessarily seek to imitate inspirational leaders (Bass & Avolio, 1996).

Intellectually Stimulating Leader: Leader encourages subordinates to question their assumptions and look at things from a unique perspective (Bass & Avolio, 1996).

Individually Considerate Leader: Leaders work closely with their followers, anticipating their individual needs and uplifting them emotionally (Bass & Avolio, 1996).

Transactional Leadership Style: Exchange based leadership process focused on setting objectives, the fulfillment of obligations and monitoring outcomes (Antonakis, Avolio & Sivasubramaniam, 2003).

Management by Exception – Passive Leader: Leader only intervenes after non-compliance has occurred. Only when mistakes have transpired do they become involved (Antonakis et al, 2003).

Management by Exception – Active Leader: Leader is actively vigilant in regards to follower meeting standards (Antonakis et al., 2003).

Contingent Reward Leader: Leader is focused on task completion and providing subordinates with rewards contingent on the fulfillment of the obligation (Antonakis et al., 2003).

Laissez-Faire Leadership/Non-Leadership: Represents the absence of leadership in which the leader avoids responsibility and fails to make decisions (Antonakis et al., 2003).

Extroversion Personality Trait: Trait domain represents the tendency to be active and outgoing. (Judge & Bono, 2000a).

Agreeableness Personality Trait: Trait domain represents the tendency to be trustworthy and kind to others (Judge & Bono, 2000a).

Conscientiousness Personality Trait: Trait domain represents the tendency to be dependable and organized (Judge & Bono, 2000a).

Openness to Experience Personality trait: Trait domain represents the tendency to be perceptive and imaginative. (Judge & Bono, 2000a).

Neuroticism Personality Trait: Trait domain represents the tendency to be moody and anxious (Judge & Bono, 2000a).

Theoretical Frameworks

Bass' transformational leadership theory. Burns' book *Leadership* (1978), advanced a model of leadership style and behaviors. Bernard Bass (1985) extended the work of Burns by detailing specific characteristics of a transformational style leader and a transactional style leader. Based on the initial leadership work by Burns, Bass and his team depict a leadership style model where defining characteristics are attributed to particular leadership styles and the extent to which the leader influences their followers (Bass, 1985). Bass later developed a measurement tool called the Multi-Factor Leadership Questionnaire (MLQ:5X - Self) to measure the transformational leadership style, the transactional leadership style and the laissez-faire leadership/non-leadership style domains (Bass, 1990).

The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) has been used in various developmental studies (e.g. Bass, 1985; see also Howell & Avolio, 1993; Sosik, Avolio & Kahai, 1997) in varying contexts, leading to its status as a trusted method of data collection in leadership style studies (Brown et al., 2008). For the purposes of this research study, Bass' Transformational Leadership Theory and the Multi-Factor Leadership Questionnaire (MLQ:5X - Self) is explored in Chapter II to establish the relevance of the educational leaders' preferred leadership style in terms of leading their followers.

Big five personality theory/Jung's theory of personality. Jung's (1971a) description of personality archetypes supposes that each person is born with an innate set of traits that influence how they participate in the world around them. Jung's theory comprised of three distinct dimensions of personality – extraversion/introversion, thinking/feeling, sensing/intuition – and these dimensions are expressed through their judgments, interests, values, perceptions and motivations (Jung, 1971b). These categorized mental functions can be developed but individuals typically favor their natural "lead" function because that is how they are most comfortable interacting with the world (Brown et al., 2008). Jung goes on to express that these mental functions or personality tendencies are unlearned and emerge as stronger preferences over others personality traits (Clark & Riley, 2001).

Jung's theories influenced the Big Five Personality Trait Theory in terms of describing definable personality traits that can be predicted and observed (Judge & Bono, 2001). The Big Five Personality Trait Theory is defined as five clearly defined dimensions of personality traits commonly found within the general population (Gosling, Rentfrow & Swann, 2003). Tupes and Christal (1961) are given credit for extending the work of Carl Jung and uncovering the Big Five Personality Trait Theory but strong evidence in various arenas have long speculated the prevalence of defined personality traits (Judge & LePine, 2007). Jung's work on personality traits and the Big Five Personality Trait Theory is discussed in Chapter II. Additionally, the Ten Item Personality Inventory (TIPI) used to measure personality traits is discussed in Chapter III.

Limitations

The school sample was taken solely from California thus limiting the diversity of the data compiled. To mitigate this limitation, the researcher selected various unified school districts from

California in order to represent a diverse sample. Secondly, educational leaders may have already taken the Ten Item Personality Inventory (TIPI) as well as the Multi-Factor Leadership Questionnaire (MLQ:5X – Self), which may bias response. To mitigate this limitation, the researcher indicated in the instructions to disregard past findings in the best of their ability. Unified school districts include kindergarten through twelfth grade and are combined and operated under the same district jurisdiction. Utilizing data from unified school district administrators excluded data from independent districts or districts that are smaller in size. This limitation was mitigated through selecting larger school districts from an assortment of locations in California. (Table 1).

Table 1

California Unified School Districts

#	California Unified School Districts	Approximate Number of School Administrators
1	Capistrano Unified School District	65
2	Compton Unified School District	38
3	Chino Unified School District	30
4	Chino Valley Unified School District	37
5	Clovis Unified School District	47
6	Corona Unified School District	53
7	Desert Sands Unified School District	34
8	Elk Grove Unified School District	65
9	Fairfield Unified School District	30
10	Folsom-Cordova Unified School District	33
11	Fontana Unified School District	43
12	Freemont Unified School District	43
13	Fresno Unified School District	107
14	Garden Grove Unified School District	68
15	Glendale Unified School District	33

(continued)

#	California Unified School Districts	Approximate Number of School Administrators
17	Hayward Unified School District	35
18	Hesperia Unified School District	31
19	Irvine Unified School District	35
20	Lodi Unified School District	53
21	Long Beach Unified School District	94
22	Los Angeles Unified School District	998
23	Montebello Unified School District	31
24	Mt. Diablo Unified School District	55
25	Napa Valley Unified School District	34
26	Newport Mesa Unified School District	31
27	Oakland Unified School District	135
28	Orange Unified School District	42
29	Pajaro Valley Unified School District	33
30	Palm Springs Unified School District	33
31	Pasadena Unified School District	33
32	Placenta-Yorba Linda Unified School District	34
33	Pomona Unified School District	44
34	Poway Unified School District	37
35	Rialto Unified School District	30
36	Riverside Unified School District	51
37	Sacramento City Unified School District	89
38	Saddleback Unified School District	34
39	San Bernardino Unified School District	85
40	San Diego Unified School District	232
41	San Francisco Unified School District	120
42	San Jose Unified School District	54
43	San Juan Unified School District	76
44	San Ramon Valley Unified School District	35
45	Santa Ana Unified School District	61
46	Stockton Unified School District	66
47	Temecula Valley Unified School District	33
48	Torrance Unified School District	31

(continued)

#	California Unified School Districts	Approximate Number of School Administrators
50	Vallejo City Unified School District	26
51	Visalia Unified School District	38
52	West Contra Costa Unified School District	61
53	Two Rivers Unified School District	55
54	Ventura Unified School District	35

Delimitations

There are various recognized delimitations to the research design. First, the sample consisted of unified school districts within California therefore generalization in varying contexts may be somewhat problematic. By limiting the sample size to school administrators who work with kindergarten through twelfth grade school districts, thus eliminating pre-kindergarten and transitional kindergarten, the sample was not wholly representative of the California state school system. However, unified school districts chosen in the sample are similar in demographics and population size, which assists in analyzing data obtained. Another delimitation to the study appears to be the timeframe of the study. Administration of the Ten Item Personality Inventory (TIPI) and the Multi-Factor Leadership Questionnaire (MLQ:5X - Self) occurred during the beginning of the school year when school administrators had recently returned from summer vacation in the hope to gain favorable response rates.

Assumptions

It is assumed that the Big Five Personality Trait Theory is an appropriate framework for understanding school administrators' particular personality traits and that the Ten Item Personality Inventory (TIPI) is an appropriate measure for those traits. Similarly, it is assumed that Transformational Leadership Theory is an appropriate framework for understanding school administrators' leadership style and that the Multi-Factor Leadership Questionnaire (MLQ:5X -

Self) is an appropriate measure for those styles. Additionally, it shall be assumed that all participants had the intention of being honest in their response on the questionnaires. In order to mitigate these assumptions, the researcher reinforced to the participants prior to starting the study that responses were confidential. With regard to instrument validity and reliability, this evidence is provided in Chapter III.

Organization of the Study

The quantitative research study is detailed in five chapters. Chapter one illustrates the relevance of the study regarding administrator personality traits and leadership style as well as the value of studying educational administrators' leadership style and personality traits, research study questions, theoretical framework, study limitations and delimitations.

Chapter two introduces a historical background of personality traits and leadership style in terms of educational leadership. In addition, a summary of the literature available on the topic of personality traits as well as literature regarding leadership style is explored.

Chapter three includes a description of the study participant selection process, method for collecting data from participants, instruments utilized for data acquisition and the approaches to data analysis.

Chapter four presents the overall findings from the study, summarizes the key findings from the information collected and how the data informs research questions in the study.

Chapter five presents a discussion regarding the key data gathered from the study and their relationship to prior empirical studies. Future recommendations for study is also reviewed.

Chapter 2: Literature Review

Introduction

This quantitative research study attempts to identify what relationship, if any, exists between the magnitude of school administrator's personality traits and the degree of their professional leadership style. In addition, this study seeks to uncover the differences that exist, if any, between personality traits and professional leadership style of elementary school, middle school, and high school administrators working within the kindergarten through twelfth grade educational setting. This literature review begins with a theoretical framework illustrating personality traits and leadership styles. Additionally, literature will be presented describing the historical background of leadership style, personality traits and school administration.

In regards to the Transformational Leadership Theory, it began with the research of James MacGregor Burns (1978) who first introduced the concepts of the transactional leadership style as well as the transformational leadership style but believed that leaders could only fall into one category of leadership style or the other. Bass (1985) extended Burns' work in leadership studies and described particular dimensions of leadership styles labeled as the transformational leadership style, transactional leadership style and the laissez-faire leadership/non-leadership style. Bass (1985) declared that leaders can encapsulate more than one leadership style and may have a degree of each type of style within their repertoire. Bass and Avolio (1996) are credited with ultimately dividing the three leadership/non-leadership style domains into nine sub-scales that represents varying levels of leadership behavior within the Transformational Leadership Theory.

In terms of the Big Five Personality Trait Theory, Tupes and Christal (1961) uncovered recurrent personality traits by examining research databases and uncovering patterns in the data.

Additionally, research conducted by Goldberg (1990) extended the findings that personality traits fall into five defined categories of descriptors that people use to describe themselves and thus ultimately refined the list into a personality trait inventory within the five personality trait domains. Judge and Bono (2000b) were the first researchers to link the transformational leadership style to the Big Five Personality Trait Theory.

Historical Background

Leadership style. Leadership refers to the ability to influence followers and motivate them to provide the greatest level of commitment using the least amount of coercion (Bass, 1999). Additionally, leadership also involves adjusting to challenges and providing followers with direction and inspiration in times of transition (Kotter, 1999). In the past, attention has been placed primarily on leadership styles that emphasizes cost management and quantity of output from followers. Early work in the field of leadership illustrates how an active leadership style is more effective in producing results within an organization than a passive leadership role (Atwater, Dionne, Camobreco, Avolio & Lau, 1998). The focus has now shifted towards the influence of specific characteristics that ultimately defines an effective leader as measured by their followers' willingness to follow the leader (Kirkpatrick & Locke, 1991). Transformational leaders motivate their followers and produce tangible results within an organization (Bass & Aolio, 1996). Professional development and coaching given to leaders regarding the characteristics of a transformational leader can develop talent and increase effective leadership practices (Antonakis et al., 2003).

Over the past sixty years the marketplace has moved away from an industrial revolution type model of leadership in which workers are treated like machines that have no involvement in the decisions within the organization. Currently, the workplace has moved towards a leadership

model where employees are encouraged to be creative and are empowered to participate (Atwater et al., 1998). Charismatic or transformational leadership has become the focus of management studies in the past few decades and dominates the current leadership literature (Tejeda, Scandura & Pillai, 2001). A transformational or a charismatic leader behaves as a role model to subordinates and exemplifies desirable behaviors (Nielsen, Yarker, Brenner, Randall & Borg, 2008). Personal attention is given to the followers' needs and leaders provide individualized coaching (Bass, 1999). Followers of a transformational leader are encouraged to have autonomy and empowered to make decisions in a safe environment (Evans & Johnson, 1990).

Leadership practices drive the decisions of a management team so leadership style determines the fate of an organization (Walumbwa, Lawler & Avolio, 2007). The current focus in leadership studies is a more team-oriented approach and less hierarchical in nature (Bass, 1999). Along with this type of cohesive leadership focus, a group mentality emerges in which the team members are invested personally in the success of the organization and have a drive to work with one another for the common good (Bass, 1999). Typically, under a transformational leader, there is a shared mission and vision statement and all stakeholders have an active voice in the community (Bass, 1999).

Personality traits. Personality traits are described as a combination of factors which shape the patterns and characteristics that dictates our behavior (Heller, Ferris, Brown & Watson, 2009). Most individuals have dominant personality preferences and those behaviors can be predicted by personality trait indicators (Myers-Briggs & McCaulley, 1985). Personality traits comprise our personality by creating distinctive life patterns and thought process which dictate our feelings about experiences (Heller, Judge, & Watson, 2002). Various factors of personality

come together to make up the pieces of who we are as a person and how we interact with the world (Taher, Chen & Yao, 2011). It is thought that temperament in infancy and/or early childhood is linked to the formation of the adult personality and that observable temperamental traits can be witnesses throughout a person's lifespan (Kornor & Nordvik, 2004). Temperament is also thought to be the initial basis for orientation with the outside world and that personality is shaped as the individual adapts to their particular surroundings (Rothbart, Ahadi & Evans, 2000).

McCrae and Costa (1987) determined that the trait structure of personality is universal in nature. Personality traits are essentially myriad of motivators for making decisions based on personal preferences (Zillig, Hemenover & Dienstbier, 2002). Personality traits have been defined as habitual patterns of predictable behavior (Edmonds, 1995). Personality traits influence decision-making and how we interact with the world (Sprague, 1997). Personality archetypes can illustrate unlearned traits and tendencies that then influence how individuals perceive their surroundings (Brown et al., 2008).

Personality traits and leadership style in educational administration. Personality traits can directly influence how we make decisions and how we perceive the world around us (Myers-Briggs and McCaully, 1985). Educational administrators can enhance their ability to lead effectively when they understand how leadership style and personality traits impact behavior and decision-making (Hautula, 2005). Educational leaders are required to create an educational environment that is supportive to individual strengths, but also challenge personal preference to provide growth opportunities (Bradley & Hebert, 1997). School administrators must collaborate with numerous individuals on a daily basis and it is beneficial if they can recognize various personality traits and leadership styles and how they influence the educational environment.

Information regarding the transformational leadership style began to gain attention and emerge in educational leadership literature in the 1980's in response to lackluster school performance and the need for school reorganization (Felsenthal, 1982). The Transformational Leadership Theory emphasizes empowerment and encourages teachers to collaborate with the administration on school policies and educational goals. Educational administrators now regularly provide opportunities for teachers and school employees to contribute and feel confident that their role on campus is valued (Kruger, Witziers & Sleegers, 2007). The transformational leadership style has been highlighted as one of the main components improving school success (Hallinger & Heck, 1999).

Work teams are affected by each person's particular personality traits and how they impact interaction with one another (Tuettemann, 1991). An effective educational leader may find it helpful to have knowledge about group dynamics and personality traits in order to increase motivation, increase task completion, and create innovative solutions to problems (Furnham, 2008). Personality traits can affect decision-making and how an individual approaches problem solving (McGrath, 1984). Educational leaders who put together the appropriate people for a team who may be the most productive together will ultimately create increased collaboration among educators (Hurron, 2006). Information about personality traits could be crucial in understanding individual strengths and weaknesses and how a group will work best altogether as a team (Bradley & Hebert, 1997).

Educational leaders have been described as having one of the most difficult management positions in America (Graham & Messner, 1998). Certain personality traits draw people to particular fields of employment so it would be beneficial to better understand the personalities traits of successful educational leaders (Hautala, 2005). Teachers want to feel a sense of purpose

and a strong belief that their efforts will provide a better future for their students and a supportive administrator can assist in that goal (Peterson & Deal, 1998). School administrators are expected to provide leadership and support within the educational setting (Hautala, 2005). Gordon and Patterson (2006) stated that school administrators should strive to respect their teachers, listen to their community partners, build a trustable environment, and provide relevant professional development.

Employee job satisfaction has been linked to strong leadership skills and a supportive environment (Spear, Gould & Lee, 2000). According to McKee (1991) administrator leadership style makes a substantial impact on faculty job satisfaction and overall morale. In several academic papers, an administrator's motivation to excel was dependent upon their achievements, recognition, and autonomy (Brown et al., 2008). Teachers tend to prefer school administrators who provide individualized attention and encourage them to look at problems differently (Hargreaves, 1994). An understanding of personality traits and leadership style may assist school leaders in providing an optimal environment for all educational stakeholders.

Theoretical Framework

Bass' transformational leadership theory. One commonly accepted definition of leadership is that it is "interpersonal influence, exercised in a situation, and directed, through the communication process, toward the attainment of a specified goal or goals" (Tannenbaum, Weschler & Massarik, 1961, p. 24). An effective leader is an individual who can influence followers and gets subordinates to perform beyond their own expectations (Arvey, Rotundo, Johnson, Zhang and McGue, 2006). Followers form strong emotional ties to leaders and as a consequence followers identify with the characteristics and behaviors of the leader (Hulpia & Devos, 2009). This connection allows for a greater importance to be placed on the follower's

motivations to follow and improve their overall work performance (Herzberg, 1959). Leaders are granted the responsibility of identifying the needs of their followers and to create a collective vision for the organization (Bycio, 1995). Such role models lead their subordinates and are typically seen to their followers as charismatic and inspirational (Zopiatis & Constanti, 2009).

One commonly accepted theory of leadership is called the "Transformational Leadership Theory" and was presented by Avolio, Bass and Jung (1995) and highlights the three types of leadership style domains: transformational leadership style, transactional leadership style and laissez-faire leadership/non-leadership style (Antonakis et al., 2003). Bass (1985) applied the transformational leadership and transactional leadership concepts to organizations that were originally intended to observe political leadership and identify patterns. Bass (1985) contended that leadership is composed of three domains or categories of leadership style including transformational leadership, transactional leadership, and laissez-faire leadership/non-leadership (Tejeda et al., 2001). Bass (1985) and his team ultimately created the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) to identify the transformational leadership style, the transactional leadership style and laissez-faire leadership/non-leadership style traits. According to Avolio (1999), the Transformational Leadership Theory was not intended to include all possible representations of leadership but instead focus on specific constructs observed in behaviors and leadership styles.

The development of the Transformational Leadership Theory initially began with the work of James MacGregor Burns (1978) who first introduced the concepts of transformational leadership and transactional leadership while observing political leaders and their particular leadership traits (Seltzer & Bass, 1990). Burns believed that leaders were either transformational or transactional and that they were mutually exclusive leadership styles (Nielsen et al., 2008).

Bernard Bass (1985) extended the work of Burns and believed that a leader could display varying leadership styles (Felfe & Schyns, 2006). Bass and Avolio (1996) ultimately divided the three leadership styles into the transformational leadership style, the transactional leadership style and the laissez-faire leadership/non-leadership style with nine sub-scales to describe varying leadership behaviors (Cerit, 2009).

Bass (1985) indicated that the Transformational Leadership Theory is based on what motivates people but also on the followers need for belonging and self-realization. Followers form an emotional attachment to the transformational leader and this ultimately inspires subordinates to excel past their own expectations (Nash & Bangert, 2014). Effective leaders aim to anticipate the needs of their subordinates and help them develop their skills to a higher level (Tannenbaum et al, 1961). Academic writing indicates that certain personality traits are related to transformational leadership and overall leader effectiveness (Bono & Judge, 2004).

A transformational leader is an individual who has the skill to influence and motivate others. They are able to have major influence on the environment around them and shape the attitudes of those that they lead (Smith & Bell, 2011). A transformational leader inspires followers by exhibiting optimism, an excitement about goals, a commitment to mentor followers and a belief in a future vision (Smith & Bell, 2011). A transformational leader is proactive and assists followers to achieve extraordinary goals (Tejeda et al., 2001). A transformation leader provides an opportunity for change to occur in both people and organizations (Luthans, 1994). Followers develop a strong sense of purpose and the leader provides a vision that allows the team to see a bigger picture (Avolio et al, 1995). Transformational leadership and a collective vision is essential to school improvement (Bass, 2000). Not surprisingly, due to egocentric bias, leaders

tend to rate themselves higher as a perceived transformational leader then their follower's ratings (Atwater et al., 1998).

In contrast, a transactional leader focuses on benchmark measures and does not easily stray from developed operating systems and procedures that are already in place. The organization is seen as a machine to the transactional leader instead of an evolving organism. (Smith & Bell, 2011). Transactional leaders do not easily adapt to change and may lead through contingent rewards that are given if follower's reach agreed upon levels of performance. Transactional leaders emphasize accountability and will intervene only if subordinates are not meeting the organizations standards for performance (Smith & Bell, 2011). Transactional leaders typically set objectives and then monitor and control outcomes (Hoy & Miskel, 1996). Additionally, transactional leadership is based on controlling followers and is essentially an exchange arrangement based on contractual obligation using rewards and punishments to gain compliance (Antonakis et al., 2003; Bass & Avolio, 1996).

A laissez-faire leader/non-leader is an individual that avoids leadership and is absent when needed (Bass & Avolio, 1996). An overall lack of leadership is typically observed by an avoidance of decision making and evading responsibility (Bycio, 1995). Laissez-faire leadership/non-leadership is considered the most ineffective form of leadership (Weinberger, 2009). Decisions are delayed, feedback is non-existent and there is no effort to motivate subordinates (Weinberger, 2009).

Laissez-faire leadership/non-leadership is essentially a style of management and actually appears to be the antithesis of leadership and is more reactionary then proactive (Tejeda et al., 2001). Personality characteristics such as procrastination, conflict avoidance and general lack of involvement are commonly witnessed (Bass, 1999). Additionally, laissez-faire leaders/non-

leaders abdicate making decisions and will not take responsibility or act in a role of authority (Bass, 1999; Antonakis et al., 2003).

Big five personality traits/Jung's theory of personality. Gordon Allport and Henry S. Odbert's (1936) are credited with the development of the Big Five Personality Trait Theory when they began searching for words associated with personality in the English dictionary. They discovered 18,000 terms and were able to distribute those words into various personality categories, yielding subsets of 4,500 personality terms (Widiger & Trull, 1997). Allport and Odbert provided the framework for Raymond Cattell (1945) to reduce the number of personality terms down to 171 words by eliminating synonyms (MacDonald, 1995). Next, Ernest Tupes and Raymond Christal (1961) identified five reoccurring factors within the traits observed by Cattell by analyzing data accessed in military databases (Judge & Bono, 2000a), namely (a) surgency, (b) agreeableness, (c) dependability, (d) emotional stability, and (e) culture. Carl Jung's *Theory of Personality* describes dimensions of personality traits that are innate and distinctive (Jung, 1971a). Personality trait investigation resumed when Lewis Goldberg (1990) rediscovered the Big Five personality traits and confirmed the findings of Tupes and Christal (1961), thus continuing interest in the Big Five Personality Trait Theory (Costa & McCrae, 1992).

Personality traits have been described as stable dimensions of personality characteristics that define a person (Bass, 1990). The Big Five personality traits emerged as the categorization of personality temperaments and has gained acceptance as a highly accepted personality trait inventory among researchers (Drummond & Stoddard, 1992; Tobacyk, Livingston & Robbins, 2008). The Big Five personality traits have the capability to simplify behavior into habitual, predictable patterns (Zillig et al., 2002). Personality traits are believed to impact behaviors, beliefs and attitudes (Felfe & Schyns, 2006). The Big Five personality trait model uses a

framework to observe personality traits that integrates a hierarchical model representing five broad personality domains (Gosling et al., 2003). Each domain has its own unique set of attributes associated with personality traits thus providing a comprehensive description of personality (Goldberg, 1993). The Big Five personality trait categories include: extraversion personality trait, openness to experience personality trait conscientiousness personality trait, neuroticism personality trait and the agreeableness personality trait (Lounsbury, 2003).

Extraversion is defined as a person's degree of sociability (Berr, Church & Waclawaski, 2000). Extrovert personality traits include optimism and upbeat tendencies (Buss, 1989). Such individuals tend to emerge as group leaders and exhibit behaviors that are congruent with transformational leadership (Sundstrom, DeMeuse & Futrell, 1990). Extroverts express positive emotions towards others and are assertive in nature (Watson & Clark, 1997). Bono and Judge (2004) indicated the extraversion personality trait as the most consistent correlate of transformational leadership. An extraverted leader is associated with excellent articulation and a desire to take a leadership role within a group (Shelton, 1996). Additionally, leaders who are extraverted are believed to be seeking excitement and desire attention in social situations (Butcher & Rouse, 1996). Bono and Judge (2004) report that an extraverted leader can generate confidence and enthusiasm from their followers.

Extroverted leaders can also be seen as brash and aggressive by their followers and they may have short-lived enthusiasm for an idea or project (Hogan, Curphy & Hogan, 1994). Leaders who are extraverted enjoy being the center of attention and can sometimes alienate followers by having an unclear vision or path (Blasé, Dedrick & Strathe, 1986). Extraverts tend to dominate social situations and take a leadership role within group settings (Kettelhut, 1993).

Extroverted leaders are extremely expressive people who can inspire and persuade others with their words (Avoilo, 1999).

Reverse extroverted individuals are described as introverts and have personality traits that are perceived by others as reserved and quiet (Cavazotte, Moreno & Hickman, 2012). Those who score low in the extroversion personality trait domain tend to emerge as low-key leaders that lack the social exuberance of extroverted leaders (Kornor & Nordvik, 2004). An introverted leader is associated with behaviors that are deliberate and sometimes indifferent (Tobacyk et al., 2008). Additionally, leaders who are introverted are believed to seek alone time and need less social stimulation compared to extroverted leaders (Zillig et al., 2002).

Introverted leaders can be seen as having low activity levels compared to extroverted leaders (Widiger & Trull, 1997). Leaders with introverted personality traits can also be seen as apathetic individuals (Murray, 1990). Introverts tend to have fewer numbers of friends compared to extroverts (Paunonen & Ashton, 2001). Introverted leaders may have little to say in social situations, and tend to describe themselves as introspective (Lounsbury, 2003).

Agreeableness is defined as a person's level of trust for others and their level of friendliness (Berr et al., 2000). The agreeableness personality trait invokes the notion of trustworthiness and modesty (Herzberg & Brahler, 2006). According to Wiggins (1996), one important trait of a leader with the agreeableness personality trait is altruism and actively showing followers that they have their best interests at heart. Leaders with the agreeableness personality trait encourage group cooperation and the success of fellow team members (Hurtz & Donovan, 2000). Individuals who are agreeable are friendly and promote a neutral work environment (Mayer, Salovey & Caruso, 2008). Agreeable leaders have a legitimate concern for

their followers and are attentive to their basic needs in addition to job satisfaction and their need for professional development (Hurron, 2006). Additionally, leaders exhibiting agreeableness personality traits are seen as role models because of their respectful and sympathetic nature (Bass, 1985).

Individuals who exhibit the agreeableness personality trait tend avoid interpersonal conflict and want to cooperate with others (Graziano, Jensen-Campbell & Hain, 1996). Leaders with the agreeableness personality trait are not typically creative decision makers and prefer things done in a traditional manner (Zhang & Huang, 2001). Agreeable leaders are non-confrontational and are more likely to give favorable evaluations of their follower's work performance than a non-agreeable leader (Judge, Piccolo & Kosalka, 2009). Additionally, the agreeable leaders' power may weaken due to the lack of emotional distance between subordinates and an agreeable leader (Harvey, 1994).

Reversed agreeableness personality traits include detachment, suspicion and manipulation (Graziano et al., 1996). Such individuals tend to emerge as unfriendly leaders who are skeptical of others and question motivations for behavior (Barrick & Mount, 1991). A detached leader may be seen as insincere and possess arrogant personality traits (Block, 1995). Additionally, leaders who are detached and are not agreeable are believed to be less concerned with their followers' well being and seen to have less empathy compared to agreeable leaders (Crede, Harms, Niehorster & Gaye-Valentine, 2012).

Detached leaders can be perceived as stubborn and egotistical to followers (Ehrhart et al., 2009). Leaders who score low in the agreeableness personality trait domain can be less likely to help others and are more likely to have aggressive thoughts (Jugde & LePine, 2007). Detached

leaders tend to be more competitive and less cooperative with others than their agreeable leader counterpart (Goldberg, 1993). Less agreeable leaders often have little concern for others and can be critical and quarrelsome (Lowe, 2011).

Conscientiousness is defined as a person's degree of persistence and commitment (Berr et al., 2000). The conscientious personality trait includes a sense of direction and a tendency to be detail oriented (Digman, 1990). Conscientious individuals can be seen as efficient and deliberate when making decisions (Zhang & Huang, 2001). Conscientious leaders are goal focused and polite in social situations (John, Donahue & Kentle, 1991). Additionally, people who exhibit the conscientious personality trait have a tendency to be responsible and strong willed (Zhang & Huang, 2001).

Conscientious leaders can be cautious and less willing to take risks which may delay making decisions (Hogan et al., 1994). Conscientious leaders tend to be alarmed by changes in the organization and desire regimented procedures (Peterson & Deal, 1998). Individuals who are conscientious may be seen as inflexible and overly critical of their follower's performance and are unlikely to be seen as a charismatic leader (Locke, 1969). Additionally, conscientious leaders focus on one thing at a time and require all available information in order to make a decision (Zhang & Huang, 2001).

Reverse conscientiousness personality traits include disorganization and procrastination (Zhang & Huang, 2001). Leaders who score low in the conscientiousness personality trait domain are typically associated with irresponsibility and disorderly behavior (Hogan et al., 1994). Such individuals tend to emerge as careless, indulgent and mischievous and can be seen as imbalanced (Tobacyk et al., 2008). An easy-going leader is associated with unreliable

leadership traits and can be regarded as ignorant (Crede et al., 2012). Additionally, careless/easy-going leaders who score low in the conscientiousness personality trait domain are considered to be disobedient and can be observed disregarding policies and/or people (Zhang & Huang, 2001).

Easy-going leaders can be seen as extravagant and have a tendency to be messy (Saucier, 1994). Leaders who score low in the conscientiousness personality trait domain can create disagreements within the organization and among followers (Sharp, 1987). Easy-going leaders prefer not to follow a schedule and can develop discord among followers (Paunonen & Ashton, 2001).

Openness to experience is defined as a person's degree of openness to new ideas (Berr et al., 2000). Individuals with the willingness to be open to experience typically exhibit an intellectual curiosity and have a tendency to be creative and insightful (McCrae & John, 1992). Individuals scoring high on the openness to experience personality trait tends to be imaginative and show patterns of divergent thinking (McCrae, Kurtz, Yamagata & Terracciano, 2011). Leaders that are open to experience express positive behaviors such as the ability to cope with change within the organization and the ability to visualize transformation for the organization (Holland, 1973). By actively being open to experience, leaders question assumptions and encourage doing things a new way within the organization (Bass, 1999).

Leaders that are open to experience tend to reject conventional organizational structures (McCrae et al., 2011). Openness to experience can often lend itself to flights of fancy and create distractions when focusing only on the latest idea (McCrae and John, 1992). Leaders who are open to experience tend to avoid the completion of simple tasks while also evading important issues due to the inability make consistent decisions (Judge et al., 2009; Zhang & Huang, 2001).

Additionally, followers may become frustrated with the level of ambiguity and not be able to trust in the leader (Avolio, 1999). The leader may ultimately create a stressful work environment within the organization due to the lack of structure (Brown-Ferrigno & Muth, 2004).

Reverse openness to experience individuals have personality traits that are seen as traditional and more conventional than leaders who are open to experience (Scollon & Diener, 2006). Those who score low in the openness to experience personality trait domain emerge as leaders who are more down to earth and can be seen as sensible to their followers (Furnham, 2008). A pragmatic leader is associated with traits such as practicality and a no-nonsense attitude (Avolio, 1999). Additionally, leaders who are not open to new experiences are believed to seek more concrete measurements and are factually driven leaders (Judge et al., 2009).

Pragmatic leaders can be seen as insensitive and apathetic individuals to their followers (Bass, 1999). Pragmatic leaders can also be seen to their followers as uncreative, inactive and desiring a sense of realism (Block, 1995). Leaders who are closed off to new experiences tend to prefer familiar routines and typically have a narrow range of interests compared to leaders who are open to new experiences (Feist & Feist, 2002). Individuals who are seen as pragmatic are straightforward and obvious and avoids ambiguity (Burke & McKeen, 1994).

Neuroticism is defined as a person's level of stress tolerance or their level of psychological adjustment (Berr et al., 2000). The neurotic personality trait is exhibited by disturbed behaviors and thoughts that typically accompanied by emotional stress (McCrae & Costa, 1987). Leaders who are neurotic exhibit high levels of self-confidence and typically symbolize success to their followers (Avolio et al., 1995). Neuroticism has also been linked to irrational belief systems and emotional instability (Barlow, Ellard, Sauer-Kavala, Bullis & Carl,

2014). Individuals who exhibit the neurotic personality trait tend to set high performance standards for team members and like to challenge the status quo (Bridbord & De-Lucia-Waack, 2011). Additionally, neurotic leaders have the ability to act as a role model and encourage subordinates to have faith in their leadership abilities (Cranston, Tromans & Reugebrink, 2004).

Neuroticism can be seen in personality traits that are defined as unpredictable and unstable in nature (Zhang & Huang, 2001). Leaders with the neurotic personality traits easily lose the trust of their followers due to lack of predictability and instability (Wiggins & Pincus, 1992). Neurotic leaders see the world through a negative lens and often experience negative emotions such as anger, fear and guilt (Costa, McCrae, & Holland, 1984). Neuroticism has been associated with low levels of self-esteem and can create an avoidance of leadership responsibilities by a leader (Bass, 1985).

Reverse neurotic personality traits include emotional stability and security (Judge & Bono, 2000a). Such stable leaders tend to feel less tense and better able to cope with stress compared to a neurotic leader (Zhang & Huang, 2001). Those leaders who score low in the neuroticism personality trait domain are often seen as confident to their followers and can think more clearly than a neurotic leader (Gosling et al., 2003). Additionally, emotionally stable leaders are believed to be more calm overall and can make better balanced decisions for the organization than a neurotic leader exhibiting unstable leadership traits (Ehrhart et al., 2009).

Emotionally stable leaders can be seen by followers to have less emotionally reactivity and are less easily upset than their neurotic counterpart. Emotionally stable leaders are free from persistent negative feelings that may get in the way of effectively leading a team (Costa & McCrae, 1992). Leaders who exhibit the emotional stability personality traits are distinguished as

friendly and respectful to their subordinates (Bruk-Lee, 2009). Emotionally stable leadership includes personality traits that are peaceful, joyful and characterized as even-tempered (MacDonald, 1995).

Summary

The complex structure of the education system dictates that educational administrators understand how leadership styles and personality traits interact in order to best serve their team. School administrators are depended upon to create teams and provide a learning environment where strengths are utilized and groups are their most productive. The literature on personality traits focuses on the specifics of the Big Five Personality Trait Theory and how personality traits dictate preferences that ultimately influence our thoughts and decisions. Additionally, the literature on leadership style focuses on the Transformational Leadership Theory and how leadership style can impact leader effectiveness and follower performance. An understanding of how personality traits and leadership styles impact one another can possibly assist educational administrators in constructing an environment where all school stakeholders are successful and satisfied.

Chapter 3: Methodology

Introduction

The purpose of this quantitative research study was to explore the relationship between the leadership style and personality traits among elementary, middle and high school administrators. This chapter includes information regarding the research study design, study participants, data collection methods and human study subjects' considerations.

Research Design and Rationale

The quantitative research study utilized a non-experimental, relational design examining the association between leadership style and personality traits among school administrators. In addition, a comparative design was used to examine differences in these relationships between elementary, middle and high school administrators. The researcher measured variables via participant self-report rather than from variables manipulated by way of an intervention. The researcher aimed to verify existing leadership style and personality trait theories and thus yielding potential data from which inferences could be made concerning the educational leader population. Additionally, the researcher used a non-experimental design to examine a phenomenon that is naturally occurring in a non-controlled environment where no variables were subjected to manipulation for data collection.

Three sources of data were collected via web-based surveys in this study. Data regarding leadership style was obtained using the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) (Bass & Avolio, 1996). Appendix A provides the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) measurement tool. Data regarding personality traits was collected through the use of the Ten-Item Personality Inventory (TIPI) (Gosling et al., 2003). Appendix B provides the Ten Item Personality Inventory (TIPI) measurement tool. Lastly, the participant demographic

information was collected using a researcher-developed instrument and included questions concerning participants school type, age, gender, ethnicity and education level.

Population, Sampling Procedures, Sampling, and Response Rate

This study aspired to include a diverse group of California school administrators, within elementary, middle and high school settings. Identified through the California Department of Education (CDE) website, a total of 997 school districts were identified within California with 341 of those districts classified as unified school districts. Inclusion criteria in the study included school districts that are unified, thus encapsulating grades kindergarten through twelfth grades within the district. Considering the inclusion criteria, a total of 656 California school districts were excluded from the possible sample population. Additionally, the goal of the selection criterion was to provide the study with a representative sample of school administrators within California's largest school unified districts. To accomplish the goal of diversity, 54 of the largest unified school districts throughout the state of California was targeted in this study. The sample was not limited by age, ethnicity, gender or religious belief. Participant age, gender, ethnicity and level of education was measured for the sake of determining respondent representation information. Additionally, researcher inquired about administrator school type (elementary, middle or high school) within the demographic survey.

Initially, school administrators were accessed though social media websites such as LinkedIn and Twitter. In addition, school administrators were contacted through professional associations such as The Association of California School Administrators (ASCA) and were given the informed consent letter regarding the research study. Recruits who agreed to participate received an informed consent letter indicating the minimal risks and benefits of participation. Included in the letter was the requirements for participation, as well as a guarantee that data

collected from the study would remain confidential and that only non-specific generalities would be reported in the study's findings.

In a population with 997 school districts within the state of California, only 341 school districts met the necessary unified school district study criterion. In this sample of applicable school districts, the 341 unified school districts included approximately 6,559 administrators (California Department of Education, 2013-14). To achieve an 95% confidence level and a confidence interval of 5% then 363 administrators were needed to participate in the study. A maximum of three attempts were made to make contact with the administrators before they were considered unresponsive to study proposal. The initial contact attempt was sent to possible participants once a week, for three weeks with a total of three messages sent to applicants. An option to opt-out of the messages was made available in each message sent to potential participants. The survey was open to participants for a 180-day timeframe and was available to subjects 24 hours a day. Applicants needed to complete both the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) and the Ten Item Personality Inventory (TIPI) by the submission deadline for their data to be included in the analyses.

Human Subjects Considerations

Participants were informed in writing of the exact nature of the study and that they had the option to opt-out of the study at any time with no negative ramifications. Participation in the study was voluntary and every reasonable attempt to keep participant information and data collected secure and confidential. The researcher completed an application for alteration of documentation of informed consent due to data being collected online without the reasonable potential for obtaining hand-signed consent.

The researcher obtained approval from Pepperdine University's Graduate School Institutional Review Board (IRB) to perform the study. Appendix F provides the Pepperdine University IRB approval notice. Due to the fact that the researcher's own district of employment is an elementary school district there was no researcher conflict of interests as the researcher was not affiliated with any of the school districts included in the study. Data was collected electronically over the Internet and a customized URL were utilized for tracking and follow-up purposes. Data collection instruments and consent information were hosted on the researchers' personal computer protected by a password. Copyright clearance and/or licensing was obtained from Mindgarden, Inc. to utilize the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) for data collection purposes due to the fact that the instruments was not developed by the researcher. Copyright clearance and/or licensing for the Ten Item Personality Instrument (TIPI) was unnecessary due to the fact that it has been made available free for academic use by its developer GozLab.

Data was collected and stored in a password protected file on a password protected computer. While anonymity could not be guaranteed due to the fact that participants received customized URLs, the confidentiality of participants' personally identifiable information was maintained by coding individually identifiable information. Additionally, raw data was stripped of email addresses and IP addresses prior to analysis. Pseudonyms were designated to school districts, schools and towns in the reporting of the data. The researcher was the only individual with access to study data and raw survey data will be stored in a secure location for at least seven years before being destroyed.

Participation in this study resulted in minimal risks to survey respondents. A known psychological risk includes fears that survey results may not remain confidential and could affect

their job security. The researcher mitigated risks by striving to maintain a secure data collection location. Additionally, other possible risks of participation in the study included boredom and loss of time. Possible benefits from participation in the study included expanding the content knowledge in the professional development field regarding personality traits, leadership style and how they relate to school leadership training. Study participants did not receive remuneration for completing surveys.

Measures

The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) assesses transformational leadership, transactional leadership and laissez-faire leadership/non-leadership behaviors (Brown et al., 2008), and is available as a self-assessment form and an other (rater) form. The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) form is a 45-item self-reported questionnaire that was used in this study to measure the frequency of one's own leadership behaviors. The instrument takes approximately 15 minutes to complete. The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) allows study participants to describe their own leadership style as they perceive it and measures the variables associated with the transformational leadership style, transactional leadership style and the laissez-faire leadership/non-leadership style (Zopiatis & Constanti, 2009).

The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) contains 45-items that aim to identify leadership behaviors represented in nine leadership categories. The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) is constructed from three leadership scales that include nine subscales derived from the Multi-Factor Leadership Theory (Bass & Avolio, 1996). The three leadership scales include the transformational leadership style, the transactional leadership style and the laissez-faire leadership/non-leadership style (Bass & Avolio, 1996). The

nine leadership subscales include five transformational leadership style factors, three transactional leadership style factors and one laissez-faire leadership/non-leadership style factor categorized with the three leadership scales (Antonakis et al., 2003).

Transformational leaders are characterized as individuals who inspire followers and can facilitate optimum results within the organization (Leithwood & Jantzi, 2005). The five factors associated with the transformational leadership style includes: (a) idealized behaviors, concerning the ability of the leader to exhibit self-confidence, to be perceived as powerful, and to have followers identify with them; (b) idealized attributes, concerning the leader's ability to represent a role model for the organization and emphasize values, beliefs and a sense of mission; (c) inspirational motivation, concerning the leader's ability to motivate their followers through optimism, ambitious goals and project an achievable vision; (d) intellectual stimulation, concerning a leader's encouragement of challenging the status quo for problem solving and promote creative thinking; and (e) individualized consideration, concerning the leader's ability to support their followers and understand their individual wants and needs (Bass & Avolio, 1996).

Transactional leadership style is characterized by the ability of the leader to get results through an exchange with followers to gain compliance (Antonakis et al., 2003). The three factors associated with the transactional leadership style include: (a) contingent reward, concerning the leader's clarification of tasks and reward given upon satisfactory task performance; (b) management by exception - active, concerning the leader's focusing on task execution and correcting behaviors when deviating from standards; (c) management by exception – passive, concerning leaders who intervenes only when serious problems arise (Judge & Bono, 2000a).

Laissez-faire leadership/non-leadership style defines leaders who are absent and provide no guidance to their followers. The primary factors associated with the laissez-faire leadership/non-leadership style are essentially the lack of leadership or the absence of leadership behaviors. Individuals in the position of leader with a laissez-faire leadership/non-leadership style avoid responsibilities and decisions are often delayed (Antonakis et al., 2003).

The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) is an instrument designed to evaluate an individuals' leadership style as classified by the full range leadership model (Avolio et al., 1995). In completing the instrument, individuals rate how they perceive themselves using a 5-point scale with regards to leadership behaviors (Andersen, 2006). The questionnaire contains 45-items and utilizes a five-point Likert scale. The scale points are 0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, and 4 = frequently, if not always (Muenjohn & Armstrong, 2008). The transformational leadership style scale consists of 20 items grouped in five subscales (individualized consideration, inspirational motivation, intellectual stimulation, idealized attributes and idealized behaviors). The transactional leadership style scale consists of 12 items, categorized in three subscales (contingent rewards, management by exception – passive and management by exception – active). The final scale is that of non-leadership style and it consists of one scale (laissez-faire leadership/non-leadership). Each subscale utilizes four questions to assess the nine subscales (Tejeda et al., 2001).

Respondent's raw score scales and sub-scales are compared against norm standard scores and a profile is generated as standardized T scores (Avolio et al., 1995). Respondents are presented with a snapshot of their leadership profile with a list of where they fall in each level of leadership within the full range leadership model (Rowold & Heinitz, 2007). Included in the profile are descriptions of each scale, the respondents' raw score and instrument benchmark

information. Additionally, respondent data regarding general item statistics, answers to all questions and missing items are documented in the leadership profile (Avolio et al., 1995). Appendix C provides a description of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) score norms for the United States.

The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) is considered the strongest validated assessment for the transformational leadership style and the transactional leadership style and is the most widely used instrument measuring leadership behaviors (Oreg & Berson, 2011). The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) is strongly supported as a valid and reliable instrument for the measure of the behaviors associated with the transformational leadership style (Lowe, Kroeck & Sivasbramaniam, 1996). Consistent with prior research, Avolio and Bass (1996) conducted confirmatory factor analysis (CFA's) to test factorial validity of the instrument. It can be seen in the data that the nine-factor model of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) was supported (Avolio & Bass, 1996). Tejeda et al. (2001) was able to demonstrate in independent data sets the predictive validity of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) sub-scales with only one type of rater to minimize variance. Additionally, convergent validity was tested by Avolio and Bass (1996) when both the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) and the Transformational Leadership Inventory (TLI) were administered and the transformational leadership style scales of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) showed convergent validity with the transformational leadership style scale of the Transformational Leadership Inventory (TLI) ($.22 < r < .79$) which lends credibility to the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) (Avolio & Bass, 1996).

The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) is used extensively in leadership research. The instrument has been evidenced to be a predictor of leader performance in a broad arena of environments (Rowold & Heinitz, 2007). A meta-analysis of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) conducted by Lowe et al. (1996) supports the predictive validity of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) sub-scales. Bass and Avolio (1996) provided evidence of reliability and construct validity of the instrument as a measure of the Multi-Factor Leadership Theory. Tejeda et al. (2001) reported internal consistency reliabilities (Cronbach's alpha) are typically above the adequate minimum of .70 as suggested by Nunnally (1978). Muenjohn and Armstrong (2008) conducted a reliability check for the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) and provided further evidence that the instrument produces the data for which it was designed, reporting a Cronbach's alpha of .86 (Bass & Avilio,1996). Cronbach's alphas were .90, .90, .84, .88, .85 for the transformational leadership style scales: idealized influence (attributed), idealized influence (behavior), individualized consideration, intellectual stimulation and inspirational motivation scales, respectively. Cronbach's alphas scales were .87, .74, .70 for the transactional leadership style scales: contingent reward, management by exception (active) and management by exception (passive) scales, respectively. Finally, Cronbach's alpha was .78 for the laissez-faire leadership/non-leadership style scale (Bass & Avolio, 1996).

Criticism of the validity of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) include the discriminant validity of the scales for transformation and transactional contingent rewards leadership. Regardless, the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) is a widely used tool utilized in various studies when attempting to illustrate the behaviors of a leader. Responding to the criticism of the Multi-Factor Leadership Questionnaire (MLQ:5X –

Self), Antonakis et al. (2003) affirmed that the instrument can provide a basis for leadership studies and provides evidence of the validity of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self). Despite the criticism, the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) is considered a reliable tool for investigating leadership style and attribute instrument flaws to cultural discrepancies and original instrument modification (Antonakis et al., 2003; Avolio et al., 1995).

The Ten Item Personality Inventory (TIPI) was used in this study to measure the extent of respondents' five personality traits. The instrument was developed to evaluate the Big Five Personality Trait Theory using descriptors from well-established Big Five personality trait measurement instruments, and was created as a simplified version of already-existing instruments evaluating personality traits that are lengthier (Chiorri, Bracco, Piccinno, Modafferi & Battini, 2015). Each item in the Ten Item Personality Inventory (TIPI) consists of two item descriptors with direct questions about personality traits. Items use a 7-point scale ranging from 7=agree strongly to 1=strongly disagree and each bipolar personality factor is summarized into specific observable traits (Goldberg, 1992). In the Ten Item Personality Inventory (TIPI), each of the Big Five personality trait markers are presented with one item on the continuum stated in a positive way and one is stated in a negative way. By using the forced choice approach, it prompts participants to select responses which associate with specific personality trait (Romero, Villar, Gomez-Fraguela & Lopez-Romero, 2012).

The Ten Item Personality Inventory (TIPI) was created by Gosling et al. (2003) and was intended to be utilized by researches that needed a brief instrument to study personality traits. The items on the Ten Item Personality Inventory (TIPI) are simplified versions of past measures of personalities but using only ten items instead of many questions about the specific trait

components (Gosling et al., 2003). The benefit of a shorter instrument includes the elimination of redundancy and reduces fatigue in participants (Tobacyk et al., 2008). The Ten Item Personality Inventory (TIPI) takes approximately one minute to complete and the usage of the instrument is expected to increase dramatically in scholarly research (Robbins, 2001).

With regard to reliability and validity, the Ten Item Personality Inventory (TIPI) accurately measures personality traits and has been evidenced to predict Big Five personality traits (Romero et al., 2012). The Ten Item Personality Inventory (TIPI) aims to maximize validity of content by using descriptors from other instruments of personality testing (Gosling et al., 2003). Furnham (2008) detailed evidence of the convergent reliability with the Ten Item Personality Inventory (TIPI) and the 60-item NEO five-factor inventory (Chiorri et al., 2015). Jonason, Tiecher and Schmmitt (2011) reported using a series of measures to assess the instrument to verify that it measured what it intends to measure. One feature of a brief measure is diminished internal consistency but the Ten Item Personality Inventory (TIPI) shows good psychometric properties and has been shown to be reliable in predicting personality traits (Jonason et al., 2011). Additionally, Gosling et al. (2003) reported positive evidence of the Ten Item Personality Inventory (TIPI) exhibiting convergent validity, discriminant validity and test-retest reliability. The personality scales of the Ten Item Personality Inventory (TIPI) showed high internal consistency reliabilities Cronbach alphas of .68, .40, .50, .73, and .45 for the extraversion personality trait, agreeableness personality trait, conscientiousness personality trait, emotional stability personality trait and the openness to experience personality trait, respectively, when compared to the comparable 60-item NEO-Five Factor Inventory (NEO-FFI) (Gosling et al., 2003). Additionally, Gosling et al. (2003) found that the reliability indices of the Ten Item Personality Inventory (TIPI) nearly corresponds to those found in the literature. One common

criticism of the Ten Item Personality Inventory (TIPI) is that it emphasizes brevity hence resulting in only two items per scale, thus lowering inter-item correlation (Chiorri et al., 2015).

The Ten Item Personality Inventory (TIPI) contains ten statements with two items for each of the dimensions of the Big Five Personality Trait Theory (Gosling et al., 2003). Each of the ten items consists of an adjective describing one of the five personality trait dimensions (extraversion personality trait, agreeableness personality trait, conscientiousness personality trait, emotional stability personality trait and openness to experience personality trait) with items representing the positive pole and negative pole for each dimension (Jonason et al., 2011). Items for the extraversion personality trait are "extraverted, enthusiastic" and "reserved, quiet" (reversed); "sympathetic, warm" and "critical, quarrelsome" (reserved) for the agreeableness personality trait; "dependable, self-disciplined" and "disorganized, careless" (reserved) for the conscientiousness personality trait; "calm, emotionally stable" and "anxious, easily upset" (reversed) for the emotional stability personality trait; and "open to new experience, complex" and "conventional, uncreative" (revered) for the openness to experience personality trait (Romero et al., 2012).

Items on the Ten Item Personality Inventory (TIPI) use a seven-point Likert-type scale. The scale points are 1 = disagree strongly, 2 = disagree moderately, 3 = disagree a little, 4 = neither agree nor disagree, 5 = agree a little, 6 = agree moderately, 7 = agree strongly (Gosling et al., 2003). When scoring the Ten Item Personality Inventory (TIPI), the reverse-scored items are recoded then the average of the two items that make up each dimension are calculated (Gosling et al., 2003). The score for each personality dimension indicates the magnitude to which respondents report associating themselves with that particular personality trait (Gosling et al.,

2003). In regards to score interpretation, Appendix D and Appendix E describes male and female score norms for the Ten Item Personality Inventory (TIPI) by age range.

Participants were given an additional survey containing questions about demographic data. Participant demographic questions included information about the school administrator's role, school type, age, gender, ethnicity, and level of education. Demographic data was used to gain the general characteristics of the studied sample as well as its resemblance to the larger population. The demographic study only included a small number of distinguishing questions to ensure confidentiality.

Data Collection Procedures

The researcher collected data from elementary, middle and high school administrators from unified school districts which included kindergarten through twelfth grades throughout the state of California. Administrators were contacted through social media websites such as LinkedIn and Twitter to complete the survey via direct message during the 2016-2017 school year with notification about the proposed study, the purpose of research study and the study timeline. An informed consent was located on the front page of the online site and was also included with the message. Study participants were able to agree to participation electronically. The informed consent forms included information regarding confidentiality and the option to opt-out of the study at any time.

The three surveys followed the consent information on the online site for participant completion. The subjects of the study were presented with the Multi-Factor Leadership Questionnaire (MLQ:5X – Self), the Ten Item Personality Inventory (TIPI) and the demographic survey with instructions regarding expectations and completion deadlines. Collection of survey data began to occur automatically once subjects completed each survey. Participants were

informed that they had the option to discontinue the survey at any time and that there would have been no negative consequences from opting out of the study.

Data Analysis

The data collected from the surveys was compiled by the online data collection tool www.surveymonkey.com and safeguarded on a password-protected computer in a password-protected file. Scores were converted for statistical analysis utilizing the Statistical Package for the Social Sciences (SPSS) to analyze the raw data. The results from both the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) and the Ten Item Personality Inventory (TIPI) were analyzed using both descriptive and inferential statistics.

The mean, mode and standard deviation and five-number summary of all five subscales of the Ten Item Personality Inventory (TIPI) and 12 subscales of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) were computed and reported. For the first research question, scatterplots with overlaid regression lines and 95% confidence bands were generated to visually identify possible anomalies in the data. Shapiro-Wilk's tests of each of the variables to asses the assumption of normality and f-tests of each bivariate pair of variables to determine if each satisfied the assumption of heteroscedasticity. The assumption of normality was not met so permutation tests were used to estimate the precision of the correlation coefficient and its associated confidence interval. Once the assumption was satisfied, canonical correlation was used to identify possible correlations and the extent to which, if at all, there was a statistically significant relationship between the magnitude of five personality traits and the degree of three leadership styles. In order to asses the strength of the association between the variables, effect size was calculated via the squared canonical correlation coefficient (i.e., R_c^2), with values of .01, .09 and .25 considered to be small, medium and large, respectively. To provide an indication

of the meaningfulness of resultant effect sizes, these were compared to the findings of prior research in Chapter V.

To identify possible differences between school types (i.e., the second research question) and g1 and g2 methods of normality testing was used to assess the skew and kurtosis of the data, providing an indication of its satisfaction of the assumption of normality. Levene's test was used to determine if the assumption of homogeneity was satisfied. After conducting a multivariate analysis of variance (MANOVA) on the data, residuals vs. fitted (i.e., error vs. predicted) values were calculated and examined using Q-Q plots of the distribution's shape to provide additional information regarding the data's satisfaction of the assumptions of homogeneity and normality. Effect size was calculated via omega squared, with values of .01, .06 and .14 considered to be small, medium and large, respectively. Resultant values were also compared to those of prior studies in Chapter V.

Chapter 4: Findings

Introduction

School administrators interact daily with various individuals in an effort to facilitate a successful learning environment for students as well as to provide a rewarding workplace for teachers and faculty. The present research study aimed to examine if there was any relationship between the personality traits of an educational leader and their preferred type of leadership style. Educational leaders are tasked with providing guidance to students, teachers, parents and community members and an understanding of personality traits may assist them in this undertaking in regards to communication. Additionally, an understanding of how their leadership style is affected by their personality traits may also be a helpful tool in the educational administrators' toolbox in order to assist them in being cognizant of their personal biases as a leader.

The purpose of this quantitative research study was to identify what relationships, if any, exists between the magnitude of five personality traits and the degree of three leadership styles among school administrators. Additionally, the study aimed to examine what differences, if any, exist among the magnitude of five personality traits and the degree of three leadership styles between elementary, middle and high school educational administrators. This information regarding such a relationship would be important in regards to the contribution of information for the professional development of education administrators.

The intent of this research study was to try and identify associations between the personality traits and leadership style among California kindergarten through twelfth grade unified school district administrators, as well as differences in these variables among each group of administrator. The study was quantitative in nature and utilized a non-experimental design

whereas variables were measured via self report and were not researcher manipulated. Educational leaders were initially contacted through social media and received a link that included survey information and links to complete two surveys in order to participate in the study. In addition, the link included access to a researcher designed demographic survey.

The instruments utilized in this research study included the Multi-Factor Leadership Questionnaire (MLQ:5X - Self) which measures leadership style as well as the Ten Item Personality Inventory (TIPI) which measures personality traits. The participants were also asked to complete a researcher-created survey for demographic information. Study data was collected on the online survey site (www.surveymonkey.com) and was subsequently exported into an Excel spreadsheet for scrutiny. The Statistical Package for the Social Sciences (SPSS) was utilized for statistical analysis of variables in the study. The research survey link was available 24 hours a day and was initially opened for 30-days but was extended to 180-days due to insufficient survey responses.

Educational administrators were contacted through social media websites such as LinkedIn and Twitter with the participation request and a link to the survey provided to the recipients. California unified school district administrators with job titles or "handles" on social media which included the term "principal" were sent a direct message with the link to the survey. Potential participants who attempted to access the survey link after the survey deadline received a message notifying them of closure of the survey. Participation in the study was voluntary and respondents did not receive compensation for involvement. Figure 1 represents chronological survey completion information.

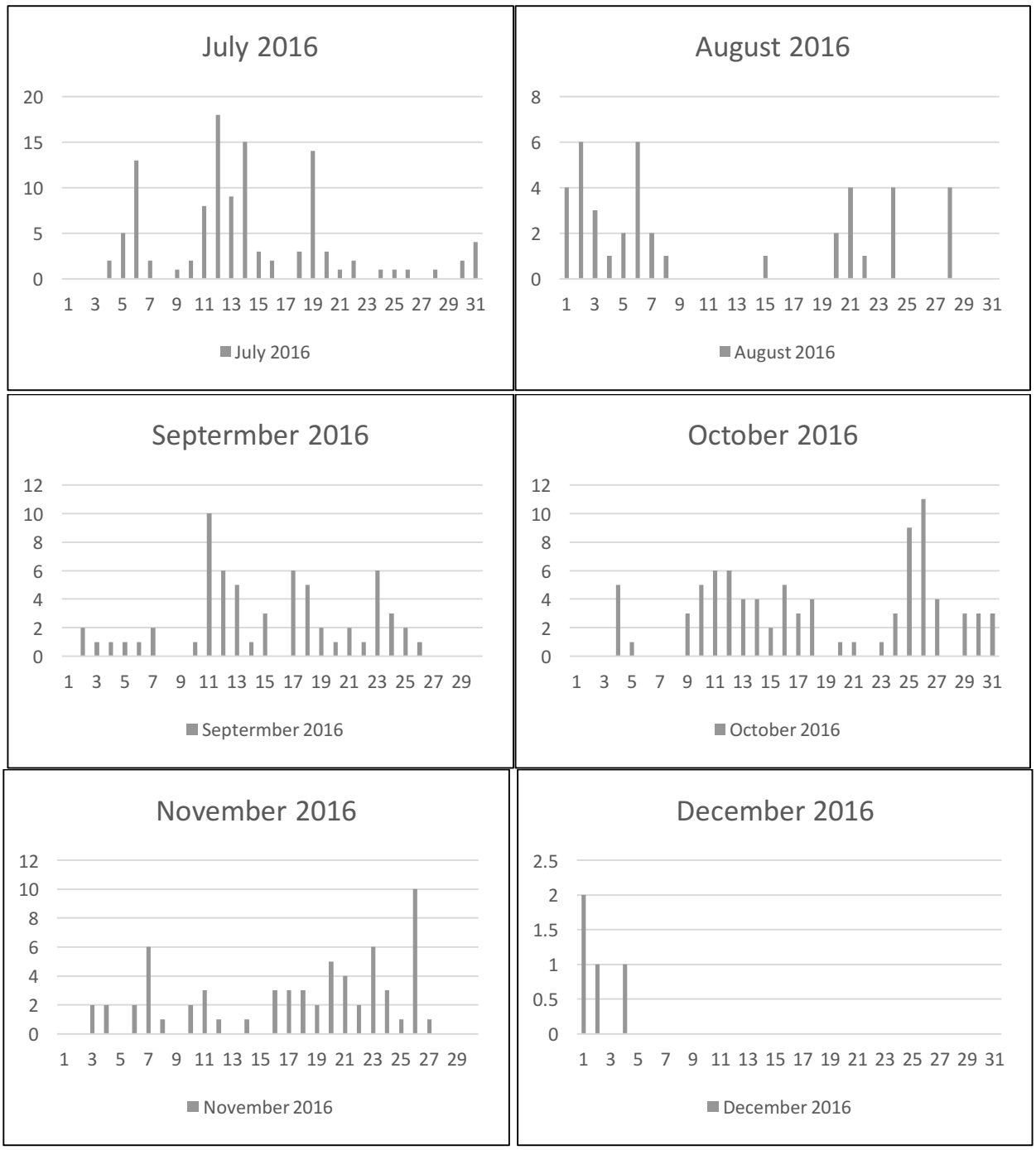


Figure 1. Participant survey response timeline representing the chronological completion rates for collected study data from educational administrators.

This chapter will outline the study participant's demographic information as well as provide detailed data resulting from the statistical analysis. Furthermore, a discussion around the findings of the research study as well as the potential significance of the study results will be

addressed, along with potential shortcomings in data collection and analysis. Chapter 5 will delve into greater detail about the data obtained in relation to prior similar studies, and will also discuss the implications of key findings. Ultimately, Chapter 5 will conclude with recommendations for future study pertaining to the personality traits and leadership styles of educational leaders.

Presentation of Key Findings

In this chapter, data will be illustrated through systematic presentation of study variables and how those entities and their interactions influenced key findings. Initially, we reviewed the research study design including the primary problem statement problem, the purpose of the research study as well as the participant demographic information. Data regarding study descriptive statistics include age, gender, age, level of education, ethnicity and type of school site associated with the educational administrator will be presented next.

Following this, we will explore the study research questions as well as consider each hypothesis associated with such inquiry. Specifically, we will scrutinize both instruments used in the surveys, the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) and the Ten Item Personality Inventory (TIPI), and the information resulting from data analysis. This chapter aims to measure the variables associated with the research questions and report the data of each statistical test associated with each measurement tool.

According to the California Department of Education (CDE), approximately 6,559 administrators qualified for inclusion in the study. In regards to survey completion rates, of those 6,559 applicable administrators, a total of 416 leaders replied to the survey request. Out of the 416 responses received, 376 surveys were applicable for inclusion due to the participants' completion of both variable measurement tools. Thus, approximately 90% of educational leaders

that initially replied to the survey request were included in the research data and a total of 10% of respondents were ultimately eliminated. Calculations indicate that a total of .06% of applicable California unified school district administrators (n = 416) responded to the survey participation request but only .05% of administrators actually completed the survey sufficiently to be included in sample. To achieve a 95% confidence level and a 5% confidence interval, 363 administrators were needed to participate in the study and that number of viable surveys were achieved in data collection, assuming random participation from representatives of the larger population.

In regards to data gathered from the researcher designed demographic survey (see Table 2), when characterizing the 376 survey respondents, 241 were male school administrators and accounted for 64.1% of the study sample. There were 135 participants that were female school administrators and they accounted for 35.9% of the study demographics. With a total of 226 completed surveys, the 30-49 years of age bracket represented the majority of survey respondents with 60.1% of the population. With 10 representatives in the sample, the 65 and up age bracket was the least represented group and comprised 2.7% of the sample. In regards to education level, a total of 238 leaders indicated that they had a Master's Degree and this group represented 63.3% of the study sample. Furthermore, two respondents to the study designated that their highest level of education obtained was a High School Diploma and represented .5% of the total study population.

Additionally, in terms of the study demographic data, when considering the ethnic backgrounds of the survey respondents are revealed, it appears that 278 respondents identified as White/Non-Hispanic and comprised 73.9% of the study sample. The least represented ethnic population was Native Americans/American Indian with a total of three surveys submitted and representing .08% of the total survey participants. Finally, when looking at the educational

settings occupied by the leaders, 130 individuals indicated that they work in a High School setting thus amounting to 34.6% of the educational administrators in the study. Alternative schools comprised 1.6% of the study sample with a total of six survey respondents.

Table 2

Participant Demographics

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	241	64.1	64.1	64.1
	Female	135	35.9	35.9	100.0
	Total	376	100.0	100.0	

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ages 18-29	21	5.6	5.6	5.6
	Ages 30-49	226	60.1	60.1	65.7
	Ages 50-64	118	31.4	31.4	97.1
	Ages 65 and up	10	2.7	2.7	99.7
	No Reply	1	.3	.3	100.0
	Total	376	100.0	100.0	

Education Level		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School Graduate	2	.5	.5	.5
	Bachelor's Degree	34	9.0	9.0	9.6
	Master's Degree	238	63.3	63.3	72.9
	Doctorate Degree	100	26.6	26.6	99.5
	No Reply	2	.5	.5	100.0
	Total	376	100.0	100.0	

(continued)

Ethnicity		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Asian/Pacific Islander	20	5.3	5.3	5.3
	Black/African American	36	9.6	9.6	14.9
	Hispanic/Latino	36	9.6	9.6	24.5
	Native American / American Indian	3	.8	.8	25.3
	White	278	73.9	73.9	99.2
	No Reply	3	.8	.8	100.0
	Total	376	100.0	100.0	

Educational Environment		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Elementary School	100	26.6	26.6	26.6
	Middle High School	66	17.6	17.6	44.1
	High School	130	34.6	34.6	78.7
	Other - Alternative School	6	1.6	1.6	80.3
	Other - Consultant	12	3.2	3.2	83.5
	Other - District Office	29	7.7	7.7	91.2
	Other - Kindergarten Thru Twelfth Grade	20	5.3	5.3	96.5
	Other - Superintendent	13	3.5	3.5	100.0
	Total	376	100.0	100.0	

In addition to the demographic survey data illustrated above, there were two other data gathering instruments utilized to collect information related to the measured variables in this research study. The first was the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) which was used to classify the leadership style of educational leaders as defined by the Transformational Leadership Theory. The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) consists of 45-items using a 5-point scale to evaluate individual leadership preferences in the transformational leadership style, the transactional leadership style and the laissez-faire

leadership/non-leadership style domains. Respondents are instructed to rate leadership traits as they feel it best describes them as a leader. The Multi-Factor Leadership Questionnaire (MLQ:5X – Self) is a widely used measurement tool in leadership research (Rowold & Heinitz, 2007). Furthermore, the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) has been proven to be a reliable predictor of leadership style in a rage of environments (Rowold & Heinitz, 2007).

Descriptive statistics were calculated, specifically the mean, mode and standard deviation for the survey data collected in the study. The range of possible responses for each sub-scale of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) is between 0.00 (Not at all) and 4.00 (Frequently, if not always). Educational leaders in the study scored within the 4.00 and 3.00 mean on six of the sub-scales represented in the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) specifically, idealized influence/behavior *(m* = 3.21, *SD* = .631*),* individualized consideration *(m* = 3.13*, SD* = .631*),* inspirational motivation *(m* = 3.28*, SD* = .606*),* intellectual stimulation *(m* = 3.04, *SD* = .605), effectiveness *(m* = 3.15*, SD* = .556) and satisfaction *(m* = 3.15*, SD* = .685*).*

Furthermore, educational leaders scored within a mean range of 2.00 to 3.00 on three of the sub-scales of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) on the idealized influence/attributed domain *(m* = 2.96*, SD* = .548*),* contingent reward *(m* = 2.81*, SD* = .666) and the extra effort *(m* = 2.99*, SD* = .638) categories. Data analysis additionally uncovered that the current study participants scored between a mean range of 0.00 and 2.00 on the three final subscales of the measurement instrument, specifically the management by exception/active domain *(m* = 1.58*, SD* = .774), the management by exception/passive style *(m* = .944*, SD* = .701) and the laissez-faire leadership/non-leadership style *(m* = .646*, SD* = .660) on the Multi-

Factor Leadership Questionnaire (MLQ:5X – Self). Table 3, as seen below, delineates the descriptive statistics for the Multi-Factor Leadership Questionnaire (MLQ:5X – Self).

Table 3

Descriptive Statistics for the Multi-Factor Leadership Questionnaire (MLQ:5X)

MLQ:5X – Self Descriptive Statistics		II - A	II - B	IM	IS	IC	CR
n	Valid	376	376	376	376	376	376
	Missing	0	0	0	0	0	0
Mean		2.9614	3.2068	3.2817	3.0381	3.1343	2.8094
Std. Deviation		.54799	.63058	.60602	.60456	.63133	.66567
Range		2.75	2.75	2.75	2.50	3.00	3.75
Mode		3.00	3.75	4.0	3.0	3.5	3.0

MLQ:5X – Self Descriptive Statistics		ME - A	ME – P	LF – L	EE	E	S
n	Valid	376	376	376	376	376	376
	Missing	0	0	0	0	0	0
Mean		1.5826	.9437	.6456	2.9908	3.1451	3.1489
Std. Deviation		.77372	.70103	.66023	.63786	.53565	.68515
Range		4.00	3.00	3.00	2.75	2.50	3.00
Mode		1.25	.25	.00	3.00	3.00	3.00

In addition to the information presented above, the median score for the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) subscales, as indicated in the five number summary, highlights that the educational leaders in this study scored the highest within the inspirational motivation *(Md* =3.38*, n* =376) subscale. Conversely, the data collected in this study suggests that the lowest scoring Multi-Factor Leadership Questionnaire (MLQ:5X – Self) subscale for educational administrators was the laissez-faire leadership/non-leadership domain *(Md* =.500*, n* = 376). Table 4 describes the specific data regarding the information gained from the five-

number summary of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) from educational administrators.

Table 4

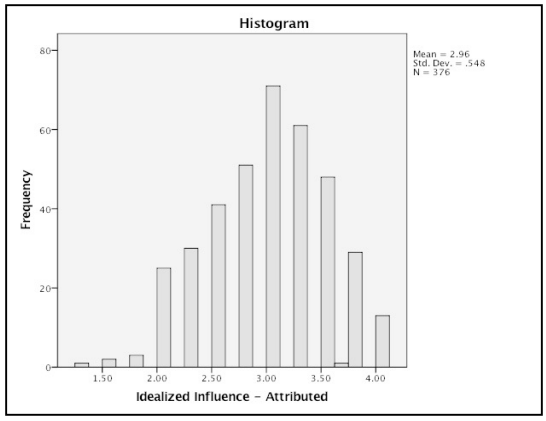
Five-Number Summary for the Multi-Factor Leadership Questionnaire (MLQ:5X)

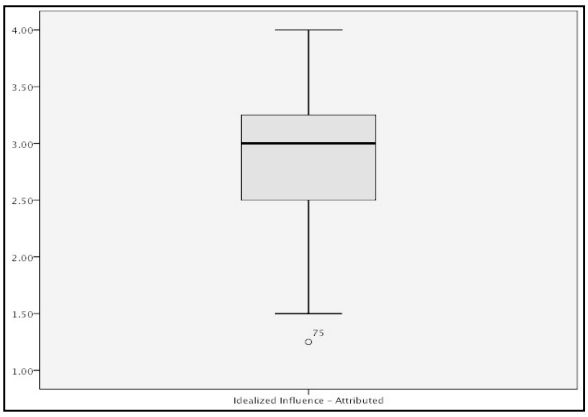
MLQ:5X – Self Five Number Summary		II - A	II – B	IM	IS	IC	CR
n	Valid	376	376	376	376	376	376
	Missing	0	0	0	0	0	0
Median		3.0000	3.2500	3.3750	3.0000	3.2500	2.7500
Minimum		1.25	1.25	1.25	1.50	1.00	.25
Maximum		4.00	4.00	4.00	4.00	4.00	4.00
Percentiles	25	2.5000	2.7500	3.0000	2.5400	2.7500	2.3125
	50	3.0000	3.2500	3.3750	3.0000	3.2500	2.7500
	75	3.2500	3.7500	3.7500	3.5000	3.5000	3.2500

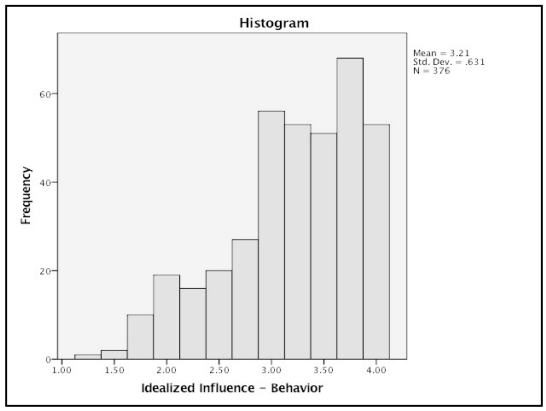
MLQ:5X – Self Five Number Summary		ME - A	ME - P	LF - L	EE	E	S
n	Valid	376	376	376	376	376	376
	Missing	0	0	0	0	0	0
Median		1.5000	.7500	.5000	3.0000	3.2500	3.0000
Minimum		.00	.00	.00	1.25	1.50	1.00
Maximum		4.00	3.00	3.00	4.00	4.00	4.00
Percentiles	25	1.0000	.2500	.0000	2.6600	2.7500	3.0000
	50	1.5000	.7500	.5000	3.0000	3.2500	3.0000
	75	2.0000	1.5000	1.0000	3.3300	3.5000	3.5000

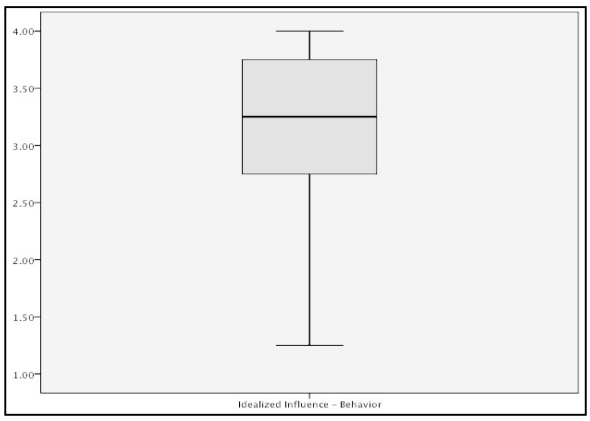
Histograms and boxplots were created from the study data collected for the sub-scales of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self). Results displayed the distribution data for the variables illustrating a graphic representation of the frequency distribution of scores. Findings in the current study data suggests varying scales of normal distribution and non-normally distributed scores among the leadership style measurement tool. In addition, outliers

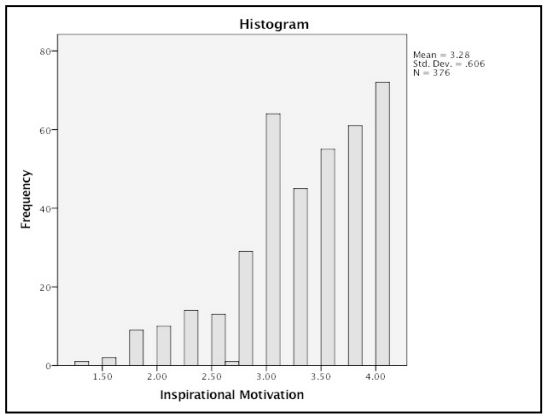
were observed in the results, in some but not all, of the sub-scales on the Multi-Factor Leadership Questionnaire (MLQ:5X – Self). Outliers can be a common occurrence among studies with larger samples (Bono & Judge, 2004). Figure 2 provides histograms and boxplots for the Multi-Factor Leadership Questionnaire (MLQ:5X – Self).

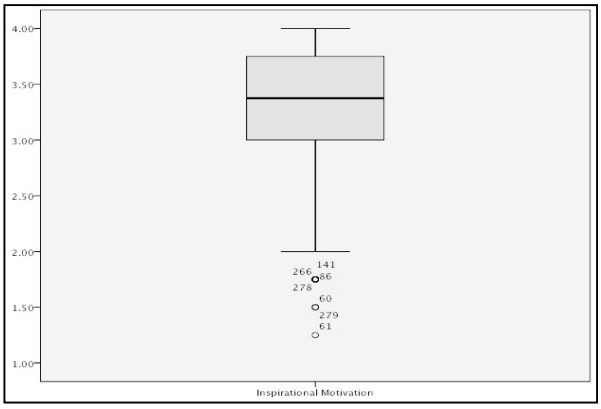












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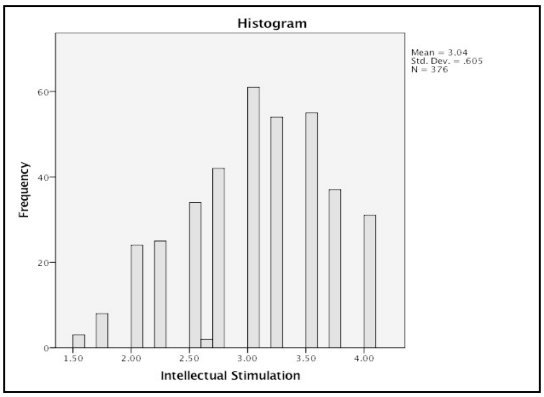
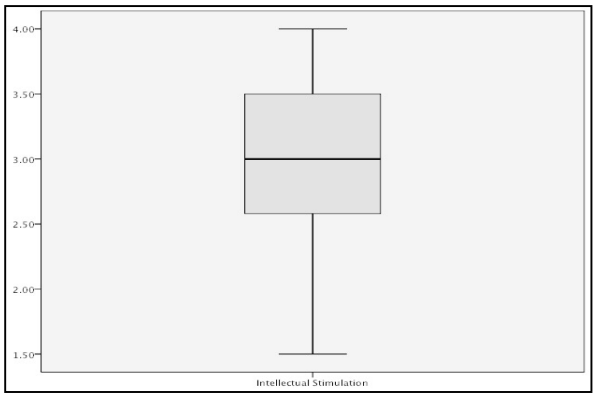
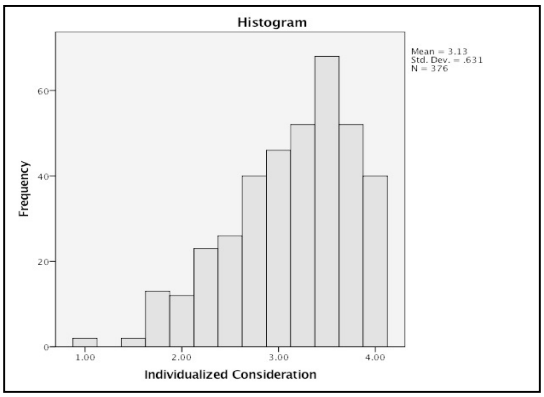
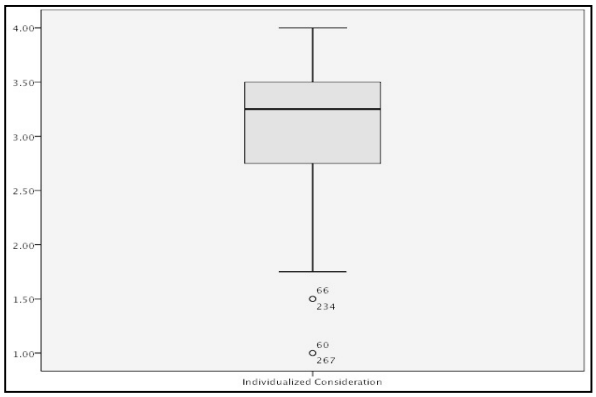
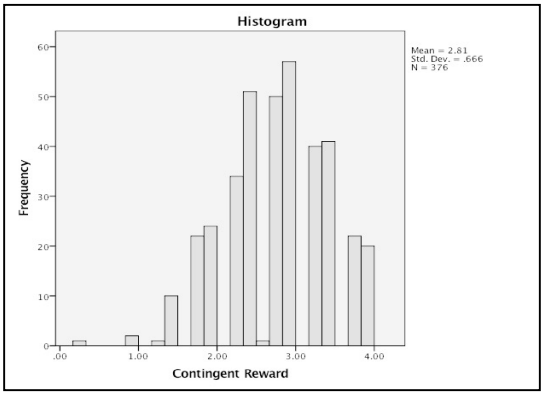

Histogram
Mean = 3.04
Std. Dev. = .605
N = 376
Frequency
Intellectual Stimulation


Intellectual Stimulation


Histogram
Mean = 3.13
Std. Dev. = .631
N = 376
Frequency
Individualized Consideration


66
234
60
267
Individualized Consideration


Histogram
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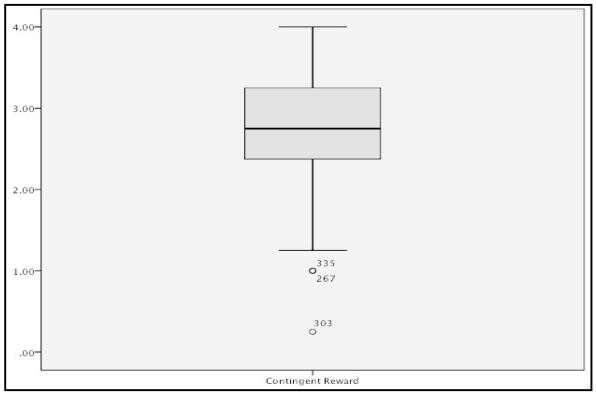
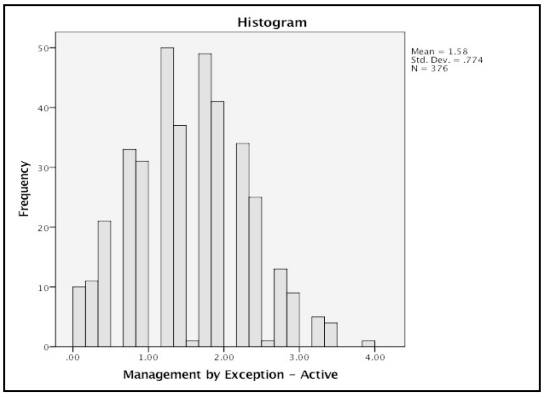
Std. Dev. = .666
N = 376
Frequency
Contingent Reward


335
267
303
Contingent Reward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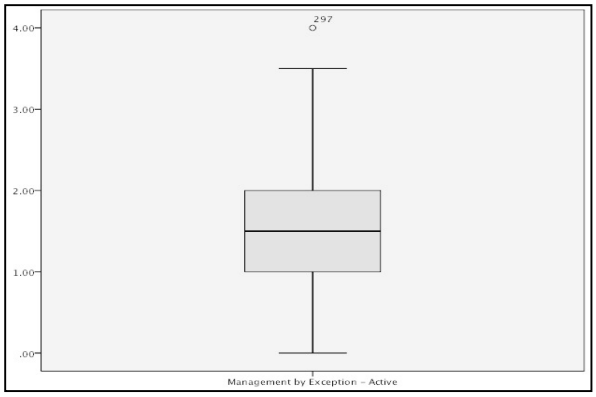
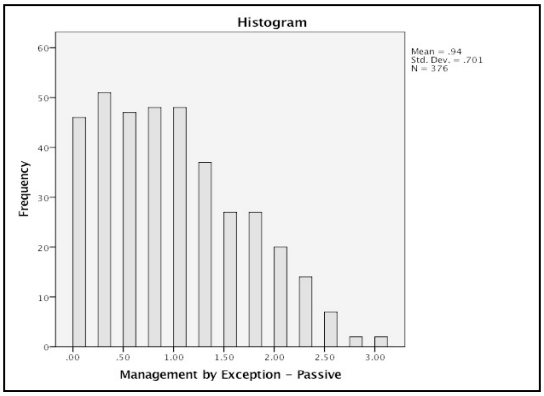
Frequency
Management by Exception – Active


297
Management by Exception – Active

(continued)


Histogram
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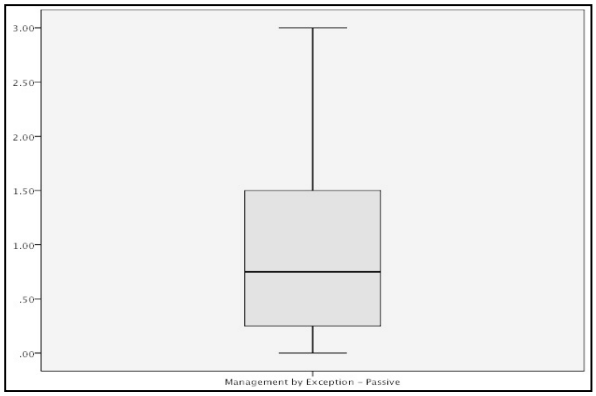
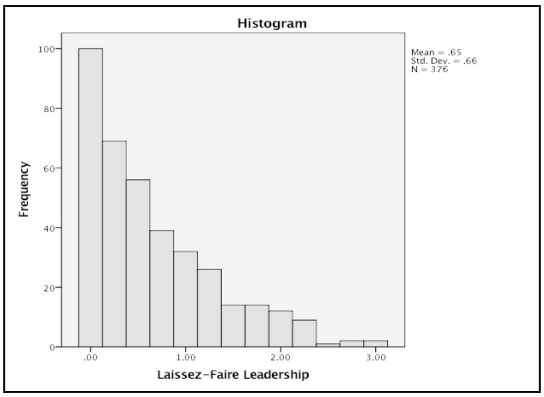
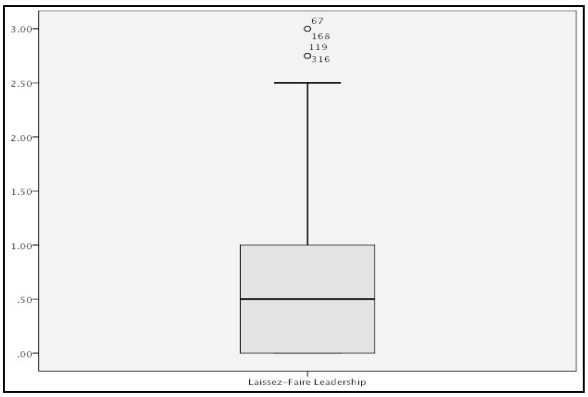
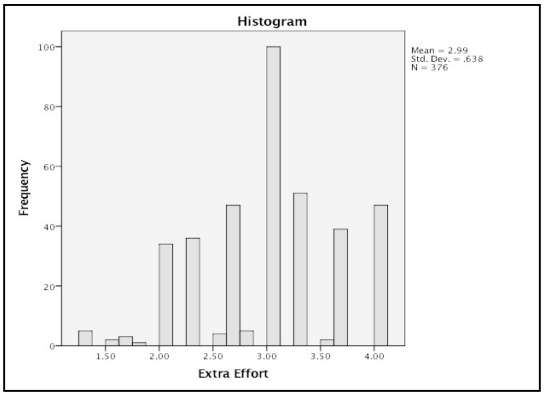
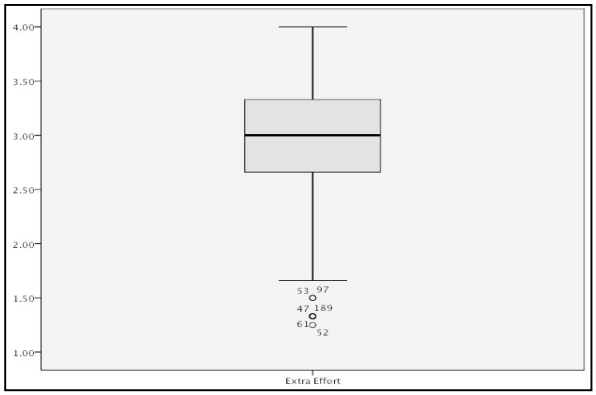
Frequency
Management by Exception – Passive


Management by Exception – Passive


Histogram
Mean = .65
Std. Dev. = .66
N = 376
Frequency
Laissez-Faire Leadership


67
168
119
316
Laissez-Faire Leadership


Histogram
Mean = 2.99
Std. Dev. = .638
N = 376
Frequency
Extra Effort


53
97
47
189
61
52
Extra Effort

(continued)

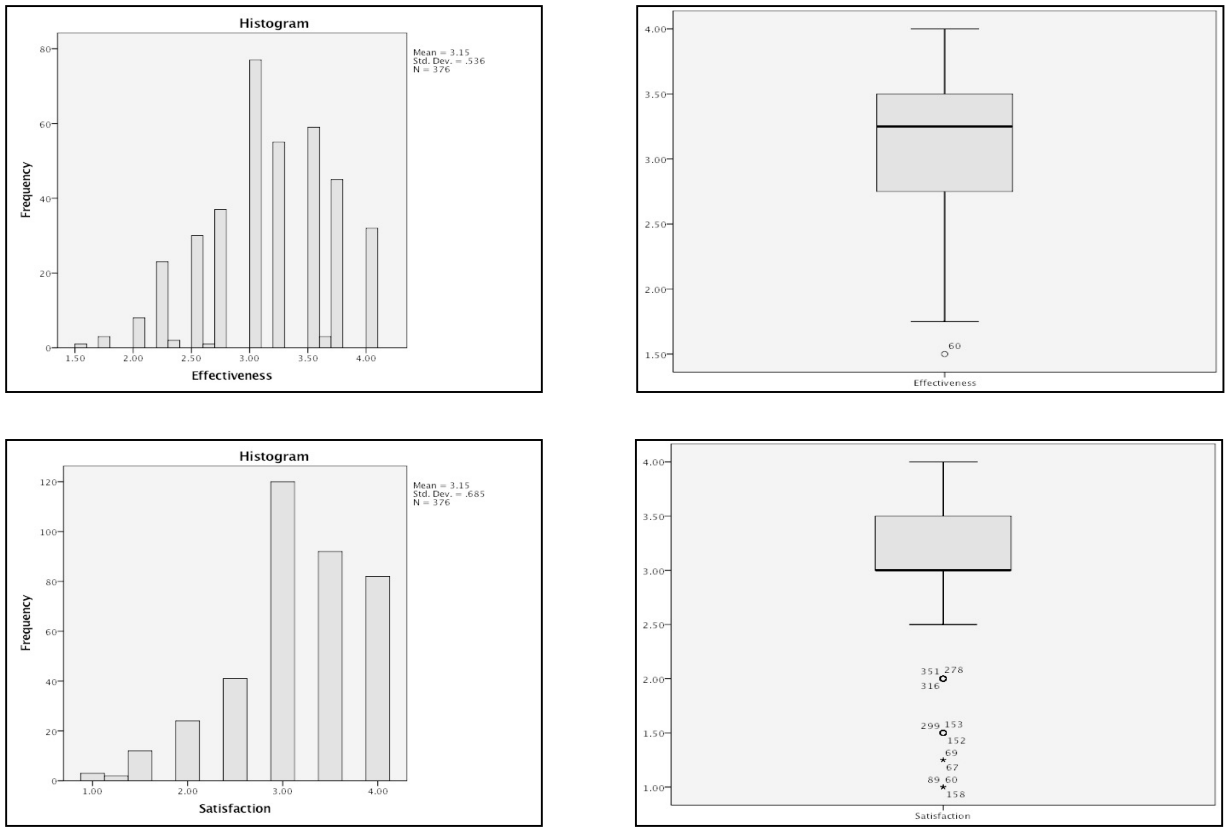


Figure 2. Histogram and boxplot representations for educational administrator's information regarding the Multi-Factor Leadership Questionnaire (MLQ: 5X) subscales.

The second measurement tool used in the research study was the Ten Item Personality Inventory (TIPI) utilized to measure personality traits as defined by the Big Five Personality Trait Theory. The Ten Item Personality Inventory (TIPI) consists of ten questions using a 7-point scale to evaluate five personality trait domains. Study survey respondents were instructed to select personality traits that they believe best describes them. The Ten Item Personality Inventory (TIPI) was created to provide a shortened measure to compute five personality traits and employs simplified items from prior instruments utilized to measure personality traits (Gosling et al., 2003).

The full range of possible responses for each of the sub-scales of the Ten Item Personality Inventory (TIPI) is a mean between 1.00 (Disagree Strongly) to 7.00 (Agree

Strongly). Educational administrators scored between a mean score of 1.00 to 5.00 on one scale of the measure, which was the extraversion *(m* = 4.96*, SD* = 1.47) domain. Respondents scored between a means score of 5.00 to 6.00 on three of the sub-scales within the Ten Item Personality Inventory (TIPI). Specifically, scores were represented in the agreeableness personality trait domain *(m* = 5.35*, SD* = .1.27)*,* the emotional stability personality trait domain *(m* = 5.65*, SD* = 1.20) and the openness to experience personality trait domain *(m* = 5.72*, SD* = 1.05). Administrators scored between a means score of 6.00 to 7.00 in the conscientiousness personality trait domain *(m* = 6.08*, SD* = 1.06) on the personality measurement tool. Table 5 describes the descriptive statistics for the Ten Item Personality Inventory (TIPI).

Table 5

Descriptive Statistics for the Ten Item Personality Inventory (TIPI)

TIPI Descriptive Statistics		E	A	C	ES	OE
n	Valid	376	376	376	376	376
	Missing	0	0	0	0	0
Mean		4.9641	5.3524	6.0824	5.6503	5.7154
Std. Deviation		1.46721	1.27076	1.05823	1.20417	1.04887
Range		6.00	6.00	6.50	6.00	4.50
Mode		4.00	6.00	7.00	7.00	6.5

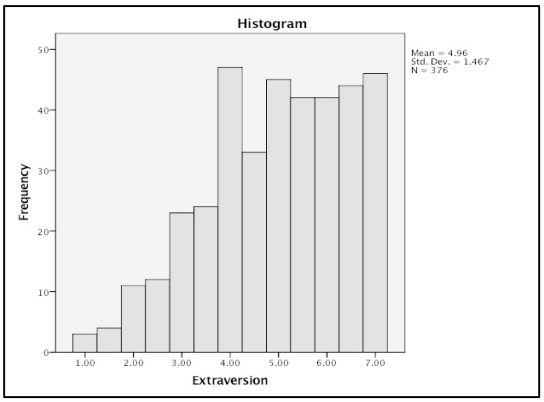
The median score for the Ten Item Personality Inventory (TIPI) sub-scales, which is indicated in the five number summary, highlights that the highest scoring subscale by administrators was the conscientiousness *(Md = 6.50, n* = 376*)* personality trait domain. The lowest median score for educational leader personality traits detected by the Ten Item Personality Inventory (TIPI) scoring was in the extraversion *(Md =5.00, n* = 376) personality trait domain. Table 6 describes the five-number summary for the Ten Item Personality Inventory (TIPI).

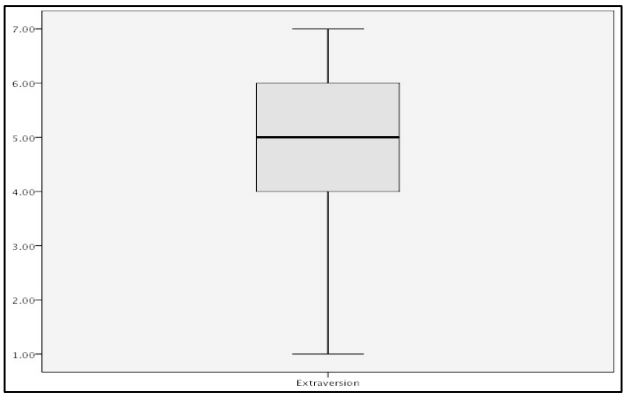
Table 6

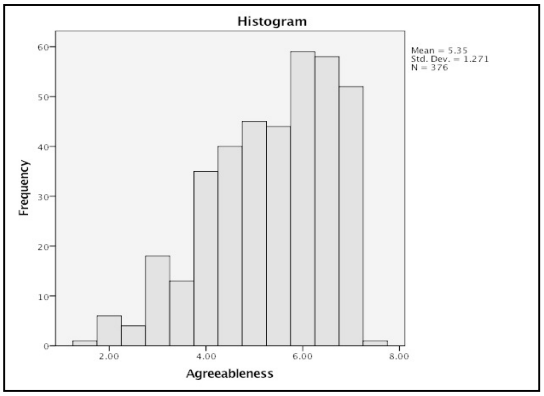
Five-Number Summary for the Ten Item Personality Inventory (TIPI)

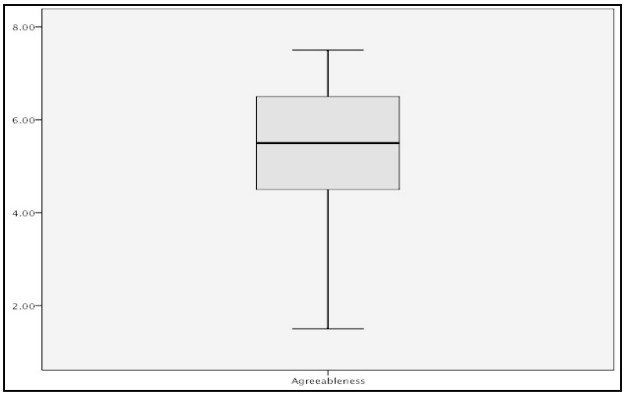
TIPI Five-Number Summary		E	A	C	ES	OE
n	Valid	376	376	376	376	376
	Missing	0	0	0	0	0
Median		5.0000	5.5000	6.5000	6.0000	6.0000
Minimum		1.00	1.50	1.00	1.00	2.50
Maximum		7.00	7.50	7.50	7.00	7.00
Percentiles	25	4.0000	4.5000	5.5000	5.0000	5.0000
	50	5.0000	5.5000	6.5000	6.0000	6.0000
	75	6.0000	6.5000	7.0000	6.5000	6.5000

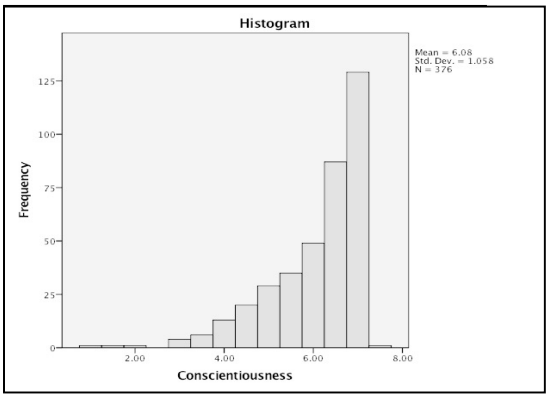
Histograms and boxplots were created from the study data collected for the sub-scales of the Ten Item Personality Inventory (TIPI). Results displayed the distribution data for the variables illustrating a graphic representation of the frequency distribution of scores. Findings in the current study data suggests that the sub-scales of the personality trait measure exhibited a non-normally distribution of scores, with graphics clearly depicting a congregation of scores away from the center and into the right quadrant of the depiction. In addition, outliers were observed in the majority of the boxplots for the sub-scales of the Ten Item Personality Inventory (TIPI). Regardless, outliers can be a common discovery in studies with larger samples (Bono & Judge, 2004). Figure 3 provides histograms and boxplots for the Ten Item Personality Inventory (TIPI).

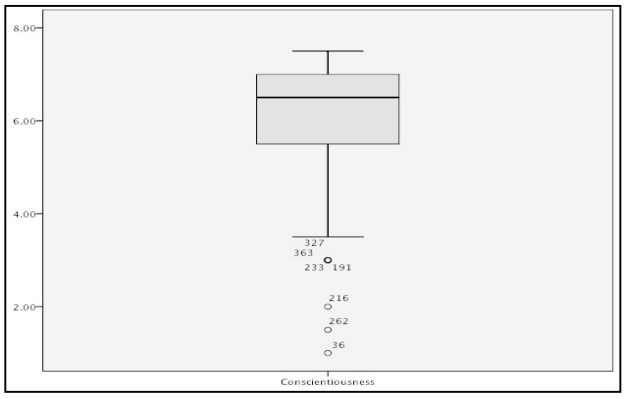

Histogram
Mean = 4.96
Std. Dev. = 1.467
N = 376
Frequency
Extraversion


Extraversion


Histogram
Mean = 5.35
Std. Dev. = 1.271
N = 376
Frequency
Agreeableness


Agreeableness


Histogram
Mean = 6.08
Std. Dev. = 1.058
N = 376
Frequency
Conscientiousness


327
363
233
191
216
262
36
Conscientiousness

(continued)

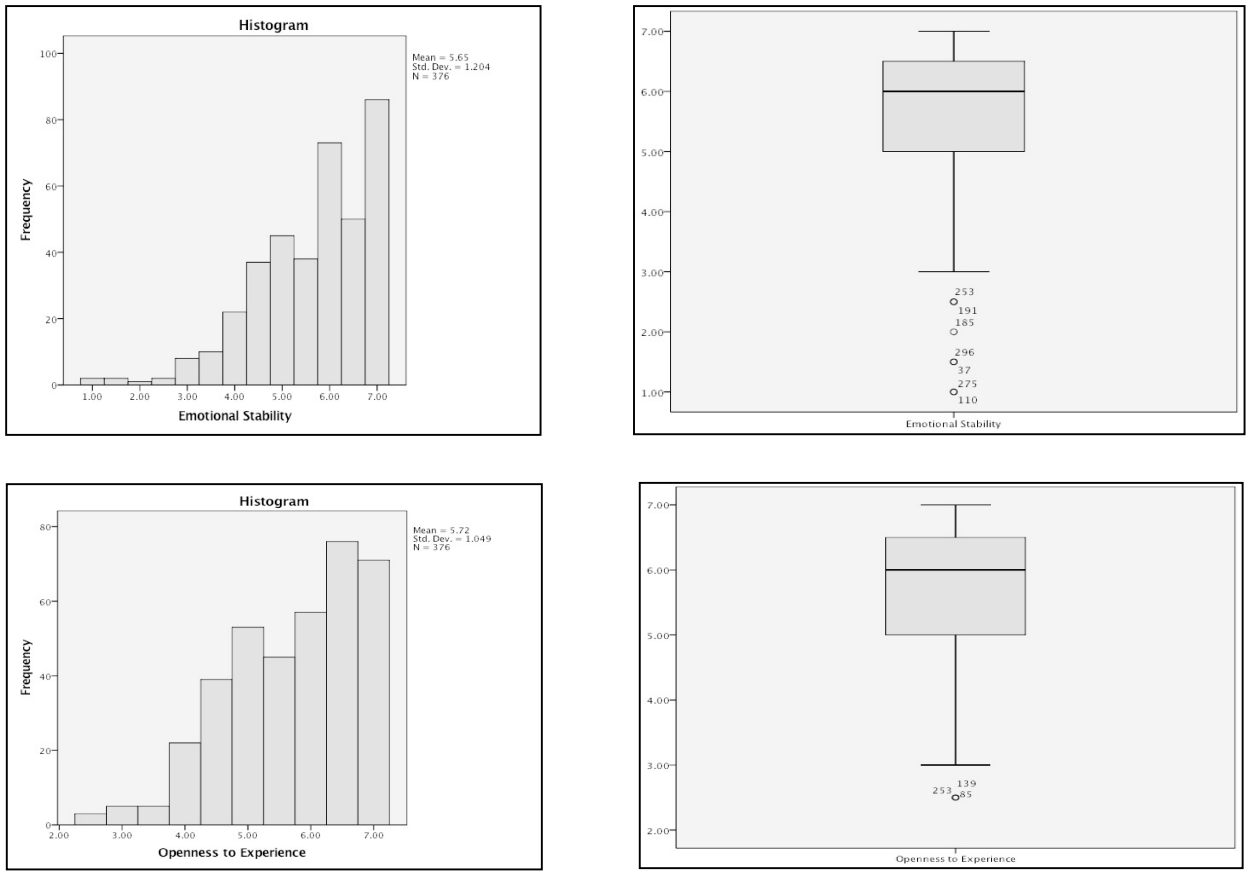


Figure 3. Histogram and boxplot representations for educational administrator's information from the Ten Item Personality Inventory (TIPI) subscales.

Complications

Potential shortcomings in data collection include the utilization of online participant recruitment as well as the employment of an online measurement tools as primary method of data acquisition. Participants were contacted primarily through social media sites thus limiting the potential pool of applicants to individuals with internet access and experience with technology. By including online surveys as the singular source of data, the current study is excluding portions of the population that could be represented in the research findings (Dillman, 2000). While there are disadvantages to online participant recruitment and the utilization of an online survey design, the drawbacks do not outweigh the advantages in regards to overall access to potential respondents and the increased confidentiality that an online platform provides (Ward,

Clark, Zabriskie & Morris, 2014). Furthermore, the usage of an online forum allows for the lack of geographic boundaries thus increasing response rates (O'Neill, 2004).

In addition, another possible shortcoming in the current study's data collection and analysis is the utilization of the Ten Item Personality Inventory (TIPI) which is an abbreviated measurement tool utilized to gather data about personality traits. The advantages of using a shortened survey include reduced cost to the researcher and less time required on the part of the study participants but there are also drawbacks to using an abbreviated measurement tool (O'Neill, 2004). In contrast, respondents have limited interaction with the researcher when using online testing methods and items on the survey may be interpreted differently by respondents (Dillman, 2000). To remedy possible study shortcomings, the researcher applied proven analytic techniques, specifically regression analysis, to address method imperfections in the study's data collection and/or data analysis. In addition, the researcher compared current study data, specifically effect size, with previous studies that used the Ten Item Personality Inventory (TIPI) to check for internal consistency for each of the measures sub-scales.

Research Question One

The first research question asked: *What relationships, if any, exists between the magnitude of five personality traits and the degree of three leadership styles among school administrators?*

To explore the first research question, study data from the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) and the Ten Item Personality Inventory (TIPI) were prepared for analysis by performing the Shapiro-Wilk's test on each of the variables to assess if they satisfy the assumption of normality. Additionally, F-tests was performed on each bivariate pair of variables to determine if they satisfied the assumption of heteroscedasticity. The study data

ultimately did not skew in the same direction, so it did not meet the assumption of normality. Thus, following analysis by canonical correlation, a permutation test was used that exchanges the x and y labels, was utilized to draw randomly from the data with replacement, using subsets of available data thus averaging the results obtained over many trials. This allows us to estimate the precision of the correlation coefficient and its associated confidence level. Scatterplots with overlay regression lines and 95% confidence bands were created to allow the researcher to visually identifying anomalies and gain additional information regarding the relationship between the study variables.

Canonical correlation was utilized to identify correlations between respondents scores from the surveys and to examine the extent to which there was a possible association between the leadership style and personality traits of educational leaders. In addition, correlation was used to assess the degree of relationship, between the study variables. Effect size was calculated using the squared canonical correlation coefficient to assess the strength of the association. Effect size values were .01, .09, .25 considered to be small, medium and large, respectively. The study results indicated that the educational leaders represented in the research study did appear to exhibit non-zero relationships among the five personality traits and the three leadership styles.

Correlations among leadership style and personality traits. Bivariate pairings of the transformational leadership with the Ten Item Personality Inventory (TIPI) identified various associations among the data. Specifically a positive medium sized relationship with the extraversion personality trait ($r = .284$, $p < .001$ [95% CI 1.70, 1.98]) and a large positive relationship with the agreeableness personality trait ($r = .309$, $p < .001$ [95% CI 2.10, 2.35]), the conscientiousness personality trait ($r = .301$, $p < .001$ [95% CI 2.85, 3.06]), the emotional stability personality trait ($r = .350$, $p < .001$ [95% CI 2.41, 2.64]), and the openness to

experience personality trait (r = .496, p < .001 [95% CI 2.50, 2.68]). Moreover, a medium sized positive relationship was unveiled between the inter-scale measures of the transactional leadership style and the transformational leadership style (r = .222, p < .001 [95% CI -.999, -.870]). Additionally, a large negative relationship was revealed between the laissez-faire leadership/non-leadership style and the transformational leadership style (r = -.582, p < .001 [95% CI -2.43, -2.22]).

Transactional leadership was observed in the data to have a medium sized positive association with the extraversion personality trait (r = .097, p = .061 [95% CI -2.93, -2.62]) as well as a positive medium sized inter-scale relationship with the transformational leadership style (r = .222, p < .001 [95% CI .870, .999]). Additionally, a small positive association was observed between the transactional leadership style and the conscientiousness personality trait (r = .047, p = .360 [95% CI 3.77, 4.01]). A small negative relationship was found between the transactional leadership style and the emotional stability personality trait (r = -.060, p = .248 [95% CI 3.32, 3.59]) as well as the agreeableness personality trait (r = -.086, p = .094, [95% CI 3.02, 3.30]). Moreover, data indicated that there was a positive small sized relationship between the transactional leadership style and the openness to experience personality trait (r = .009, p = .857 [95% CI 3.41, 3.64]). Finally, a negative small-size association was unveiled between the inter-scale measures of the transactional leadership style and the laissez-faire leadership/non-leadership style (r = -.037, p = .470 [95% CI -1.48, -1.31]).

Laissez-faire leadership/non-leadership style had a large negative inter-scale association with the transformational leadership style (r = -.582, p < .001 [95% CI 2.22, 2.43]). Additionally, the transactional leadership style had a small negative relationship with the inter-scale measure of the laissez-faire leadership/non-leadership style (r = -.037, p = .470 [95% CI

1.31, 1.48]). It was also observed in the data that the laissez-faire leadership/non-leadership style had a large negative relationship with four of the five personality traits represented in the Ten Item Personality Inventory (TIPI). Specifically, the agreeableness personality trait (r = -.262, p < .001 [95% CI 4.40, 4.71]), the conscientiousness personality trait (r = -.379, p < .001 [95% CI 5.14, 5.43]), the emotional stability personality trait (r = -.348, p < .001 [95% CI 4.70, 5.01]) and the openness to experience personality trait (r = -.343, p < .001 [95% CI 4.78, 5.06]). The final personality domain in the Ten Item Personality Inventory (TIPI), the extraversion personality trait, had a medium sized negative relationship with the laissez-faire leadership/non-leadership style (r = -.225, p < .001 [95% CI 3.99, 4.34]). Table 7 provides a representation of associations between the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) and the Ten Item Personality Inventory (TIPI)

Table 7

Associations Between the Multi-Factor Leadership Questionnaire (MLQ:5X) and the Ten Item Personality Inventory (TIPI)

MLQ & TIPI Associations	Extraversion Personality Trait	Agreeableness Personality Trait	Conscientiousness Personality Trait	Emotional Stability Personality Trait	Openness to Experience Personality Trait
Transformational Leadership Style	Large Positive Relationship (r = .284) ***p < .001	Medium Positive Relationship (r = .309) ***p < .001	Large Positive Relationship (r = .301) ***p <.001	Large Positive Relationship (r = .350) ***p <.001	Large Positive Relationship (r = .496) ***p <.001
Transactional Leadership Style	Medium Positive Relationship (r = .097) *p < .1	Medium Negative Relationship (r = -.086) *p < .1	Small Positive Relationship (r = .047) *p < .4	Small Negative Relationship (r = -.060) *p < .3	Small Positive Relationship (r = .009) *p < .9
Laissez-Faire Leadership/Non-Leadership Style	Medium Negative Relationship (r = -.225) ***p < .001	Large Negative Relationship (r = -.262) ***p < .001	Large Negative Relationship (r = -.379) ***p < .001	Large Negative Relationship (r = -.348) ***p < .001	Large Negative Relationship (r = -.343) ***p < .001

Canonical correlation analysis. Data collected from the survey respondents was analyzed using the Statistical Package for the Social Sciences (SPSS) for possible correlations. Canonical correlation was used to measure the strength of the association between each of the study variables. Table 8 illustrates the Pearson's correlation coefficients observed between the three leadership styles and the five personality traits in the study. As observed in the data, a number of statistically significant relationships were established among the three leadership styles, measured by the Multi-Factor Leadership Questionnaire (MLQ:5X – Self), and the five personality traits represented in the Ten Item Personality Inventory (TIPI).

Table 8

Pearson Correlation Coefficients for Ten Item Personality Inventory (TIPI) and Multi-Factor Leadership Questionnaire (MLQ:5X)

		Transform/L	Transact/L	Non/L	E	A	C	ES	OE
Transformational	Pearson Correlation								
	Sig. (2-tailed)								
	n=376								
Transactional	Pearson Correlation	.222**							
	Sig. (2-tailed)	.000							
	n=376	376							
Non-Leadership	Pearson Correlation	-.582**	-.037						
	Sig. (2-tailed)	.000	.470						
	n=376	376	376						
Extraversion	Pearson Correlation	.284**	.097	-.225**					
	Sig. (2-tailed)	.000	.061	.000					
	n=376	376	376	376					

(continued)

		Transform/L	Transact/L	Non/L	E	A	C	ES	OE
Agreeableness	Pearson Correlation	.309**	-.086	-.262**	-.005				
	Sig. (2-tailed)	.000	.094	.000	.923				
	n=376	376	376	376	376				
Conscientiousness	Pearson Correlation	.301**	.047	-.379**	.014	.274**			
	Sig. (2-tailed)	.000	.360	.000	.788	.000			
	n=376	376	376	376	376	376			
Emotional Stability	Pearson Correlation	.350**	-.060	-.348**	.051	.482**	.401**		
	Sig. (2-tailed)	.000	.248	.000	.328	.000	.000		
	n=376	376	376	376	376	376	376		
Openness to Experience	Pearson Correlation	.496**	.009	-.343**	.179**	.299**	.144**	.396**	
	Sig. (2-tailed)	.000	.857	.000	.000	.000	.005	.000	
	n=376	376	376	376	376	376	376	376	

**. Correlation is significant at the 0.01 level (2-tailed).

Canonical correlation analysis uncovered statistically significant results in regards to the transformational leadership style and the remaining variables in the current study. Findings suggest that there is an inter-scale statistically significant relationship among the transactional leadership style ($p < .001$) and the laissez-faire leadership/non-leadership style ($p < .001$) with the transformational leadership style within the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) In addition, the transformational leadership style displayed statistically significant results with all five variables on the Ten Item Personality Inventory (TIPI). Specifically, the extroversion personality trait ($p < .001$), the agreeableness personality trait ($p < .001$), the conscientiousness personality trait ($p < .001$), the emotional stability personality trait ($p < .001$) and the openness to experience personality trait ($p < .001$).

Furthermore, the transactional leadership style did not reveal statistically significant

results with the majority of the affiliated variables within the data. In regards to inter-scale measures, the transactional leadership style observed a statistically significant relationship with the transformational leadership style ($p < .001$) but the laissez-faire leadership/non-leadership style did not exhibit a statistically significant relationship with the transactional leadership style ($p = .470$). In reference to the variables measured by the Ten Item Personality Inventory (TIPI), the transactional leadership style did not portray any statistically significant findings with any of the personality traits. Specifically, the extroversion personality trait ($p = .061$), the agreeableness personality trait ($p = .094$), the conscientiousness personality trait ($p = .360$), the emotional stability personality trait ($p = .248$), nor the openness to experience personality trait ($p = .857$).

Moreover, the laissez-faire leadership/non-leadership style exhibited statistically significant results in association with the transactional leadership style ($p < .001$) but the results did not indicate a statistically significant relationship with transactional leadership style ($p = .470$). Additionally, the laissez-faire leadership/non-leadership style revealed statistically significant results with all five scales of the Ten Item Personality Inventory (TIPI). Specifically, the extraversion personality trait ($p < .001$), the agreeableness personality trait ($p < .001$), the conscientiousness personality trait ($p < .001$), the emotional stability personality trait ($p < .001$) and the openness to experience personality trait ($p < .001$). Figure 4 provides a canonical correlation hypothesis and error plot for both the Ten Item Personality Inventory (TIPI) and Multi-Factor Leadership Questionnaire (MLQ:5X).

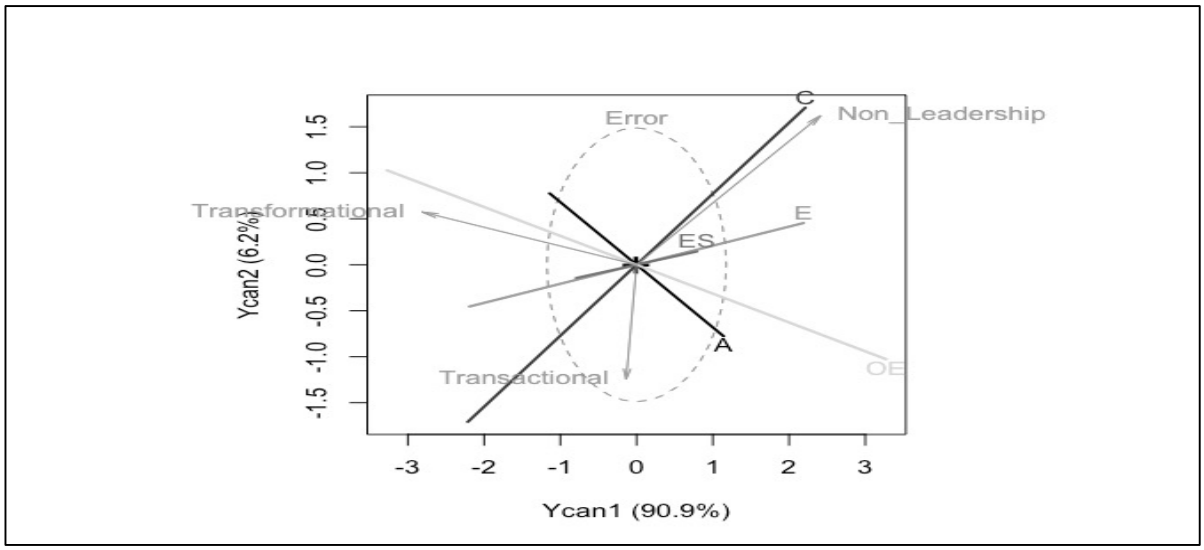


Figure 4. Hypothesis and error plot for the Ten Item Personality Inventory (TIPI) and Multi-Factor Leadership Questionnaire (MLQ:5X – Self) canonical correlation for the educational administrator's survey data.

Permutation tests, a resampling method, was utilized while performing significance tests on the data in order to test for exchangeability in the data points in the current study. The distribution of the test statistic was obtained under the null hypothesis by the calculation of all possible values under the rearrangement of labels on the data points. Labels were found to be interchangeable within the permutation tests thus the resulting significance tests were deemed to yield exact significance levels and confidence levels were able to be derived from the test results.

Permutation data analysis suggested approximate permutation dissemination observed with comparable inference and virtually indistinguishable p-values. The results of the permutation test are provided for both instruments utilized in the current study. Table 9 provides information regarding the results from the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) in reference to the current study data. Additionally, results for the permutation test results for the Ten Item Personality Inventory (TIPI) are also provided. Table 10 indicates the results for the Ten Item Personality Inventory (TIPI) for the current study data for educational administrators.

Table 9

Multi-Factor Leadership Questionnaire (MLQ:5X) Permutation Test Results

MLQ:5X - Self	[1]	[2]	[3]
[1]	-0.7533369	0.943262	0.3925715
[2]	0.1359002	-0.5845164	0.8404525
[3]	0.3710857	1.0679874	0.5057379

Table 10

Ten Item Personality Inventory (TIPI) Permutation Test Results

TIPI	[1]	[2]	[3]
[1]	-0.3377636	-0.21166125	0.49054476
[2]	-0.2005644	0.41296062	-0.42723570
[3]	-0.3682970	-0.85966441	0.07000562
[4]	-0.1510230	-0.08274586	-0.65477049
[5]	-0.5538757	0.52554362	0.48796000

The study's canonical correlation analysis describes a presence of statistically significant study results thus indicating a reason to suggest an association between the constructs represented by the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) and the Ten Item Personality Inventory (TIPI). Results designate the ability to reject the null hypothesis of the first research question pose in the current study and suggest the notion of non-zero relationships present amongst the three leadership styles and the five personality traits measured in the study data.

Research Question Two

The second research question asked: *What difference, if any, exist among the magnitude of five personality traits and the degree of three leadership styles between elementary, middle and high school administrators?*

To address the second study research question, study data from the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) and the Ten Item Personality Inventory (TIPI) were prepared for analysis by performing Levene's test on the data collected to confirm that the assumption of homogeneity was satisfied. Levene's test makes the assumption that data samples are obtained from populations that represent equal variances and if the variation is different or similar between the groups. The data collected from elementary and middle school administrators for the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) was observed to satisfy the assumption of homogeneity. Specifically, the transformational leadership style ($F(1, 164)= .001$, $p = .970$), the transactional leadership style ($F(1,164)= .994$, $p =.320$) and the laissez-faire leadership/non-leadership style ($F(1, 164)= .273$, $p = .602$). Elementary and middle school administrators' data also satisfied the assumption of homogeneity within the scales of the Ten Item Personality Inventory (TIPI). Specifically, the extraversion personality trait ($F(1, 164)= .787$, $p = .376$), the agreeableness personality trait ($F(1,164)= .608$, $p = .437$), the conscientiousness personality trait ($F(1, 164)= .759$, $p = .385$), the emotional stability personality trait ($F(1, 164)= .807$, $p = .370$) and the openness to experience personality trait ($F(1, 164)= .189$, $p = .665$).

Middle school and high school administrators survey data was also examined using Levene's test to satisfy the assumption of homogeneity between the two groups. Survey data affirmed that the assumption was satisfied for the variables measured by the Multi-Factor

Leadership Questionnaire (MLQ:5X – Self) for homogeneity. Specifically, the transformational leadership style ($F(1, 194)= .048$, $p = .827$), the transactional leadership style ($F(1, 194)= .473$, $p = .493$) and the laissez-faire leadership/non-leadership style ($F(1, 194)= .033$, $p = .855$). Middle and high school administrator groups also satisfied the assumption of homogeneity for three of the five sub-scales of the Ten Item Personality Inventory (TIPI). Specifically, the extraversion personality trait ($F(1, 194)= .101$, $p = .751$), the conscientiousness personality trait ($F(1, 194)= .297$, $p = .587$) and the openness to experience personality trait ($F(1, 194)= .258$, $p = .612$). The remaining two sub-scales of the Ten Item Personality Inventory (TIPI), namely the agreeableness personality trait ($F(1, 194)= 4.70$, $p = .031$) and the emotional stability personality trait ($F(1, 194)= 4.812$, $p = .029$) did not satisfy the assumption of homogeneity. Supplemental t-tests was performed, not assuming homogeneous variance, were calculated. The results of the associated t-tests illustrated the difference between groups given the violation of Levenes' test of variance. Data suggests the agreeableness personality trait was re-calculated in order to satisfy the assumption of variance ($t(161.99)= .491$, $p = .624$) and the emotional stability personality trait was also re-calculated in order to satisfy the assumption of variance ($t(170.38)= .483$, $p = .630$).

High school and elementary school administrators survey data satisfied the assumption of homogeneity for all of the sub-scales of the Multi-Factor Leadership Questionnaire (MLQ:5X – Self). Specifically, the transformational leadership style ($F(1, 228)= 1.037$, $p = .310$), the transactional leadership style ($F(1, 228)= .182$, $p = .670$) and the laissez-faire leadership/non-leadership style ($F(1, 228)= .706$, $p = .402$). High school and elementary school administrators' data also satisfied the assumption of homogeneity for the sub-scales of the Ten Item Personality Inventory (TIPI). Specifically, the extraversion personality trait ($F(1, 228)= .449$, $p = .504$), the agreeableness personality trait ($F(1, 228)= 3.00$, $p = .084$), the conscientiousness personality trait

($F(1, 228)= 3.05$, $p = .082$), the emotional stability personality trait ($F(1, 228)= 2.50$, $p= .116$) and the openness to experience personality trait ($F(1, 228)= 1.04$, $p = .310$).

In addition, Q-Q plots were created and skew and kurtosis information calculated to indicate the shape of the data distribution direction. Findings will provide the researcher with additional information regarding the satisfaction of both the assumption of normality and assumption of homogeneity. Data was analyzed by school type in order to assist with addressing the second research question in the current research study. Q-Q plots representing data collected from elementary school administrators was created to visually assist in satisfying the assumption of normality. Results from the calculations indicate a negative symmetry of distribution for the transformational leadership type, a positive symmetry of distribution for the transactional leadership style and a positive symmetry of distribution for the laissez-faire leadership/non-leadership style. Furthermore, in regards to data collected from elementary school administrators, the extroversion personality trait illustrated a negative symmetry of distribution, the agreeableness personality trait revealed a negative symmetry of distribution, the conscientiousness personality trait illustrated a negative symmetry of distribution, the emotional stability personality trait indicated a negative symmetry of distribution and the openness to experience personality trait revealed a negative symmetry of distribution. Thus establishing that the majority of the data produced by the elementary school administrators for the sub-scales cluster at the high end of the data spectrum. Figure 5 provides the elementary school administrators' Q-Q plots for the Multi-Factor Leadership Questionnaire (MLQ:5X) and Ten Item Personality Inventory (TIPI).

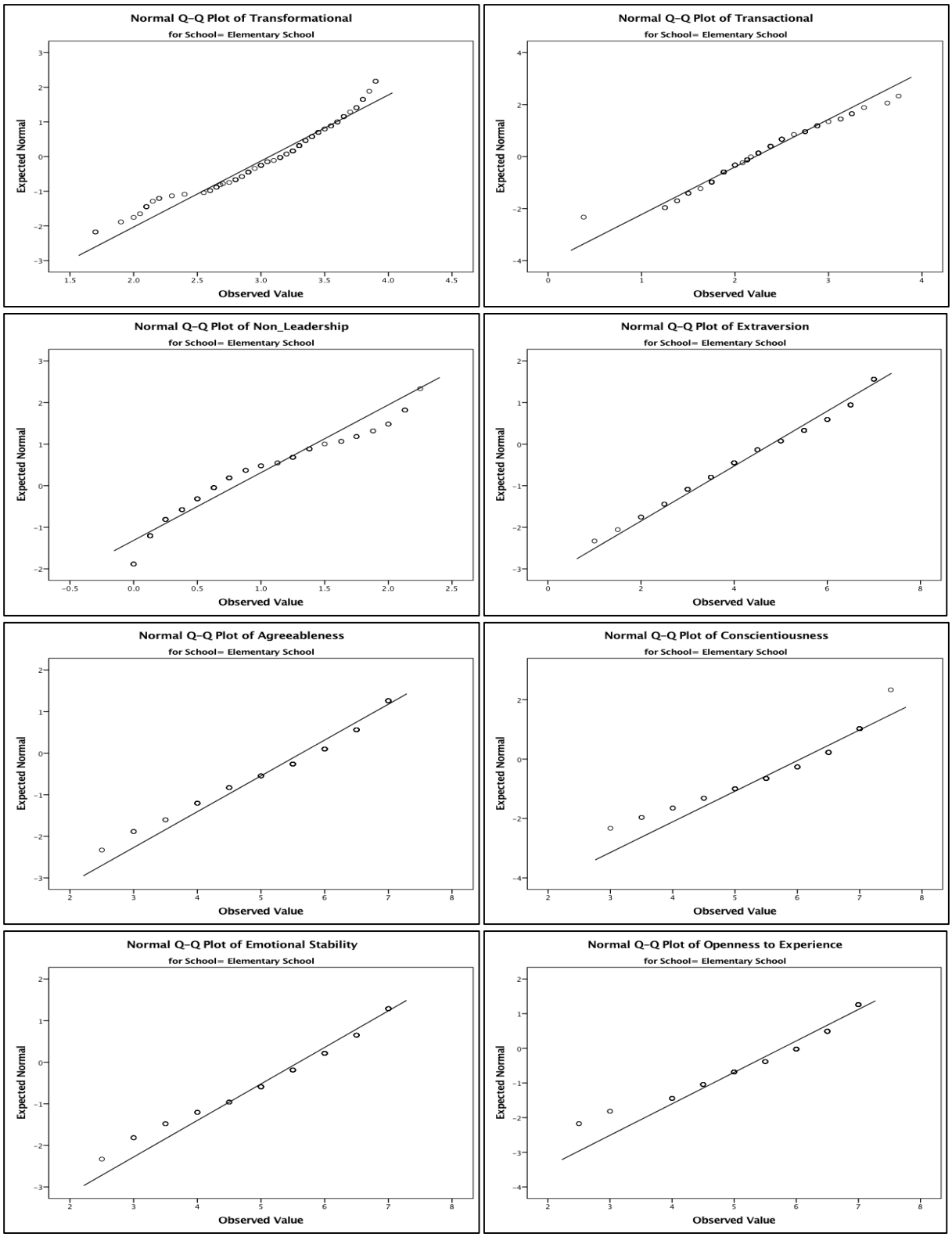
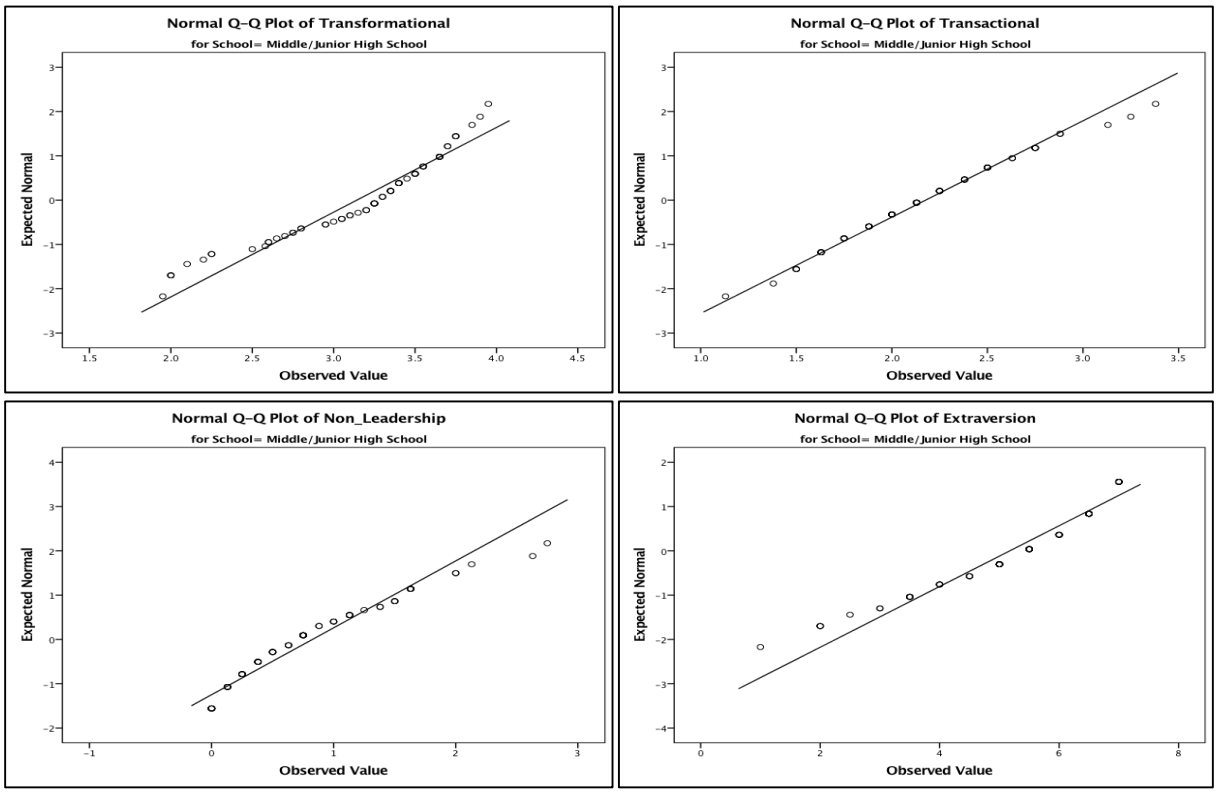


Figure 5. Illustrates the findings of the Q-Q plots in regards to distribution of data collected in the study for elementary school administrators.

Q-Q plots representing the data collected from the middle school administrators illustrate a negative symmetry of distribution for the transformational leadership style, a positive symmetry of distribution for the transactional leadership scale and a positive symmetry of distribution for the laissez-faire leadership/non-leadership style. Conjointly, the data collected from the middle school administrators appear to displayed a negative symmetry for all five sub-scales of the Ten Item Personality Inventory. Visual inspection of the Q-Q plots for the data computed for the middle school administrators illustrates a positive symmetry of distribution of scores in the lower quadrant of the scale measuring leadership style. Inversely, it appears middle school administrators displayed a negative symmetry of data distribution for the personality trait measurement tool. Figure 6 provides middle school administrators' Q-Q plots for the Multi-Factor Leadership Questionnaire (MLQ:5X) and Ten Item Personality Inventory (TIPI).



(continued)

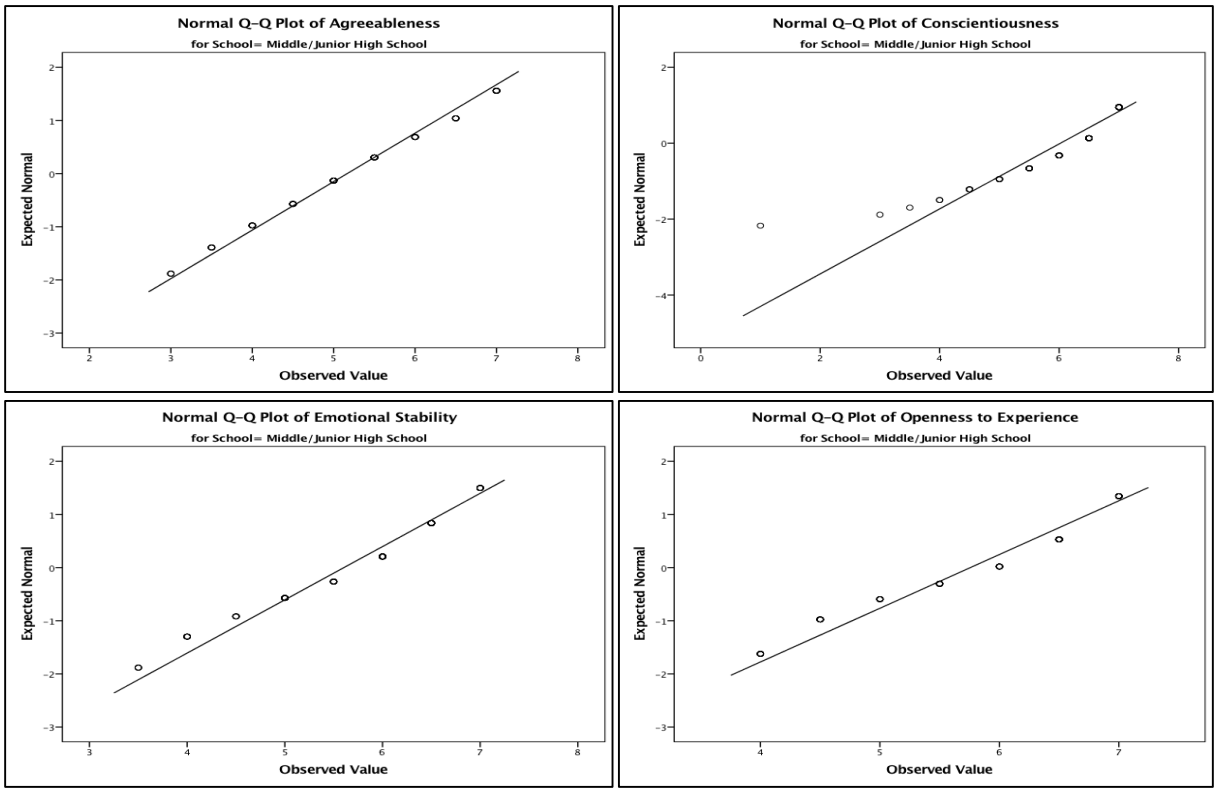


Figure 6. Illustrates the findings of the Q-Q plots in regards to distribution of data collected in the study for middle school administrators.

Study data collected from the high school administrators in the study was depicted in Q-Q plots and appears to illustrate a negative symmetry of distribution for the transformational leadership style, a negative symmetry of distribution for the transactional leadership scale and a positive symmetry of distribution for the laissez-faire leadership/non-leadership style. In conjunction, the data collected from the high school administrators on the Ten Item Personality Inventory (TIPI) displays a negative symmetry for all five sub-scales of the Ten Item Personality Inventory. A visual inspection of the Q-Q plots computed from the data collected from the high school administrators illustrates the majority of sub-scales data distribution of scores appeared in the lower quadrant of the scale measuring leadership style and personality type. Figure 7 provides the high school administrators' Q-Q plots for the Multi-Factor Leadership Questionnaire (MLQ:5X) and Ten Item Personality Inventory (TIPI).

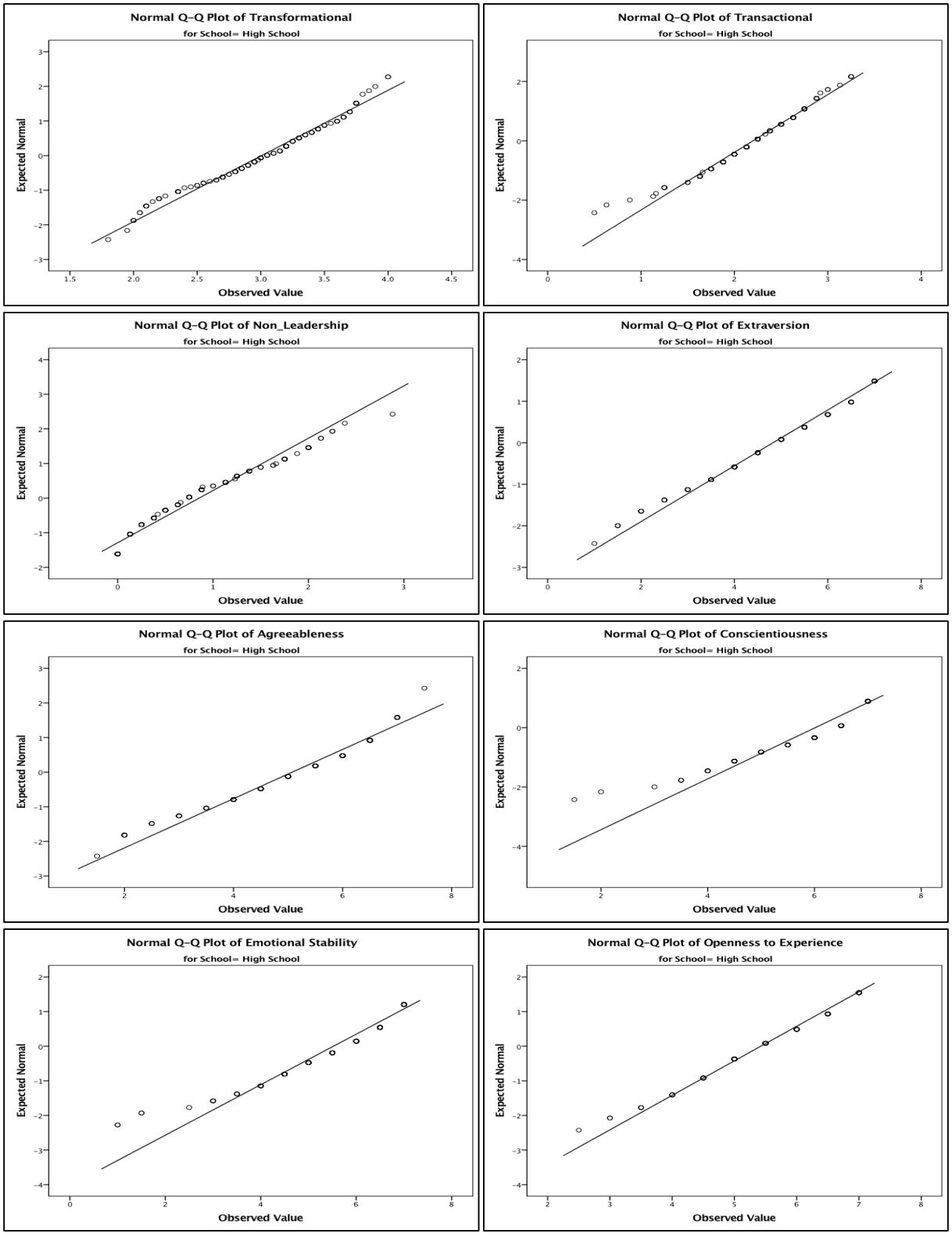


Figure 7. Illustrates the findings of the Q-Q plots in regards to distribution of data collected in the study for high school administrators.

Effect size was calculated via omega squared, with values of .01, .06, .14 considered to be small, medium and large, respectively. In regards to leadership style and personality traits, data exposed that the Transformational leadership style exhibited a medium sized effect in the data analysis (*R = .08),* the transactional leadership style displayed a small effect size with school type (*R = .01)* and the laissez-faire leadership/non-leadership style was observed to have a small effect size with school type in the present study (*R = .02).* In regards to personality traits and school type, the extraversion personality trait was distinguished as having a large effect size with school type (*R = .20).* The agreeableness personality trait had a small effect size in the current study with school type (*R = .45).* Additionally, the conscientiousness personality trait was observed to have a small effect size with school type in the present study findings (*R = .01).* The emotional stability personality trait also exposed a small effect size with school type in the current study (*R = .03).* Finally, the openness to experience personality trait displayed a medium effect size with school type in the data analysis *(R = .07).*

Elementary school educational administrators. The result of the study data analysis revealed a difference in the degree of leadership style among elementary school educational administrators as indicated by information gathered by the Multi-Factor Leadership Questionnaire (MLQ:5X – Self). Findings indicate that elementary school leaders had the largest mean score in the transactional leadership style domain *(m* = 2.22*, SD* = .547*)* out of the three school types represented in the sample. Conjointly, elementary school administrators reported the lowest mean score in the laissez-faire leadership/non-leadership style scale *(m* = .808*, SD* = .614*)* out of the three school types. The study results additionally observed a difference among the elementary school administrators' magnitude of five personality traits as uncovered by the Ten Item Personality Inventory (TIPI). Study data demonstrated that elementary school

educational administrators had the highest mean score in the agreeableness personality trait domain *(m* = 5.64, *SD* = 1.16)*,* the conscientiousness personality trait domain *(m* = 6.05*, SD* = .971) as well as the openness to experience personality trait domain *(m* = 5.77, *SD* = 1.10) out of the three school types in the sample. In contrast, elementary school teachers displayed the lowest mean score in the extraversion personality trait domain *(m* = 4.80*, SD* = 1.51) out of the three school types.

Middle school educational administrators. In regards to the data collected from the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) indicating leadership style preferences, analysis exposed that middle school administrators exhibited the highest mean score in the transformational leadership style domain *(m* = 3.14*, SD* = .543) out of the three school types in the sample. In contrast, middle school leaders displayed the lowest scoring mean of the three school types in the transactional leadership style domain *(m* = 2.18*, SD* = .460). In regards to the differences found in middle school educational administrators' personality traits, the Ten Item Personality Inventory (TIPI) uncovered that the middle school administrators in the study were presented to have the highest mean score in the extraversion personality trait domain *(m* = 5.17*, SD* = 1.46) out of the three school types. Additionally, middle school leaders illustrated the highest mean score in the emotional stability personality trait domain *(m* = 5.60*, SD* = .998) compared to the other three school types in the study.

High school educational administrators. Scores from the data analysis, as measured by the Multi-Factor Leadership Questionnaire (MLQ:5X – Self), identified that the high school educational leaders in the sample had the lowest scoring mean in the transformational leadership domain *(m* = 3.00, *SD* = .527) out of the three school types. Conjointly, it was uncovered that the high school educational administrators in the study exhibited the highest mean score in the

laissez-faire leadership/non-leadership style domain *(m* = .854*, SD* = .662) out of the three school types in the sample. In references to differences in personality traits, findings from the Ten Item Personality Inventory (TIPI) illustrated that the high school administrators represented in the study had the lowest mean score in the agreeableness personality trait domain *(m* = 5.08, *SD* = 1.41) out of the three school types. The high school leaders also had the lowest mean score in the conscientiousness personality trait domain *(m* = 6.01*, SD* = 1.17) out of all three school types in the study. Also, the high school administrators demonstrated the lowest mean score in the emotional stability personality trait domain *(m* = 5.52*, SD* = 1.37) out of the three school types. Finally, the high school educational leaders in the study displayed the lowest mean score out of all three school types in the openness to experience personality trait domain *(m* = 5.42*, SD* = 1.00).

Results indicate that differences appear to exist among the elementary, middle and high school educational administrators among five personality traits and three leadership styles explored in the current research study. Table 11 describes the mean scores and standard deviations from the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) for the three school types represented in the second research question in the study.

Table 11

Sample Sizes, Mean Scores and Standard Deviations for Educational Administrators Multi-Factor Leadership Questionnaire (MLQ:5X)

(MLQ:5X – Self) Mean Scores	Transformational Leadership Style	Transactional Leadership Style	Laissez-Faire/ Non-Leadership Style
Elementary School Administrators	3.07 (*SD*= .525) *n*=376	2.22 (*SD*= .457) *n*=376	.808 (*SD*= .614) *n*=376
Middle School Administrators	3.14 (*SD*= .523) *n*=376	2.18 (*SD*= .460) *n*=376	.826 (*SD*= .662) *n*=376

(continued)

(MLQ:5X – Self) Mean Scores	Transformational Leadership Style	Transactional Leadership Style	Laissez-Faire/ Non-Leadership Style
High School Administrators	3.01 (*SD*= .527) *n*=376	2.20 (*SD*= .514) *n*=376	.854 (*SD*= .662) *n*=376
MLQ:5X - Self / Max Score	4.00	4.00	4.00

Table 12 additionally describes the mean scores and standard deviations from the Ten Item Personality Inventory (TIPI) for the three school types represented in the second research question in the study. Differences can be observed in the data analysis in regards to varying levels of leadership style and personality traits within the three school types in the study sample.

Table 12

Sample Sizes, Mean Scores and Standard Deviations for Educational Administrators Ten Item Personality Inventory (TIPI)

Ten Item Personality Inventory (TIPI) Mean Scores	E	A	C	ES	OE
Elementary School Administrators	4.80 (*SD* = 1.51) *n*=376	5.64 (*SD* = 1.16) *n*=376	6.05 (*SD* = .971) *n*=376	5.60 (*SD* = 1.14) *n*=376	5.77 (*SD* = 1.10) *n*=376
Middle School Administrators	5.17 (*SD = 1.46)* *n*=376	5.17 (*SD* = 1.10) *n*=376	6.02 (*SD* = 1.17) *n*=376	5.61 (*SD* = .998) *n*=376	5.76 (*SD* = .989) n=376
High School Administrators	4.83 (*SD* = 1.49) *n*=376	5.08 (*SD* = 1.41) *n*=376	6.02 (*SD* = 1.17) *n*=376	5.52 (*SD* = 1.37) *n*=376	5.42 (*SD* = 1.00) n=376
TIPI / Max Score	7.00	7.00	7.00	7.00	7.00

"Other" educational administrators. Additional data analysis was performed on the additional school types available in the study sample in order to discover parallel connections detected in the findings. Results indicate that district office educational administrators were identified as having the highest mean score in the transformational leadership style (*m* = 3.47, *SD*

= .315) out of the five school types classified in the "other" category. In contrast, the alternative school administrators displayed the lowest mean score in the transformational leadership style (*m* = 3.18, *SD* = .212) out of the five school types. Additionally, findings suggest that the kindergarten through twelfth grade school administrators had the highest mean score in the transactional leadership style (*m* = 2.28, *SD* = .507) out of the five school types. Conversely, the district office administrators illustrated the lowest mean score in the transactional leadership style (*m* = 2.03, *SD* = .390) out of the five school types. Finally, the consultant educational administrators displayed the highest mean score in the laissez-faire leadership/non-leadership style (*m* = .804, *SD* = .562) out of the five school types. Furthermore, superintendent educational administrators were observed in the data to have the lowest mean score in the laissez-faire leadership/non-leadership style (*m* = .454, *SD* = .353) out of the five school types. Table 13 exhibits the findings from the data analysis in terms of mean scores and standard deviations for the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) sub-scales for the five remaining school types in the study sample.

Table 13

Sample Sizes, Mean Scores and Standard Deviations for Educational Administrators (Other) Multi-Factor Leadership Questionnaire (MLQ:5X)

(MLQ:5X – Self) Mean Scores	Transformational Leadership Style	Transactional Leadership Style	Laissez-Faire/ Non-Leadership Style
Alternative School Administrators	3.18 (*SD* = .212) *n*=376	2.25 (*SD* = .715) *n*=376	.715 (*SD* = .380) *n*=376
Consultant Administrators	3.28 (*SD* = .472) *n*=376	2.15 (*SD* = .571) *n*=376	.804 (*SD* = .562) *n*=376

(continued)

(MLQ:5X – Self) Mean Scores	Transformational Leadership Style	Transactional Leadership Style	Laissez-Faire/ Non-Leadership Style
District Office Administrators	3.47 (*SD* = .315) *n*=376	2.03 (*SD* = .390) *n*=376	.636 (*SD* = .430) *n*=376
Kindergarten Through Twelfth Grade Administrators	3.34 (*SD* = .349) *n*=376	2.28 (*SD* = .507) *n*=376	.777 (*SD* = .756) *n*=376
Superintendent Administrators	3.41 (*SD* = .286) *n*=376	2.19 (*SD* = .677) *n*=376	.454 (*SD* = .353) *n*=376

Additionally, in terms of results from the Ten Item Personality Inventory (TIPI) data analysis for remaining school types, the findings identified that the kindergarten through twelfth grade school administrators exhibited the highest mean score in the extraversion personality trait (*m* = 5.45, *SD* = 1.27) out of the five "other" school types available in the current study sample. Conversely, the superintendent educational administrators group was observed to have the lowest score in the extraversion personality trait (*m* = 4.88, *SD* = 1.26) of the five school types. Moreover, the data suggests that the alternative school administrators had the highest mean score in the agreeableness personality trait (*m* = 6.00, *SD* = .707) out of the five school types. In contrast, superintendent educational administrators were found to have the lowest mean score in the agreeableness personality trait (*m* = .5.31, *SD* = 1.23) out of the five school types. Additionally, the superintendent educational administrator group was revealed to have the highest mean score in the conscientiousness personality trait (*m* = 6.38, *SD* = .916) out of the five school types. Results indicate that the alternative school administrators were observed to have the lowest mean score in the conscientiousness personality trait (*m* = 6.08, *SD* = .736) out of the five school types.

Furthermore, the superintendent educational administrators were discovered to have the highest mean score in the emotional stability personality trait (*m* = 6.27, *SD* = 1.05) out of the five school types. Conversely, the kindergarten through twelfth grade school administrator was distinguished as having the lowest mean score in the emotional stability personality trait (*m* = 5.63, *SD* = .1.35) out of the five school types. Finally, the district office educational administrators were observed in the data as having the highest mean score in the openness to experience personality trait (*m* = 6.33, *SD* = .698) out of the five school types. In association, the consultant educational administrators displayed the lowest mean score in the openness to experience personality trait (*m* = 5.71, *SD* = 1.34) out of the five school types. Table 14 exhibits the findings from the data analysis in terms of mean scores and standard deviations for the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) sub-scales for the five remaining school types in the study sample.

Table 14

Sample Sizes, Mean Scores and Standard Deviations for Educational Administrators (Other) Ten Item Personality Inventory (TIPI)

Ten Item Personality Inventory (TIPI) Mean Scores	E	A	C	ES	OE
Alternative School Administrators	4.92 (*SD* = 1.24) *n=376*	6.00 (*SD* = .707) *n=376*	6.08 (*SD* = .736) *n=376*	5.92 (*SD* = 1.02) *n=376*	6.00 (*SD* = 1.05) *n=376*
Consultant Administrators	5.17 (*SD* = 1.56) *n*=376	5.75 (*SD* = 1.29) *n*=376	6.25 (*SD* = .892) *n*=376	5.92 (*SD* = 1.20) *n*=376	5.71 (*SD* = 1.34) *n*=376
District Office Administrators	5.29 (*SD* = 1.41) *n*=376	5.62 (*SD* = 1.29) *n*=376	6.26 (*SD* = .809) *n*=376	6.09 (*SD* = .946) *n*=376	6.33 (*SD* = .698) *n*=376

(continued)

Ten Item Personality Inventory (TIPI) Mean Scores	E	A	C	ES	OE
Kindergarten – Twelfth Grade Administrators	5.45 (*SD* = 1.27) *n*=376	5.55 (*SD* = 1.17) *n*=376	6.33 (*SD* = .963) *n*=376	5.63 (*SD* = 1.35) *n*=376	5.95 (*SD* = .985) *n*=376
Superintendent Administrators	4.88 (*SD* = 1.26) *n*=376	5.31 (*SD* = 1.23) *n*=376	6.38 (*SD* = .916) *n*=376	6.27 (*SD* = 1.05) *n*=376	6.19 (*SD* = 1.11) *n*=376

Noteworthy findings were discovered within the current study data collected from educational administrators within the "other" school type category. Due to the current nature of the present study, elementary, middle and high school educational administrators will remain the focus and extraneous data for additional school types will not be further analyzed.

Multivariate analysis of variance (MANOVA). In order to determine if relationships existed between the variables in the second research question, a between group multivariate analysis of variance was performed. Data collected from the school administrators was investigated to see if there were differences in the magnitude of leadership style, as measured by the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) and degree of five personality traits, as measured by the Ten Item Personality Inventory (TIPI). Eight dependent variables were used: transformational leadership style, transactional leadership style, laissez-faire leadership/non-leadership style, extraversion personality trait, agreeableness personality trait, conscientiousness personality trait, emotional stability personality trait and the openness to experience personality trait. The independent variables were school type: elementary school, middle school and high school. Preliminary testing confirmed no significant violations of the satisfaction of assumptions.

Multivariate analysis of variance (MANOVA) results indicated no statistically significant results in the data for combined dependent variables in relation to the three independent variables under observation in the second research question. In regards to the dependent variables considered separately, the data indicated that there were no statistically significant results between school type and the three leadership styles, as measured by the Multi-Factor Leadership Questionnaire (MLQ:5X – Self). In contrast, results from the separated dependent variable multivariate analysis of variance (MANOVA) indicated statistically significant levels between two personality traits as measured by the Ten Item Personality Inventory. Specifically, between the elementary school administrators and the high school administrators, the agreeableness personality trait (r = .019, p = .025[95% CI .078, .859]); *partial eta squared* = 0.045 and the openness to experience personality trait (r = .012, p =.001[95% CI .074, .610]); *partial eta squared = 0.065*. All other variables in the current study data did not differ significantly statistically between the groups. Figure 8 provides bivariate histograms of the Multi-Factor Leadership Questionnaire (MLQ: 5X) and the Ten Item Personality Inventory (TIPI).

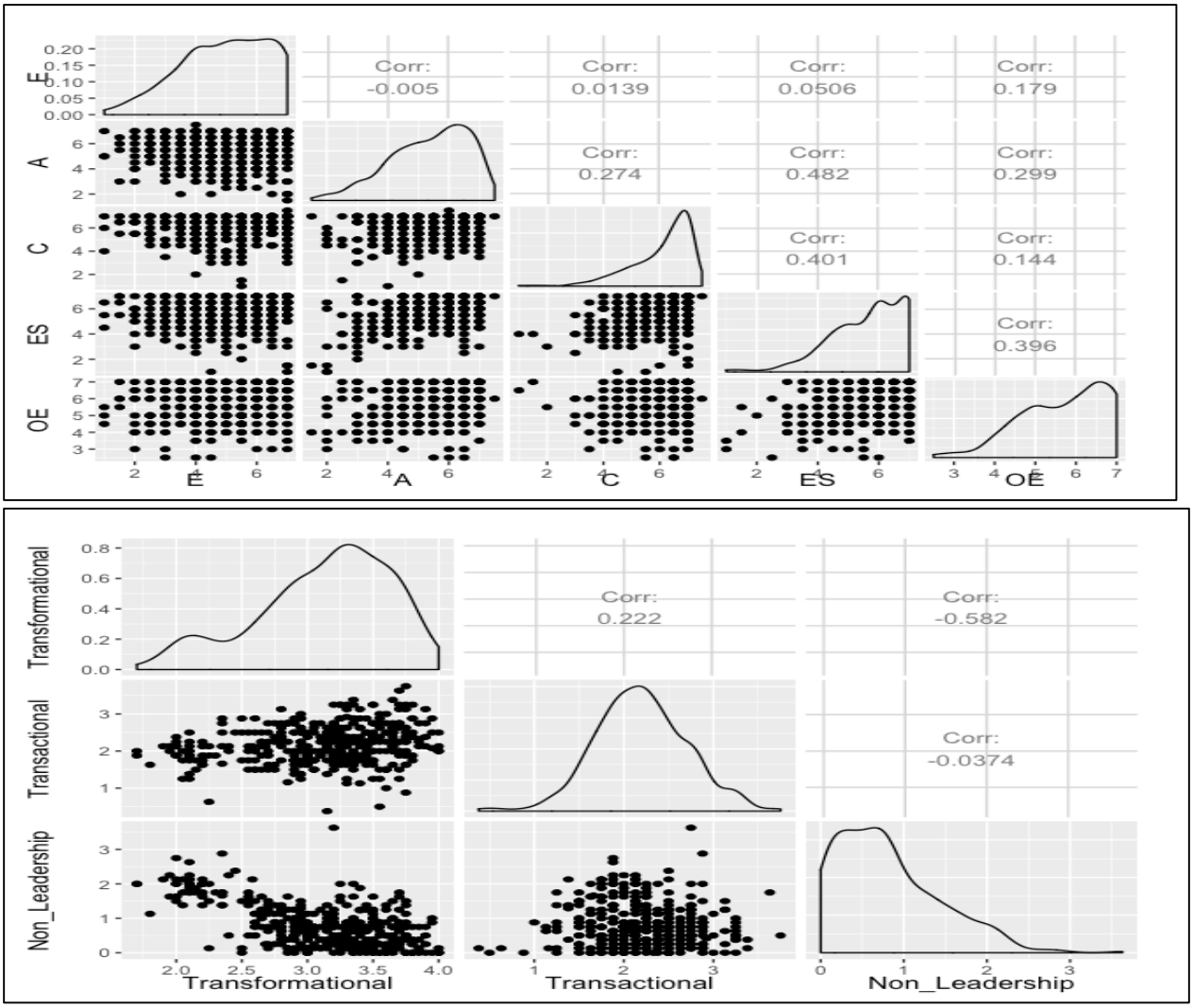


Figure 8. Representation of bivariate histograms of the five constructs measured by the Ten Item Personality Inventory (TIPI) and the three constructs of the Multi-Factor Leadership Questionnaire (MLQ: 5X – Self).

Summary of Key Findings

Hypothesis one investigated whether there were non-zero relationships between the magnitude of five personality traits and the degree of three leadership styles among school administrators. The null hypothesis stated that no relationships existed between the magnitude of the five personality traits and degree of the three leadership styles among school administrators. Data analysis indicated a relationship between various variables in the study thus allowing us to partially accept the first hypothesis in the research study and reject the null hypothesis

considering that several non-zero correlations were uncovered in the study statistics. Therefore, hypothesis one is partially supported due to the statistical findings that there were non-zero relationships observed between school administrators' personality traits and leadership style.

Hypothesis two stated that differences existed among the magnitude of five personality traits and the degree of three leadership styles among elementary, middle and high school administrators. The null hypothesis states that no differences exist among the magnitude of five personality traits and the degree of three leadership styles among elementary, middle and high school administrators. Various differences were uncovered between the measured variables in the study, allowing us to partially reject the null hypothesis. Therefore, hypothesis two is partially supported due to the fact that there were differences observed in the magnitude of five personality traits and the degree of three leadership styles among school administrators.

This chapter aspired to present the parameters of the current research study in an effort to gather data from California unified school district educational administrators. It was believed that this particular demographic of administrators, identified in chapter one, could benefit from an improved understanding of leadership style and the influence that personality traits may have on a leader. It was the goal of the researcher to establish a body of useful knowledge that could improve the professional development of educational leaders. This chapter provided study statistics implicating impactful associations among school administrators, personality traits and leadership style and attempted to contribute to the foundation of information available to educational administrators regarding personality traits and leadership style. The following chapter will summarize the key findings of the current research study as well as discuss conclusions gathered from the study data analysis. Additionally, chapter five will explore study implications for educational administrators as well as recommended areas for future study.

Chapter 5: Data Analysis

Discussion

This chapter offers a summary of the scholarly literature pertaining to the findings related to these three leadership styles and five personality traits will be considered. This final chapter will also provide a discussion of implications for future policies and/or practices and researcher recommendations for continuing research on this area of interest.

Associations between Leadership Style and Personality Traits

Leadership style. In response to the first research question, the study data was examined to uncover whether a relationship found between the degree of three leadership styles and the magnitude of five personality traits. The current data portrayed a large negative association between the transformational leadership style and the laissez-faire leadership/non-leadership style *(r* = -.582*, p* < .001 [95% CI -2.43, -2.22]). Similarly, Hartog, Van Muijen and Koopman (1997) also established in their findings a large negative inter-scale relationship between the transformational leadership style and the laissez-faire leadership/non-leadership style *(r* = -.170, *p* <.005).

Data suggests that the transformational leadership style presented a large positive relationship with the extraversion personality trait *(r* = .284*, p* < .001 [95% CI 1.70, 1.98]). Bono and Judge (2004) also found a large positive association between the extraversion personality trait and the transformational leadership style *(r* = .240, *p* = .050 [95% CI .21, .28]). In addition, Felfe and Schyns (2006), also uncovered a strong positive association between the extraversion personality trait and the "perception" of the transformational leadership style *(r* = .200*, p* <.001) in their study findings. Similarly, data collected in the current study unearthed a large positive association between the transformational leadership style and the agreeableness personality trait *(r* = .309*, p* < .001 [95% CI 2.10, 2.35]). Bono and Judge (2004) also

determined a positive relationship between the transformational leadership style and the agreeableness personality trait (r = .140, p = .160 [95% CI .06, .21]) in their findings.

In the current study data, the transformational leadership style exhibited a large positive relationship with the conscientiousness personality trait *(*r = .301, p < .001 [95% CI 2.85, 3.06]). Bono and Judge (2004) also found a similar association in their findings with a large positive association detected between the transformational leadership style and the conscientiousness personality trait *(*r = .130, p = .120 [95% CI .06, .19]). Finally, the current study discovered that the transformational leadership style had a large positive relationship with the openness to experience personality trait *(*r = .496*,* p < .001 [95% CI 2.50, 2.68]). Bono and Judge (2004), similarly found a positive relationship between the openness to experience personality trait and the transformational leadership style *(*r = .150, p = .150 [95% CI .08, .23]).

Conjointly, the laissez-faire leadership/non-leadership style was observed to have a large negative association with the agreeableness personality trait *(*r = -.262*,* p < .001 [95% CI 4.40, 4.71]). Bono and Judge (2004) also reported uncovering a negative association between the laissez-faire leadership/non-leadership style and and the agreeableness personality trait *(*r = -.120, p = .060 [95% CI -.19, -.06] in study findings. Additionally, the current study exposed that the laissez-faire leadership/non-leadership style was revealed to have a large negative association between the conscientiousness personality trait *(*r = -.379*,* p < .001 [95% CI 5.14, 5.43]). Similarly, Bono and Judge (2004) also identified that a negative relationship was found between the laissez-faire leadership/non-leadership style and the conscientiousness personality trait *(*r = -.110*,* p = .060 [95% CI -.18, -.04]).

Personality traits. In terms of inter-scale personality trait measures, analysis results from the current study data indicates that the agreeableness personality trait has a large positive inter-

scale association with the conscientiousness personality trait (r = .274, p < .001 [95% CI -.873, -.587]). Romero et al. (2012) reported similar findings in their study with data portraying a positive inter-scale association between the agreeableness personality trait and the conscientiousness personality trait (r = .250, p <.001). The current data analysis also found a large positive inter-scale relationship between the agreeableness personality trait and the emotional stability personality trait (r = .482, p < .001 [95% CI -.426, -.170]). Romero et al. (2012) also observed a noteworthy positive relationship between the agreeableness personality trait and the emotional stability personality trait (r = .200, p <.001) in their study findings.

In addition, the agreeableness personality trait was found in the current study data results to have a large positive inter-scale relationship with the openness to experience personality trait (r = .299, p < .001 [95% CI -.504, -.223]). Similarly, Ehrhart et al. (2009) described revealing a strong positive inter-scale association between the agreeableness personality trait and the openness to experience personality trait *(r = .570, p <.050*). Furthermore, the present study unveiled a large positive inter-scale relationship with the agreeableness personality trait and the extraversion personality trait (r = .420, p = -.923 [95% CI .191, .586]). In comparison, study findings established by Enrhart et al. (2009) revealed that a small negative association was detected between the extraversion personality trait and the agreeableness personality trait (r = .005, p <.050) in their data analysis.

Moreover, analysis of in the current study data additionally established a large positive inter-scale relationship between the emotional stability personality trait and the conscientiousness personality trait (r = .401, p < .001 [95% CI -.558, -.306]). Storme, Tavani and Myskowski (2016) also displayed a positive inter-scale strong association between the emotional stability personality trait and the conscientiousness personality trait *(r = .330, p <

.001). The present study exposed a large positive inter-scale association between the emotional stability personality trait and the openness to experience personality trait *(r* = .396*, p* < .001 [95% CI -.191, .061]). Similarly, Storme, et al. (2016) also uncovered a positive inter-scale relationship between the emotional stability personality trait and the openness to experience personality trait *(r* = .170*, p* < .001).

Results indicate that findings from previous studies on leadership style and personality traits, in addition to the findings from the current study, demonstrates detectable associations between the degree of the three leadership styles represented on the Multi-Factor Leadership Questionnaire (MLQ:5X – Self), and the magnitude of the five personality traits represented on the Ten Item Personality Inventory (TIPI) among educational administrators. Upon inspection of contributing literature sources, the majority of studies reporting statistically significant findings were administered to undergraduate education and psychology university students. Possible reasons for similarities in the study findings could be the connection of the education field and the type of personality that the occupation attracts, thus skewing the data towards certain personality traits and leadership style represented in the data represented in the corresponding research studies.

In contrast, the largest contributor to connections with previous studies in the Bono and Judge (2004) literature which represents a meta-analysis of literature available regarding the Big Five personality traits and the transactional and transformational leadership styles. Possible discrepancies found among the current study data and the results obtained by Bono and Judge (2004) could be due to the previous study's exclusion of self-report studies. Contrary to the results of the current research study which relied primarily on the self-report of study variables by the respondents.

Leadership Style and Personality Traits in Educational Administration

Multivariate analysis of variance (MANOVA) results. Results from the Multivariate Analysis of Variance (MANOVA) uncovered a statistically significant relationship between the elementary school administrators and high school administrators in terms of the magnitude of the agreeableness personality trait variable (r = .019, p = .025 [95% CI .078, .859]); *partial eta squared* = 0.045. Results suggest an observance of higher levels of the agreeableness personality trait in the elementary school administrator group compared to the high school administrator group. Additionally, the multivariate analysis of variance also detected a statistically significant connection among the elementary school administrators and the high school administrators in regards to the scores corresponding with the openness to experience personality trait variable (r = .012, p < .001 [95% CI .074, .610]); *partial eta squared = 0.065.* Data analysis revealed that the elementary school administrator group displayed higher levels of the openness to experience personality trait when compared to the high school administrator group. Output from the multivariate analysis did not uncover any other statistically significantly connections between the three groups in terms of the study test variables.

Elementary school educational administrators. The second research question in the current study inquired about possible differences distinguishable between the elementary school, middle school and high school administrators among their degrees of three leadership styles and the magnitudes of five personality traits. When interpreting the data obtained from the elementary school administrators, it is necessary to first distinguish the defining demographics that the administrator leads at their particular school site. Elementary schools include kindergarten through grade five but may or may not include grade six, depending on district standards. Students in elementary school are typically between the ages of five and eleven years

of age. In relation to age level, the researcher will now examine the basic developmental stages typically associated with elementary school aged students in order to set the framework for possible differences found in the data between school types.

In accordance with work by Jean Piaget (Berk, 2013), elementary school aged students are maneuvering through two defining developmental stages during this time of their lives. This time of growth allows them see the world in a more realistic and exploratory way. Labeled by Piaget as the preoperational stage and concrete operation stages of cognitive development (Berk, 2013). In addition, Erik Erikson labeled this time in a child's life as the "industry versus inferiority" stage in this theory of psychosocial development (Studer, 2007). This developmental stage is illustrated as a time where a student is looking for ways that they can be "good" and "productive" within their world (Engels, Hotton, Devos, Bouckenooghe & Aelterman, 2008). Kohlberg's stages of moral development describe this time during the elementary school years as a time of searching for order in the students' surroundings and a sense of comfort and conformity (Isaksson, 2006). Furthermore, when looking at the needs of an elementary school aged students, Maslow's hierarchy of needs describes this time in a student's life as one where they are focused on getting their basic physiological needs met. Students are striving to meet the need to feel safe and experience a sense of belonging, according to Maslow's theory (Medcalf, Hoffman & Boatwright, 2013).

In light of the information gained regarding typical benchmarks of child development, the current study data analysis compliments the findings of which elementary school leaders achieving the highest mean score in the transactional leadership style domain out of the three school types available in the sample *(m* = 2.22*, SD* = .547). Students of elementary school age crave clear expectations for acceptable societal behaviors (Capps, 2004). Transactional

leadership is based in simple punishment and control mechanisms commonly seen in the positive reinforcement systems implemented in most elementary schools (Gedik & Sukru-Bellibas, 2015). Reward systems such as "Bobcat Bucks" and other such prizes are exchange based tactics where a prize is given for compliance of regulations.

In addition, transactional style administrators in an elementary school setting may prefer to be in a regimented environment and may not easily adapt to change. Transactional style educational leaders may prefer the elementary school environment that does not stray from predefined and standardized operating systems. It appears in the literature and in the current research study findings that the transactional style of leadership would appear to work well with the developmental and psychological needs of elementary school aged students. Transactional leaders are typically seen to intervene when deviations from the norm are detected and children in elementary schools experience this type of rigidity in terms of following predetermined selections learning patterns (Chin, 2007). Children unable to perform educational tasks are singled out and given specialized instruction. Transactional educational leaders are concerned with benchmark measures and see the school as a machine. Elementary schools have typically been described as industrialized, uniform and routine oriented (Marshall & Hooley, 2006).

Furthermore, in the current study, elementary school educational leaders exhibited the lowest mean score for the laissez-faire leadership style domain *(m* = .808, *SD* = .614). These findings are congruent with the developmental needs of the students represented within the domain demographic. School aged students are unable to meet all of their basic and psychological needs thus the school, thus society, provides the structured environment necessary for student survival. If educational leaders in the elementary school setting engaged in the laissez-faire leadership/non-leadership style, then the students would take over the school and it

would be chaos. Elementary school leaders do not have the luxury of neglecting responsibility and avoiding decision making, both of which are indicative of the laissez-faire leadership/non-leadership style. Laissez-faire leadership/non-leadership style administration in an elementary school setting would be disastrous in terms of leaders resisting roles of authority, resisting conflict resolution and an outright absent style of interaction, or lack thereof. As established in the literature regarding child developmental needs, elementary school aged students' desire structure and accountability and the presence of the laissez-faire leadership/non-leadership style practices would create a situation where the students will play while the adults are all looking away.

In relation to personality traits, elementary school administrators reported the highest mean score in the agreeableness personality trait domain *(m* = 5.64*, SD* = 1.16) in the current study out of the three school types. When considering the development needs of school aged students, the atmosphere in an elementary school setting is saturated with the notions of community and togetherness (Edmonds, 1979). Erikson's postulated in his developmental theory that students of this age range seek a sense of belonging with peers and positive interactions (Domino & Affonso, 1990). The agreeableness personality trait domain is characterized as an individuals' level of friendliness and group cooperation. It is congruent with the needs of elementary school students whom desire a respectful and welcoming environment.

Moreover, the conscientiousness personality trait domain had the highest mean score found within the elementary school administrators *(m* = 6.05*, SD* = .971) in the current study data analysis, out of all three school types in the sample. The conscientiousness personality trait is identified as an individuals' level of responsibility and dependability. According to Kohlberg, students at the elementary school age level crave situations that are consistent and regimented to

transcend to the next level of development (Kohlberg, 2008). Erikson described this time in his "Industry versus Inferiority" stage of psychosocial development as the time illustrated by accepting responsibility and responding to challenges with enthusiasm (Studer, 2007). In order to succeed in the educational environment during the elementary school aged years, educational leaders exemplify the characteristics found within the conscientiousness personality trait domain and strive to create a safe place for children to problem solve. Elementary school educational administrators facilitate an environment where students can explore and grow while still remaining in a safe and dependable entity like elementary school.

Finally, in the present study, elementary school educational administrators had the highest mean score in the openness to experiences personality trait domain *(m* = 5.77*, SD* = 1.10) out of the three school types. During the elementary school years, children emerge through various levels of development and exploration (Maslow, 1970). Administrators at the elementary school level are there year after year to participate in these new experiences with their students. It seems corresponding that the elementary school leaders would score high on the openness to experience personality trait domain when the defining characteristic of that trait are curiosity and imagination. Abraham Maslow described, in his theory of development, the years during elementary school as a time of cautious curiosity with a desire to explore and try new things (Maslow, 1970). Elementary school educational administrators scored the highest out of the three school types on the openness to experience personality trait domain because the children they work with are constantly experiencing new things and the educational administrators can assist them on their journey.

Conversely, elementary school educational leaders were established in the current study data to have the lowest mean score in the extraversion personality trait domain *(m* = 4.80*, SD* =

1.51). The extraversion personality trait domain is characterized by seeking out excitement and needing to be the center of attention. While the elementary school setting may be many things, it would not be typically described as an "exciting" place to be by many standards. The elementary school setting is one that is dependable and reliable for children, the exuberant personality characteristics associated with the extraversion personality trait domain is incongruent with that type of environment best suited for students who need stability.

Middle school educational administrators. As we continue to discuss the findings from the current study, we will observe middle school educational administrators and the specifics uncovered in the data, particular to that particular school type. Students in middle school are typically in grade seven and grade eight yet some school districts include grade six and/or grade nine in the middle school grade levels. The average age of the middle school student ranges from eleven to fourteen years of age. In reference to age level, the researcher will now examine the basic developmental stages typically associated with middle school aged students in order to set the framework for possible differences found in the data between school types.

During the early adolescent years, students are still seeking security but also searching out their own identity (Berk, 2013). According to Erikson's psychosocial stages of development, the middle school years are the ones where child are more in search of an identity (Studer, 2007). Erikson labeled this level of development as the "identity versus role confusion" stage of psychosocial development (Bedard & Do, 2004). Students in middle school are beginning to look for a sense of personal cohesiveness in the world around them and find a place for themselves within the greater context and explore their possibilities (Domino & Affonso, 1990). Maslow described this time in his developmental theory as one of personal growth and development, where adolescents attempt to transcend to a level of esteem and self respect

(Vershueren, Macoen & Schoefs, 1996). Piaget describe this stage of cognitive development as one where adolescents begin to exhibit reasoning, planning and theoretical thinking (Swingly, 2012). Additionally, Kohlberg illustrated this time of a students' life where they enter a stage he labeled in his developmental theory as the post-conventional level of reasoning. During this stage, Kohlberg's theory states, adolescents begin to develop ethics and personal principles (Isaksson, 2006). While the middle school years may be challenging to many students, this time period in their life is no doubt one of transformation and transition. We will now look at the specific characteristics associated in this research study with the middle school educational administrators at the forefront of this metamorphic time.

In the present study, data analysis for the leadership style indicated that the middle school educational administrators had the highest mean score in the transformational leadership style domain *(m* = 3.13*, SD* = .523) out of the three school types. The transformational leadership style is characterized as the ability to motivate followers and inspire others to be their best. This trait domain description is complementary to the stage of development students are navigating during their middle school years and require influential leadership to assist them. In contrast, middle school educational administrators exhibited the lowest mean score in the current study within the transactional leadership style domain *(m* = 2.18, *SD* = .523) out of the three school types. During the middle school years, children are experiencing a time where they appreciate and respond to authenticity (Berk, 2013). The basic control and punishment dynamics assimilated with the transactional style of leadership is a mechanism that would be or could be unwelcome to middle school aged students. Additionally, a parallel elements of the transactional leadership style is the inability to be flexible and adapt to change. Middle school aged children are constantly changing and evolving as they maneuver various stages of development during these years. Educational

administrators need to be quick to adapt in the middle school environment with students at that age constantly in search of their next identity.

In regards to personality traits, the current study found that middle school educational administrators exhibited the highest mean score within the extraversion personality trait *(m* = 5.17, *SD* = 1.46) out of the three school types. One possibility could be that the middle school design allows for specialized student instruction and students to move from one classroom to another. Perhaps middle school educational administrators feel that they compete with other adults and thus, exude the characteristics typically associated with the extraversion personality trait, specifically enthusiasm and energy, to gain the attention of the adolescent (Mount, Barrick & Stewart, 1989). A defining characteristic of the extraversion personality trait is the desire to be the center of attention so it is not unreasonable to assume that educational leaders that work with middle school students want to be seen as popular with their students. It would also appear that Extraverted educational administrators working with middle school aged students enjoy taking a leadership role and students within that developmental stage need someone to lead them into their future opportunities.

Middle school educational administrators also had the highest mean score in the emotional stability personality trait domain *(m* = 5.61*, SD* = .998) out of the three school types in the current study sample. Defining characteristics of the emotional stability personality trait included an even-temperament and the ability to project a sense of calm. Educational leaders scoring high in the emotional stability personality trait domain are able to easily cope with stressful situations and provide a sense of balance to an organization. Most middle school students are experiencing a developmental stage where they are experiencing great upheaval. Maslow characterized this growth period, in his developmental theory, as the time where they are

learning major life skills and finding the ability to form genuine relationships with others around them (Medcalf et al., 2013). Middle school educational administrators can provide an environment for adolescents that can be seen as safe for exploration due to the relatively smaller size of middle school compared to elementary school and high school. Due to specialized instruction and individualized attention, middle school students are more accessible to educational administrators and behavior issues can be addressed and followed up accordingly (Anton, 1974)

High school educational administrators. In order to address the second research study, we will now look at high school educational administrators and possible differences in personality traits and leadership style in contrast to the two other school types in the current study sample. High school consists of grade nine through grade twelve but depending on the district some high schools exclude grade nine. High school students are typically between fourteen and eighteen years of age. In regards to adolescent age level, the researcher will now examine the basic developmental stages typically associated with high school aged students in order to set the framework for possible differences in the data between the three school types.

The majority of research on adolescent development describes the high school years as a time of continuing the discovery of identity and total independence (Berk, 2013). Erikson included this time period of growth, in his developmental theory, within the time identified as the "identity versus role confusion" stage of psychosocial development (Studer, 2007). Adolescents are attempting to attain a sense of "fidelity" that is characterized as the ability of the young adult to form meaningful relationships within their world that are satisfying and enriching (Buss, 1979). Maslow illustrated, in his theory of development, a transcendence during the high school

years where adolescents rise above primal needs and search for "peak experiences" that expand horizons and assist in profound personal growth (Studer, 2007).

In the current study findings, the high school educational administrators were revealed to have the highest mean score in the laissez-faire leadership/non-leadership style domain *(m* = .854, *SD* = .662) out of the three school types. Defining characteristics of the laissez-faire leadership/non-leadership style are conflict avoidance and avoiding responsibility (Bass & Avolio, 1996). The laissez-faire leadership/non-leadership style domain is congruent with procrastination of action and total lack of involvement (Rowold & Heinitz, 2007). High school students have a reputation for similar personality characteristics which may explain the study findings. Additionally, due to the large of students in the high school setting compared to elementary schools and middle schools, educational administrators may feel like they can get away with doing nothing because the school is so large it may be easy to evade responsibilities and not get caught.

Furthermore, high school educational administrators had the lowest mean score in the transformational leadership style domain out of all three school types *(m* = 3.01*, SD* = .527). Perhaps the young adults in the high school setting are past the point of wanting guidance from adults in positions of power and high school administrators do not see the need to put in the effort if it is unwanted. Another possible explanation for the findings in the current study may be the sheer size of the high school setting. Out of the three school types, high schools are by far the largest in terms of total number of students served and it may be more difficult for high school administrators to engage in the influential engagement that is a hallmark of transformational leadership with so many students to serve. Previous research suggests that the majority of the time, high school educational administrators are handling behavior issues and the simple

management of school resources (Hallinger, 2012). Due to the time constraints of discipline issues and school day maintenance, high school educational leaders may be unable to invest the time needed to make a true difference in an adolescents' life. In addition, the high school classroom configuration is similar to the middle school domain in terms of specialized instruction. The difference may be the number of students seen by a high school administrator in terms of sheer volume. The number of students in high school and the constant movement from one venue to another may make it tough for the educational administrator to differentiate one young adult from another.

When looking at the data from the study in the context of high school leaders and their personality traits, it is easy to see the similarities between the personalities of the administrators and the adolescents that they serve. Highs school administrators had the lowest mean score of four of the five personality traits out of the three school types. High school leadership had the lowest mean score in the agreeableness personality trait domain *(m* = 5.08*, SD* = 1.41) and it is noteworthy that an adolescent is not always completely concerned with getting along with those around them, especially when they are not in control of the context. Administrators that have a desire for every one to get along and have group cohesion will not be a good fit for the high school setting.

Additionally, high school educational administrators also exhibited the lowest mean score in the conscientiousness personality trait domain *(m* = 6.02, *SD* = 1.17) out of the three school type within the current study sample. The conscientiousness personality traits' defining characteristics are that of dependability and responsibility (Slavickas, Briddick & Watkins, 2002). High school adolescents often exhibit behaviors characterized as irresponsible and/or disorderly which are in contrast to the conscientiousness personality trait and perhaps high

school educational leaders relate to the factor of flexibility. Moreover, high school educational administrators that do happen to exhibit a high magnitude in the conscientiousness personality trait domain may find it frustrating to work with high school students due to the disorganization and procrastination from the wanderlust mentality so prevalent during this stage of development (Bell & Staw, 1989).

High school educational leaders displayed the lowest mean score within the emotional stability personality trait, in the current study, out of the three school types in the sample (m = 5.52, SD = 1.37). Characteristics typically associated with the emotional stability personality trait is the ability to stay calm and keep emotions under control. High school administrators encounter a turbulent group of young adults in the high school setting and may need the ability to empathize with such fluctuation of emotions to navigate such waters on a daily basis. Perhaps the emotional reactivity that is commonly associated with the high school adolescent is also mirrored in the high school educational administrators that work with such young adults. Furthermore, perhaps the unstable environment of high school speaks to the personality of a high school administrator who feels more comfortable in unpredictable surroundings and finds it to be most stimulating.

Current study findings suggested that high school educational administrators had the lowest mean score in the openness to experience personality trait domain (m = 5.42, SD = 1.00) out of the three school types. Defining characteristics of the openness to experiences personality trait domain is that of imagination and the excitement of new things. It is the researchers' vantage point that high school administrators are not open to new experiences that may arise and take them out of the predictable day to day routine of the school year. Additionally, perhaps due

to the size of the high school setting that it has become more of a mechanism of education where new experiences and deviation from the predetermined path of learning may be frowned upon.

In addition, in terms of the current study effect size between leadership style and school type variables, the transformational leadership style exhibited a medium sized effect in the current study data analysis (R = .08), the transactional leadership style displayed a small effect size with school type (R = .01) and the laissez-faire leadership/non-leadership style was observed to have a small effect size with school type in the present study (R = .02). Furthermore, in regards to the current study effect size between the personality trait and school type variables, the extraversion personality trait was distinguished as having a large effect size with school type (R = .20). The agreeableness personality trait had a small effect size in the current study with school type (R = .45). Additionally, the conscientiousness personality trait was observed to have a small effect size with school type in the present study findings (R = .01). The emotional stability personality trait also exposed a small effect size with school type in the current study (R = .03). Finally, the openness to experience personality trait displayed a medium effect size with school type in the data analysis *(*R = .07). Thus, determining that associations between school types, leadership style and the personality traits of educational administrators have been detected in the present study.

Implications for Policy and Practice

The data gathered from the present research study intends to assist with educational leadership professional development and coaching practices. From a practical point of view, educational leaders that understand how personality traits affect decision making and their elements of leadership style it may assist in better support for all educational stakeholders. If educational administrators know their own personality and leadership specifics, in addition to the

characteristics of those that they lead, then an influential environment may emerge to assist in optimal student learning. Specialized support can be provided for subordinates and the opportunity to coach followers to their finest is a greater possibility with an arsenal available to them in terms of possible personal preferences. It is also important for leaders not to generalize and put followers into simple distinguishable categories, but to instead use such information about personality preferences and leadership tendencies to help assist and guide administrators.

Noteworthy findings in the current study data also indicates that personality traits and leadership style may also assist with administrator school placement. Such information could assist a superintendent with an understanding that an individual that may not succeed at the high school level but in contrast may flourish at the elementary school level. Perhaps by integrating the notions explored in this research study, such school placements could be based on a sense of personality "best fit" where a personality trait and leadership style profile presented by human resources could assist an administrator with making a final decision when picking which school type to allow them to lead. It may simply allow for a nudge in the most comfortable direction when it comes to where the administrator may either sink or swim.

Recommendations for Future Research

There are a number of elements to this research study that could be reconfigured if replicated. The usage of self report data on the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) has been shown to lend its self to skew towards a bias of social desirability and how an individual would like to think of themselves as a leader. If the study were to be repeated, it is the researchers' recommendation that the subordinate report method be utilized to gain administrator leadership style in order to gain more accurate data. Additionally, gender differences in the data, in regards to differences in leadership style and personality type, would also be a

recommendation for further study. Furthermore, the present research study aimed to look at elementary, middle and high school educational administrators but there was extraneous information recovered from the study in terms of other administrator demographics that did not fit into the current study design. Further research on the differences in personality traits and leadership style of district superintendents and alternative schools, for example, would be beneficial to the field of literature available on educational leadership. Findings from the data analysis also recommends further study into the personality types and leadership style of administrators in relation to the student population and school site in which they serve. Further knowledge about connections between student, teacher and administrator tendencies as they relate to leadership style, personality traits and school type could be beneficial to the field if educational leadership.

In terms of specific modifications that would be made to the current research study, if replicated, would include changing the order of data gathered in the study survey so that the shorter of the two measurement tools were given first to the subject. Thus, by completing the Ten Item Personality Inventory (TIPI) which is significantly shorter compared to the Multi-Factor Leadership Questionnaire (MLQ:5X – Self) it may have improved study survey completion rates. Furthermore, an addition to the demographic survey that would be to add the amount of years in which the administrator has been in a leadership role in order to examine levels of experience.

In addition to the above mentioned study modifications recommended if replicated, the survey distribution design exhibited a discrimination against educational administrators that are not tech savvy and/or do not have an online social media presence. The only data gathering method that was utilized in the current study was notifications on social media and therefore

eliminating an entire population that was not active online. Also, the data gathering method did not allow for follow-up in order to give the administrators the results from their Multi-Factor Leadership Questionnaire (MLQ:5X – Self) and their Ten Item Personality Inventory (TIPI) scores. An incentive like receiving information about leadership style and personality traits may have increased study participation.

Summary

The purpose of this quantitative research study was to investigate the extent to which, if at all, there were relationships between the degree of three leadership styles and magnitude of five personality traits among elementary, middle and high school educational administrators, as well as to explore the extent to which, if at all, differences in these variables existed among the three groups. Data analysis suggests that there were, in fact, relationships detected between the variables within the demographic sample. It also appears that a differences between specific school types and the nuances of leadership style and personality traits of educational leaders was identified in the present study findings. Results obtained in this study indicates a need for further study into the possibility of further connections in order to improve the field of educational leadership.

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APPENDIX A

Multi-Factor Leadership Questionnaire (MLQ:5X – Self) Measurement Tool

Multifactor Leadership Questionnaire™

Instrument (Leader and Rater Form)

and Scoring Guide (Form 5X-Short)

by Bruce Avolio and Bernard Bass

Published by Mind Garden, Inc.

info@mindgarden.com
www.mindgarden.com

MLQ Multifactor Leadership Questionnaire™
Leader Form (5x-Short)

My Name: _____ Date: _____

Organization ID #: _____ Leader ID #: _____

This questionnaire is to describe your leadership style as you perceive it. Please answer all items on this answer sheet. **If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.**

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits you. The word "others" may mean your peers, clients, direct reports, supervisors, and/or all of these individuals.

Use the following rating scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

1.	I provide others with assistance in exchange for their efforts	0	1	2	3	4
2.	I re-examine critical assumptions to question whether they are appropriate	0	1	2	3	4
3.	I fail to interfere until problems become serious	0	1	2	3	4
4.	I focus attention on irregularities, mistakes, exceptions, and deviations from standards	0	1	2	3	4
5.	I avoid getting involved when important issues arise	0	1	2	3	4
6.	I talk about my most important values and beliefs	0	1	2	3	4
7.	I am absent when needed	0	1	2	3	4
8.	I seek differing perspectives when solving problems	0	1	2	3	4
9.	I talk optimistically about the future	0	1	2	3	4
10.	I instill pride in others for being associated with me	0	1	2	3	4
11.	I discuss in specific terms who is responsible for achieving performance targets	0	1	2	3	4
12.	I wait for things to go wrong before taking action	0	1	2	3	4
13.	I talk enthusiastically about what needs to be accomplished	0	1	2	3	4
14.	I specify the importance of having a strong sense of purpose	0	1	2	3	4
15.	I spend time teaching and coaching	0	1	2	3	4

Continued =>

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

16.	I make clear what one can expect to receive when performance goals are achieved	0	1	2	3	4
17.	I show that I am a firm believer in "If it ain't broke, don't fix it."	0	1	2	3	4
18.	I go beyond self-interest for the good of the group	0	1	2	3	4
19.	I treat others as individuals rather than just as a member of a group	0	1	2	3	4
20.	I demonstrate that problems must become chronic before I take action	0	1	2	3	4
21.	I act in ways that build others' respect for me	0	1	2	3	4
22.	I concentrate my full attention on dealing with mistakes, complaints, and failures	0	1	2	3	4
23.	I consider the moral and ethical consequences of decisions	0	1	2	3	4
24.	I keep track of all mistakes	0	1	2	3	4
25.	I display a sense of power and confidence	0	1	2	3	4
26.	I articulate a compelling vision of the future	0	1	2	3	4
27.	I direct my attention toward failures to meet standards	0	1	2	3	4
28.	I avoid making decisions	0	1	2	3	4
29.	I consider an individual as having different needs, abilities, and aspirations from others	0	1	2	3	4
30.	I get others to look at problems from many different angles	0	1	2	3	4
31.	I help others to develop their strengths	0	1	2	3	4
32.	I suggest new ways of looking at how to complete assignments	0	1	2	3	4
33.	I delay responding to urgent questions	0	1	2	3	4
34.	I emphasize the importance of having a collective sense of mission	0	1	2	3	4
35.	I express satisfaction when others meet expectations	0	1	2	3	4
36.	I express confidence that goals will be achieved	0	1	2	3	4
37.	I am effective in meeting others' job-related needs	0	1	2	3	4
38.	I use methods of leadership that are satisfying	0	1	2	3	4
39.	I get others to do more than they expected to do	0	1	2	3	4
40.	I am effective in representing others to higher authority	0	1	2	3	4
41.	I work with others in a satisfactory way	0	1	2	3	4
42.	I heighten others' desire to succeed	0	1	2	3	4
43.	I am effective in meeting organizational requirements	0	1	2	3	4
44.	I increase others' willingness to try harder	0	1	2	3	4
45.	I lead a group that is effective	0	1	2	3	4

MLQ Multifactor Leadership Questionnaire
Scoring Key (5x) Short

My Name: _____ Date: _____

Organization ID #: _____ Leader ID #: _____

Scoring: The MLQ scale scores are average scores for the items on the scale. The score can be derived by summing the items and dividing by the number of items that make up the scale. All of the leadership style scales have four items, Extra Effort has three items, Effectiveness has four items, and Satisfaction has two items.

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

Idealized Influence (Attributed) total/4 =

Idealized Influence (Behavior) total/4 =

Inspirational Motivation total/4 =

Intellectual Stimulation total/4 =

Individualized Consideration total/4 =

Contingent Reward total/4 =

Management-by-Exception (Active) total/4 =

Management-by-Exception (Passive) total/4 =

Laissez-faire Leadership total/4 =

Extra Effort total/3 =

Effectiveness total/4 =

Satisfaction total/2 =

1.	**Contingent Reward**	0	1	2	3	4
2.	**Intellectual Stimulation**	0	1	2	3	4
3.	**Management-by-Exception (Passive)**	0	1	2	3	4
4.	**Management-by-Exception (Active)**	0	1	2	3	4
5.	**Laissez-faire**	0	1	2	3	4
6.	**Idealized Influence (Behavior)**	0	1	2	3	4
7.	**Laissez-faire**	0	1	2	3	4
8.	**Intellectual Stimulation**	0	1	2	3	4
9.	**Inspirational Motivation**	0	1	2	3	4
10.	**Idealized Influence (Attributed)**	0	1	2	3	4
11.	**Contingent Reward**	0	1	2	3	4
12.	**Management-by-Exception (Passive)**	0	1	2	3	4
13.	**Inspirational Motivation**	0	1	2	3	4
14.	**Idealized Influence (Behavior)**	0	1	2	3	4
15.	**Individualized Consideration**	0	1	2	3	4

Continued =>

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

16.	**Contingent Reward**	0	1	2	3	4
17.	**Management-by-Exception (Passive)**	0	1	2	3	4
18.	**Idealized Influence (Attributed)**	0	1	2	3	4
19.	**Individualized Consideration**	0	1	2	3	4
20.	**Management-by-Exception (Passive)**	0	1	2	3	4
21.	**Idealized Influence (Attributed)**	0	1	2	3	4
22.	**Management-by-Exception (Active)**	0	1	2	3	4
23.	**Idealized Influence (Behavior)**	0	1	2	3	4
24.	**Management-by-Exception (Active)**	0	1	2	3	4
25.	**Idealized Influence (Attributed)**	0	1	2	3	4
26.	**Inspirational Motivation**	0	1	2	3	4
27.	**Management-by-Exception (Active)**	0	1	2	3	4
28.	**Laissez-faire**	0	1	2	3	4
29.	**Individualized Consideration**	0	1	2	3	4
30.	**Intellectual Stimulation**	0	1	2	3	4
31.	**Individualized Consideration**	0	1	2	3	4
32.	**Intellectual Stimulation**	0	1	2	3	4
33.	**Laissez-faire**	0	1	2	3	4
34.	**Idealized Influence (Behavior)**	0	1	2	3	4
35.	**Contingent Reward**	0	1	2	3	4
36.	**Inspirational Motivation**	0	1	2	3	4
37.	**Effectiveness**	0	1	2	3	4
38.	**Satisfaction**	0	1	2	3	4
39.	**Extra Effort**	0	1	2	3	4
40.	**Effectiveness**	0	1	2	3	4
41.	**Satisfaction**	0	1	2	3	4
42.	**Extra Effort**	0	1	2	3	4
43.	**Effectiveness**	0	1	2	3	4
44.	**Extra Effort**	0	1	2	3	4
45.	**Effectiveness**	0	1	2	3	4

The MLQ -- *I've finished my data collection... Now what?*

Step 1: Acquire the Manual for the MLQ
If you need to order the manual, you may go online and with a credit card order a PDF/electronic copy to be delivered same day. http://www.mindgarden.com/multifactor-leadership-questionnaire/238-mlq-manual.html

Step 2: Group the MLQ Items
Use the MLQ Scoring Key to group items by scale (See below for classification of items and scales).

Step 3: Calculation of Averages
Calculate an average by scale. (Example: the items which are included in the Idealized Influence (Attributed) are Items 10,18,21,25. Add the scores for all responses to these items and divide by the total number of responses for that item. Blank answers should not be included in the calculation). NOTE: you may find a spreadsheet tool such as MS Excel to be helpful in recording, organizing and calculating averages.

Step 4: Analysis
The MLQ is not designed to encourage the labeling of a leader as Transformational or Transactional. Rather, it is more appropriate to identify a leader or group of leaders as (for example) "more transformational than the norm" or "less transactional than the norm".

One option for analysis is to compare the average for each scale to the norm tables in Appendix B of the MLQ Manual. (EXAMPLE: by looking at Appendix B Percentiles for Individual Scores table in the back of the Manual, you will see that a score of 2.75 for Idealized Attributes (also known as Idealized Influence (Attributed)) is at the 40th percentile, meaning 40% of the normed population scored lower, and 60% scored higher than 2.75.)

See next page

APPENDIX B

Ten Item Personality Inventory (TIPI) Measurement Tool

Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

1 = Disagree strongly
2 = Disagree moderately
3 = Disagree a little
4 = Neither agree nor disagree 5 = Agree a little
6 = Agree moderately
7 = Agree strongly

I see myself as:

1. _____ Extraverted, enthusiastic.
2. _____ Critical, quarrelsome.
3. _____ Dependable, self-disciplined.
4. _____ Anxious, easily upset.
5. _____ Open to new experiences, complex.
6. _____ Reserved, quiet.
7. _____ Sympathetic, warm.
8. _____ Disorganized, careless.
9. _____ Calm, emotionally stable.
10. _____ Conventional, uncreative.

TIPI scale scoring ("R" denotes reverse-scored items):

Extraversion: 1, 6R; Agreeableness: 2R, 7; Conscientiousness; 3, 8R; Emotional Stability: 4R, 9;

Openness to Experiences: 5, 10R.

Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A Very Brief Measure of the Big Five Personality Domains. *Journal of Research in Personality,* 37(1), 504-528.

APPENDIX C

Multi-Factor Leadership Questionnaire (MLQ:5X) International Normative Sample

	Total Sample (N = 27285)			Self (N = 3375)			Higher Level (N = 4268)		
Scales	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range
Idealized Influence - Attributed	2.94	0.76	4.00	2.96	0.53	3.50	2.97	0.71	4.00
Idealized Influence – Behavior	2.77	0.72	4.00	2.99	0.59	3.75	2.74	0.70	4.00
Inspirational Motivation	2.92	0.76	4.00	3.04	0.59	3.50	2.78	0.76	4.00
Intellectual Stimulation	2.78	0.71	4.00	2.96	0.52	3.50	2.70	0.69	4.00
Individualized Consideration	2.85	0.78	4.00	3.16	0.52	3.00	2.83	0.66	4.00
Contingent Reward	2.87	0.7	4.00	2.99	0.53	3.50	2.67	0.62	4.00
Management by Exception - Active	1.67	0.86	4.00	1.56	0.79	4.00	1.66	0.86	4.00
Management by Exception - Passive	1.03	0.75	4.00	1.07	0.62	4.00	1.03	0.73	4.00
Laissez-Faire Leadership	0.65	0.67	4.00	0.61	0.52	3.50	0.63	0.63	4.00
Extra Effort	2.74	0.86	4.00	2.79	0.61	4.00	2.68	0.78	4.00
Effectiveness	3.07	0.72	4.00	3.14	0.51	3.75	3.05	0.71	4.00
Satisfaction	3.08	0.83	4.00	3.09	0.55	3.50	3.08	0.76	4.00
									(continued)

Scales	Same Level (*N* = 5185)			Lower Level (*N* = 4376)			Other Level (*N* = 1959)		
	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range
Idealized Influence - Attributed	2.93	0.75	4.00	2.93	0.82	4.00	2.88	0.81	4.00
Idealized Influence - Behavior	2.77	0.70	4.00	2.73	0.76	4.00	2.88	0.61	4.00
Inspirational Motivation	2.84	0.74	4.00	2.97	0.79	4.00	2.72	0.75	4.00
Intellectual Stimulation	2.77	0.70	4.00	2.76	0.75	4.00	2.84	0.82	4.00
Individualized Consideration	2.83	0.74	4.00	2.78	0.68	4.00	2.72	0.75	4.00
Contingent Reward	2.88	0.65	4.00	2.84	0.78	4.00	2.75	0.81	4.00
Management by Exception - Active	1.72	0.66	4.00	1.87	0.92	4.00	2.81	0.73	4.00
Management by Exception - Passive	1.04	0.74	4.00	1.02	0.79	4.00	1.73	0.69	4.00
Laissez-Faire Leadership	0.65	0.66	4.00	0.66	0.72	4.00	1.04	0.78	4.00
Extra Effort	2.68	0.87	4.00	2.78	0.94	4.00	0.72	0.71	4.00
Effectiveness	3.02	0.73	4.00	3.09	0.78	4.00	2.69	0.90	4.00
Satisfaction	3.08	0.80	4.00	3.09	0.91	4.00	3.00	0.77	4.00

APPENDIX D

Ten Item Personality Inventory (TIPI) Female Score Norms by Age Range

Age Range	Gender Female	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Openness to Experience
15-20	Mean	4.06	4.73	4.52	4.07	5.58
N = 79648	SD	1.58	1.22	1.42	1.46	1.1
21-30	Mean	4.07	4.88	4.78	4.09	5.55
N = 46530	SD	1.61	1.19	1.41	1.45	1.12
31-40	Mean	4.17	5.04	4.97	4.25	5.49
N = 15412	SD	1.64	1.19	1.41	1.45	1.18
41-50	Mean	4.20	5.28	5.18	4.49	5.46
N = 8823	SD	1.64	1.17	1.36	1.45	1.20
51-60	Mean	4.18	5.43	5.35	4.66	5.42
N = 4135	SD	1.60	1.14	1.31	1.44	1.25
61-older	Mean	4.21	5.50	5.39	4.84	5.39
N = 885	SD	1.62	1.15	1.36	1.40	1.27

Gosling, S. D., Rentfrow, P. J., & Potter, J. (2014). Norms for the Ten Item Personality Inventory. Unpublished Data.

APPENDIX E

Ten Item Personality Inventory (TIPI) Male Score Norms by Age Range

Age Range	Gender Male	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Openness to Experience
15-20	Mean	3.78	4.47	4.41	4.61	5.43
N = 54973	SD	1.55	1.22	1.39	1.47	1.17
21-30	Mean	3.73	4.5	4.57	4.64	5.49
N = 40737	SD	1.54	1.20	1.39	1.46	1.13
31-40	Mean	3.81	4.55	4.77	4.63	5.49
N = 14752	SD	1.54	1.21	1.35	1.42	1.12
41-50	Mean	3.85	4.70	4.96	4.72	5.41
N = 7668	SD	1.54	1.18	1.35	1.39	1.17
51-60	Mean	3.87	4.89	5.11	4.80	5.39
N = 3532	SD	1.54	1.18	1.31	1.38	1.20
61-older	Mean	3.85	4.95	5.26	4.92	5.37
N = 905	SD	1.49	1.17	1.30	1.34	1.26

Gosling, S. D., Rentfrow, P. J., & Potter, J. (2014). Norms for the Ten Item Personality Inventory. Unpublished Data.

APPENDIX F

Pepperdine University IRB (Internal Review Board) Approval Notice

Pepperdine University

24255 Pacific Coast Highway

Malibu, CA 90263

TEL: 310-506-4000

NOTICE OF APPROVAL OF HUMAN RESEARCH

Date: June 14, 2016

Protocol Investigator Name: Nicole Chatwin

Protocol #: 16-04-251

Project Title: The Relationship between Personality Traits and Leadership Styles Among School Administrators

School: Graduate School of Education and Psychology

Dear Nicole Chatwin:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at community.pepperdine.edu/irb.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely, Judy Ho, Ph.D.,

IRB Chairperson