

## **LEADERSHIP STYLES AND PERSONALITY VARIABLES: THEIR EFFECT ON SCHOOL PERFORMANCE**

**Brian Evan Hurst**

*Eastern New Mexico University, Portales, New Mexico, USA*

### **ABSTRACT**

*The purpose of this literature review, is to investigate the relationship between an educational leaders' personality type and leadership style and their effect on school performance. Although leadership has been dissected and compared with personality in past literature, a scant amount of study (and information) has been conducted or is available, to support the theory of combinations of leadership styles and personality types. Multiple and current studies, have compartmentalized leadership style to transformational or transactional styles with the occasional obvious "no-fit" style to the previous to conduct relational research. Leadership is not relegated to only two styles. Styles change. Personality types, on the other hand, change in rare circumstances. Few studies have examined the variables of leadership style and personality types in current research. This literature review has the potential to lessen this gap by empirically studying these possible relationships. Implications and findings of this review could possibly identify links within existing leadership-personality literature as well as be helpful in guiding the development of future leaders at the instructional level.*

**Keywords:** *leadership, personality, variable, performance*

### **INTRODUCTION**

Student success and ultimately school performance, has been researched extensively since the first public school was opened in Boston, around 1635. Leadership styles and personality traits have been dissected, inter-correlated, compared, and measured into agreeable combinations for decades. These relationships primarily involve leadership skills or traits, not the overall style of the leader, nor the dominant personality types. The art of leadership is ingrained on the premise of human nature, personality theory is the catalyst. Personality has been researched among countless conceivable notions as well. Traits of personality types are observed, evaluated, and assigned to specific leadership styles but, not specifically to personality types, rather, the dominant personality traits identified in current 21<sup>st</sup> century research.

Is Leadership style and the personality type prevalent in higher performing schools compared to lower performing schools? Good question, but can it be identified or quantified? People often question a "leaders' style and assign fault to either the leaders style, or personality type in doing so. Those questioning "style" do not consider the leaders personality that drives that leadership style which

could carry much understanding. Eleven years ago, an educational researcher, (Marsiglia, 2005) discussed the issue of trait-relationship among a leaders style, personality, diversity, and flexibility. Generally speaking, a leadership style tends to be more dynamic, whereas, personality types are considered more static with individual traits carrying the dynamic relationship with leadership styles. Can a leader be categorically identified with intrinsic personality type(s)? The nature of leadership is not a clearly defined set of skills and talents that every human being possesses. Not all people are leaders, but most can be taught to lead within the boundaries of their intellectual competence with skills training.

Identifying specific leadership styles and personality types, and their connectedness could be useful for those who lead and direct others, for a myriad of reasons.

Their responsibilities are variable and endless yet, principals are hired to influence within the boundaries of "style and traits" they have in their "leader toolbox", rather than personally understanding the nature of their leadership style and personality type that drives their motives for possible success. This influential process and practical application (Luenburg & Ornstein, 2012) takes a great deal of trial and error in order to be effective and is not immediately measurable which presents the need for continued research to garner understanding of the working combinations of these and the effects they have on educational organizations. Leadership ideology has changed dramatically since the ancient era of leadership theory in 2300 B.C. and the use of psychometric testing for personality first introduced by Hippocrates

(460-370 B.C.)("Four Temperaments," n.d.).

### **STATEMENT OF THE PROBLEM**

A scant amount of research has been done regarding the leadership style of educational leaders and the personality type of the particular leaders and the effect these combinations might have on the performance of schools. Most research available, addresses either leadership types that are paired to specific personality traits for the questioning. Yet, current research has yet, to address the multiple personality types and the relationship to the full range leadership models discussed in current research. This literature review supports further research, to look at, the more broad composition of leadership styles and personality types through relational analysis.

### **PURPOSE OF THE STUDY**

The purpose of this study is to identify further relationships between the dominant leadership styles, and specific personality types, and their effects on the performance of schools. This is an important area of study to gain further knowledge on these relationships and what the data will produce, relative to the current leadership-personality literature. This study should be attempted to find a relationship to the typical styles of leadership and the personality types (not traits) associated to those styles. Identifying links within existing leadership-personality

research, and conducting this study, could be helpful in guiding the development of future leaders at the instructional level as well as for hiring purposes.

Regardless of the theory used to explain it, leadership has been intimately linked to the effective functioning of complex organizations throughout the centuries (Marzano, Walters, and McNulty, 2005). Therefore, we need combined leadership-personality models just as much as a teacher needs structured methodologies used in the classrooms on a daily basis.

## **REVIEW OF LITERATURE**

This section explores some of the differing studies and variables that involve dominant leadership styles and personality in the 21<sup>st</sup> Century schoolhouse, as well as, the newer theories that are emerging. The goal, is to determine whether or not there is an identifiable relationship among the dominant leadership styles, personality types and school success. Not all people are leaders, but, most can be taught to lead within the boundaries of their intellectual competence with skills training. Identifying specific leadership styles, personality types, and their connectedness could be useful for those who lead and direct others as well as for hiring purposes. Links such as situational factors, motivation, and power within the leadership-personality literature could be helpful in guiding the development of future leaders' at the instructional level. Many researchers have discussed the issue that leaders are identified by other variables such as style, personality, diversity, and flexibility. Yet, can a measured leadership style and specific personality type be identified as an effective combination?

An often overlooked aspect of an individual's personality is in the leaders' observable traits. Leadership positions require influence and power as well as the development of the leadership style. A recent study, addressed the issue of how principals "relate" within their learning communities (Jackson, 2008). Jackson evaluated how principals relate to the school community environment around them to create a successful school. This study also incorporated two social dimensions of the principal; personality and emotions with significance on building strong professional learning communities.

This study employed a qualitative research approach. Twenty-seven schools were originally recruited to participate in this study. Two schools were selected from a Professional Learning Community Assessment (PLCA) that indicated strong professional learning communities had been implemented. Once the two principals were selected for the case studies, the personality profile DiSC® and the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT™) which is an ability-based test designed to measure the four branches of EI: perceiving emotions, facilitating thought, understanding emotional information, and managing emotions. The MSCEIT™ assessment was given to each principal as well as an interview with three teachers from their schools whom met study criteria.

The principal and three teachers from the selected schools were then interviewed. The interviews indicated that both principals were open to their teachers' ideas and allowed their teachers to participate in campus decision-making. The teachers at School A stated that their principal does not often use the

authoritative leadership approach, but instead practices a high degree of trust in the professionalism of his teachers. Both the teachers and principal at School A, state that while this is the best approach, it is sometimes inefficient. Teachers at School B, shared similar beliefs about their principal, but stated he sometimes shows his anger. It was indicated by the teacher interviews that Principal B, exceeds in showing appreciation and building a strong rapport with his teachers (Jackson, 2008).

Principal A, had an overall score of 113 on the MSCEIT™, which places him above the mean at the 80th percentile. His Experiential and Strategic area scores were 109 and 113, respectively, placing him at the 72nd and 81st percentile. The DiSC® indicated that he is particularly strong in the Influence and Steadiness personality dimensions while having a low score in the Dominance dimension. The interview data seemed to verify this finding. Both Principal A and his teachers continually said in the interviews that much of the decision making process is decentralized, and the responsibility is given to teams of teachers.

Principal B had an overall score of 95 on the MSCEIT™. This score places him below the mean at the 36th percentile. He had a low Experiential area score of 85 (16th percentile), but scored 109 (72nd percentile) in the Strategic area. Like Principal A, Principal B scored strong in the personality dimensions of Influence and Steadiness and scored a 75 relatively low, in the area of Dominance. Interviews with him and his teachers indicated that he allows his teachers to have control over decision-making processes and encourages teachers to pursue professional development opportunities based on their own needs-assessment. However, both the principal and teacher interviews acknowledged the display of a range of emotions which sometimes include outwardly expressing anger and other negative emotions. In this study, only one of the two principals had an above-average ability to perceive emotion and use emotion to facilitate thought, but both principals had showed strong understanding of their emotions.

Findings in this study carried no statistical significance or made any absolute conclusions to support the initial questioning. However, the relationship between personality and leading professional communities causes great interest in the validation of leadership styles and personality types. Furthermore, personality can be measured but, there is no “ideal profile” for personality and leadership styles since particular settings and goals vary accordingly among industry, business, hospitals, and education.

### **Identifying effective leadership styles**

Educational leadership is under the microscope of local and federal legislatures and the public stakeholders of our communities at large. Further studies on school leadership and management (Rautiola, 2009) for example, postulated that it is important to conduct research to identify leadership styles that impact student success. The hypothesis of this article suggests school leadership has an effect on student achievement by playing a central role in nurturing the internal conditions for developing school instruction, as well as maintaining positive school and community relationships. The purpose of this study was to develop clear boundaries in the essential role of leadership on student success. In

order to do so, previous research on transformational leadership and student success (Ross & Gray, 2006), were used to support the efficacy of transformational leadership on student success.

In this study, a total of 205 schools and 3042 teachers were procured for research. Data collection was performed using Likert-type items with a 6-point response scale ranging from strongly disagree to strongly agree. Results of this indicated that the principle effects on achievement primarily occur through direct leadership contributions to teacher perception of capacities, commitment to professional values, and collective teacher efficacy. The indirect effects of leadership impact on student achievement were limited. Results indicate that every 1.0 standard deviation increase in transformational leadership led to a.222 SD increase in student achievement. The results indicated that the achievement effects of leadership continue to be indirect, as the path from leadership to student achievement of (standardized regression weight.113,  $p=.502$ ) was not statistically significant. Likewise the path from collective teacher efficacy, standardized regression weight of.270,  $p =.122$  was also not statistically significant, suggesting that the effect of collective teacher efficacy on achievement, likely mediated by teacher commitment to professional values. The research indicates that principals who adopt a transformational leadership style have a stronger effect on teachers commitment to the school mission ( $r =.75$ ;  $p <.01$ ). Three specific types of leadership addressed were transformational, organic, and instructional leadership with direct and indirect influence of school leadership on learning (Rautiola, 2009).

Results of the study do indicate that leadership has a much greater role in the facilitation of the institution rather than a direct impact on student achievement. Additionally, calculating the direct impact of leadership through quantitative measures will likely remain very difficult due to the nature of the variables associated with schools and principal leadership (Rautiola, 2009). This study did point out leadership “best practices” that were found in higher performing schools. These are: leaders used their power and the rules of the system creatively; they were not prone to experimentation and risk taking; and did show strength, flexibility, and consistency in decision making, along with the correct application of policy and procedures. Future implications of this short study encourage a beginning researcher to delve into differing leadership styles and their suitability in our public schools.

### **The motivational factors of leadership**

All leadership requires motivation of both self and others. Although teacher motivation and principal leadership is a seldom researched area, much can be learned from this study for future application. A leader’s success is undeniably conjoined with the aspects of motivating subordinates. The way they relate to this is either intrinsically, or extrinsically.

Never-the-less, the leader’s efficacy and success is determinate on this motivation. Teachers drive success at the grassroots level and if they are not motivated by appropriate leadership, success will wane. A recent study published

in the Journal of Educational Administration discusses the nature of a principals' leadership style and teachers' motivation (Eyal & Roth, 2010).

The purpose of this study was to investigate this relationship. The study centered on the convergence of two fundamental theories of leadership and motivation: the full range model of leadership and self-determination theory. The central hypotheses were that transformational leadership would predict autonomous motivation among teachers and conversely, transactional leadership would show controlled motivation. The initial sample of participants were comprised of 122 elementary school teachers (107 females; mean age=39, SD=8.80; mean seniority=12.46 years, SD=10). This set voluntarily participated in a 60 hour in-service professional development course on instruction in mathematics which was conducted in three higher educational institutions. Participation of the study was optional and was restricted to teachers who had been working with their school principal for more than one year (mean was 4.42, SD =2.64). However, the actual number of respondents is unclear in this study.

The measures included teacher completing a questionnaire set assessing the measures: perceptions of principals' leadership, self-reported motivation, and self-reported burnout (mentioned only briefly in significant findings). Construct validity for each measure was tested by confirmatory factor analysis. Leadership styles were measured using the MLQ5X™ as mentioned in previous studies to measure teachers' perceptions of their principals' leadership style. Both transformational and transactional styles emerged from this. The transformational leadership factor was rated on a five-point Likert-type scale ranging from 1 (never) to 5 (always). Results were validated with Cronbach's alpha test which resulted in a 0.84 acceptable reliability range. Four subcomponents of transformational leadership (intellectual stimulation, individual consideration, inspiration, and individual influence) were measured in this as well. The aspects of transactional leadership were measured by the four-item "management by exception (active)" component (Cronbach's alpha measured 0.66 *which is in the questionable range for reliability*), rated on a five-point Likert-type scale ranging from 1 (never) to 5 (always). As expected, this study identifies a stronger perceived transformational leadership style.

Four types of motivation were measured and examined using a 16-item scale: external, introjected, identified, and intrinsic. The autonomous motivation score was based on the intrinsic and identified scales and the controlled motivation score was based on the external and interjected scales. Cronbach's alpha coefficients were 0.71 and 0.79 for autonomous and controlled motivations. This was in the acceptable range of reliability. Results produced from this study indicate transformational leadership mean scored a little more than half a SD higher than the neutral score of 3 (on a five-point scale), whereas the transactional mean was about one fourth of a standard deviation lower than the neutral score. With the sample size given in this study, this was not significant. Furthermore, similar differences emerged between autonomous and controlled motivation; thus, the latter was lower than the former. No significant relation was found between transformational leadership and controlled motivation. Conversely, transactional

leadership style did not relate significantly to autonomous motivation but did relate significantly to controlled motivation (Eyal & Roth, 2010).

Two important findings in this study require further discussion and research. Transformational leadership was negatively associated with teacher burnout which was partially influenced by autonomous motivation. Secondly, transformational leadership directly correlated to teacher burnout and resulted in controlled motivation of the teachers themselves. This raises the question of the meaning of leadership through the perceptions of stakeholders, primarily the teachers that follow their leaders as principals. Throughout the world, these stakeholders are concerned with the facets of educational leadership and the effectiveness of these leaders because fiscal requirements require such. The 21<sup>st</sup> century leaders will continue to evolve yet, perception of leadership styles must be contrasted against the personality spectrum for success to occur. The study of leadership and personality has evolved to an international scale.

### **The challenge of perception on educational leadership**

Past research indicates that teachers and educational leaders define leadership differently in different contexts. Burgess (1983), for example, conducted a study that focused on how a particular school worked, and how the people within it perceived the situation in which they were located.

Recent, supporting research (Wong, 2010), compared and contrasted the views of current leadership among educators and principals. Additionally, an exploration of reasoning supporting possible conflicting opinions was addressed in this study. The purpose of this study was to delineate points of view on leadership. Researchers sent random invitations to fifty schools to invite principals and teachers to take part in the study. The final sample included 26 school principals and 75 teachers. The level of work experience for principals ranged from 15-26 years whereas, the level for teachers ranged from 1-22 years. Questionnaires were distributed to principals and teachers on the importance of particular characteristics of leadership which were compared. The characteristics of effective leaders in these questionnaires were derived from previous literature and research as a guideline for the development for this study. Responses were gathered using a six-point Likert-type scale ranging from least important to most important.

The pilot study for the measure of leadership components of personality, managerial skills, and professionalism confirmed the Cronbach's overall validity as 0.734 for principals and 0.720 for teachers which indicates acceptability. Interviews were based on the questionnaire findings and were semi-structured in nature to uncover and elicit further details. This data was processed by inductive analysis where interpretations emerged on the qualitative scale. Personality was viewed as an important component of leadership. Principals had means of 5.12 and 5.34 for inner and outer qualities. Teachers had means of 5.76 and 5.68 respectively. It is obvious, in this study, principals believe inner qualities (management traits) to be more important than other qualities (personality), whereas, the teachers hold the opposite view of leadership.

Teachers and principals believe managerial skills to be equally important. This showed means of 5.8 and 5.4 respectively in regards to the leadership category. Principals on the other hand, place greater emphasis on professionalism than do teachers. There does exist a discrepancy between two groups on the personality component, with the principals' mean of 5.18 and the teachers mean at 5.75. Simply, the teachers' perception of leader characteristics are more important. Teachers most highly rated personality (outer qualities) to carry more significance with a mean of 5.85 with an SD of .11, whereas principals rated themselves most highly on managerial skills (vision and awareness) with a mean of 5.84 with a SD of .56.

Qualities rated most highly by principals in this scale, gravitated toward the managerial scales category with none concerning professionalism or personality. Conclusions of this study with the data presented, suggest that personality is central to a successful leader in the eyes of teachers. Teachers rate the characteristics of a school leader more important than do principals. Further study could be conducted using this model to investigate the role played by leadership at different educational levels (Wong, 2010)

### **Power, personality, and style**

Modern leadership theory has evolved from the focus on personal traits in the early 20<sup>th</sup> century to a 21<sup>st</sup> century integration of personality traits, leader-follower behaviors, and situational environment characteristics. A relatively scant amount of literature supports the style v. type theory questioned by this proposal. A recent study was conducted by the combined faculty of both Business Management and Education at the Universiti Teknologi, Mara (Malaka), Malaysia. This study questioned relationship behaviors associated with personality types. The variables in the study included the two dominant theories of transactional and transformational leadership associated to the commonly used "Big Five" model of personality that includes; extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (Yahaya, Taib, Shariff, Yahaya, & Hashim, 2011).

The purpose of this study was to identify the relationship between power style, personality dimension and Leadership style. The sample of this study consisted of 300 respondents from six businesses and were chosen by simple random sampling. Quantitative methods were used in this study and the data was collected using questionnaires which consisted of the Multifactor Leadership Questionnaire (MLQ5X™), Rahim Power Inventory (RLPI) and Big Five Personality Questionnaire (BFPQ). The BFPQ was used to answer the hypothesis of leadership style based on leaders' and personality. The pilot study produced reliability ranges between 0.71 and 0.874. The reliability of the questionnaire was done by using Cronbach alpha to find the internal consistency of the questionnaire. The results of this study showed that there was a positive correlation between transformational leadership style with expert and referent powers ( $r = 0.694$  and  $r = 0.544$ , respectively). It also produced negative correlations between transformational leadership style and legitimate power, coercive and reward powers ( $r = -0.428$ ,  $0.537$ , and  $-0.470$  respectively). Additional results were a positive correlation



between transactional leadership style and reward power ( $r = 0.205$ ). A result also shows that agreeableness, conscientiousness and openness to experience had a positive correlation with transformational leadership style ( $r = 0.268, 0.575$  and  $0.130$ , respectively). This study shows that expert power, conscientiousness and coercive power predicted transformational leadership in the organization ( $\beta = 0.464, 0.266$  and  $-0.145$ , respectively). Conversely, reward power predicted transactional leadership ( $\beta = 0.205$ ) (Yahaya et al., 2011).

Although there were no significant findings in this study, the results of this demonstrated a balance in transformational leadership with the positive (authority) constructs of leadership traits. This conclusion, validated the issue. Leadership styles and personality traits do carry a relationship in effectiveness, and can be identified. Future studies, based on the implications of this study, might wish to examine the relationship between the RLPI (the five bases of leader power), the MLQ5X™ (full range model of leadership styles), and the Myers Briggs Type Indicator (MBTI®), an introspective self-report questionnaire designed to indicate psychological preferences in how people perceive the world and make decisions. In this balance, future replication could achieve quite different results and possibly relate a leadership style to a small group of personality types. As mentioned previously, not all people are leaders, but, most can be taught to lead within the boundaries of their intellectual competence with skills training. An interesting and under-researched facet of personality are in the subclinical traits or dark side personality traits and the influence these have on leadership development.

Leader development and the subclinical traits of personality is a relatively new area of research. (Harms, Spain, & Hannah, 2011), conducted research to investigate the role of the subclinical personality traits and their adverse effect on leader development over time. Although the association between personality and leadership outcomes is widely acknowledged (Hogan & Kaiser, 2005), the vast majority of previous work to link leadership outcomes to personality, has revolved around the popular, Five Factor Model (FFM) and the Big Five Personality Traits (Goldberg, 1993; McCrae & Costa, 1995) which focus on the typical phenotypic traits of personality. Recent leadership-personality literature affirms the need to understand the values and motives of leaders (Hogan & Kaiser, 2005) and the affects these have on leader development. This particular study, set out to assess whether personality, and in particular subclinical personality traits, are important factors in determining the responsiveness of individuals to a leader development program (Harms, Spain, & Hannah, 2011). Subclinical constructs used for this study were relative to the Diagnostic Statistical Manual of Mental Disorders (DSM-IV) correlation to the non-phenotypical traits.

The sample consisted of 919 students attending a leader development program (West Point) over the course of three years. The mean age of participants was 20.68 years ( $SD=1.06$  years). Eighty-one percent were male. Ethnicity groups were: 74% Caucasian, 8% Hispanic/Latino, 8% African-American, 6% Asian, and 3% other. One measure used was the Hogan development survey (HDS). The HDS identifies personality-based performance risks and derailers of interpersonal behavior. These behaviors are most often seen during times of stress and may

impede work relationships, hinder productivity, or limit overall career potential. These derailers are deeply ingrained in personality and affect an individual's leadership style and actions. Periodic development reviews (PDRs) were utilized throughout the course of the study in the second, third, and fourth years. The PDR consists of 46 leader trait statements in Likert format rated on a 7 point scale ranging from 1 (never) to 7 (always) representing the frequency with which the rated leader exhibits that behavior. Each student was rated by 1 to 6 (mean= 2.64) raters over the course of the study. The reliability factor of this measure was .60 indicating appropriateness. Descriptive statistics were used for development ratings for the three year period where the Hogan dimensions and PDR ratings were correlated to show possible trends in the derailers or dark side traits.

Although no significant findings were discovered about the "dark side traits" and development, the study did show that leaders respond positively to regularly multi-source feedback reports. In doing this, the student-leaders showed increases in their individual PDR scales and professional growth. The impact of the subclinical dimensions addressed do suggest the traits were a moderator in the rate of development. Subsequently, the findings of this study found only slight variance between Big Five personality traits and leader effectiveness (primarily among male subjects). Because this study had such mixed findings, it should serve as a catalyst for future research when addressing leader development and the "not so normal" personality traits. Additionally, both common traits and dark side traits can be either effective, or ineffective depending on the circumstance and the individual's value of that trait. This study serves as a reminder of the importance of personality in the workplace and the necessity of organizations to maintain a program of systematic testing of their "leaders" in order to better understand their current needs (Harms et al., 2011).

### **The influence of personality on leader performance**

Every organization deserves to have a leader with stable personality characteristics as these traits will affect the performance and successes within that organization. Principals and leaders in general all possess different interests, abilities, attitudes, and characteristics. It is clear that the latter of these will affect their performance at some point. The relationship of traits and performance has been widely researched. A recent study conducted at the University of Isfahan, Iran (Ali, Azizollah, Zaman, Zahra, & Mohtaram, 2011) addressed this issue. The purpose of this study was to analyze the relationship between principals' personality traits of introversion, extroversion, neuroticism and emotional stability between the performance dimensions of leadership, human relationships, educational outcomes, and administrative performance. The initial sample size was 57 principals and 323 teachers in elementary, middle, and high school. The respondent pool was narrowed down to 50 principals and 176 teachers using a stratified sampling method. The Eysenck Personality Questionnaire (EPQ, 1981) was used to assess the principals' (dimensions of temperament) personality which consisted of 57 "Yes-No" items. The Weis K performance evaluation questionnaire (WFIRS-S functional impairment rating scale

(Self-report) was used to assess the principals' performance which consists of 71 scaled response questions. Cronbach's alpha was used to score the internal validity of both questionnaires in the range 0.81 (good) and 0.98 (excellent) for use in this study. The data were analyzed using the Pearson correlation coefficient, multiple regression, one way-analysis of variance (ANOVA), and the Tukey (honest significance) test. Predictive data analysis was completed using the Statistical Package Software for the Social Sciences (SPSS®) software.

Results of the study showed a positive relationship between introversion and extroversions scores within the performance dimensions described earlier with the calculated probability ( $p < 0.01$ ) for introverts and ( $p < 0.05$ ) for extroverts. Although not statistically significant, it is meaningful and shows that the extroverted principals' performance is better than that of the introverted principal. The correlation of neuroticism and emotional stability on leader performance, demonstrated the same P Values; neuroticism ( $p < 0.01$ ) and emotional stability ( $p < 0.05$ ). These results are conversely related as well by showing that the principal with high emotional stability exhibits better performance than do neurotic principals. According to the results, this study showed that there is a meaningful relationship between introverted and extroverted principals' and their interaction among the identified performance dimensions. Future considerations for research of this study would lend the researcher to utilize more recently developed measurement instruments to find a possible connection in the results.

### **What is the measure of effective leadership?**

Effective leadership requires the leader to possess certain inalienable beliefs that drive success such as vision, communication, and superior judgement (Ryan, 2009). Often, age and experience levels are equated to effectiveness in research (Glasscock, 1991). A recent study (Ibjkun, Oyewole, & Abe, 2011) investigated the influence of personality characteristics on principal leadership effectiveness. The study focused on the hypotheses of age v. effectiveness, sex v. effectiveness, and experience v. effectiveness, related to the leadership of school principals in a traditional setting in Nigeria.

Methods for this research included a descriptive survey research design. The population studied, consisted of all of the principals and teachers of public secondary schools in Ekiti State, Nigeria. To ensure accuracy and correct sampling, the study obtained comprehensive demographic data from the Teaching Service Commission. This study used a simple random sampling technique to select 50 schools and 100 principals. The final sample size consisted of 100 principals and 500 teachers. Two separate instruments were utilized for this study. The Principals Demographic Inventory (PDI) included 18 simple questions to measure sex, age, experience, qualifications, school size, and location. The second instrument was the Principals Leadership Effectiveness Inventory (PLEI) which was used for the teachers and measured the level of leadership effectiveness of principals as perceived by the teachers participating in the survey. The PLEI consisted of 30 Likert type 4-point summated rating scale questions from (4) highly effective, (3) effective, (2) ineffective, and (1) highly ineffective. The validity and reliability of the instruments were analyzed using the SPSS® to determine the

Cronbach alpha values. These values represented 0.824 and 0.812, respectively. Instruments were considered to be valid, and reliable.

Results of the questionnaires for this study and all hypotheses were tested at the 0.05 significance level using SPSS®. The question of age v. effectiveness (There is no significant relationship between principals' age and their leadership effectiveness) was rejected as there was a significant difference in the frequency of responses and the P Value ( $f= 2.922, p<0.05$ ). This demonstrated that the leaders' age significantly influenced effectiveness. The second question of sex v. effectiveness (There is no significant difference in the leadership effectiveness of male and female principals) was supported. The t-variable showed normal distribution with the P Value ( $t=0.10: p>0.05$ ) supporting the null. Lastly, the study evaluated experience v. effectiveness (There is no significant difference between principals' years of experience and leadership effectiveness). Results showed the reverse to be true whereas the distribution variable (between the groups) was significant with the P Value showing this data to be likely true with the null ( $F= 2.930: p<0.05$ ). Thus, this hypothesis was not supported. This proved a pair-wise significant difference between principals with 1-5 years of experience and principals with 20 years or more experience validated by using a Scheffe Post Hoc test (a very conservative test) of Multiple Range Analysis to identify possible patterns that were not specified earlier in the study.

Findings in this short study show that there was a significant difference in age and the principals' leadership effectiveness as well as years of experience and effectiveness. Lastly, there was no significance found in the effectiveness of male and female principals as perceived by the teachers (using the PLEI). The mean average performance of the male and female principals were 116.33 and 114.72, respectively.

One conclusion that can be drawn from this study is that personality characteristics of principals such as age and years of experience significantly influence leadership effectiveness. Future considerations for research could be to study the effects of variables other than the ones used in this study such as organizational climate or policy and situational factors such as school size, location, and methods of communication.

### **Principal effectiveness: situational factors on leader outcomes**

Situational factors play an important role in the effectiveness of any organization. A follow-up study conducted by Oyewole (2013) at the Ekiti State University in Nigeria addressed these issues. This study was an investigation into the situational factors and administrative effectiveness of principals in two different educational districts. The situational factors addressed were school size, location, and mode of communication and how these interact together to bring about differences between principals in the study areas (Oyewole, 2013).

Three specific hypothetical questions guided this study: Ho1: There is no significant difference in the administrative effectiveness of principals in larger and small schools. Ho2: There is no significant difference in the administrative effectiveness of principals in urban and rural schools. Ho3: There is no significant

difference in the administrative effectiveness of principals who use formal (written) and informal (verbal) communication patterns (methods).

The descriptive survey research design was used to carry out this study. Twenty five secondary schools were selected through a proportionate sampling technique. The sample size was comprised of twenty five principal leaders and two hundred and fifty teachers who were randomly selected on the basis of ten teachers per school. Two sets of questionnaires were utilized in this study, the Principals Demographic Inventory (PDI) for principals and Principals Effectiveness Inventory (PEI) for the teachers. Both questionnaires were personally administered to the respondents. Reliability of these instruments was not given, yet, these were used in a previous study co-conducted by Oyewole. Data were analyzed and all hypothesis presented were tested at the 0.05 significance using the Statistical Package for the Social Sciences (SPSS®). Prior to testing his hypotheses, Oyewole sought to measure the effectiveness level of the principals. To answer this, the PEI, a thirty question Likert-type scale questionnaire, rated on a point scale of 150 being the highest score and 30 being the lowest score was used. The minimum point of effectiveness (the cut score) was established at 105 points. The upper range of effectiveness was set at 105-150 and the lower range was set at 30-104. Twenty-one of the principals scored within the upper range which represented 84% of the total sample of principals. These scores are presumptive of the school principals to be effective in their administrative capacities as perceived by their teachers.

Results of the hypothesis dealing with situational factors of effectiveness of principals in large and small schools (Ho1) produced mean scores of principals in large schools (117.27) and small schools (113.31) with standard deviations being 121.06 for large schools and 119.94 for small schools. The t value (0.31) was much lower than the table value (2.0) and therefore, the null hypothesis was retained indicating that there was no significant difference in the situational factors of large v. small and effectiveness. It is interesting that these results did not show principals in smaller schools performing better. The finding may be due to the principals in larger schools having administrative assistants (vice principals) and the fact that most large schools appoint principals with much more experience than do smaller ones. The situational factors of effectiveness of principals in urban and rural schools (Ho2) produced mean scores of principals in large schools (117.06) and small schools (112.16) respectively. The standard deviations between large and small schools were 120.69 and 121.81. The calculated t was 0.35 tested at the 0.05 level of significance which also showed the table value to be at 2.0. Again, the null hypothesis was retained indicating there was no significant difference in the situational factors of large and small schools.

There were no significant differences in the study of this hypothesis. This may be due to the fact that all principals appointed to lead schools, are required to maintain the same level of qualifications. Lastly, the situational factors of formal (written) and informal (verbal) communication methods (Ho3) showed similar results as well. The principals were categorized into two variables: written and verbal. The mean score for principals whom communicated mainly in written form measured at 117.1 whereas those whom mainly used verbal forms of

communication measured at 114.6 respectively. The standard deviations were 123 for written and 119.41 for verbal. The calculated  $t$  was 0.25 while the table  $t$  was 2.0. As well, the null hypothesis was retained indicating no significant difference in the effectiveness of principals using either written or verbal methods as primary communication.

Interestingly, these findings were not expected. It could be assumed that a principal that used a verbal style of communication would have the highest mean, but results show the opposite. One possible reason for this could be the fact that principals in larger schools are driven by bureaucracy and the need for “paper trails” to exist. Most communication in larger schools is through delegation and written documents. All three data sets used a  $t$ -test to identify differences in this study as mentioned earlier: large v. small; urban v. rural; and written v. verbal. The  $N=25$  and all were tested at 0.05 level of significance. Each data set produced standard deviations which were greater than the mean and all null hypotheses were retained.

Over the years, much research has been conducted on leadership and personality to see if correlations exist. Kenny & Zaccaro (1983) noted that previous studies have failed to identify traits that are correlated to leadership because few of the same traits were being investigated across the studies.

### **Predicting leadership styles**

In a recent study conducted at Our Lady of the Lake University in San Antonio, USA (Garcia, Duncan, Carmody-Bubb, & Ree, 2014) researchers examined the possible relationship between followers’ perceptions of the principals’ Big Five Personality types and followers’ perceptions of the principals’ Full Range Leadership Model (FRLM) (Bass & Avolio, 2004). Two-hundred forty-two participants from eight elementary schools were retained for this sample of convenience study. The mean age was 42.39 years with a standard deviation of 10.6. Their educational levels consisted of 3.3% high school to 35.5% having a post baccalaureate degree.

The main focus of the study was to determine any relationships between specific personality traits and specific leadership styles for elementary principals as perceived by teachers when controlling for the teachers’ age, education, ethnicity, gender, professional development, and tenure. Two separate instruments were distributed to the teachers to evaluate their principals. The International Personality Item Pool (IPIP) for personality (constructs). The IPIP used 50 questions to measure the Big Five Personality Traits (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism). These were rated on a scale of 1 (very inaccurate) to 5 (very accurate). The reliability ranges were .82 to .93. The Multifactor Leadership Questionnaire Rater Form (MLQ5X-short™) was used for FRLM which includes: Transformational, Transactional, and Passive Aggressive leadership styles. It uses a Likert-type scale and measures from 0 (Not At All) to 4 (Frequently, If Not Always). The reliability ranges from .74 to .94.

The dependent variables were the components of the (FRLM). The independent variables were the Big Five Personality Traits (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism). As mentioned

earlier, the controlled variables were age, education, ethnicity, gender, professional development, and tenure. Multiple regression analyses were conducted on each of the hypotheses in this study with a significance level being set at  $p < 0.5$  and t-tests were conducted to interpret differences between the means. Results showed the most frequent predictor for the entire range of the FRLM was Neuroticism (which was not surprising) followed by Openness as the second most frequent of both Transformational and Transactional Leadership. Most interesting is the fact that Extraversion is (in other literature and studies) usually a predictor of Transformational Leadership. This may suggest that followers' perceptions of principals do differ from self-assessment (Garcia et al., 2014).

According to this study and the data presented, it can be assumed that principals are perceived to be more Transformational when they are Open, Agreeable, and Emotionally Stable when rated by followers. Additionally, results indicate that when rated by followers, principals are considered more Transactional when they are open, score higher on Contingent Reward, and are Emotionally Stable. Future considerations for this study would be to replicate this study using a different measurement tool for personality such as the Advanced Multi-Dimensional Personality Matrix Abridged – Big 5 Personality test (AMPM – Ab) and the MLQ5X™ for identification of the leadership style.

### **SUMMARY**

This literature review shows empirically, leadership styles can be linked to personality types and the factors of personality do influence leadership effectiveness. The significance of this is, to investigate relationships between the style of leadership and the personality type associated with that style. This review has shown that continued investigation on school leadership and management (Rautiola, 2009) is imperative to solidify the importance of quality leadership styles that impact student success. Leadership styles and personality (types) do carry a relationship in effectiveness and can be identified and correlated to show patterns of effectiveness within the positive constructs of leadership traits (Yahaya et al., 2011). There is a direct link to leadership effectiveness influenced by perception, motivation and specific situational factors (Wong, 2010; Eyal & Roth, 2010; Oyewole, 2013) and the impact these possibly have on our educational organizations. Yet, empirical studies do not address all of the issues. To address the issues, more intensive and focused empirical research needs to be conducted to determine whether leadership style is correlated not only to personality traits but rather, the identification of specific leadership styles combined with personality types, to find combinations of such that can be identified as effective/ineffective. The original questioning of this review supports the findings of this review, that there is a relationship between leadership styles and personality types in higher performing schools, not traits of leadership and personality. Research should be conducted on the basics of leadership type v. style.

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