HUMAN MOTIVATION AND LEADERSHIP: ASSESSING THE VALIDITY AND RELIABILITY OF THE ACTUALIZED LEADER PROFILE

William L. Sparks, Queens University of Charlotte John F. Repede, Queens University of Charlotte

ABSTRACT

The purpose of the current investigation is to assess the validity and reliability of the Actualized Leader Profile (ALP) assessment scale. The ALP is a 57-item self-report assessment that measures an individual's dominant motive need, corresponding leadership style and leadership "shadow." The statistical analyses support a four-factor model of human motivation and leader behavior, and nine (9) characteristics of self-actualizing individuals (i.e., Actualized Leaders). The four-factor model in the PCFA analysis includes Achievement, Affiliation, Power, and Self-Actualization.

The ALP is based primarily on the seminal works in human motivation of David McClelland (1987) and Abraham Maslow (1954). McClelland's research into human motivation focused on the internal motive needs or "drivers" that direct and sustain human behavior: Achievement, Affiliation, and Power. In addition to McClelland's research, the ALP framework includes Abraham Maslow's concept of "self-actualization" as the fourth motive need and a modifier of the first three motive needs. In this current research effort, "self-actualization" was determined to be a fourth, unique motive need along with the three identified by McClelland, but the ALP conceptualizes this scale as a modifier of the first three needs (measuring intensity of the other needs, and thus the participant's level of reactivity).

Validity for the ALP was established using a Principal Components Factor Analysis (PCFA) to ascertain both the number of factors (four) and the factor loadings for each survey item on the four scales. A four-factor model with eigenvalues greater than 1.0 was generated, and survey items were reduced from 40 to 20 based on the factor loading scores. Eigenvalues ranged from 14.13 – 1.91, and accounted for 44% of the observed variance. The reliability for the ALP was estimated by assessing the internal consistency of the survey items for each of the four scales (i.e., Achievement, Affiliation, Power, and Self-Actualization) by calculating Cronbach's Alpha for each scale item. The standardized item Cronbach's alpha for the four scales ranged from .781 to .857. The research effort is summarized, and conclusions are drawn with specific implications for leadership development.

INTRODUCTION

The Actualized Leader Profile (ALP) is a 57-item self-report leadership assessment that measures leader style based on the intensity of the participant's dominant motive need. The ALP is based primarily on seminal works in human motivation (McClelland, 1987; Maslow, 1954). The theoretical framework for the ALP has been enhanced with the work of Viktor Frankl and Carl Jung.

McClelland's research into human motivation focused on the internal motive needs or "drivers" that direct and sustain human behavior. He identified three motive needs that propel

individual behavior: Achievement, Affiliation, and Power. Although every individual is a unique combination of all three, usually one motive need is dominant, particularly under stress (McClelland, 1987). In addition to McClelland's research, the ALP framework includes Abraham Maslow's concept of "self-actualization" as the fourth need, and a modifier of the first three motive needs. Maslow loosely defined "self-actualization" in his famous hierarchy of needs as the highest need that can emerge to drive human behavior, and this need represents our drive to reach our highest potential and ultimate purpose (Maslow, 1954). In this current research effort, "self-actualization" was determined to be a fourth, unique motive need along with the three motive needs identified by McClelland, but the ALP uses it as a modifier as opposed to a fourth style, meaning that it measures the intensity of the other needs, and the participant's level of reactivity. This conceptual approach and the resulting scoring model in the ALP helps the assessment to determine both the intensity of this need in driving behavior for the participant, and to predict how reactive the individual is likely to be under stress both in terms of intensity of behavior (i.e., Light, Medium, or Dark) and in frequency of their Leadership Shadow activation (i.e., Less Often, Moderately, or More Often). Table 1 provides an overview of the three motive needs and their relationship to leader behaviors.

| Table 1 MOTIVE NEEDS Relationship to Leader Behaviors | | | | | | |
|---|------------------|-------------------|--|--|--|--|
| Motive Need | Leadership Style | Leadership Shadow | | | | |
| Achievement | Achiever | Fear of Failure | | | | |
| Affiliation | Affirmer | Fear of Rejection | | | | |
| Power | Asserter | Fear of Betrayal | | | | |

The higher a participant's score in self-actualization, the more resilient and less reactive he or she is likely to be under stress. Conceptualizing self-actualization as a modifier, as opposed to a fourth style, is supported in the literature (Spreier, Fontaine, & Malloy, 2006) that discussed the differences between McClelland's concept of "personal power" and a more self-actualized, others-based approach to power, "social power." As such, the explicit goal of the ALP is for each participant to focus his or her developmental efforts on becoming more self-actualized in his or her style, Achievement, Affiliation, or Power.

The impulsive, reactive side of leader behavior is referred to as the "Leadership Shadow," and this concept is based on the seminal work of Carl Jung. Jung (1969) who in the mid-1920s first coined the term "shadow" to refer to the darker, instinctual side of individual personality that is often activated under stress. According to Jung, the Shadow exists at multiple levels: personal and collective. The ALP focuses on the personal level, and refines it even further as the extreme or "darker" side of the first three motive needs. This delineation is crucial because a unique, reactive, or "shadow" side is associated with each motive need. Under stress, when an individual is lower in self-actualization, he or she is more likely to engage in negative, "shadow" behaviors.

The 57-item self-report ALP assessment scale is divided into three sections. Section one contains 20 survey items, five (5) items for each of the four (4) scales (i.e., Achievement,

Affiliation, Power, and Self-Actualization). The results of the factor loading analyses using PCFA for item retention are discussed. Section two consists of 10 word-pair choices where the participant is asked to choose one word from each pair that is most descriptive of their style at work. Finally, three (3) survey items for each of the nine (9) attributes scales (n=27) were developed and will be assessed for validity in the subsequent statistical analysis of the ALP when a sufficient data set is developed. The results of the assessment's evaluation, and the implications for leadership development, are discussed.

THEORETICAL FRAMEWORK

The ALP is based on an effort to synthesize and integrate various and competing models of human behavior as they relate to leadership and leader behavior, and these theories and models will be presented in this section. The psychologists, researchers, and human development philosophers providing the foundation for the ALP are Viktor Frankl, David McClelland, Carl Jung, and Abraham Maslow. The ALP framework represents an attempt to distill, synthesize, and integrate these various and, at times, competing models and theories into one integrated framework. Although an obvious cornerstone for this model is the seminal work of Abraham Maslow who coined the term "self-actualization" as it relates to human potential and peak performance, the framework actually starts with the work of Viktor Frankl. Frankl is the author of "Man's Search for Meaning" and has influenced an untold number of researchers, psychologists, and philosophers. His philosophical foundation provides the basis for the ALP and the *Actualized Performance Cycle* presented at the paper's conclusion.

Viktor Frankl: Personal Freedom and Paradoxical Intent

In his best-selling book "Man's Search for Meaning," Austrian psychoanalyst Viktor Frankl (1946) discussed the horrors of his experience as a prisoner in concentration camps during World War II. It was in these hellish conditions that he came to realize that everything can be taken from us but one thing: our freedom to choose our response to any situation. This insight provides the first pillar and a basic assumption of our model: You are free to choose your response and your attitude to anyone and any situation.

With this insight, and his resulting therapeutic approach, "logotherapy" (the process of finding meaning in our suffering), he challenges us with a profound truth: no one can make you feel, think, or do anything; you have the freedom to choose your response and your attitude to any person and situation. When we react in anger or fear we give that freedom away. This insight led Stephen Covey in "The 7 Habits" to coin the term "reponse-ability": the freedom and ability to choose our response to any situation. Viktor Frankl's theory confronts us with a powerful truth: when we react to others in fear or anger, we relinquish this one guaranteed freedom. More times than not, the resulting interaction has negative consequences for the individual and adverse or outright dysfunctional implications for his or her group (I am using the term "group" to refer to a group of three or more members, which could be a team, department, division, or entire organization). Frankl reminds us of our power and freedom to choose our response to others, as well as the comfort of knowing that when we find meaning in our suffering, it ceases to be suffering in his philosophical theory of logotherapy.

But, can we avoid some suffering, or are we destined to lead in ways that damage ourselves and others? Perhaps Frankl's most powerful contribution is his concept of "paradoxical intent," which is as follows: the more we fear something, the more likely we are to experience it.

Let that insight sink in for just a moment. That observation reminds us of some of the tragic ironies of the human condition. The more we fear being alone, or being rejected, or failing in an endeavor, the more likely we will experience what we so fear. In his classic "The Abilene Paradox," the late Jerry B. Harvey (1974) refers to this concept as a "Paradox within a Paradox." Both Frankl and Harvey warn us that the sad, tragic irony of the human condition is that the more we fear something, the more likely we are to think (obsess), feel (fear) and do (counterproductive behaviors) things that almost guarantee that we will experience that which we so fear. From a leadership perspective, consider a high *Achiever* who is low in Self-Actualization. At his or her best, the Achiever is well-organized, detailed-oriented, and efficient. However, under stress, for example due to a lack of clear direction or increased ambiguity, he or she will begin to engaged in "shadow" Achiever behaviors, such as becoming rigid, narrow-minded, and the classic "micromanager." Over time, this cycle will limit the individual's upward mobility in a managerial role, fulfilling paradoxical intent.

So, with Viktor Frankl's work we have established the foundation for the ALP and the Actualized Performance Cycle. First, you always have the freedom to choose your response to a situation or person. Second, the more you fear something, the more likely you are to experience it. While these assertions may seem at first glance to be self-evident or even depressing, they are actually liberating when considered in the context of Maslow's concept of "self-actualization," which we will review shortly. Before doing so, let's turn our attention to human motivation and the motive needs or "drivers" that propel our behavior. In this endeavor, we will review the seminal work of David McClelland.

David McClelland: Human Motivation and the Three Motive Needs

Many behavioral science theories attempting to explain human motivation — what drives us to do what we do — have been proposed over the last 100 years. Some researchers have focused on the internal needs of individuals that drive our behavior, while other researchers have examined the context and process by which we exert effort, and the expectations we have on successfully being rewarded. Although the works of Maslow (1954) and Herzberg, Mausner, and Snyderman (1959) remain extremely popular, perhaps no other researcher has been more influential than David McClelland and his three-need or "Acquired Need" theory of human motivation.

The word motivation comes from the Latin word movere which means "to move" or "to stir." A need may be best thought of as an "internal state that makes a certain outcome appear attractive" (Robbins & Coulter, 2011). So, when we think of motive needs, also referred to as "drivers," we are simply examining the internal states that drive or stir our behavior in an attempt to satisfy this need (e.g., our desire for safety, the need for relationships and connection to others, our desire for control, etc.). There are a number of very influential theorists through the years who have informed our thinking in this area, including Yale psychologist Clayton Alderfer's ERG Theory (1972), and Frederick Herzberg's "Two-factor theory" (1959). It could be argued that no one has been more influential in describing what motivates or drives us to do the things that we do than the late Harvard psychologist David McClelland. McClelland (1987) identified three motive needs or drivers that propel our behavior: Achievement, Affiliation, and Power.

Achievers

Achievers, those with a high need for achievement, are driven for success, improvement, and accomplishment. They are primarily concerned with expertise and competence, and are detail-oriented, focused, and very well-organized. These individuals are efficient, rules and process-oriented, and prefer consistency and predictability. Under stress, however, their Leadership Shadow is triggered and *Achievers* become narrow-minded and rigid, transforming into the classic "micromanager" which has been discussed briefly and will be examined in greater detail during the review of Carl Jung.

Affirmers

Affirmers, those with a high need for affiliation, are warm and friendly, and are more focused on interpersonal relationships and harmony than results and outcomes. They are primarily concerned with their connection to, and acceptance from, others. These individuals are loyal, trusting, and empathetic. Under stress, when their Leadership Shadow is triggered, these individuals become overly accommodating, avoiding confrontation and allowing others to take advantage of them.

Asserters

Asserters, those with a high need for power, are candid, decisive, and courageous risk-takers. They are often viewed as "natural" leaders who challenge the status quo and drive results. Asserters are primarily concerned with control and can be skeptical and slow to trust others. Under stress, when their Leadership Shadow is triggered, they become controlling, autocratic, and condescending, often manipulating or intimidating others to get their way.

The PCFA demonstrated a four-factor model, with Self-Actualization being the fourth need with an eigenvalue greater than 1.00. A review of Abraham Maslow's work and theory of Self-Actualization and "Hierarchy of Needs" will be discussed as a modifier of the first three needs. Before reviewing Maslow's work, let's examine Jung's influential work in the human psyche, and the implications for understanding leader behaviors under stress.

Carl Jung: Leadership Shadows

Perhaps no one in the last 100 years has been more influential to Western culture than Carl Jung. From his theories of personality type ("introversion" and "extroversion") that led to the MBTI, to his concepts of the "collective unconscious," "archetypes," and "synchronicity," one could make a compelling argument that Jung's influence over the last 100 years is without a contemporary equal. An untold number of therapists and researchers have built their entire practices, and careers, on his concepts and frameworks. And it is Jung's concept of the "shadow" that is critical for understanding how normally positive traits (e.g., organized and efficient) can become negative (e.g., rigid and inflexible) under stress.

The "shadow" is Jung's concept of the dark, unconscious aspect that resides within each of us. Jung believed that in addition to an individual's shadow, there is also a collective unconscious that is essentially the repository or unconscious DNA of human history, varying by culture. Although he was convinced that the collective shadow had an enormous impact on human behavior in the present, our focus will be to further refine his notion of the "personal"

shadow" by looking specifically at leader behaviors under stress, and how normally positive characteristics and traits can and do become dysfunctional or outright destructive.

The Shadow has been defined as the dark, rejected, instinctual side of ourselves that we deny or repress. Impulses such as rage, lust, greed, and jealousy reside in the shadow, but so too do creativity, passion, and profound insight. The more aware, open, and honest you are about your Shadow, the more integrated it becomes into your entire being. And the more integrated you are, the more your Shadow becomes a reservoir for creativity and passion.

According to Jung (1969), the Shadow exists at multiple levels. At the largest level, the Collective Shadow contains all human memory at an unconscious level. In a sense, it represents the DNA of our collective unconscious. Although it varies by culture and heritage, there are universal "archetypes" in the Collective Shadow, such as the heroic journey of the individual warrior. This has been perhaps most famously illustrated in our current culture by Luke Skywalker in "Star Wars." In fact, some have speculated that the mass appeal of "Star Wars" can be best understood in terms of the Collective Shadow because it connects with so many on a primal level. Jung also examined the Collective Shadow during World War II. According to Jung, who was commissioned by the Allies to provide a psychoanalytical explanation for the rise of Nazism, Hitler had tapped into the Wotan warrior archetype found in the Collective Shadow of the Germanic and Nordic people. You may or may not agree with Jung's explanation, but behavioral and political scientists to this day still struggle to fully explain from a purely rational perspective the fervor and allegiance that the Nazi party was able to elicit.

Whether or not you agree with Jung's concept of the Collective Shadow, his concept of the Personal Shadow is most closely aligned with Freud's notion of the "id" and represents the illicit desires, basic instincts, and selfish impulses repressed in our unconscious. We spend an inordinate amount of energy trying to deny, repress, or manage this aspect of being. We often explode in angry denial when someone points out a Shadow trait in our self that, while blatantly obvious to others, has been repressed. Jung reminded us that we do not become enlightened by pretending to be perfect; rather, we become enlightened when we're willing to confront and embrace this darker side of ourselves. This insight has key implications for the process of leadership development that will be discussed in our conclusion.

Finally, and most importantly for our purposes, is the concept of Leadership Shadows. We define them as the extreme and negative manifestation of our positive drivers, which are based on irrational thoughts, unfounded fears, and limiting core beliefs. Based on the three motive needs or drivers identified by McClelland, there are three Leadership Shadows: Fear of Failure, Fear of Rejection, and Fear of Betrayal. Table 2 summarizes these shadows in the context of the ALP framework.

| Table 2 LEADERSHIP SHADOWS ALP Framework | | | | | | |
|--|-------------------|---|--|--|--|--|
| LEADERSHIP STYLE | LEADERSHIP SHADOW | SHADOW BEHAVIORS | | | | |
| Achiever | Fear of Failure | Micromanaging; obsessive; rigid; pessimistic; stubborn | | | | |
| Affirmer | Fear of Rejection | Conflict avoidant; devalues own opinions; accommodating | | | | |
| Asserter | Fear of Betrayal | Arrogant; controlling; skeptical; autocratic | | | | |

However, when the Fear of Failure Leadership Shadow is activated, the strengths identified above become inherent limitations. Under stress, an Achiever will transform in unproductive ways: organized becomes rigid, detail-oriented devolves to being obsessive, and expertise leads to micromanagement. Much like Dr. Jekyll's transformation into Mr. Hyde, experiencing stress in the form of ambiguity or "losing" triggers the Fear of Failure Leadership Shadow, and the ugly transformation. The existential and ironic tragedy is that when this happens Achievers are actually more likely to fail.

The key contextual element related to all of the three styles and their corresponding Leadership Shadows is stress – that tense and taxing space we so often encounter in our professional and personal lives. This is the aspect of ourselves that is triggered by stress and often results in career (and relationship) limiting moves, such as micromanaging, avoiding conflict, or refusing to trust others. And it is within this vicious cycle that we experience the tragedy of the human condition first identified by Frankl: paradoxical intent.

Abraham Maslow: Self-Actualization

Out of this somewhat dark and depressing state of the human condition came what is known today as the "Humanistic" movement in psychology led by Abraham Maslow and his concept of "self-actualization." As described earlier, prior to Maslow the vast majority of psychologists and researchers focused on human deficiencies: why people act in destructive or neurotic ways, for example. Maslow turned the field upside down when he began to focus on psychological health, well-being, and optimal performance. Maslow identified a number of characteristics and traits of these "self-actualizing" individuals that allow them to be more satisfied, more at peace, and ultimately, more effective. And what is perhaps most important to remember is that people aren't born this way. Just like the research into what causes or creates healthy cells in biology, Maslow found that there are changes we can make – both internally and externally in our environments – which facilitate and accelerate our growth and development.

Maslow's most famous contribution to the study of human behavior is his "Hierarchy of Needs" which attempts to explain human motivation from a needs-based and hierarchical perspective. According to Maslow (1954), there are four groups of basic or "deficiency" needs that must be met in ascending order. The goal of every individual is to meet a given need, and then allow a higher order need to emerge to drive our behavior. Maslow illustrated, and many subsequent researchers have pointed out, that satisfying one need does not necessarily mean that a higher order need will emerge. Both research and every day experience demonstrate that many individuals get "stuck" in a certain deficiency need, for recognition or a sense of belonging to others, which can and does adversely impact one's ability for continued growth and development, which is the self-actualizing process. Figure 1 provides an overview of Maslow's model, with the three motive needs captured in their appropriate level:



The four theoretical frameworks have been discussed in an attempt, albeit brief, to synthesize and integrate these into a comprehensive framework for the ALP. Next, this paper will examine the methodological approach for assessing the reliability and validity of the ALP and Actualized Performance Cycle. This examination will begin with a review of the scale development process, and the approach taken for the ALP.

THE SCALE DEVELOPMENT PROCESS

Designing and constructing an attitude assessment scale consists of three general stages: design, development, and evaluation (Schwab, 1980). The theoretical framework and literature review was presented to provide the general developmental foundation of the ALP. Within the three broad stages of constructing an attitude assessment scale, Hinkin (1998) identified six steps in the scale development process. These six steps are presented in Table 3:

| Table 3 SCALE DEVELOPMENT PROCESS | | | | |
|-----------------------------------|----------------------------------|---|--|--|
| Step 1: | Item Generation | • | | |
| Step 2: | Questionnaire Administration | | | |
| Step 3: | Initial Item Reduction | | | |
| Step 4: | Confirmatory Factor Analysis | | | |
| Step 5: | Convergent/Discriminant Validity | | | |
| Step 6: | Replication | | | |

Item generation is the essential first step in developing a new Likert-type scale. The primary concern during this initial stage is content validity, which should be built into the scale through the development of clear, unambiguous, and accurate items that "...adequately capture the specific domain of interest" (Hinkin, 1998).

It is during the initial design step that a researcher should understand the theoretical foundation that provides the basis for the scale's development. This study fell under the deductive approach to scale development because the theoretical foundation being used to define ALP provided enough information to generate an initial set of items. The major advantage of the deductive approach to scale development is that, if done properly, this approach helps to ensure content validity (Hinkin, 1995).

Survey administration is the second step of the Likert-type scale development process. During this stage of scale development, the items that were retained during the content validation assessment were administered to a pilot sample to confirm expectations of the psychometric properties of the new measure. Critical issues regarding scale development during this step included choosing a representative pilot sample, the sample size, and the total number of items in the new measure. These and other scaling issues are discussed in the reliability and validity sections of this paper.

Following the initial survey administration, the third step in the process of developing a Likert-type scale is the initial item reduction. Once preliminary data has been collected from the pilot sample, factor analysis was employed to further refine the scale. PCFA with orthogonal rotation is the most widely used factoring method for item reduction (Hinkin, 1995). Although no absolute cutoff exists for determining which items should remain on a given scale, that is which items most clearly represent the content domain of the underlying construct, a .40 criterion level is most commonly used to judge factor loadings as meaningful (Hinkin, 1998). PCFA was also used to determine the latent dimensions of the ALP framework, and a minimal eigenvalue of 1.0 was used as an appropriate criterion for retaining each dimension of the ALP assessment scale.

Once validity was established through PCFA, internal consistency should be established. Cronbach's alpha is the more widely accepted and utilized technique for establishing internal reliability, and is the recommended statistic when employing PCFA (Cortina, 1993).

The final two stages, assessing convergent and discriminant validity and replication, although critical to a scale's ultimate utility, are beyond the scope of this study. Convergent and discriminant validity are measures of criterion-related validity, the ability to predict a change in certain variables based on data from the predictor variable. Although this may be of eventual interest for the scale's utility, only face validity, content validity, and construct validity were ascertained for this investigation. Likewise, the final step, replication, is a time-consuming process that often takes years to establish (Hinkin, 1998). Preliminary data on replication reliability and validity will be gathered during the subsequent administrations of the ALP, as well as efforts to predict performance, job satisfaction, and intrinsic satisfaction (e.g., the correlation of Actualized Leader behaviors with individual and group performance, etc.). For the current investigation, validity was assessed using PCFA to determine both the underlying structure and the number of factors explaining the observed variance (eigenvalues >/= 1.00), and PCFA was employed to determine survey item retention (>/= .40) for the five items per scale with the highest R².

Limitations of the Research Methodology

Likert-type scales offer a range of responses with different intensities from 'strongly agree' to 'strongly disagree.' Each participant has a different interpretation of the response categories, which can lead to a degree of imprecision in the response set, data collection, and data analysis. Previous researchers have commented that Likert-type scales are akin to a "ruler that stretches or contracts," which can and does impact the precision of the data collected.

The study design has limited generalizability due to homogeneous samples used for data collection. Although the sample size is well beyond the recommended size of 200 (n=611), the sample was non-random and somewhat homogeneous (all members of the same organization). Additionally, the problems of social desirability and bias are limitations when using self-report measures. Social desirability, the tendency to answer questions in a manner the respondent believes that they should be answered, as opposed to the way the respondent actually believes, creates bias and error in the data analysis.

There are limitations related to validity as well. First and foremost, this research design does not afford a measure of criterion-related validity. Ultimately, one would want to be able to predict a group's performance based on the survey score. For example, are certain leadership styles, such as an Actualized Asserter, more effective than others with different challenges and tasks? Future research will need to establish criterion-related validity. Moreover, PCFA provides limited construct validity information due to the subjective nature of its statistical measures.

Study Sample Demographics

Before reviewing the validity and reliability analyses findings, the descriptive statistics for the current investigation are presented. First, the data was collected from a global, high-performance engineering and manufacturing company headquartered in Charlotte, NC, where the lead author is currently employed as the Vice President of Talent. The organization is a diversified company with six divisions that produces ball bearings, high performance sealants, submarine engines, and trailer solutions for the trucking industry.

Data for the survey administration sample were captured over a six (6) month period from October 2015 to March 2016. During this time, 611 participants completed the ALP as part of a larger leadership development program designed and facilitated within the study's host organization. Table 4 summarizes the sample's demographics.

| Table 4 DEMOGRAPHIC CHARACTERISTICS Study Sample | | | | | |
|--|---------------|-------------------|--|--|--|
| Charac | teristic | Percentage (%) | | | |
| Gender | • | | | | |
| | Male | 68 | | | |
| | Female | 30 | | | |
| | Missing Data | <u>_2</u> | | | |
| | - | 100 | | | |
| Age | | | | | |
| | 20-30 | 10 | | | |
| | 31-40 | 30 | | | |
| | 41-50 | 42 | | | |
| | 51-60 | 9 | | | |
| | 61 and over | 2 | | | |
| | Missing Data | <u>_7</u> | | | |
| | | 100 | | | |
| Profess | sional | | | | |
| Experi | ence | | | | |
| | 1-5 Years | 21 | | | |
| | 6-10 Years | 22 | | | |
| | 11-15 Years | 30 | | | |
| | Over 15 Years | 23 | | | |
| | Missing Data | _4 | | | |
| | | 100 | | | |

ASSESSING VALIDITY

Validity was assessed for the ALP using Principal Components Factor Analysis (PCFA), a statistical technique used for exploratory data analysis. The underlying assumption of exploratory data analysis is that the more one knows about the data, the more effectively and efficiently one can develop, test, and refine a given theory, or in this case, a measurement instrument (Hartwig & Dearing, 1979). Exploratory data analysis describes and summarizes data by grouping together correlated variables in factors, labeled "components," that are independent of each other (Hartwig & Dearing, 1979). These components are often rotated to maximize the variance explained by each factor (Litwin, 1995).

Principal Components Factor Analysis

Principal Components Factor Analysis (PCFA) is a statistical technique that linearly transforms an original set of variables into a substantially smaller set of uncorrelated variables. This process identifies the relevant factors under study (Dunteman, 1989). PCFA is an appropriate statistical technique when the underlying factor structure is unknown. The goal of PCFA is data reduction, allowing the researcher to better understand and interpret data collected from a smaller set of uncorrelated variables (Dunteman, 1989).

There are several guidelines and requirements for using PCFA. There are numerous strategies for determining how many latent factors exist in a data set, and for ascertaining which survey items should be retained.

Assessing the Latent Structure of the Data Set

Determining the number of factors, or components, to retain depends on both the underlying theory and the quantitative results of the research endeavor (Hinkin, 1998). Several guidelines have been established to assist researchers in making decisions about the number of latent factors to retain.

Perhaps the most well-known rule of thumb in survey development is Kaiser's criterion. Kaiser's criterion (also known as Kaiser's Rule) states that only components with eigenvalues that are greater than 1.0 should qualify for retention. An eigenvalue is the total amount of variance explained by a factor, and it represents the sum of the squared loadings of each variable for that factor (Hinkin, 1998).

Another guide for determining the number of factors to retain in a PCFA is the scree plot test. The "scree" is defined as the rubble or valley where the graph plotting the factors begins to level off, and it is a graphically illustrated plot in the data set. As successive factors are extracted, and their contribution to explaining the observed variance decreases, the graph declines. The point of interest is where the curve connecting the points starts to flatten out. It is at this point where a valley or scree appears in the graph, and where factor retention may stop (Kinnear & Gray, 1999).

In addition to using the Kaiser Criterion and scree plot test to decide on the number of factors to retain, the underlying theory or model guiding the research should also direct factor retention decisions so long as the data set is consistent with the model in use (Hinkin, 1998). That is, the research findings should fit the underlying theoretical framework in a conceptually sound way. The findings for the present study do fit the ALP framework and the conceptual models of human motivation as defined by McClelland (1987) and Maslow (1954), and a combination of the Kaiser Criterion and the ALP theoretical framework was used to determine the number of latent factors to retain.

Latent Structure Assessment and Item Retention Analysis

PCFA of the measurement items was conducted from the data collected from the 611 surveys collected. An orthogonal (varimax) rotation was used to compute a loading matrix that represented the relationship between the observed variables and each factor. Initial PCFA statistics indicated the presence of four factors (i.e., components or dimensions of motive need leadership) with eigenvalues greater than 1.0 that accounted for 44.58% of the total variance observed (Table 5). The remaining 55.32% of variance from the data set was not accounted for and was assumed to lie with factors not measured by the assessment instrument.

| | Table 5 PCFA |
|-------------|---------------------------------------|
| | Factors |
| Component 1 | Power (Asserter Style) |
| Component 2 | Affiliation (Affirmer Style) |
| Component 3 | Achievement (Achiever Style) |
| Component 4 | Self-Actualization (Actualized Style) |

Table 6 presents the eigenvalues by components and total variance explained by this analysis.

| Table 6 | |
|--------------------------|--|
| TOTAL VARIANCE EXPLAINED | |

| Initial Eigenvalues | | | Rotation | Sums of Square | d Loadings |
|---------------------|--------------------------|---|---|---|--|
| Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 14.131 | 28.262 | 28.262 | 6.426 | 12.853 | 12.853 |
| 3,420 | 6.840 | 35.101 | 5.308 | 10.616 | 23.469 |
| 2.831 | 5.663 | 40.764 | 5.189 | 10.377 | 33.846 |
| 1.906 | 3.812 | 44.576 | 3.563 | | 40.971 |
| | 14.131 3.420 2.831 | Total % of Variance 14.131 28.262 3.420 6.840 2.831 5.663 | Total % of Variance Cumulative % 14.131 28.262 28.262 3.420 6.840 35.101 2.831 5.663 40.764 | Total % of Variance Cumulative % Total 14.131 28.262 28.262 6.426 3.420 6.840 35.101 5.308 2.831 5.663 40.764 5.189 | Total % of Variance Cumulative % Total % of Variance 14.131 28.262 28.262 6.426 12.853 3.420 6.840 35.101 5.308 10.616 2.831 5.663 40.764 5.189 10.377 |

Extraction Method: Principal Component Analysis.

Variable (Item) Retention Analysis

Once the underlying structure of the data set has been determined, decisions surrounding which variables (i.e., survey items) to retain must be made. Although there is no universally accepted rule for the best way to determine which variables to retain, factor loadings computed by PCFA provide crucial information to assist the researcher (Hinkin, 1998). A factor loading is designated as a Pearson correlation coefficient of the original variable with the factor. Factor loadings range in value from +1.00, indicating a perfect positive association, to -1.00, which indicates a perfect negative association with the factor. It is generally agreed that in survey development, factor loadings of .40 or greater with no major cross-loading are deemed meaningful (Cattell, 1966; Hinkin, 1998; and Nunnally, 1967). Variables usually load on all factors, but should load higher (.40 or greater) on only a single factor. Factor loadings and cross-loadings were considered in determining which items to retain in the final version of the Actualized Leader Profile, and the loadings for the retained items ranged from .510 - .792, (Table 7).

| SCALE C | Table 7 COMPONENT RANGES | |
|--|--|--|
| Achievement Affiliation Power Self-Actualization | .652584 .792563 .792728 .632510 | |

The analyses used to determine which items were retained in the final version of the ALP were based on the factor loading scores solely, and in each instance (each component scale) the top five items with the highest factor loadings were selected for inclusion on the final version of the ALP. These scores, by component, follow in Table 8.

| | Table 8 ALP Factor Loadings | | | | | | | | |
|--|-----------------------------|-------|-----------------|-------|-----------|-------------------------------------|-----------|--|--|
| Achievement Affiliati Component Matrix Compo | | | n ent Matrix | | | Self-Actualization Component Matrix | | | |
| | Component | | Component | | Component | | Component | | |
| | 3 | 1 | 2 | 4 | 1 | | 4 | | |
| wsb21 | 0.652 | wsb35 | 0.792 | wsb7 | 0.792 | wsb18 | 0.632 | | |
| wsb36 | 0.645 | wsb11 | 0.731 | wsb3 | 0.756 | wsb10 | 0.562 | | |
| wsb1 | 0.624 | wsb6 | 0.73 | wsb12 | 0.755 | wsb27 | 0.53 | | |
| wsb29 | 0.61 | wsb2 | 0.649 | wsb34 | 0.75 | wsb24 | 0.525 | | |
| wsb16 | 0.584 | wsb19 | 0.563 | wsb23 | 0.728 | wsb8 | 0.51 | | |
| wsb13 | 0.502 | wsb22 | 0.488 | wsb14 | 0.617 | wsb32 | 0.498 | | |
| wsb4 | 0.281 | wsb37 | 0.455 | wsb31 | 0.542 | wsb5 | 0.489 | | |
| wsb38 | 0.259 | wsb25 | 0.231 | wsb28 | 0.465 | wsb33 | 0.483 | | |
| wsb26 | 0.233 | wsb30 | 0.161 | wsb9 | 0.463 | wsb15 | 0.421 | | |
| wsb20 | 0.052 | wsb17 | 0.161 | wsb40 | 0.325 | wsb39 | 0.18 | | |

Extraction Method: Principal Component Analysis.

ESTIMATING RELIABILITY

Coefficient alpha, commonly referred to as "Cronbach's alpha" and designated with " α ," is a measure of internal consistency that estimates how well items "hang together." Reliability is a necessary condition for validity (Hinkin, 1998). In survey development, coefficient alpha measures the homogeneity of items for a given scale. Although there are other forms of reliability that can be estimated in survey research (Spector, 1992), coefficient alpha is a necessary estimate for scale development and the recommended reliability statistic when computing PCFA. The overall reliability estimates for each of the five scales of group culture are presented in Table 9, and the specific statistical output for each scale follows. Reliability estimates were calculated for each scale of the Group Culture Assessment Scale in an iterative fashion. First, coefficient alphas were calculated for all 10 items of each scale. Then, internal consistency was estimated for the total number of items per scale to be retained in the survey's final version based on the PCFA assessment. The number of items retained for each scale in the survey's final version is five (5) per scale, using a minimum reliability estimate threshold of .40. The total number of items retained for this section of final version of the survey was 20. Table 9 summarizes this reliability assessment effort utilizing Cronbach's alpha.

| | RELIABILITY | ble 9 ASSESSMENT h's Alpha | |
|--------------------|---------------------|--|------------|
| Scale | Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
| Achievement | 0.864 | 0.857 | 5 |
| Affiliation | 0.783 | 0.781 | 5 |
| Power | 0.852 | 0.850 | 5 |
| Self-Actualization | 0.801 | 0.799 | 5 |

Reliability Assessment for the Achievement Scale

The Achievement scale possessed a total reliability of $\alpha=.864$. Coefficient alpha was computed for the five (5) items retained for this scale. Item analysis indicated that the retained items had moderate to strong inter-item correlations ranging from .271 to .801 (Table 10). The factor loadings (Table 8) ranged from .584 to .652 (exceeding the .40 recommendation). Cronbach's alpha decreased if any of the items was deleted (Table 11). The .40 minimum threshold established by Hinkin was used to make item retention decisions, although the actual reliability estimates for the retained items ranged from .506 - .838.

| Table 10 ACHIEVEMENT SCALE Inter-Item Correlation Matrix | | | | | | | |
|--|-------------------------------|--|---|--|--|--|--|
| wsb4 | wsb6 | wsb9 | wsb10 | wsb20 | | | |
| 1.000 | .575 | .427 | .739 | .610 | | | |
| .575 | 1.000 | .271 | .801 | .784 | | | |
| .427 | .271 | 1.000 | .482 | .371 | | | |
| .739 | .801 | .482 | 1.000 | .817 | | | |
| .610 | .784 | .371 | .817 | 1.000 | | | |
| | | | | 1, | | | |
| | 1.000 .575 .427 .739 | March Marc | ACHIEVEMENT SC Inter-Item Correlation wsb4 wsb6 wsb9 1.000 .575 .427 .575 1.000 .271 .427 .271 1.000 .739 .801 .482 | ACHIEVEMENT SCALE Inter-Item Correlation Matrix wsb4 wsb6 wsb9 wsb10 1.000 .575 .427 .739 .575 1.000 .271 .801 .427 .271 1.000 .482 .739 .801 .482 1.000 | | | |

| | Table 11 ACHIEVEMENT SCALE Item-Total Statistics | | | | | | | | |
|-------|--|--------|------|------|------|--|--|--|--|
| | Scale Mean if Scale Variance Item Deleted Item Deleted Corrected Squared Cronbach's Multiple Alpha if Item Correlation Correlation Deleted Correlation Correlation | | | | | | | | |
| wsb4 | 12.01 | 18.134 | .708 | .554 | .861 | | | | |
| wsb6 | 12.78 | 16.074 | .770 | .707 | .847 | | | | |
| wsb9 | 12.72 | 16.330 | .800 | .698 | .838 | | | | |
| wsb10 | 12.70 | 14.506 | .904 | .819 | .810 | | | | |
| wsb20 | 13.39 | 16.606 | .818 | .715 | .834 | | | | |

Reliability Assessment for the Affiliation Scale

The Affiliation scale possessed a total reliability of $\alpha=.783$. Coefficient alpha was computed for the five (5) items retained for this scale. Item analysis indicated that the retained items had moderate to strong inter-item correlations ranging from .373 to .612 (Table 12). The factor loadings (Table 8) ranged from .563 - .792 (exceeding the .40 recommendation). Cronbach's alpha decreased if any of the items was deleted (Table 13).

| Table 12 AFFILIATION SCALE Inter-Item Correlation Matrix | | | | | | | | |
|--|-------|-------|-------|-------|-------|--|--|--|
| | wsb8 | wsb11 | wsb13 | wsb15 | wsb18 | | | |
| wsb8 | 1.000 | .387 | .612 | .483 | .313 | | | |
| wsb11 | .387 | 1.000 | .373 | .442 | .406 | | | |
| wsb13 | .612 | .373 | 1.000 | .575 | .314 | | | |
| wsb15 | .483 | .442 | .575 | 1.000 | .262 | | | |
| wsb18 | .313 | .406 | .314 | .262 | 1.000 | | | |

| Table 13 AFFILIATION SCALE Item-Total Statistics | | | | | | | | |
|--|-------------------------------|--------------------------------|--|------------------------------------|--|--|--|--|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted | | | |
| wsb8 | 14.14 | 11.366 | .613 | .422 | .725 | | | |
| wsb11 | 13.62 | 11.889 | .531 | .305 | .751 | | | |
| wsb13 | 14.16 | 10.502 | .645 | .485 | .712 | | | |
| wsb15 | 13.92 | 10.626 | .599 | .404 | .729 | | | |
| wsb18 | 13.88 | 11.628 | .572 | .364 | .738 | | | |

Reliability Assessment for the Power Scale

The Power scale possessed a total reliability of $\alpha = .852$. Coefficient alpha was computed for the five (5) items retained for this scale. Item analysis indicated that the retained items had moderate to strong inter-item correlations ranging from .671 to .606 (Table 14). The factor loadings (Table 8) ranged from .728 to .792 (exceeding the .40 recommendation). Cronbach's alpha decreased if any of the items was deleted (Table 15)

| Table 14 POWER SCALE Inter-Item Correlation Matrix | | | | | | | |
|--|----------------------------|-------|-------|-------|-------|--|--|
| | wsb2 wsb3 wsb5 wsb16 wsb19 | | | | | | |
| wsb2 | 1.000 | .606 | .603 | .471 | .571 | | |
| wsb3 | .606 | 1.000 | .747 | .519 | .496 | | |
| wsb5 | .603 | .747 | 1.000 | .490 | .552 | | |
| wsb16 | .471 | .519 | .490 | 1.000 | .265 | | |
| wsb19 | .571 | .496 | .552 | .265 | 1.000 | | |

| | Table 15 POWER SCALE Item-Total Statistics | | | | | | | |
|-------|--|--------------------------------|--|------------------------------------|--|--|--|--|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted | | | |
| wsb2 | 13.35 | 13.623 | .707 | .507 | .810 | | | |
| wsb3 | 12.85 | 12.999 | .754 | .616 | .796 | | | |
| wsb5 | 13.10 | 12.711 | .764 | .624 | .793 | | | |
| wsb16 | 13.25 | 15.230 | .523 | .329 | .850 | | | |
| wsb19 | 13.76 | 14.323 | .575 | .404 | .844 | | | |

Reliability Assessment for the Self-Actualization Scale

The Self-Actualization scale possessed a total reliability of $\alpha = .801$. Coefficient alpha was computed for the five (5) items retained for this scale. Item analysis indicated that the retained items had moderate to strong inter-item correlations ranging from .253 to .649 (Table 16). The factor loadings (Table 8) ranged from .563 - .792 (exceeding the .40 recommendation). Cronbach's alpha decreased if any of the items was deleted (Table 17).

| Table 16 SELF-ACTUALIZATION SCALE Inter-Item Correlation Matrix | | | | | | | | |
|---|-----------------------------|-------|-------|-------|-------|--|--|--|
| | wsb1 wsb7 wsb12 wsb14 wsb17 | | | | | | | |
| wsb1 | 1.000 | .321 | .253 | .362 | .330 | | | |
| wsb7 | .321 | 1.000 | .488 | .465 | .608 | | | |
| wsb12 | .253 | .488 | 1.000 | .471 | .478 | | | |
| wsb14 | .362 | .465 | .471 | 1.000 | .649 | | | |
| wsb17 | .330 | .608 | .478 | .649 | 1.000 | | | |

| Table 17 SELF-ACTUALIZATION SCALE Item-Total Statistics | | | | | | | |
|--|-------|--------|------|------|------|--|--|
| Scale Mean if Scale Variance if Item Deleted Item Deleted Correlation Correlation Correlation Cronbact Alpha if Item Deleted Correlation Deleted | | | | | | | |
| wsb1 | 15.49 | 14.493 | .394 | .164 | .796 | | |
| wsb7 | 15.06 | 12.164 | .627 | .431 | .750 | | |
| wsb12 | 15.29 | 12.635 | .553 | .325 | .774 | | |
| wsb14 | 15.36 | 12.102 | .652 | .474 | .742 | | |
| wsb17 | 14.92 | 11.706 | .703 | .549 | .724 | | |

In addition to the 20 retained survey items, there are 20 additional scale component (i.e., factor) words in 10 word-pairs that account for five (5) additional items per scale. This section of the ALP assessment scale requires the participant to choose the word from the word-pair that is most descriptive of him or her. When combined with the five (5) survey items per scale, this results in five (5) additional "items" (i.e., words) that impact the overall score of the participant. Cronbach's alphas for all five items were in the acceptable to good ranges (Table 18.)

| Table 18 WORD PAIRS Cronbach's Alpha | | | | | | | |
|--|------|------|---|--|--|--|--|
| Scale Cronbach's Alpha Based on Standardized Items | | | | | | | |
| Achievement | .755 | .753 | 5 | | | | |
| Affiliation | .818 | .819 | 5 | | | | |
| Power | .813 | .810 | 5 | | | | |
| Self-Actualization | .856 | .830 | 5 | | | | |

Reliability Assessment for the Word-Pair Achievement Scale

The Achievement scale possessed a total reliability of $\alpha = .755$. Coefficient alpha was computed for the five (5) items retained for this scale. Item analysis indicated that the retained items had moderate to strong inter-item correlations ranging from .331 to .551 (Table 19). Cronbach's alpha decreased if any of the items was deleted (Table 20).

| Table 19 WORD-PAIR ACHIEVEMENT SCALE Inter-Item Correlation Matrix | | | | | | | |
|--|---------|----------|-----------|------------|----------|--|--|
| | Winning | Reserved | Expertise | Perfection | Tactical | | |
| winning | 1.000 | .423 | .408 | .331 | .190 | | |
| reserved | .423 | 1.000 | .551 | .471 | .302 | | |
| expertise | .408 | .551 | 1.000 | .428 | .373 | | |
| perfection | .331 | .471 | .428 | 1.000 | .279 | | |
| tactical | .190 | .302 | .373 | .279 | 1.000 | | |

| Table 20 WORD-PAIR ACHIEVEMENT SCALE Item-Total Statistics | | | | | | | |
|--|-------------------------------|-----------------------------------|---|------------------------------------|--|--|--|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item- Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted | | |
| winning | 13.95 | 195.212 | .460 | .234 | .731 | | |
| reserved | 14.41 | 180.523 | .622 | .404 | .671 | | |
| expertise | 13.32 | 174.542 | .622 | .400 | .669 | | |
| perfection | 13.39 | 186.000 | .520 | .282 | .709 | | |
| tactical | 15.42 | 217.192 | .378 | .163 | .754 | | |

Reliability Assessment for the Word-Pair Affiliation Scale

The Affiliation scale possessed a total reliability of $\alpha = .818$. Coefficient alpha was computed for the five (5) items retained for this scale. Item analysis indicated that the retained items had

moderate to strong inter-item correlations ranging from .411 to .609 (Table 21). Cronbach's alpha decreased if any of the items was deleted (Table 22).

| Table 21 WORD-PAIR AFFILIATION SCALE Inter-Item Correlation Matrix | | | | | | |
|--|---------|---------------|--------|-------|-------|--|
| | Empathy | Relationships | Caring | Warm | Mercy | |
| empathy | 1.000 | .580 | .542 | .429 | .411 | |
| relationships | .580 | 1.000 | .609 | .497 | .454 | |
| caring | .542 | .609 | 1.000 | .460 | .436 | |
| warm | .429 | .497 | .460 | 1.000 | .324 | |
| mercy | .411 | .454 | .436 | .324 | 1.000 | |

| Table 22 WORD-PAIR AFFILIATION SCALE Item-Total Statistics | | | | | | | |
|--|-------------------------------|-----------------------------------|---|------------------------------------|--|--|--|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item- Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted | | |
| empathy | 24.26 | 223.474 | .634 | .416 | .775 | | |
| relationships | 24.57 | 212.902 | .705 | .507 | .753 | | |
| caring | 24.34 | 218.896 | .668 | .459 | .764 | | |
| warm | 24.39 | 234.067 | .538 | .303 | .802 | | |
| mercy | 26.08 | 232.754 | .508 | .266 | .812 | | |

Reliability Assessment for the Word-Pair Power Scale

The Power scale possessed a total reliability of $\alpha = .813$. Coefficient alpha was computed for the five (5) items retained for this scale. Item analysis indicated that the retained items had moderate to strong inter-item correlations ranging from .172 to .771 (Table 23). Cronbach's alpha decreased if any of the items was deleted (Table 24).

| Table 23 WORD-PAIR POWER SCALE Inter-Item Correlation Matrix | | | | | | | |
|--|---|-------|-------|-------|-------|--|--|
| | Justice Strategic Power Control Results | | | | | | |
| justice | 1.000 | .370 | .388 | .588 | .771 | | |
| strategic | .370 | 1.000 | .172 | .229 | .464 | | |
| power | .388 | .172 | 1.000 | .248 | .362 | | |
| control | .588 | .229 | .248 | 1.000 | .647 | | |
| results | .771 | .464 | .362 | .647 | 1.000 | | |

| | | WORD-PAI | Table 24 R POWER SCALI otal Statistics | C | |
|-----------|-------------------------------|-----------------------------------|---|------------------------------------|--|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item- Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
| justice | 18.40 | 183.938 | .743 | .621 | .694 |
| strategic | 16.97 | 230.472 | .395 | .226 | .809 |
| power | 21.64 | 248.358 | .369 | .160 | .810 |
| control | 18.28 | 202.505 | .579 | .445 | .753 |
| results | 18.99 | 177.882 | .805 | .690 | .671 |

Reliability Assessment for the Word-Pair Self-Actualization Scale

The Self-Actualization scale possessed a total reliability of $\alpha = .856$. Coefficient alpha was computed for the five (5) items retained for this scale. Item analysis indicated that the retained items had moderate to strong inter-item correlations ranging from .123 to .828 (Table 25). Cronbach's alpha decreased if any of the items was deleted (Table 26).

| Table 25 WORD-PAIR SELF-ACTUALIZATION SCALE Inter-Item Correlation Matrix | | | | | |
|---|-------|-------------|--------|-------|------------|
| | Risk | Spontaneous | Candor | Trust | Creativity |
| risk | 1.000 | .828 | .378 | .254 | .746 |
| spontaneous | .828 | 1.000 | .425 | .266 | .780 |
| candor | .378 | .425 | 1.000 | .123 | .342 |
| trust | .254 | .266 | .123 | 1.000 | .114 |
| creativity | .746 | .780 | .342 | .114 | 1.000 |

| | We | ORD-PAIR SELF-AC | ole 26 CTUALIZATION S Total Statistics | SCALE | |
|-------------|-------------------------------|--------------------------------|--|------------------------------------|--|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item- Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
| risk | 22.10 | 166.280 | .812 | .717 | .673 |
| spontaneous | 21.92 | 161.801 | .856 | .767 | .655 |
| candor | 23.26 | 222.064 | .359 | .246 | .825 |
| trust | 17.80 | 270.319 | .157 | .173 | .851 |
| creativity | 21.86 | 174.476 | .728 | .653 | .704 |

SUMMARY

The Actualized Leader Profile is a valid and reliable self-report assessment for measuring human motivation and leader style, based on the integrated framework resulting from combining the Acquired Needs Theory (McClelland, 1987) and self-actualization (Maslow, 1954). The steps outlined in this effort follow well-accepted guidelines for the scale development process (Hinkin, 1995) and yield a four-factor model of human behavior and leader style, with impressive factor loading well above the suggested .40 cutoff, indicating that the retained survey items assess their

desired component as defined in the theoretical framework. Moreover, the scales are estimated to have a high degree of reliability. The scales' average Cronbach's alpha is .818, meaning that the consistency of the items by scale is good. As such, it can be affirmed that the Actualized Leadership Profile is both a precise (valid) and consistent (reliable) assessment for measuring leader style, based on the underlying motive needs of the participant.

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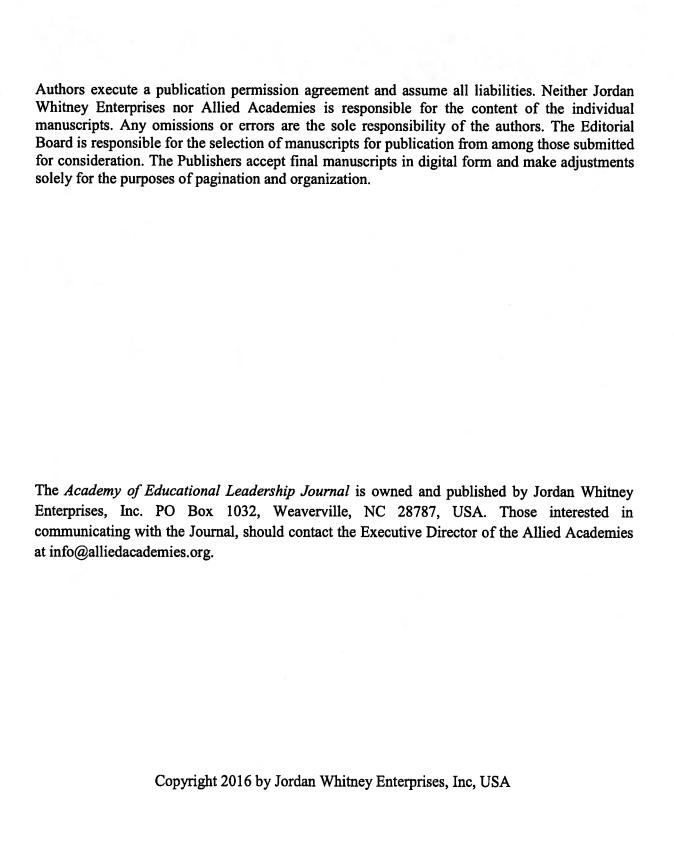
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