Predicting the Impact of Specific Leadership Behaviors on the General Self-Efficacy of United States Air Force Company Grade Officers

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by

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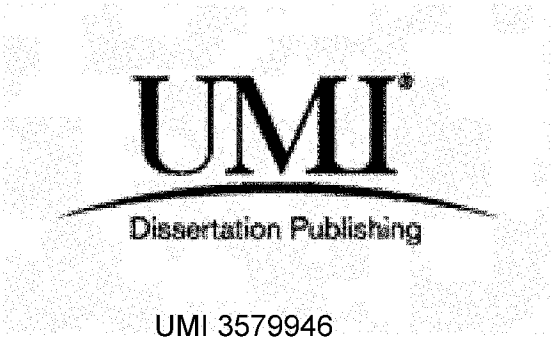

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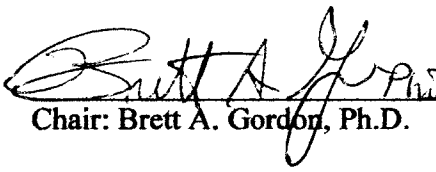

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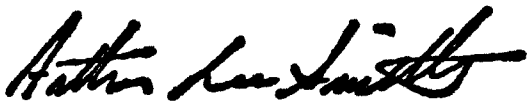

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Abstract

Leaders are facing unprecedented challenges in the beginning of this new century. According to the United States National Military Strategy (NMS), the military is not immune to these challenges and must improve its leadership development to effectively execute its role in the National Security Strategy. One way to develop leadership is by improving the General Self-efficacy (GSE) of the future senior military leaders, as GSE has been empirically correlated with leadership effectiveness. The purpose of this quantitative study was to analyze which leadership behaviors can be applied to most effectively foster positive GSE. To explore this concept, 339 active duty United States Air Force (USAF) company grade officers (CGO) were surveyed to assess their perception of their superior officer's leadership behaviors as defined by the Full-Range Leadership Model utilizing the Multifactor Leadership Questionnaire and their level of perceived general self efficacy as measured by the New General Self-Efficacy survey. Pearson's correlation analyses revealed that GSE was positively correlated with idealized influence (behaviors) ($r = .140, p = .01$), inspirational motivation ($r = .134, p = .014$), and individual consideration ($r = .110, p = .044$). Stepwise multiple linear regression also revealed that idealized influence (behaviors) alone was a significant predictor of GSE ($p = .01$). Participant age was also found to be a moderator such that the correlation between idealized influence (behaviors) and GSE was of great significance for those respondents in the older than average age group (M= 31.4, $B = 0.02, p = .001$). The results of this research support current literature on the impact of Transformational leadership on subordinate GSE but narrow the predictive qualities to the specific leadership behavior of idealized influence (behaviors), especially in those over 31 years

old. This knowledge is important to help develop current junior USAF leaders to be effective senior leaders in the new century. However, further research is recommended to better define the relationship between idealized influence (behavior) and GSE as well as other cultures to effect further generalization.

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Chapter 1: Introduction

The 2011 United States National Military Strategy (NMS) addressed the need to develop future military leaders to face the challenges of a world exponentially growing in complexity (United States Government, 2011). One way to develop future leaders is through effective leadership. Superior officers are charged with the development of their subordinates who are the future leaders of the military (United States Air Force, 2011).

The focus of leadership studies over the last 20 years has been on the Full-Range Leadership Model (FRLM) (Mannheim & Halamish, 2008). The FRLM provides a well-defined set of nine leadership behaviors that fall into three leadership styles (Sosik & Jung, 2010). The FRLM is a useful tool and provides a structure to assess leadership behaviors.

Development of subordinates can be approached from several different perspectives (Yukl, 2012; United States Air Force, 2011). Regardless of the approach utilized by the manager to develop the subordinate, one critical component for successful development lays in increasing the subordinate's self-efficacy (Moen & Allgood, 2009). Self-efficacy has been directly correlated with an individual's effectiveness; it has been empirically proven that subordinates with higher levels of self-efficacy are better at completing both simple, well-defined tasks and broad, complex duties than subordinates with lower levels of self-efficacy (Zulkosky, 2009; Walumba, Avolio & Zhu, 2008; Yeo & Neal, 2006; Chen, Casper & Cortina, 2001).

Despite numerous studies conducted to explore the independent effects of leadership and self-efficacy; practically no research has been conducted regarding the interactive effects of specific leadership behaviors on subordinate general self-efficacy

(GSE) (Walumbwa, Lawler, Avolio, Wang & Shi, 2005). A significant portion of related research has involved the analysis of self-efficacy in various and specific forms, to include task or job-specific forms, but have not focused on the overall GSE of the subordinate (Judge, Shaw, Jackson, Scott, & Rich, 2007). Researchers often misinterpret GSE as overall self-efficacy, or the general well-being of an individual, but that is not the case, it is one's confidence in their ability to confront, engage, and conquer adversity (Bandura, 1989), which makes it an appropriate variable to explore within the context of this research.

In this quantitative study, the researcher searched for possible relationships between specific leadership behaviors and GSE in USAF CGOs utilizing correlational statistical analysis. Higher levels of GSE will serve as the primary indicator for identifying which specific leadership behavior has the greatest positive subordinate GSE. The researcher then conducted multiple regression analysis to determine the predictive nature of the specific leadership behaviors on the CGO GSE.

There are over 36,000 active duty CGOS in the USAF (Air Force Personnel Center, 2012). CGOs range between 22 and 49 years old- a 27 year span. The researcher will analyze the data to determine whether age has a moderating effect on the relationship. The results of this study will indicate the correlation and predictive nature of the specific leadership behaviors while accounting for the moderating impact of the age of CGO.

In this chapter, the background and significance of the problem will be explored. In addition, the statement of the problem will be defined and the purpose of the study will

be articulated. The theoretical framework will be provided as well the specific research questions, hypotheses and definitions used to shape the study will be explored.

Background and Significance of the Problem

Advances in technology and the asymmetrical and unconventional nature of 21st century warfare have created a tumultuous operating environment which has generated an unprecedented need for leaders within the United States Department of Defense (DOD) to be able to perform despite ever-changing threats (2011). The United States Air Force, a service branch of the DOD, recognizes the dynamic nature of this new environment is unprecedented and is expected to increase in complexity throughout the 21st century (United States Air Force, 2007). In order to fulfill its role in the defense of the nation, the Air Force recognizes its leaders must be able to perform to overcome the ambiguous challenges expected in this new century (U.S Air Force, 2011). The Air Force needs to develop its junior officers to ensure it has leaders who are able to effectively perform when they assume senior leadership roles in the future.

Leadership development has been approached from several different perspectives. One common attribute commonly associated with both leadership development and performance studies is self-efficacy (Moen & Allgood, 2009). Self-efficacy has been the focus of a myriad of studies linking an individual's self-efficacy with their ability to effectively perform (Judge, Jackson, Shaw, Scott, & Rich, 2007; Ng, Ang & Chan, 2008; Yeo & Neal, 2006, Bandura, 1989, Chen et al., 2001 & Stajovic & Luthans, 1998). An individual with positive self-efficacy is much more likely to perform at a significantly higher level than someone with a low self-efficacy (Zulkosky, 2009). Individual's with higher levels of self-efficacy have greater confidence in their abilities to achieve

objectives, exhibit higher levels of initiative, and tend to set, and accomplish, more challenging goals (Judge, et al. 2007). In addition, individuals are more likely to embrace organizational goals and visionary statements (Walumbwa, Lawler, Avolio, Wang & Shi, 2005). Conversely, individual's with lower levels of self-efficacy are not confident in their own abilities and will not exert as much effort toward organizational goals and objectives, and will generally not perform to the level of someone with higher levels of self-efficacy (Yeo & Neal, 2006).

Transformational leadership styles and behaviors have been shown to have an influence on the self-efficacy level of subordinates (Walumbwa, Avolio & Zhu, 2008). According to Air Force leadership doctrine, the superior officer or senior-ranking member, is responsible for the development of their subordinate (U.S Air Force, 2011). With this responsibility in mind, the transformational leadership styles and behaviors exhibited by the supervisors of junior officers should have a significant impact on development of their junior officers.

Leadership theories have evolved considerably over the last century (Colbert, et al., 2012). Recently, the Full-Range Leadership Model developed by Bass & Avolio has organized the concept of leadership into a spectrum of behaviors and attributes categorized as; laissez-faire, transactional, and transformational (Sosik & Jung, 2010). Several researchers have conducted studies focusing on transformational leadership correlating the effects of transformational style of leadership on subordinates, teams, and other dependent variables to include self-efficacy (Sadeghi & Pihie, 2012). However, these studies have tended to neglect transactional and laissez-faire behaviors and not identified which specific transformational leadership behavior has the greatest impact on

the self-efficacy of the subordinate. Identifying which specific leadership behavior or attribute of a senior leader has the greatest relationship with the positive general self-efficacy of the junior officer could provide useful information on how to develop the junior officer to perform effectively when they become senior leaders charged with leading the Air Force throughout the turbulent 21st century.

Problem Statement

The 21st century has ushered in an extremely dynamic operating environment (Yukl & Mahsud, 2010). As a result, the NMS states, the military needs to change the way they develop leaders (United States Government, 2011). The military needs to transform their leaders from their current bureaucratic, conventionally thinking state (Arquilla, 2010) to leaders who effectively execute their duties across a turbulent spectrum of operations (2011).

The NMS indicates the military branches, including the USAF, must develop their junior officers to increase their ability to perform in a rapidly changing environment (2011). While there is limited information available on how to develop leaders (Kaiser, 2010), individuals with high self-efficacy (SE) have been shown to be more effective (Griffin, Parker & Mason, 2010). One way to develop the SE of officers is through effective leadership (Walumbwa, et al., 2008).

Leaders have a significant impact on subordinate SE (Walumbwa et al., 2008). For nearly 20 years, the FRLM has been the cornerstone of leadership studies (Mannheim & Halamish, 2008). FRLM classifies leadership behaviors into three primary levels with additional subcategories (Mannheim & Halamish, 2008). While the FRLM effectively

categorizes a spectrum of effective behaviors, it leaves room to question the utility of model.

The problem addressed in this study is the lack of information identifying which specific leadership behaviors have the greatest impact on the GSE of USAF CGOs. If a predictable correlation could be made between specific leadership behaviors, and the GSE of a CGO, then superiors would know which specific behaviors to develop and utilize when leading. As a result, this could help develop CGOs to become more effective. If the USAF takes no action to develop its leaders, it may not be able to adequately fulfill its requirements outlined in the NMS (2011).

Purpose

The purpose of this quantitative study was to contribute to the body of knowledge providing information on how leadership can be applied most effectively to foster general self-efficacy. This concept has been empirically correlated in previous research on a macro-level, sampling an overall population (Walumbwa et al., 2008). This study was conducted to provide data and analysis to help determine the impact of leadership behaviors, as defined by the FRLM on USAF's CGOs' GSE.

The basic premise of the FRLM provides for three levels of leadership behavior; one level being passive-avoidance or laissez-faire leadership, the next level, transactional, and the last being transformational (Mannheim & Halamish, 2008). There are subcategories of both the transactional and transformational levels. The transactional level consists of management-by-exception-passive (MBE-P), management-by-exception-active (MBE-A), and contingent reward (CR). This level is primarily managerial and constitutes basic motivational theory (Kirkbride, 2006).

Transformational leadership consists of more leadership behaviors where a leader motivates through idealized influence-both behavioral (II-B) and attribute-based (II-A), inspirational motivation (IM), individual consideration (IC), and intellectual stimulation (IS) (Mannheim & Halamish, 2008).

Data for this study was collected by having participants complete two surveys; the MLQ 5x and NGSES. Participants were self-selected, random active duty CGOs. Data was analyzed to assess the correlations and statistical predictability between each of these leadership behaviors, and the self-perceived general self-efficacy of Air Force future senior leaders, if any. For the purpose of this study, Air Force future leaders are defined as Company Grade Officers (CGO). CGOs are commissioned officers in the rank of Captain (Capt), First Lieutenant (1st Lt), and Second Lieutenant (2d Lt). The participants of the study were 339 USAF CGOs, from all over the world, who completed two surveys; the Multifactor Leadership Questionnaire, Short Form (MLQ 5x) to provide information regarding their superior officer's leadership behavior, and the New General Self-Efficacy Survey (NGSES) to measure their self-perceived general self-efficacy. This information was used to correlate and predict the probability of the impact of leadership behaviors on the general self-efficacy of subordinates.

Theoretical Framework

Leadership is a unique concept in that it can be viewed from a multitude of perspectives; historical, philosophical, political, psychological, and/or sociological (Burns, 2003). A person could also view it as a cause for success or failure and/or simply a moderating variable in the overall scheme of a greater achievement or colossal blunder (Lussier & Achua, 2012). Regardless, the concept of leadership revolves around

influence; whether it is influence of the course of events, teams, or individuals (Sadeghi & Pihie, 2012, Kark, Shamir & Chen, 2003). The focus of this research is the influence of the leader, the style in which they choose to exercise their authority, and the impact of their leadership behaviors on their subordinate. Specifically, the effect of the leadership behavior on the self-efficacy of the subordinate was analyzed.

Self-efficacy, the nucleus of Bandura's Social Cognitive Theory, has been the focus of over 10,000 studies and is considered one of the few theories to continue to thrive in the 21st century (Judge, et al, 2007). Self-efficacy has been empirically linked with individual performance (Stajkovic & Luthans, 1998; Judge, et al., 2007). Self-efficacy is not an entirely internal facet of an individual's personality, external factors, such as leadership style, can influence an individual's self-efficacy (Walumbwa, et al., 2008).

There have been a myriad of studies correlating the effects of transformational leadership on the self-efficacy of their subordinates (Avolio, 2011; Walumbwa, et al., 2008). Despite the volumes of data and meta-analyses regarding the effects of transformational leadership on self-efficacy, there remains a gap in research identifying which specific leadership behaviors, or attributes, (i.e. idealized influence, individual consideration, inspirational motivation, and intellectual stimulation) have the greatest impact on the self-efficacy of the subordinate. By identifying which specific leadership behaviors, or attributes, the leader can be more informed on how to best influence their subordinates to be more effective.

Research Questions

The overarching goal of this quantitative study is to determine if there is a statistical correlation and predictive relationship between leadership behavior and general self-efficacy of subordinates. If there is indeed a statistically significant correlation between leadership behavior and self-efficacy, multiple regression methods were used to predict to what degree each subcomponent of the FRLM impact the self-efficacy of CGOs. Utilizing results acquired by surveying USAF CGOs with the Multifactor Leadership Questionnaire, Short Form (MLQ 5x) to answer questions about their superior officer's leadership behavior, the New General Self-Efficacy Survey (NGSES) was used to measure the CGO's self-perceived general self-efficacy. Data was examined to determine whether there is a significant relationship between FRLM leadership styles and subordinate general self-efficacy. Finally, analysis was conducted to determine whether the age of the CGO would moderate the relationship to answer the following questions and null/alternative hypotheses.

The subcomponents of the FRLM, or specific leadership behaviors of LF, MBE-P, MBE-A, CR, IIA, IIB, IS, IM, and IC were assessed to explore whether there is a statistical correlation with the respondent's general self-efficacy. The data collected from the MLQ 5x was used to assess the subordinate's perception of the leader's specific leadership behavior. This data was correlated with the subordinate's GSE level as determined by the NGSES. These correlations were analyzed utilizing statistical regression to determine if there are predictive qualities between the leadership behaviors and GSE. This data was then explored to determine if age had a moderating effect on the relationship between the specific leadership behaviors and CGO GSE.

The research questions for this study were formulated to explore whether there is a specific leadership behavior that has correlationally significant relationship with the self-perceived GSE of USAF CGOs. Furthermore, the researcher explored whether this specific behavior statistically predicted the GSE in CGOs. Lastly, due to the vast age range of the population sample, data was analyzed to explore whether the age of the participants had a moderating effect on the impact of the leadership behavior on the GSE of the participants.

Q1. What, if any, correlation exists between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy?

Q2. Which specific leadership behaviors predict USAF CGO's self-perceived general self-efficacy?

Q3. What influence does the age of the CGO have on the relationship between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy?

Hypotheses

$H1_0$: There is no correlation between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy?

$H1_a$: A statistically significant correlation exists specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy?

$H2_0$: There are no specific leadership behaviors that can predict USAF CGO's self-perceived general self-efficacy.

$H2_a$: There are specific leadership behaviors that can predict USAF CGO's self-perceived general self-efficacy.

$H3_0$: The relationship between specific leadership behaviors and USAF CGO's self-perceived general self-efficacy is not moderated by the age of the CGO.

$H3_a$: The relationship between specific leadership behaviors and USAF CGO's self-perceived general self-efficacy is moderated by the age of the CGO.

Once it is understood how a supervisor's application of leadership behavior affects a CGO's self-efficacy, superior officers can effectively apply the appropriate leadership behavior to facilitate development of subordinates' self-efficacy to help foster increased performance.

Nature of the Study

This research is a quantitative study, accomplished using correlational and regression analysis to investigate the association between the leadership behavior, as defined by the FRLM, of a superior officer and the self-perceived general self-efficacy of a USAF CGO, or subordinate. The independent variables of the study are the leadership behaviors, as perceived by the subordinate, defined by the FRLM, and assessed through the Multifactor Leadership Questionnaire (MLQ 5x) and the age categories of the respondents. The CGO's level of general self-efficacy is the dependent variable. The participants of the study were given two surveys, and the answers were analyzed to determine whether there is a correlation between each of the independent variables and the dependent variable.

The participants of this study are CGOs in the USAF. The CGOs were given both the Multifactor Leadership Questionnaire (MLQ 5x), to measure the leadership behaviors of their superior officers, and the New General Self-Efficacy Survey (NGSES) to measure their self-perceived general self-efficacy. These two instruments were chosen

after extensive review of other studies regarding similar subject material and evaluation for suitability to measure the variables within the definitions and parameters of the research.

Data attained from the surveys were analyzed to determine if there are any statistical correlations between the levels indicated for the eight specific leadership behaviors and the level of general self-efficacy of the subordinate. The information could aid in identifying either positive or negative correlations between the leadership behaviors and the level of GSE. Regardless of the outcome, the information gleaned could be useful in helping to identify leadership behavior influence in subordinate general self-efficacy.

Definitions

This study includes the use of the following terms:

Company Grade Officer: United States Air Force junior commissioned officers in the rank of Second Lieutenant (2d Lt), First Lieutenant (1st Lt) and Captain (Capt) (U.S. Department of Defense, 2011).

General Self-Efficacy. Is defined as an individual's belief in their capability to meet the demands of a myriad of tasks across a wide array of different situations (Yeo & Neal, 2006).

Laissez-Faire (LF) leadership. Complete lack of leadership. People in leadership positions who demonstrate laissez-faire behavior shirk responsibility avoid making decisions and exert no effort towards the development of their subordinates (Avolio, 2011).

Transactional Leadership. This type of leadership is more associated with management. A leadership style in which the leader sets standards, and either diligently monitors performance for deviations, or reactively responds to negative effects of poor performance. A leader offers a form of feedback as a subordinate may be rewarded or disciplined for meeting or failing to meet standards (Dvir, Eden, Avolio & Shamir, 2002). Transactional leadership is comprised of Management by Exception- Active (MBE-A), Management by Exception- Passive (MBE-P), and Contingent Reward leadership styles (Bass, Avolio, Jung, & Berson, 2003; Sosik & Jung, 2010).

Management by Exception- Active (MBE-A) leadership. The leader establishes standards and policy and actively monitors performance for deviations. The leader promptly corrects noncompliance (Sosik & Jung, 2010).

Management by Exception- Passive (MBE-P) leadership. The leader is extremely reactive and only intervenes when absolutely necessary after problems grow in significance enough to demand his or her attention. Basically, the leader maintains the status quo (Sosik & Jung, 2010).

Contingent Reward leadership. The leader provides the follower with clear objectives, goals, and/or standards and rewards him or her for meeting them (Avolio, 2011).

Transformational Leadership. A style of leadership that generates change in individuals, processes, and/or an organization. This style of leadership, in its ideal form, supports, inspires, motivates, and encourages individuals, and teams to increase performance to meet individual and organizational objectives. It consists of Individual

Consideration (IC), Idealized Influence (Attributes), Idealized Influence (Behaviors), Inspirational Motivation, and Intellectual Stimulation (Avolio, 2011).

Individualized consideration. The leader personalizes mentoring, coaching, and leadership approaches to meet the developmental requirements of the individual subordinate. The leader makes an effort to become familiar with the subordinate's background and development needs and tailors his or her leadership style to the individual to create a supportive environment and trusting relationship (Sosik & Jung, 2010).

Inspirational motivation. The leader provides an attractive vision and challenges subordinates to strive for and meet goals. The leader conveys enthusiasm, confidence, and optimism in the future of the organization, for the team, and each individual (Avolio & Bass, 2004).

Idealized Influence (Attributes). The definition of Idealized Influence (Attributes) is the perception by subordinates of their superior officer's leadership qualities. Some of these qualities include their ability to instill pride, their willingness to self-sacrifice, their respect for others, and their level of confidence and power (Sosik & Jung, 2010).

Idealized Influence (Behaviors). The leader's conduct provides a positive example for others to emulate or follow. His or her actions demonstrate superior adherence to a strong personal value system, commitment to the organization, and ethics (Sosik & Jung, 2010).

Intellectual Stimulation. Leaders encourage critical, creative, and innovative thought. They challenge paradigms and allow subordinates the freedom to think and

make mistakes. They force subordinates to exert cognitive energy in problem-solving to develop ideas (Avolio, 2011).

Summary

The United States Air Force is not immune to the changes associated with the new century (United States Government, 2011). The asymmetric nature of warfare coupled with rapid advances in technology has created an environment where leaders must be effective in order to ensure the defense of the nation (United States Government, 2011). The Air Force needs to develop their future leaders in order to ensure they are effective in meeting these unprecedented challenges (United States Government, 2011). One way is for senior leaders to act upon their doctrinal responsibility to develop today's junior leaders to be tomorrow's senior leaders (United States Air Force, 2011).

While there are several ways to develop leaders, one critical component lays in an individual's self-efficacy (Moen & Allgood, 2009). A positive self-efficacy has been empirically correlated with positive performance (Stajkovic & Luthans, 1998; Judge, et al., 2007). By identifying which leadership behavior or attributes are correlated with positive self-efficacy Air Force senior leaders will have a better understanding about which leadership behaviors are more effective for the development of today's junior officers and tomorrow's senior leaders

Chapter 2: Literature Review

The sources of the literature used in preparation for this study are primarily peer-reviewed scholarly journals in the fields of business, history, and psychology. The preponderance of literature was narrowed to the past five years of publication, although some earlier works are included as they provide significant relevance to the proposed topic and will either provide a starting point for further development or a historical background. This literature review is not an all-encompassing catalog of references and is merely a foundation for further research.

The strategy used to perform research involved utilizing several databases to search for peer-reviewed journals providing information about the variables. The majority of research involved researching studies published within the last five years. However, it was equally important to research older studies to provide a historical foundation for some aspects of the review, specifically, the chronological background on the evolution of leadership theory and self-efficacy.

Research began with each variable being studied independently within its own discipline. Leadership research involved reviewing journals from business, psychological, and historical perspectives. Self-efficacy research was limited mainly to psychological journals. After acquiring foundational information on each variable, research shifted toward identifying studies involving both leadership and self-efficacy as independent and dependent variables.

In this chapter, literature in the areas of individual leadership theory and self-efficacy will be discussed along with additional information explaining the connections between both leadership and self-efficacy. Leadership is one of the most discussed and

debated topics in the social sciences (Nazari & Emami, 2012) and was explored to help ascertain how it can be applied most effectively to foster general self-efficacy, which has been correlated with increased levels of effectiveness in employees (Moen & Allgood, 2009; Walumbwa, et al, 2008; Ng, Ang & Chan, 2008).

This literature review will provide a semi-chronological overview of leadership theories, which helped shape the creation of the Full-Range Leadership Model (FRLM). Leadership theories will begin with the Great Man Theory and then discuss leadership traits, styles, and behaviors and moving on to Contingency Leadership Theories as well as the FRLM. After leadership theories have been discussed, self-efficacy will be explored as well as the effects of leadership on general self-efficacy.

Leadership Theories

In order to begin to understand such an obscure concept such as leadership, it is important to understand the foundation of the evolution, and transformation, of the theories used to define it. The topic of leadership has been studied frequently over the last century and has experienced several shifts in focus (Nazari & Emami, 2012). While no one has discovered the overarching panacea to effective leadership, the wide spectrum of findings, and corresponding theories generated from numerous studies, have provided a wealth of information. In effort to organize the multitude of theories associated with leadership, they will be categorized according to their framework and classification as; traits, styles, behaviors, contingency, or full-range leadership theories (Lussier & Achua, 2012).

Trait theories.

The trait approach to analyze and classify leadership effectiveness focuses on the leaders' individual attributes; a distinguishing feature or quality in the leader's character or personality and are defined in reference to leadership effectiveness (Colbert, Judge, Choi & Wang, 2012). While the study of effective leadership can be dated back to 1849 with Carlylse's "Great Man Theory", the study of effective leadership based on the unique traits of the leader is traced back to 1869, with Galton's study, which claimed the attributes unique to great leadership are passed from each generation genetically. Galton's theory of genetically innate traits also propagates the controversy of whether great leaders being born or made (Lee, 2011). Trait-based theory spurred a number of important studies providing several different perspectives from which to approach, measure, and analyze leadership characteristics.

There have been numerous trait-based studies focusing on various aspects of personality, skills, abilities, social competence, and demographics in attempt to ascertain whether a specific attribute is the cause or supports correlation with effective leadership (Colbert, et al, 2012). Analysis of leadership traits have been examined from a myriad of perspectives, not only assessing the attributes of the leader but also his or her ability to perform technically as well as socially. Historically, studies focusing on leadership traits included Digman's Big Five leadership traits of surgency, dependability, adjustment, intelligence, and agreeableness (1990), however, the majority of recent studies focusing on leadership traits have been related to task competence, demographics, or interpersonal attributes (Bass & Bass, 2008).

Task competence.

Task competence is a broad categorization of leadership traits used to identify the approach and techniques used by individuals in the execution of their duties in order to gauge proficiency (Bass & Bass, 2008). Looking beyond the processes associated with conducting a task and focusing on the attributes of the individual, researchers measured intelligence, conscientiousness, openness to experience, and emotional stability in the preponderance of research conducted to assess task competence (DeRue, Nahrang, Wellman & Humphrey, 2011). These traits are examined to provide greater insight into how the leader approaches tasks and corresponding behaviors associated with those duties (DeRue, et al., 2011).

Intelligence.

In terms of leadership traits, intelligence generally refers to an individual's cognitive ability as it relates to his or her ability to make decisions and solve problems through critical thinking (Lussier & Achua, 2012). Lilienfeld, Waldman, Watts, Landfield, Rubenzer, & Faschingbauer in their study of the personality traits of U.S. presidents, argued intelligence has more practical consequences than any other trait in regards to leadership effectiveness (2012).

Furthermore, intelligence, or cognitive ability, is a significant characteristic supporting the trait of task competence (Yukl, 2012). The level of intellect of individual has been associated positively with the effective leadership traits (Simonton, 2012) and has also been shown to relate positively with leader performance (Turesky & Mundhenk, 2010; Simonton, 2012; Van Iddekinge, Ferris & Heffner, 2009). Turesky and Mundhenk concluded one reason for the relationship between intelligence and leadership was

individuals with higher levels of intelligence tend to actively pursue training and other development opportunities (2010). Additionally, people with higher intellect generally have greater capacity for solving complex problems, which fosters individual credibility and trust (Gilley, Gilley & McMillan, 2009). Intelligence level is only one dimension of effective leadership traits; another dimension is an individual's level conscientiousness.

Conscientiousness.

The leadership trait of conscientiousness applies to an individual's attention to detail, organization, engagement, and ability to develop strategies to overcome problems and challenges (Stoeber, Otto,& Dalbert, 2009). Conscientious individuals tend to be highly rational and action-oriented in the performance of their duties (Hakimi, van Knippenberg, & Giessner, 2010). Additionally, highly conscientious individuals are achievement-oriented, skilled at goal-setting, and typically more confident in the ability to overcome challenges; which generally translates into higher levels of success (Ng, Ang & Chan, 2008). The behaviors associated with being conscientious have repeatedly been connected with effective leadership (Ng, et al., 2008; Hakimi et al., 2010). Leaders identified to be highly conscientious have been rated highly by subordinates in conceptual, task, and interpersonal aspects of leadership (Ng, et al., 2008). While organization and focus are effective leadership traits, a leader must also be open to experience.

Openness to experience.

Being receptive or emotionally and/or physically available to new experiences is another trait attributed to effective leadership (DeRue, et al., 2011). Experience can be defined and measured several different ways. In Lilienfield, et al's study (2012), they

provided a comprehensive lens in which to views openness to experience through six separate perspectives. Simonton categorized the ambiguity of openness to experience by dividing a leader's openness to: fantasy, aesthetics, feelings, action, ideas, and values (2009).

To clarify, openness to fantasy referred to the leader's level of imagination and richness of their fantasy life (Simonton, 2009). The aesthetic component of openness gauged the leader's appreciation for cultural and the liberal arts (Simonton, 2009). A leader's openness to feelings relates to the level of cognizance in regard to their personal emotions and moral sensitivity (Simonton, 2009). Openness to action refers to a leader's willingness to participate in unfamiliar events and to try new things (Simonton, 2009). Simonton described openness to ideas as a leader's receptivity new and differing intellectual perspectives (2009). Lastly, openness to values refers to a leader's willingness to reevaluate political, social, and religious values and standards (Simonton, 2009). Openness to experience helps build a foundation of knowledge, promotes divergent thinking and creativity, and, from a trait theory perspective, is an essential component of effective leadership (DeRue, et al, 2011). A leader's willingness to explore and take advantage of a myriad of opportunities is important for a leader to be effective; they must also be emotionally stable.

Emotional stability.

Emotional stability is a leader's capacity to remain in control of their emotions despite confronting tremendous amounts of stress (van Woerkom & de Reuver, 2009). By remaining in control of their emotions, leaders with elevated levels of emotional stability are able to maintain high levels of performance through extremely stressful

situations (van Woerkom & de Reuver, 2009). In addition, leaders who demonstrate increased levels of emotional stability tend to be more optimistic and less likely to be affected by negative stimuli (Perry, Witt, Penney & Atwater, 2010). Emotional stability influences the effectiveness of a leader by mitigating their need to focus on their internal state and allowing them to focus on cognitive, attentional, and other resources required to attend to the demands of the work environment (Hakimi, et al., 2010).

Demographics.

Demographic data is captured in most studies involving behavioral research, to include those regarding leadership traits, to categorize a population or sample in order to make comparisons when analyzing information (Cozby, 2009). Historically, researchers have analyzed demographic subsets to identify which qualities contribute most to, increase likelihood of, or result in, effective leadership (Colbert, et al, 2012). Categorically, most of these studies involve variables associated with gender, physical characteristics, education, and experience level (DeRue, et al., 2011).

Gender.

Gender, as a demographic, has received the most attention, in regard to research, and has been the focus of more studies than any other population segment in leadership studies (DeRue, et al., 2011). Differences regarding leadership effectiveness based on gender tend to revolve around correspondent inference, or the preconceived determination of a person's internal qualities based on their external characteristics (Eagly & Chin, 2010). In general, subordinates infer leaders will exhibit certain values, attitudes, and behaviors based on the leader's gender (Klein & Wang, 2010). Koenig, Mitchell, Eagly & Ristikari, 2011) conducted a meta-analysis of 40 studies to explore

whether gender is a valid predictor of leadership effectiveness (2011). Koenig, et al. concluded gender not to be a significant factor in the preponderance of the studies examined (2011).

Physical characteristics.

The term physical characteristics is a demographical subcomponent which can be used to account for a myriad of descriptive categories such as race, appearance, height, etc (Rule & Ambady, 2008). While many physical characteristics have been studied, no single characteristic has been conclusively proven to universally result in leadership effectiveness (DeRue, et al., 2011). Although there is not a sole physical characteristic, which translates into effective leadership, similar to gender, the physical characteristics of a leader have a tacit effect on their subordinates (DeRue, et al., 2011). However, subordinates may surmise leaders brandish certain behaviors based on their physical attributes (Klein & Wang, 2010). This stereotypical effect may have an impact on subordinate performance and influence leadership effectiveness, at least for a short time (Klein & Wang, 2010).

Education.

Generally, education is measured in terms of the level achieved and the institute attended (Martelli & Abels, 2010). Measuring the education of a leader can be misleading as an indicator for potential as it is frequently used as a discriminator, or prerequisite, for selection into a leadership position (Choudhury & Jones, 2010). Education is used as an indicator of knowledge-level, and intelligence, or in some instances as a measure of discipline to achieve goals through academic rigor (Lussier & Achua, 2012; Sowell, 2008). Many effective leaders have a higher level of education or

degrees from prestigious universities but this statistic may be influenced by the requirement for such degrees in the selection process throughout the career of the individual (Choudhury & Jones, 2010). In contrast, having a solid foundation of knowledge in which to base decisions and support actions is an invaluable asset for a leader if utilized effectively (Sowell, 2008).

Experience.

Measuring a leader's experience level is similarly misleading as education in regard to measuring leadership potential as it is also frequently used as a discriminator, or prerequisite, for selection for leadership positions (Dragoni, In-Sue, Vankatwyk & Tesluk, 2011). Additionally, it is a broad topic and difficult to define (Greenspan, 2009). Many researchers have struggled with operationalization of experience into their research due to the myriad of perspectives from which to measure (Greenspan, 2009). Some researchers measure time in years in the field of expertise, but it is difficult to develop a causal relationship specifically on experience as each individual brings forth their unique history (Giri & Santra, 2010). While it is difficult to measure precisely, experience has consistently been utilized as a measure for correlational research and as a mediating variable of effective leadership (Dragoni, et al., 2011).

It is important to capture demographic information as it aids in categorization of data to support hypotheses (Colbert et al., 2012). The information helps define the characteristics of the respondents to verify association and ensure a researcher is measuring data from the desired population. The findings of a study may be suspect if the sample demographic is not adequately defined and utilized appropriately in behavioral research, to include leadership studies (Cozby, 2009).

Interpersonal attributes.

Trait theories involve defining the unique attributes shared by effective leaders (Lewis-beck & Nadeau, 2010). Interpersonal attributes are extrinsic characteristics and involve how the leader works with others. Leadership involves influencing and motivating subordinates to perform toward a defined objective (Lussier & Achua, 2012). Interpersonal attributes are concerned with a leader's understanding of group processes and human behavior, their ability to communicate effectively, and have knowledge of the motives, attitudes, and feelings of other (Yukl, 2012). Interpersonal attribute traits involve how a leader interacts socially (Bass & Bass, 2008). Extraversion and agreeableness are the most commonly studied leadership traits, with communication also being a topic of several studies associated with interpersonal attributes (DeRue, et al, 2011).

Extraversion.

Extraversion is the tendency for an individual to seek status within a group of people and is associated with a person being assertive, dominant, or outgoing (Grant, Gino & Hofman, 2011). Behaviors associated with extraversion have been shown to predict leadership emergence and effectiveness (Grant, et al., 2011). One argument explains extraverted leaders are more likely to demonstrate confidence in their leadership abilities (Ng, et al., 2008). The confidence level associated with extraversion has been identified as both an accurate predictor of leadership potential and as a quality of effective leadership (Ng, et al., 2008). Specifically, extraversion has been shown to be a reliable predictor of both employee and employer perceptions of an individual's leadership effectiveness (Grant, et al., 2011).

While extraversion has been shown to predict leadership qualities it has been shown to vary in degree of effectiveness (Grant, et al., 2011). Specifically, extraversion has been shown to have a greater impact on passive followers than on more proactive or extraverted subordinates (Grant, et al., 2011). A similar but opposite relationship exists between leader extraversion and follower autonomy (Ng, et al., 2008). A leader demonstrating increased levels of extraversion score higher on surveys measuring leadership impact by subordinates with higher levels of autonomy (Ng, et al., 2008). Opposite relationships between leader extraversion and subordinate proactiveness or autonomy still have been shown to have positive impact just not as great (Grant, et al., 2011; Ng, et al., 2008).

Agreeableness.

Agreeableness refers to a leader's predisposition to be honest, helpful, responsive, understanding, good-natured, and trustworthy (Walumbwa & Shaubroeck, 2009). Additionally, Yukl identified a leader's capacity to nurture subordinates, their need for affiliation and optimism as specific sub-traits associated with agreeableness (2012). These characteristics are essential for establishing and nurturing relationships, which is a critical component for effective leadership (Lester, 2011).

Agreeableness shares a similar relationship with autonomy as extraversion (Ng, et al., 2008). Subordinates identified as displaying higher levels of autonomy were more significantly impacted by leaders who demonstrated increased levels of agreeableness than subordinates displaying lower levels of autonomy (Ng, et al., 2008). The same opposite relationship holds true as extraversion (Grant, et al., 2011). Agreeableness was positively related with leadership effectiveness, regardless of the subordinate's autonomy

level, but a stronger relationship exists with subordinates high in autonomy and leaders high in agreeableness than with subordinates with low autonomy and leaders with high agreeableness (Grant, et al., 2011; Ng, et al., 2008).

Communication.

The ability to successfully communicate is arguably the most important interpersonal attribute in regard to effective leadership (Galvin, Waldman & Balthazard, 2010). One could argue a leader's capacity to lead others hinges on their ability to effectively communicate (De Vries, Bakker-Piper & Ostenveld, 2010; Neufeld, Wan & Fang, 2010). A leader's communication skills translate into their ability to influence others (De Vries, et al., 2010). While the ability to write is a critically important skill for a leader to possess, researchers typically refer to verbal and nonverbal dyadic exchanges in the context of leadership and interpersonal attributes, not written communication (Neufeld, Wan & Fang, 2010).

Effective communication goes beyond the successful transfer of information, it is attributed to a leader's ability to influence and motivate others (Galvin, Waldman & Balthazard, 2010). An effective communicator understands and conforms their message to the receiver. The message is transformed into a tool, which is used to generate a desired response (Neufeld, Wan & Fang, 2010). A leader who is an effective communicator uses a message for more than information transference, it is a tool, which can be tailored to stimulate a desired response from subordinates (Neufeld, et al., 2010). Since the essence of leadership is to motivate others to achieve desired results; a leader's ability to communication effectively is critically important (Neufeld, et al., 2010).

The preponderance of leadership research incorporated a trait-based approach until the early 1950's when trait-based leadership theories were discarded as ineffective (Zaccaro, 2012). Researchers favored other leadership approaches until trait-based theories once again regained prominence in the 1980's (Zaccaro, 2012). While leadership theories based upon the attributes of a leader have been the topic of a significant amount of research, it is only one perspective in which to gauge leadership. Another perspective, and genesis to a myriad of leadership theories focuses on the behavior of the leader.

Behavioral approach.

While the trait approach concentrates on the distinguishing characteristics of a leader, the behavioral approach focuses on categorization of a leader's actions (Yukl, 2012). Obviously, the way a leader behaves holds a varying degree of influence over their subordinates' performance which, in turn, impacts desired results (Larsson & Vinberg, 2010). The behavioral approach looks beyond innate traits and focuses on the effectiveness of a leader's actions (DeRue, et al., 2011).

Since the 1950s, the preponderance of research centered on leadership behavior has been influenced, to some degree, by the studies conducted at Ohio State and Michigan State Universities (Yukl, 2012). The Ohio State University studies utilized questionnaires to assess leadership behaviors from different perspectives. The first category measured the leader's level of consideration or his or her concern for their subordinates and interpersonal relationships (MacKenzie, Podsakoff & Podsakoff, 2011). The second category measured the leader's level of initiating structure, which involves the leader's amount of focus on tasks (MacKenzie, et al., 2011). The results of the study

helped define leadership focus, whether the leader scored high or low in relation to the tasks associated with the job or the concerns for the people accomplishing the tasks. Leaders could be categorized as high in one area, task or people, and low in the other. Alternatively, leaders could be evaluated as high-high, where they are evaluated as scoring high in relation to tasks and people or, conversely, low-low where the leader scored low in both areas. The premise for this research helped shape how leadership behavior was categorized and evaluated providing a foundation for future research (Lussier & Achua, 2012).

The University of Michigan leadership studies shared a similar premise as the Ohio State leadership studies where leadership behaviors were analyzed from both job-centered and employee-centric perspectives (Robbins & Judge, 2010). The results of this study identified three critical leadership behavior typologies: task-oriented behavior, relationship-oriented behavior, and participative leadership (Yukl, 2012). While the Michigan studies did not receive as much research attention as the Ohio State studies, the results provided the foundation for future behavioral leadership research. These studies provided the basis for two of the four categories that comprise current behavioral leadership research (DeRue, et al., 2011).

As mentioned, the categories attributed to the University of Michigan leadership studies are task-oriented behavior and relationship-oriented behavior. These two categories, along with change-oriented behavior and passive leadership comprise current widely recognized categories used in the classification of behavioral leadership (DeRue, et al., 2011).

Task-Oriented Behavior.

Task-oriented behaviors are operationally-focused actions which are generally attributed with the extent to which a leader focuses their efforts to define subordinate's roles within the organization, establishing effective communication channels, and achievement of goals and objectives; basically the mission of the organization (Tabernero, Chambel, Curral & Arana, 2009). This type of behavior was referred to as initiating structure in the Ohio State University studies and actions associated with task-oriented behaviors involve developing work schedules, assigning work, clarifying objectives, ensuring subordinates follow procedures and are meeting deadlines and goals (DeRue, et al., 2011).

The leader utilizes organizational policies, procedures, objectives, and goals to shape employee motivation, commitment and behavior (DeRue, et al., 2011). Ideally, the expectations are forthright, unequivocal, and consistent across the leader's range of influence. Positive application of task-oriented behavior is rooted in application of pressure to influence increased level of performance by the subordinate. By establishing standards, sampling quality of work, establishing and reinforcing deadlines, and monitoring progress in reaching organizational goals the leaders ensuring subordinates are constantly operating at higher levels of performance (Casimir, 2010).

Leaders should be careful to not solely rely on task-oriented behaviors to influence subordinates (Norris, 2010). Leadership goes beyond process management; there is a personal element to consider as well (Norris, 2010). Excessive application of task-oriented leadership practices and behaviors can have a demotivating effect on subordinates (Yukl, 2012). Leaders should recognize there is a delicate balance between

focusing on the mission of the organization, and the people who do the work, in order to effectively influence performance (Lussier & Achua, 2012).

Relationship-oriented behavior.

Relationship-oriented behaviors are the actions taken by the leader, which focus on the personal interaction, rapport, and interpersonal interactions between the leader and the follower (Tabernero, Chambel, Curral & Arana, 2009). Generally, the level of respect, concern for welfare, appreciation, consideration, and support demonstrated by the leader for the follower are attributed with relationship-oriented behavior (Tabernero, et. al., 2009). As identified in the Ohio State Leadership studies, leaders who demonstrate high levels of relationship-oriented behavior are more considerate and respectful of the individual members of the group (Yukl, 2012).

Leaders exhibiting effective levels of relationship-oriented behaviors have earned the respect and trust of the subordinates (DeRue, et al., 2011). The leader is viewed by their people as approachable and friendly by subordinates which encourages a freer exchange of ideas and more open communication which has been shown to have a positive impact on organizational effectiveness (Lussier & Achua, 2012). Additionally, the leader will have provided the appropriate tacit reinforcement for each individual to consider the welfare of the group, or team (DeRue, 2011). This encourages teamwork and collaboration, which also is a critical component for organizational success (Eberly, Holley, Johnson & Mitchell, 2011).

As with task-oriented leadership behaviors, a leader needs to be careful in applying too much relationship-oriented behavior (Eberly, et al., 2011). Becoming too close to certain members of the organization can breed jealousy between members

(Eberly, et al., 2011). Allowing themselves to become too involved, or familiar, with a subordinate has shown to damage a leader's degree of influence over that subordinate (Norris, 2010). Leaders must recognize effective application of relationship-oriented behaviors is critical to developing a constructive rapport, trust, and communication with subordinates but unprofessional personal relationships can be detrimental to the organization (Tabernero, et. al., 2009).

Change-oriented behavior.

Leaders in organizations undergoing change face unique challenges. Already difficult situations can become exacerbated and complicated by emotions, uncertainty, and confusion generated by the changes (Khalid & Rehman, 2011). These issues can alter leader behavior (Avolio, 2011). Behaviors that were effective during steady-state operations may not be effective during times of change (or crisis) (Avolio, 2011). In addition to adapting behaviors to increase effectiveness while dealing with the inter- and intra-personal complications, the leader also needs to manage the objectives, goals, and milestones associated with the change (Yukl, 2012).

Change-oriented leadership is classified into two basic categories; proactive and adaptive (Yukl, 2012). Proactive leadership behaviors involve identifying the organizational environment, developing inventive solutions to conform to it, and executing the major changes required to implement the changes to processes identified by the change initiative (Yukl, 2012). Possibly the most consequential proactive, change-oriented leadership behavior is developing and effectively conveying the vision for the change to subordinates (Griffin, Parker, & Mason, 2010). Effectively communicating the change vision supports subordinates' change-oriented behaviors by building up their self-

efficacy and encouraging constructive proactive and adaptive follower behaviors (Griffin, Parker, & Mason, 2010). The vision provides the direction for individuals to alter their behavior, these changes are typically intrinsically-motivated and not effectively imposed by the leader (Grant & Ashford, 2008). It is important for the leader to demonstrate the proper behavior to support the proficiency or effectiveness, of the subordinate (Merrell, 2012).

Effective change-oriented leadership behaviors include encouraging original thought, innovation, and risk-taking (Yukl, 2012). Subordinates need to feel free to pursue ideas and experiment with new approaches, without fear of reprisal, in order to foster support for the change (Merrell, 2012). In addition, leaders need to monitor the organizational culture and be prepared to reward positive behavior and mitigate negativity (Yukl, 2012). Also, the leader must continually, reinforce the vision, demonstrate personal commitment to the change, and be a role model consistently supporting and encouraging the initiative (Yukl, 2012). Any deviation from the vision or message will negatively influence the effectiveness of the subordinate and hamper the initiative (Yukl, 2012). The leaders needs to support the coping and adjustment required by the subordinate in order to overcome negativity and allow subordinates to constructively adapt to the changes (Merrell, 2012).

Passive leadership.

Passive leadership is also often referred to as passive-avoidant or laissez-faire leadership (Sosik & Jung, 2010). Regardless of its moniker, passive leadership is generally used to describe the absence of effective leadership behaviors (Avolio, 2011). There is a perceived, or genuine, lack of engagement by the leader (Sosik & Jung, 2010).

Not to be confused with empowerment, passive leadership goes beyond delegation and trust in subordinates to perceived apathy and carelessness (Casamir, 2010).

Passive-avoidant leaders will avoid conflict, taking a stand on issues, and will not clarify his or her expectations (Kanste, Kääriäinen, & Kyngäs, 2009). Leaders displaying passive leadership behaviors will lead through positional power, threats of punishment and discipline actions, and will not actively monitor the performance of the subordinates (Boies, Lvina, Martens, 2010). It should be obvious passive leadership is generally viewed as a negative behavior (Sosik & Jung, 2010).

Laissez-faire leadership behaviors have been negatively correlated and identified as detrimental to both individual and team performance (Boies, Lvina, Martens, 2010; Sosik & Jung, 2010). Passive-avoidant leadership behaviors have been shown to reduce subordinates' satisfaction with the leader, their perceptions of the leader's effectiveness, and their desire to put forth extra effort (Kanste, Kääriäinen, & Kyngäs, 2009). These negative perceptions have a negative impact on motivation, which negatively affects performance (Sosik & Jung, 2010). Leaders should avoid exhibiting passive-avoidant leadership behavior if they desire to be effective (Sosik & Jung, 2010)

At the very least, a leader should become engaged when there are discrepancies, deficiencies, or problems in performance (Sosik & Jung, 2010). Avolio refers to this conduct as Passive Management-By-Exception (MBE-P) (Avolio, 2011). This behavior has the leader reacting to negative stimuli forcing their engagement (Avolio, 2011). This transactional approach is not an ideal leadership behavior, as the leader exhibits limited engagement, with focus solely on results and is defunct of interaction with the subordinate beyond the task or objective (Sosik &Jung, 2010). This leadership behavior

does not offer an incentive for the subordinate to perform beyond set criteria and established objectives, which diminishes potential for improvement and increased effectiveness (Sosik & Jung, 2010; Avolio, 2011). MBE-P is the minimal managerial behavior a superior must exercise to ensure productivity, it does not promote effectiveness or provide motivation to improve (Boies, Lvina & Martens, 2010).

Behavioral assessments of leadership have played a significant role in the evolution of leadership theory and remain a relevant phylum in regards to identifying and categorizing leadership (Avolio, 2011). Researchers favored other leadership approaches until trait-based theories once again regained prominence in the 1980's (Zaccaro, 2012). While leadership theories based upon the behaviors of a leader have been the topic of a significant amount of research, it is only one lens in which to view leadership. Another perspective of leadership theories focuses on the styles of the leader.

Leadership styles.

The bases for the theories discussed thus far have involved defining the actions, personality, and behaviors associated with an individual leader. The classical leadership theories focused on the individual, and while they may appear to be an extremely banal approach to assessing or identifying leadership qualities, they have provided solid definitions for leadership principles and the basis for expanded research and application (Golden-Pryor, Humphreys, Taneja & Toombs, 2011).

Leadership theory has evolved beyond the characteristics of the leader and has developed into deeper hierarchal realms. The classic theories have provided the "who" and "what" categorizations providing the foundation for contemporary theory to climb to

a higher level of taxonomy to address the "how" and "why" questions associated with effective leadership (Lussier & Achua, 2012).

The two most prominent studies regarding leadership styles are those developed by Lewin and Likert (Lussier & Achua, 2012). These studies helped launch the next generation of leadership theories and have provided the basis for assessments of leadership engagement classification. Both studies help to define the approach of the leader and contribute to the evolution of quantifiable variables to assess dynamic leadership actions (Lussier & Achua, 2012).

Lewin's leadership styles.

Theories categorizing leadership styles begin with Kurt Lewin's University of Iowa research (Lussier & Achua, 2012). In his theory, Lewin identifies three distinct styles of leadership; authoritative, democratic, and laissez-faire. These three styles describe the levels of engagement in completing organizational tasks and the amount of subordinate input sought by the leader in making decisions, and motivation and disciplinary action (Brendtro & Mitchell, 2010).

The authoritarian style describes the leader as dividing, directing, and delegating work activities but not taking a formal role in the completion of tasks (Smothers, 2011). Not actively participating in the completion of tasks, the leader focuses their attention on motivating and disciplining subordinates (Robbins & Judge, 2010). There is a sharp distinction between organizational roles (Smothers, 2011).

The democratic leadership style is characterized by the leader involving subordinates in policy decisions through a collective process (Brendtro & Mitchell, 2010). The leader typically does not complete the work but seeks input from his or her

subordinates prior to the division of labor or work assignments (Lussier & Achua, 2012). Subordinates are not directed to complete work assignments but are given choices on work they desire to perform (Yukl, 2012).

The laissez-faire style of leadership, described by Lewin, has stayed fairly consistent across leadership theory over the past 70 years. This style describes an inactive and uninvolved leader (Brendtro & Mitchell, 2010). The leader delegates all work assignments to the subordinates and does not follow up on completion (Sosik & Jung, 2010). A laissez-faire leader avoids making decisions and does not provide praise performance, recognize achievements, or attempt to motivate subordinates (Kanste, Kääriäinen, & Kyngäs, 2009). This leadership style can be described as completely disengaged (Avolio, 2011). These leadership styles were determined categorized, based on the overall personality and/or character attributes of the leader and were not styles which were flexible based on shifting requirements (Smothers, 2011).

Likert's leadership styles.

In the 1960's Rensis Likert examined organizations of various types and leadership styles but primarily focused his theory on industrial organizational leadership. Likert expanded upon Lewin's categorizations and outlined four systems of management to describe managerial roles, involvement, and relationships. The four management systems are exploitative-authoritative, benevolent-authoritative, consultative, and participative-group systems (Pihlak & Alas, 2012). Like Lewin, Likert proposed these leadership styles were hardwired to the leader's personality and character and not subject to change with the situation (Burnes & Cooke, 2012).

The exploitative-authoritative system is similar to authoritarian style of leadership in that it is very directive in nature. Decisions are imposed upon the subordinate who has no collaborative role. Likert also identifies a responsibility dichotomy between the leader and the led. Leaders possess a very high level of responsibility and the subordinate has almost none. In addition, motivation is primarily negative reinforcement where Raguz, 2010). In this environment, the actions of the leader create a distinct barrier, which discourages vertical, or two-way, communication between the leader and subordinate and discourages interdepartmental teamwork (Raguz, 2010).

The benevolent-authoritative system centers on the trust the subordinate holds in the leader to deliver on incentives promised in exchange for performance. This system is similar to exploitative-authoritative in that leaders still maintain higher levels of responsibility than the workers however, the leader, utilizes positive reinforcement and incentives, to motivate subordinates to perform (Raguz, 2010).

In Likert's consultative system, the leader demonstrates a measured level of trust in their subordinates and shares certain aspects of responsibility. The leader utilizes positive reinforcement through a system of rewards and involvement (Yukl, 2012). The majority of subordinates, especially, those in the higher levels of the echelon feel a degree of ownership in the achievement of organizational goals. The environment is favorable for a moderate amount of communication and teamwork (Yukl, 2012).

Lastly, the participative - group system is considered the optimal leadership style for communication and teamwork though effective sharing of responsibility and subordinate involvement (Madoff, 2008). The leader demonstrates complete confidence in their employees and provides positive rewards for meeting objectives (Fernandez,

2008). By effectively involving the subordinate in decision-making the ownership, the leader provides an environment where the subordinate is engaged and impacted by their performance, which impacts their performance (Madoff, 2008). The participative - group system creates an organizational climate which is conducive to active flow of information cooperation which encourages increased levels of communication and teamwork throughout the organization (Raguz, 2010).

While Lewin and Likert provided the bedrock of modern leadership theories and contributed to the advancement of leadership theory, the next generation of leadership theories looked beyond the innate style of the leader (DeRue, et al., 2011). The new theories would attempt to demonstrate the leader can adjust their styles and behaviors to best suit external influences such as operating environment and other situational variables to be effective (Da Cruz, Nunes & Pinheiro, 2011). Contingency leadership theories attempt to provide a formulaic approach to leadership by identifying the external environment and selecting the most effective style or behavior for the situation (Sims, Faraj & Yun, 2009).

Contingency leadership theories.

Contingency leadership theories incorporate the operating environment, follower characteristics, and/ or the situation with leadership style (Yukl, 2012). This category of theories goes beyond the innate qualities and approaches of the leaders as identified in earlier theories. Leaders adjust their leadership style to generate the most effective results based upon the unique circumstances of the situation (Lussier & Achua, 2012).

Situational Leadership.

Situational Leadership theory suggests an application-based approach to leading. The theory provides four different leadership styles and matches their characteristics with four developmental stages of followers. The leadership style provides four distinct styles of leadership, expanding on the Ohio State and Michigan State University leadership studies and applying varying amounts of applied relationship behaviors and the task behaviors to match developmental stages of followers (Papworth, Milne & Boak, 2009).

The leadership styles identified are telling, selling, participating, and delegating. Telling is an extremely directive and task-focused approach where the leader provides explicit direction through one-way communication (Gilstrap, 2009). The selling style is still predominantly task-oriented but allows for a limited amount of subordinate feedback where the leader begins utilizing socio-emotive techniques to gain subordinate buy-in to tasks (Gilstrap, 2009). The participating approach involves higher relationship behaviors than task-oriented behaviors in leading subordinates. Decision-making about how tasks are accomplished are shared between the leader and subordinate (Papworth, Milne & Boak, 2009). Lastly, the delegating approach shifts the act of making task-level decisions to the subordinate from the leader, who maintains a predominantly relationship-based leadership style with the subordinate and only monitors progress (Gilstrap, 2009).

Hersey and Blanchard defined a subordinate or group's development on a bipolar measurement of their levels of task commitment and competence (Thompson & Vecchio, 2009). They categorize these attributes as R1, being low in both commitment and competence, through R4 with the group or subordinate being high in both commitment and competence (Papworth & Milne, 2009). R1, was used to categorize personnel or

groups new to the organization or task. Personnel in this category very excited and are extremely committed to the organization or task but have low competence due to ignorance and require significant direction (Gilstrap, 2009). Additionally, since the subordinates in this category have not acquired, or are bereft of experience and useful knowledge, their input is not desired by the leader (Papworth & Milne, 2009). Hersey and Blanchard connect the telling style of leadership with personnel identified as R1 to be most effective (Gilstrap, 2009).

Hersey and Blanchard identify the selling style of leadership as being most effective with personnel or groups in the R2 category (Papworth, Milne & Boak, 2009). Personnel in R2 still possess low competence but are more familiar with the organization (Thompson & Vecchio, 2009). Additionally, R2 personnel are moderately disenfranchised and require increased levels of personal or relationship-based behaviors in order to effectively lead (Thompson & Vecchio, 2009). Personnel in the R3 category are highly competent with low to variable levels of commitment (Gilstrap, 2009). Hersey and Blanchard connect a participating style of leadership with personnel, or groups in the R3 category as relationship-building behaviors can overcome low and variable commitment levels (Papworth & Milne, 2009). Lastly, the R4 category describes subordinates or groups with both high commitment and competence (Thompson & Vecchio, 2009). Subordinates or groups in the R4 category possess both the skills and commitment necessary to justify trust in decision-making and the delegating style of leadership is generally most effective (Thompson & Vecchio, 2009).

Hersey and Blanchard explain in their theory that no one leadership style is ideal in every situation. Leaders must be remain continually cognizant of their environment

and the development level of their subordinates in order to be flexible with the application of leadership styles and effectively lead (Gilstrap, 2009). This theory has received a great deal of scrutiny based on the scientific merit of the hypotheses, however it has been recognized as a solid attempt in providing an application-based basic level theory to provide a foundation for further research (Papworth, Milne & Boak, 2009).

Vroom and Yetton's normative model.

The Normative Decision Model conceived by Vroom and Yetton (1973) provides a structured approach to decision-making which factors in the situational contexts of decision quality and subordinate involvement (Yukl, 2012). The model accounts for several situational contexts: amount of information the leader and subordinates possess relevant to the decision, subordinates acceptance of autocratic decisions, subordinate cooperation level if included in decision-making, level of non-constructive disagreement and ownership of ideas, and the structural characteristics of the problem in regard to the level of creativity necessary (Jepson, 2009). The model also accounts for two additional situational variables; the importance or significance of the decision and acceptance of the decisions by other subordinates not included in the decision-making process (Jepson, 2009). The leader determines the level of influence these variables have on the basis of the decision by structuring the decision-making process beginning with the quality requirement (QR), and moving on through the eight levels of the model considering the commitment requirement (CR), leader's available information (LI), the structure of the problem (ST), commitment probability (CP), goal congruence between the subordinates and the overall organization (GC), subordinate conflict (CO), and amount of information the subordinates possess (SI) (see Figure 1). By stepping through the model and

considering the influence of the applicable variables, the leader reaches one of five decision-making procedures relevant to the situation (Long & Spurlock, 2009).

Figure 1. Normative Decision Model

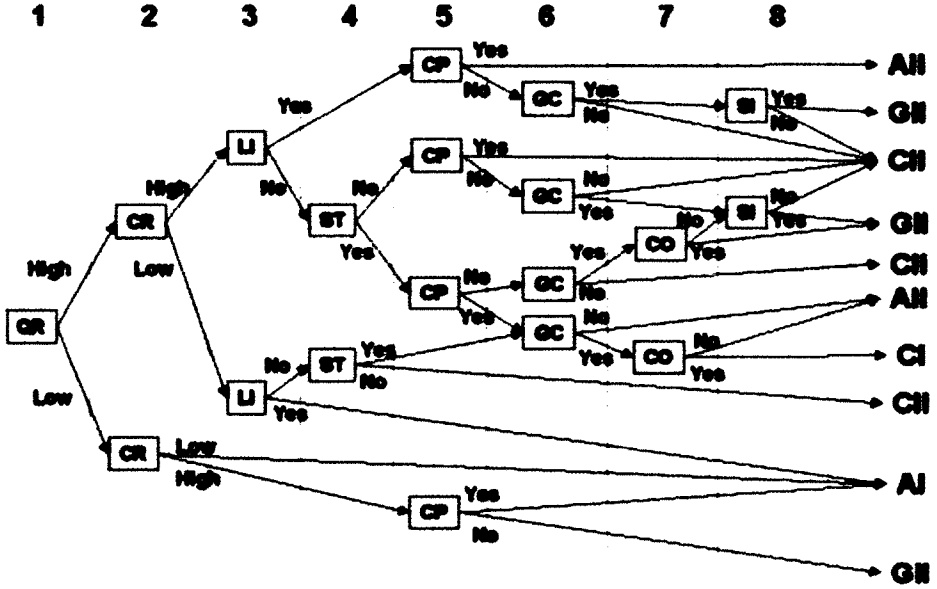

Figure 1, Vroom & Yetton's Normative Decision Model. This figure graphically illustrates the decision process to determine the variables influencing a decision in order for the leader to make the best decision. Figure was adapted from Lussier & Achua, p. 175, (2008).

Vroom and Yetton explained there is not a universal decision-making procedure effective in all situations and developed the model to provide a range of leadership styles, or procedures, based on the amount of subordinate involvement (Lussier & Achua, 2012). First, is the Autocratic I (AI) decision-making style, in this approach the leader makes decisions on their own based on information they have at his or her disposal. There is absolutely no involvement from subordinates in any capacity (Long & Spurlock, 2009). Second, is the Autocratic II (AII) style where the leader relies on subordinates for information but does not include them in making decisions (Long & Spurlock, 2009). Next, in the Consultative I (CI) approach, the leader involves subordinates individually for information and evaluation. The leader does not bring subordinates together

collectively and still makes the decision on his or her own (Long & Spurlock, 2009). In the Consultative II (CII) style, the leader brings together subordinates collectively for their insight but the leader ultimately still makes the decision (Johnson, 2009). Finally, in the Group II (GII) style the leader convenes a group meeting, providing guidance and intent but allows the group to make the decision (Johnson, 2009).

The model faced some scrutiny for not capturing several important situational aspects of decision-making such as geographic separation of subordinates, time constraints, and more precise level of information possessed by subordinates (Yukl, 2012). Vroom and Yetton, along with Arthur Jago, refined the model to address these important aspects. In addition, Vroom, Yetton and Jago expanded available responses from the simplified "yes" or "no" at each stage of the model and included scalar levels of response: no, probably no, maybe, probably yes, and yes (Jepson, 2009).

Path-goal theory of leadership.

The basic premise of the Path-Goal theory centers on aligning subordinate goals with organizational objectives to positively influence employee motivation (Dixon & Kozloski, 2010). As a basis for employee motivation, House (1971) proposes the leader consider the characteristics of their subordinates as well as the task and altering their leadership style to best influence subordinate effort and satisfaction. This theory is steeped heavily in the Expectancy Theory of motivation where a leader can influence subordinate effort, motivation, and corresponding performance, by providing desirable incentives for fulfilling agreed upon objectives (Yukl, 2012). In the Path-Goal Theory, the leader provides a path, or a situationally appropriate leadership style, to meet, not only the followers' desired outcomes, but organizational objectives as well (Dixon &

Kozloski, 2010). The leader will make effort to align subordinate goals with organizational objectives and exhibit the behaviors to positively influence subordinate performance (Yukl, 2012).

House identifies four unique leadership styles appropriate in various situations; directive, supportive, participative, and achievement-oriented (Saccomano & Pinto-Zipp, 2011). Unlike Likert's and Lewin's leadership theories discussed earlier, the Path-Goal theory posits the leader can change their leadership style based on the situation, as defined by the task and the characteristics of the subordinates. Leaders should adjust their leadership style, or behavior, to best fit the situation in order to increase subordinate satisfaction and motivation, which has been linked to subordinate performance (Lussier & Achua, 2012).

The directive approach should be used when the subordinates roles and task demands are ambiguous. In this approach, the leader assigns tasks and provides explicit instructions on what needs to be accomplished as well as how it should be accomplished (Dixon & Kozloski, 2010). This approach provides clarity, which has been shown to alleviate stress during uncertain circumstances, and increases subordinate satisfaction and motivation (Saccomano & Pinto-Zipp, 2011).

Supportive leadership behavior describes actions taken by the leader to address the needs and welfare of their subordinate. This leadership behavior is most effective in situations where the tasks and/or the operating environment are physically and/or psychologically distressful (Dixon & Kozloski, 2010). The leader's actions and perceived genuine concern for subordinate welfare encourages loyalty and exacerbates

subordinate motivation to increase performance to satisfy the leader (Saccomano & Pinto-Zipp, 2011).

Participative leadership behavior involves the leader including and seeking the consult of their subordinates in the decision-making process (Saccomano & Pinto-Zipp, 2011). The leader demonstrates a certain level of trust and mutual respect with their subordinates knowledge and judgment in certain situations. The follower has proven themselves as having a degree of credibility in certain situations (Dixon & Kozloski, 2010).

Achievement-oriented leadership behaviors involve the leader establishing demanding goals and challenging objectives in effort to have his or her subordinates operate at peak levels of performance. The leader demonstrates confidence in the followers, and their ability to rise to the challenge (Dixon & Kozloski, 2010). The leader must be able to accurately capture performance and establish quantifiable objectives in order to properly execute this behavior This behavior is effective in situations where success can be adequately captured, measured, and evaluated and is not well suited for situations with ambiguous objectives (Saccomano & Pinto-Zipp, 2011).

Contingency theories strive to explain how to adjust and apply leadership styles depending upon the environment- they are reactive (Sosik & Jung, 2010). Contingency theories place the leader in a position to assess the variables and then alter their style of leadership in order to best influence subordinates. Leadership theory has continued to be analyzed from several different perspectives. The following nexus of leadership theorem, the Full-Range Leadership Model (FRLM) defines innate or applied characteristics to incorporate the myriad of perspectives and integrate them (Avolio, 2011).

Full-range leadership model.

The foundation for the Full-Range Leadership Model began with Dr. James MacGregor Burns's Transformational Leadership theory. Dr. Burns's theory incorporates most leadership theory to date and delineates them between management behaviors and leadership behaviors (Sosik & Jung, 2010). Burns was the first to categorize management behaviors as transactional and leadership behaviors as transformational (Avolio, 2011). Burns also worked with Dr. Bernard Bass who carried the concept further with the cooperation of Dr. Bruce Avolio, to evolve the theory to an all-inclusive Full-Range Leadership Model (FRLM), which provides a spectrum of behaviors and attributes to integrate both management and leadership (Sosik & Jung, 2010).

Currently, FRLM is the most widely studied leadership theory in use (Hargis, Watt & Piotrowski, 2011). The FRLM consists of laissez-faire, transactional, and transformational leadership behaviors (Sosik & Jung, 2010). Through continued study and analysis, leadership behaviors, as defined by the FRLM, have been shown to have a direct impact on the motivation and performance of subordinates (Hoffman, Bynum, Piccolo & Sutton, 2011). In addition, studies have empirically correlated the positive impact of the effective application of FRLM leadership behaviors, which occur through indirect colligation, on the general self-efficacy of subordinates (Walumbwa, et al., 2008; Rafferty & Griffin, 2006).

The transformational leadership aspect of FRLM, has shown to have a positive impact on individual and organizational performance (Hoffman, Bynum, Piccolo & Sutton, 2011). It is comprised of four elements; intellectual stimulation, idealized

influence, inspirational motivation, and individual consideration (Hoffman, et al., 2011). Despite making a strong argument for correlation between transformational leadership and team performance, questions remain regarding universality and reliability of the model and transformational leadership.

Walumbwa & Hartnell (2011) conducted research to examine relationships between transformational leadership styles and employee self-efficacy, along with the mediating effect of relational identification. They sampled 426 employees and 75 immediate supervisors from an automobile dealership. Utilizing hierarchal linear modeling, Walumbwa and Hartnell concluded there to be associations between transformational leadership and employee self-efficacy (2011). However, they caveat their study by recognizing the relationship between transformational leadership and employee self-efficacy requires further research in order to more-definitively explore associations (Walumbwa & Hartnell, 2011). Nevertheless, Walumbwa and Hartnell's (2011) study builds upon other research regarding transformational leadership and provides a foundation for additional research to determine overall effectiveness and universality, and an opportunity to look into the effects of the other leadership behaviors identified in the FRLM. The proposed study will explore these concepts further to analyze the effect of transformational, as well as the other leadership behaviors identified on the FRLM, as they impact the USAF CGO subordinates' general self-efficacy. These studies further the linkage between leadership behaviors and performance through self-efficacy.

Self-Efficacy

According to Dr. Albert Bandura, self-efficacy is the confidence a person has in themselves to reach goals by positively or negatively impacting an individual's cognitive, motivational, affective, and selection processes (Bandura, 1989). It is not merely a measure of one's confidence in themselves, it also is their confidence and belief they can achieve greater things if they just try harder (Ng, Ang & Chan, 2008). This concept is one of the most researched in recent history. In the past 25 years, over 10,000 studies have been conducted to explore the concept (Judge, Shaw, Jackson, Scott & Rich, 2007).

Background and overview.

The concept of self-efficacy originated with Bandura's (1977) social learning theory, which evolved into social cognitive theory. Self-efficacy was a critical component of his theories in that it accounts for the variations in individual (Nurittamont, 2012). High levels of self-efficacy influences confident cognitive processes and critical thinking resulting in improved decision-making (Bandura, 1995). Individuals with lower self-efficacy were shown to be more likely to suffer from depression, anxiety, and stress resulting from low self-esteem, and pessimistic attitudes (Bandura, 1995). These negative feelings impact motivation as people with low self-efficacy will avoid difficult challenges and will not exert additional effort to perform beyond explicit expectations. Conversely, individuals with high self-efficacy demonstrate greater levels of motivation to perform beyond expectations and are able to persevere for greater lengths of time when faced with challenges (Nurittamont, 2012).

Types of self-efficacy.

The original concept of self-efficacy has evolved since the original concept resulting in identifying and assessing self-efficacy from different perspectives and specifying their application (Dierdorff, Surface & Brown, 2010). The concept of self-efficacy has been classified into several different categories to include; task, learning, role-breadth, medical and psychological, and general (Bandura & Locke, 2003). These different categories all share the same premise regarding an individual's belief in their ability to be successful; whether it be a specific task (Hepler & Chase, 2008), ability to learn at a certain level or a subject, (Schaffer, Xiaojun Chen, Xiumei Zhu, & Oakes, 2012) or the capability to execute a span of forward-thinking amalgamation of activities beyond defined explicit expectations (Dierdorff, Surface & Brown, 2010). Medical and psychological self-efficacy explores the patient's belief they will become well and is used as a variable to assess the patient's desire, will, and attitude in overcoming a range of maladies; from cancer to drug dependence (Test & Cease-Cook, 2012). Finally, general self-efficacy (GSE) is an overall trait-based perspective of an individual's belief in their ability to be successful across a spectrum of challenges (Nurittamont, 2012) and is the dependent variable measured in the proposed study.

General self-efficacy.

As stated earlier, GSE refers to an individual's overall belief in their ability to achieve success, regardless of the situation (Mayfield & Mayfield, 2012). GSE is at the pervasive core of Bandura's original concept of his Social Cognitive Theory (1977). It has been thoroughly researched over the past 25 years and continues to remain relevant in the 21st Century (Judge, et al., 2007).

An individual's GSE has been empirically correlated to their level of work performance (Walumbwa, et al., 2008). Increased GSE results in the individual's ability to cope with potentially challenging situations through increased self-esteem translating into greater effort to meet objectives and goals (Walumbwa, et al., 2008). A higher level self-efficacy also has been correlated with increased confidence whereas he or she can achieve more difficult tasks and higher-level goals increasing overall effectiveness (Walumbwa, et al., 2008).

GSE is at the core of employee productivity and effectiveness and should be one of an organizational leader's primary objectives to develop self-efficacy of subordinates (Avolio & Hannah, 2008). Increases in self-efficacy have been shown to correlate directly with overall individual effectiveness and ultimately the performance of the organization (Nurittamont, 2012).

Leadership impact on self-efficacy.

There are several factors which can impact the development of an individual's GSE; learning from their own successes and failures and witnessing those of others, and messages received from others reinforcing an individual's efforts and behavior (Bandura, 1977). A leader can influence the way a subordinate views success and failure through motivation and discipline and generally provide direct feedback regarding effort and behavior (Yukl, 2012 & Mahsud, 2010). Several studies have been conducted analyzing the effects of leadership on the self-efficacy of subordinates from different perspectives interrelated with other stimuli and variables (Moen & Allgood, 2009; Walumbwa, et al., 2008). In a study by Moen & Allgood (2009), they analyzed the impact of coaching, a form of leadership strongly correlated with the individual consideration behavior defined

in the FRLM (Sosik & Jung, 2010), to examine the effect of a one-year executive coaching program on self-efficacy. The experiment involved 127 executives and middle managers from a Norwegian Fortune 500 company. The data was derived from an internally-constructed 32-item Likert-type scale focusing on requirements viewed by the participants as being essential in order for them to succeed in their specific and achievement-oriented environment and their capability to fulfill them. The results of the test reflected a significant correlation with the coaching program and an increase in self-perceived self-efficacy. This data, while questionable in the validity and reliability of the instrument, reinforces the hypothesis that leadership and coaching impact self-efficacy of employees and provides additional support for continued research.

In another study, the impact of transformational leadership on self-efficacy amalgamating the effects of role identification was explored. Walumbwa, Avolio, and Zhu (2008) examined 437 participants employed by 6 U.S. banking organizations in the Midwest to explore how transformational leadership directly and indirectly related to supervisory-rated performance. An average of six employees rated each supervisor's transformational leadership behaviors, consolidating idealized influence, intellectual stimulation, individual consideration, and inspirational motivation using the MLQ 5x . This information was correlated with the subordinate's self-assessment of their identification with the work unit, self-efficacy, and mean's efficacy. After the employees provided their ratings, the supervisors then rated their employees on their job performance. Data was collected at two different times to reduce self-report bias. The study contained nine hypotheses, two of which directly correlate with this author's research. First, transformational leadership positively related to self-efficacy. Second,

self-efficacy positively related to individual performance. While this study also introduced additional variables, both hypotheses were identified to have significant positive relations providing further support and validation of leadership's impact on self-efficacy.

Moen & Allgood (2009) and Walumbwa, Avolio, & Zhu (2008) show how transformational leadership has an effect on the self-efficacy of several different populations with additional added variables. The proposed study will analyze the affect of leadership behaviors on general self-efficacy to build additional knowledge and generalization.

General self-efficacy impact on effectiveness.

It has been empirically proven that individuals with higher general self-efficacy perform at a higher level than those with lower self-efficacy (Walumbwa, et al., 2008). Jawahar, Meurs, Ferris, & Hochwarter (2008) conducted a meta-analysis of 114 studies conducted correlating self-efficacy with work-related performance. They concluded the large body of research clearly indicates that individual self-efficacy beliefs are directly related to performance. However, the authors realized almost all of the studies measured only task performance and not other work-related performance measures. To expand their research Jawahar et al. (2008) conducted two studies analyzing the social cognitive behaviors of self-efficacy and political skill, and how they correlate with task-performance, and contextual performance of individuals. Jawahar et al. (2008) determined that analyzing political skill provided another skill-set or behavior in addition to self-efficacy and clarified that contextual performance consisted of less-mechanistic abilities such as interpersonal facilitation and job dedication rather than output measures.

The two studies were conducted with the following hypotheses: 1). Self-efficacy will be more strongly related to task performance than to contextual performance. 2). Political skill will be more strongly related to contextual performance than to task performance, and 3). Self-efficacy will be a better predictor of task performance than political skill, whereas political skill will be a better predictor of contextual performance than self-efficacy.

In the first study, they surveyed 223 MBA graduates, across a wide range of demographics, from a large southeastern university. In the second study, they surveyed 26 managers from a corporate office for a retail chain. Each manager answered responses on four to nine subordinates. The results of both studies concluded that self-efficacy is more effectively linked to task performance than contextual performance and political skill is correlated with contextual performance than self-efficacy.

These studies are important to clarifying the expected benefits of increasing employees' self-efficacy. There have been several studies linking positive self-efficacy with increased job performance but the studies often did not provide an unequivocal definition of the performance aspect of the job. These studies potentially could provide necessary linkage to the benefit of the proposed study topic.

High general self-efficacy mitigates the level of impact caused by negative external influences (Nurittamont, 2012). Specifically, self-efficacy provides the individual with the capability to endure through the, often tumultuous, negative effects generated by change (Vardaman, Amis, Dyson, Wright, & Van de Graaff, 2012). Self-efficacy allows individuals to persist through difficult situations and fosters risk-taking (Bandura, 1995). Individuals with high self-efficacy are also more confident in

themselves and their abilities (Bandura, 1995). The capability of an employee to adapt to new situations is firmly tied to their level of self-efficacy (Griffin, Parker, & Mason, 2010). Overall employee effectiveness has been correlated with the motivation levels and performance of the individual (Moen & Allgood, 2009).

In addition to performance, motivation has been shown to be proportional with self-efficacy by Bandura (1995), and impacted, either positively or negatively, by applied leadership behaviors. According to Bandura (1989), individual motivation level and self-efficacy level are interrelated and proportional. Additionally, Moen & Allgood's study supports for the effects of leadership behavior on employee performance, whether it be solely motivation or self-efficacy, effectively employing the appropriate leadership behavior impacts subordinates' performance level (2009).

The leadership application of a supervisor has been show to affect the general self-efficacy of a subordinate (Moen & Allgood, 2009; Walumbwa, et al., 2008). Several studies have been accomplished to empirically link the connection between an individual's general-self-efficacy and their overall effectiveness (Walumbwa, et al., 2008; Judeh, 2012). The proposed research will explore which specific leadership behaviors, as defined by the Full-Range Leadership Model, most effectively positively impact the general self-efficacy of subordinates.

Impact of Age

There are 36,000 active duty company grade officers serving in the Air Force. Their ages range from 22 years old to 45+ years old (Air Force Personnel Center, 2012). Depending on the individual, they may have been commissioned through the Reserve Officer Training Coops (ROTC), attended a service academy, such as the United States

Air Force Academy, or commissioned through Officer Training School. Some CGOs have completed school and are commissioned as 2d Lts at the age of 22 and others may have enlisted in the military first and then pursued a commission after a number of years. The vast array of opportunities afforded personnel to pursue a commission account for the large age range associated with the CGO corps.

The age of an individual is an extremely important demographic to consider (Zikmund, Babin, Carr & Griffin, 2009). The age of the participant can account for several factors that could influence the outcomes of a study. Age has been associated with experience, maturity and other tacit characteristics (Zikmund, et al., 2009). These qualities lack effective measurement and operational conceptualization required to be effectively calculated with scientific certainty (Chong & Wolf, 2010). Age is a nominal variable, which can be analyzed and left to others to ascertain possible implications and encourage further study.

Age influence on leadership impact.

The concept of leadership influence and effectiveness has been studied since 1849 with Carlylse's "Great Man Theory. In these studies, the researcher would generally account for age as a population demographic. A limited number of studies have surrounded the age of the follower as a variable to study leadership effectiveness or influence (Chong & Wolf, 2010). Ojode, Walumbwa, and Kuchinke (1999) and Vecchio and Boatright (2002) conducted studies regarding the effectiveness of leadership on the age of the follower. Both studies deduced older followers actually appreciate a more directive approach from their leaders than freedom, which was the opposite of the anticipated result indicating effective leadership behavior is moderated by the age of the

followers. In addition, Miller, Butler, and Cosentino, (2004) conducted a study which explored the effectiveness of a follower. In this study Miller, et al., deduced older followers are negatively impacted by organizational change. This is important as transformational leadership is steeped in improving the organization and may have a negative impact on workers providing support for assessing the moderating effect of age on the relationship between leadership behavior and general self-efficacy.

Age influence on general self-efficacy.

As discussed earlier, GSE is the level of a person's belief in their ability to succeed despite a wide array of stressors (Bandura, 1997). There is not a set baseline and the level is dynamic across a host of demographic variables. One of these variables is age. One could argue for GSE to be higher in older, more experienced individuals while on the other hand it could be lower as they realize the limitations of their abilities as they age (Rabl, 2010). For example, in a study in Buenos Aires, 292 participants completed the NGSES and based on their age group, their GSE ratings were significantly different; with the older participants having a consistently higher mean score than the younger groups (Brenlla, Aranguren, Rossaro & Vázquez, 2010). This study also supports age could be a moderating or mediating variable in the relationship between specific leadership behavior and general self-efficacy of USAF CGOs.

Summary

It would be difficult to dispute the importance of solid leadership within an organization. The development of a leader is extremely important, especially in the Air Force who recruits potential cadets for commissioned service. These cadets become company grade officers in the junior commissioned ranks and must be developed as they

are progressively promoted to senior leadership positions. The Air Force does not recruit senior leaders from other branches of service or from civilian organizations, they must grow them from the time of recruitment and develop them throughout their career.

There is a significant amount of literary support regarding the premise of the proposed study. The FRLM provides a solid foundation in which to assess leadership behavior (Sosik & Jung, 2010). Self-efficacy, despite being a potentially diverse concept in definition and analysis, has some static attributes, which are common to all interpretations of subordinate effectiveness (Nurittamont, 2012). There is solid support providing promise of a correlation regarding the effect of leadership behaviors and attributes on self-efficacy (Walumbwa, et al., 2008).

This literature review provided a semi-chronological overview of leadership theories, which helped shape the creation of the Full-Range Leadership Model (FRLM). Beginning with the Great Man Theory and then the evolution of leadership theories categorized by the traits, styles, and behaviors of the leader and moving on to Contingency Leadership Theories culminates to the FRLM which has been the pinnacle of validity and reliability among leadership theories for the last 20 years (Sosik & Jung, 2010).

In addition to leadership theories, a review of literature analyzing Bandura's concept of self-efficacy (1995) was explored as well as the effects of leadership on self-efficacy. There is a significant amount of research and corresponding data to support a connection between the impact of leadership behavior on self-efficacy which is important as it is tied directly to the effectiveness of subordinates (Walumbwa, et al., 2008; Moen & Allgood, 2009). While these areas have been studied in great detail there remains a gap

in research identifying which specific leadership behavior has the greatest relationship with a subordinates positive general self-efficacy and the potential moderating factor of subordinate age providing an opportunity to explore the concept in greater detail, specifically as it applies to developing future Air Force senior leaders.

Chapter 3: Research Method

Developing subordinates is a requirement for being competitive in today's rapidly changing world (Avolio & Bass, 2004). While much research on leadership development has been conducted in the commercial business sector, it also applies to the United States military. The 2011 United States National Military Strategy (NMS) addresses the need to develop future military leaders to meet the challenges of a world exponentially growing in complexity (United States Government, 2011). One way to develop future leaders is through effective leadership. Superior officers are charged with the development of their subordinates who are the future leaders of the military (United States Air Force, 2011).

The focus of leadership studies over the last 20 years has been on the Full-Range Leadership Model (FRLM) (Mannheim & Halamish, 2008). The FRLM was originally developed by Avolio, Bass, and Jung (1999) and provides a well-defined set of nine leadership behaviors that fall into three leadership styles; laissez-faire, transactional, and transformational (Sosik & Jung, 2010). The FRLM is a useful tool and provides a structure to assess leadership behaviors.

Development of subordinates can be approached from several different perspectives: providing job knowledge, counseling, coaching, and mentoring (Yukl, 2012, United States Air Force, 2011). Regardless of the approach utilized by the manager to develop the subordinate, one critical component for successful development lays in increasing the subordinate's self-efficacy (Moen & Allgood, 2009). Self-efficacy has been shown to directly correlate with an individual's effectiveness; it has been empirically proven that subordinates with higher levels of self-efficacy are better at completing both simple, well-defined tasks and broad, complex duties than subordinates

with lower levels of self-efficacy (Zulkosky, 2009; Walumba, et al., 2008; Yeo & Neal, 2006; Chen, Casper & Cortina, 2001).

Despite numerous studies conducted exploring independent effects of leadership and self-efficacy, practically no research has been conducted regarding the interactive effects of specific leadership behaviors on subordinate general self-efficacy (Walumbwa, Lawler, Avolio, Wang & Shi, 2005). There have been several studies correlating various aspects of with subordinate self-efficacy, however, they have not identified which specific leadership behaviors or traits have the most impact on the general self-efficacy of a subordinate (Walumbwa, et al., 2008). Also, a significant portion of related research involved the analysis of self-efficacy in various and specific forms, to include task or job-specific, clinical, learning, health, familial roles, and voting (Judge, et al., 2007) but do not focus on the overall general self-efficacy of the subordinate (Judge, et al., 2007). In the context of addressing the problem statement, general self-efficacy is the ideal variable as it is a predictably stable and measurable trait to effectively predict behavior across all situations, not merely stove-piped competencies (Chen, Gully & Eden, 2001; Chen, Gully, Whiteman, & Kilcullen, 2000; Scholz, Dona, Sud & Schwarzer, 2002; Schwarzer, 1992; Schwarzer & Jerusalem, 1995).

In this quantitative study, correlations were explored between specific leadership behaviors and self-efficacy in United States Air Force (USAF) company grade officers (CGO) utilizing statistical correlations, step-wise multiple linear regression, and moderation analysis. Higher levels of self-efficacy of the USAF CGOs served as the primary indicator for ascertaining the desired impact of leadership behavior on subordinate general self-efficacy. The results of this study will provide statistical data to

support predictions regarding which leadership behaviors correlate into higher levels of self-efficacy in USAF CGOs and identify moderating or mediating effects of age of the age of the subordinate.

This chapter contains information on the research methods and design used to explore the research questions. It will also contain information regarding the materials and instruments used, to include population and sampling method. In addition, operational definitions of the variables used in the study, data collection, processing, and analysis, methodological assumptions, limitations, and delimitations, and ethical assurances will be provided.

Research Methods and Design

This quantitative study was conducted utilizing statistical analysis to investigate the correlation between the leadership behavior, as defined by the FRLM, of a superior officer and the self-perceived general self-efficacy of a USAF CGO, or subordinate. The independent variables of the study are the leadership behaviors, as perceived by the subordinate, defined by the FRLM as laissez-faire, management-by-exception (passive), management-by-exception (active), contingent reward, idealized influence (behavior), idealized influence (attribute), intellectual stimulation, inspirational motivation, and individual consideration, and assessed through the MLQ 5x. Another independent variable is the age grouping of the subordinates to help explore the potential moderating factor of subordinate age on the relationship between the specific leadership behavior and the subordinate GSE. The CGO's level of general self-efficacy is the dependent variable. The independent variables are situational and are used to draw correlations regarding their effect on the responsive dependent variables. The levels of leadership behavior and

general self-efficacy are quantified utilizing surveys to organize and measure responses, which are translated into quantifiable data. The participants of the study were given two surveys, the MLQ 5x and the NGSES, and their responses were analyzed to determine if there is a relationship between each of the independent variables and the dependent variable.

The primary reason facilitating the decision to utilize a quantitative model to assess the correlation between FRLM and general self-efficacy versus a qualitative or mixed methods design to answer the research questions was the availability of valid and reliable instruments. The existing instruments used to assess leadership behaviors and general self-efficacy are comprised of Likert-type questions and are a quantifiable measurement. The MLQ 5x and NGSES have been proven to be valid and reliable and facilitate the use of quantifiable analysis.

The selection of the MLQ 5x and NGSES used to measure leadership behavior and general self-efficacy was taken after extensive review of other studies regarding similar subject material and evaluation for suitability to measure the variables within the definitions and parameters of the proposed study. Additionally, both the MLQ 5x and NGSES have a significant amount of data supporting their validity and reliability.

The NGSES was developed by Chen, Gully, & Eden (2001). To determine the validity and reliability of the survey, they conducted three independent studies to gauge the validity of the NGSE against other GSE instruments. In these studies, they examined content and predictive validity and reliability of the instrument (Chen, et al, 2001). The NGSES was statistically proven to be valid and reliable consistently yielding significantly higher content and predictive validity than other scales measuring general

self-efficacy. In addition to being proven valid and reliable, the NGSES most closely aligns with both the independent variables and the subject of the study without sacrificing internal consistency.

The MLQ 5x was developed by Bass & Avolio and to validate the instrument they conducted a series of tests (n=2,154). The reliability scores calculated for the total items, and for each leadership behavior, were acceptable and ranged between .74 and .94. This instrument has undergone rigorous testing and evaluation and has been shown to be valid and reliable by several organizations and researchers (Avolio, Bass & Jung, 1999; Xirasagar, 2008).

A quantitative correlation research methodology was selected for this research due to the advantage of ascertaining the attributes of a large population sample over other methodologies (Borrego, Douglas, & Amelink, 2009). Quantitative research is more objective than qualitative, or mixed methods research methodologies as it separates a researcher's involvement from the study and utilizes statistical analysis to support hypotheses (Borrego et al., 2009).

Quantitative correlational studies are typically used to examine the relationship between variables where a change in one variable results in a change to another variable (Fisher & Stenner, 2011). In the case of the proposed study, this methodology is best suited to ascertain whether a relationship between specific leadership behaviors and subordinate general self-efficacy exists. In addition, the moderating and/or mediating effect of the subordinate's age will also be analyzed through quantitative means to determine if there is statistical significance to support the hypotheses.

This study, utilizing correlational and regression analysis, did not prove causality, only supported conclusions that show there is an association, which may support hypotheses (Fisher & Stenner, 2011). While these relationships did not prove cause and effect, data gleaned from this methodology may support additional research toward proving causality.

Participants

The participants of this study were active duty CGOs in the USAF. To preserve the confidentiality of the participants, demographic data was limited to age, career-specific information, and did not include personal information. Additionally, access to the data is limited solely to the researcher and was captured, analyzed, and reported as aggregate data used to ascertain correlations. Each participant was provided a statement of written assurance his or her information is protected and will not be released to other parties.

This study was conducted utilizing simple self-selection with participation from random volunteers consisting of active duty CGOs from across the USAF. The age of participants is between 22 and 49 years old, all with at least a bachelor's degree from an accredited university. The population is comprised of both male and female commissioned officers from a cross-section of specialties, military bases, and other duty locations from across the USAF and around the world.

Participants are volunteers who were invited to participate via Facebook through the Company Grade Officer Council, a volunteer association at each USAF installation. Participants are volunteers who willfully completed the surveys for the study. Company grade officers are currently junior leaders but many will rise to future senior leadership

positions within the Air Force. This group provides an appropriate target for identifying development opportunities.

Prior to conducting research, a power analysis was conducted utilizing three different a-priori tests to determine the minimum required sample size; chi-square test, T-test for correlations, and T-test for means. For all three tests, a power level of .80 and an alpha level of .05 were used, which are acceptable levels utilized in behavioral research (Cozby, 2009). The T-test for correlations resulted in a minimum sample size of 64, chi-square test was 88, and the T-test for means required a sample size of 128. This study has a population of n= 339.

Materials/Instruments

The research was accomplished using correlation and regression analysis to investigate the association between the leadership behavior of a superior and the self-perceived general self-efficacy of a subordinate. The independent variables of the study are the leadership behaviors, as perceived by the subordinate, defined by the FRLM, and assessed through the Multifactor Leadership Questionnaire (MLQ 5x) and the age of the participant. The subordinate's level of general self-efficacy is the dependent variable. The participants of the study were given two surveys, and the answers were analyzed to determine if there is a correlation between the two variables.

The participants were given the MLQ 5x to measure the leadership behaviors of their superior officers and the New General Self-Efficacy Survey (NGSES) to measure their self-perceived general self-efficacy. The study included the New General Self-Efficacy Scale (NGSES) developed by Sherer, et al. (Sherer, Maddux, Mercandante, Prentice-Dunn & Rogers, 1982) and validated by Chen, Gully, & Eden (2001) as a

measure of individual self-perceived general efficacy. The instrument consists of eight questions scored on 1-4 Likert type scale from strongly disagree (1) to strongly agree (4) to gauge an individual's estimate of their ability and/or confidence to be able perform successfully under various situations (Chen, et al., 2001).

The MLQ 5x was used to calculate the effectiveness of supervisor application of FRLM. This model and instrument have undergone rigorous testing and evaluation and have been shown to be valid and reliable by several organizations and researchers (Bass & Avolio, 2004; Xirasagar, 2008). The MLQ 5x has a copyright and the researcher secured the rights to utilize this instrument.

The instrumentation and definitions used in this study have been determined to be reliable. This study is focused on full-range leadership behaviors measured by the MLQ 5x and general self-efficacy measured by the NGSES. The MLQ 5x survey has been shown to be valid and reliable in measuring the leadership behaviors as defined in the FRLM (Xirasagar, 2008). The leadership definitions have been shown to effectively measure and differentiate between similar leadership behaviors.

The questions contained in the NGSES are focused on responses used to measure general self-efficacy. One could argue the characteristics of general self-efficacy could be used to describe other traits such as confidence or self-esteem. However, the NGSES has been shown to be both reliable and valid in measuring the self-perceived general self-efficacy of individuals (Chen, Gully & Eden , 2001) negating this claim.

Operational Definition of Variables

The laissez-faire, transactional, and transformational leadership constructs were measured using the MLQ 5x survey which measures the nine sub-categories of leadership

behaviors of laissez-faire, management-by-exception (passive), management-by-exception (active), contingent reward, idealized influence (behavior), idealized influence (attribute), intellectual stimulation, inspirational motivation, and individual consideration. These nine sub-categories are the independent variables. The general self-efficacy construct is the dependent variable and will be assessed utilizing the New General Self-Efficacy Scale (NGSES).

Both the MLQ 5x and NGSES instrument utilize a 5-point Likert-type scale. Results will be undergoing statistical analysis to ascertain correlation. Table 1 contains a list of operational variables, which is followed by a list of the operational definitions to be used in the proposed study.

General Self-Efficacy (GSE). GSE is an individual's belief in their capability to meet the demands of a myriad of tasks across a wide array of different situations (Yeo & Neal, 2006). This dependent variable will be measured utilizing the NGSES survey. The scoring process for each variable is provided in Table 2 (see Table 2).

Laissez-Faire (LF) leadership. Complete lack of leadership. People in leadership positions who demonstrate laissez-faire behavior shirk responsibility avoid making decisions and exert no effort towards the development of their subordinates (Avolio, 2011). This independent variable will be measured utilizing the MLQ 5x survey. The scoring process for each variable is provided in Table 2 (see Table 2).

Transactional Leadership. This type of leadership is more associated with management. A leadership style in which the leader sets standards, and either diligently monitors performance for deviations, or reactively responds to negative effects of poor

performance. A leader offers a form of feedback as a subordinate may be rewarded or disciplined for meeting or failing to meet standards (Dvir, Eden, Avolio, Shamir, 2002).

Table 1

Operational Variables

Construct	Variable	Abbreviations
Laissez-Faire	Laissez-Faire [X]	LF
Transactional	Management by Exception	MBE-P
Transactional	(Passive)[X]	MBE-A
Transactional	Management by Exception	CR
Transformational	(Active)[X]	IIA
Transformational	Contingent Reward[X]	IIB
Transformational	Idealized Influence (Attributes)[X]	IM
Transformational	Idealized Influence (Behaviors)[X]	IS
Transformational	Inspirational Motivation[X]	IC
Self-Efficacy	Intellectual Stimulation[X]	GSE
Age	Individual Consideration[X]	AGE
	General Self-Efficacy[Y]	
	Age[Z]	
X identifies independent variable Y identifies dependent variable Z identifies moderating independent variable		

Transactional leadership is comprised of Management by Exception- Active (MBE-A), Management by Exception- Passive (MBE-P), and Contingent Reward leadership behaviors (Bass, Avolio, Jung, & Berson, 2003; Sosik & Jung, 2010). Transactional leadership will be measured by combining the aggregate scores for each of the associated leadership behaviors to determine the average overall score (see Table 2).

Management by Exception- Active (MBE-A) leadership. The leader establishes standards and policy and actively monitors performance for deviations. The leader promptly corrects noncompliance (Sosik & Jung, 2010). This independent

variable will be measured utilizing the MLQ 5x survey. The scoring process for each variable is provided in Table 2 (see Table 2).

Management by Exception- Passive (MBE-P) Leadership. The leader is extremely reactive and only intervenes when absolutely necessary after problems grow in significance enough to demand his or her attention. Maintains the status quo (Sosik & Jung, 2010). This independent variable will be measured utilizing the MLQ 5x survey. The scoring process for each variable is provided in Table 2 (see Table 2).

Contingent Reward (CR) Leadership. The leader provides the follower with clear objectives, goals, and/or standards and rewards him or her for meeting them (Avolio, 2011). This independent variable will be measured utilizing the MLQ 5x survey. The scoring process for each variable is provided in Table 2 (see Table 2).

Transformational Leadership. Transformational Leadership is a style of leadership that generates change in individuals, processes, and/or an organization. This style of leadership, in its ideal form, supports, inspires, motivates, and encourages individuals, and teams to increase performance to meet individual and organizational objectives. It consists of Individual Consideration (IC), Idealized Influence (Attributes), Idealized Influence (Behaviors), Inspirational Motivation, and Intellectual Stimulation (Avolio, 2011). Transformational leadership will be measured by combining the aggregate scores for each of the associated leadership behaviors to determine the average overall score (see Table 2).

Table 2

Instrument Scoring Methodology

MLQ 5x		
Variable	**Questions**	**Scoring**
Laissez-Faire[LF]	5, 7, 28, 33	Total of LF questions/4
Management by Exception (Passive)[X]	3, 12, 17 ,20	Total of MBE-P questions/4
Management by Exception (Active)[X]	4, 22, 24, 27	Total of MBE-A questions/4
Contingent Reward (CR)[X]	1, 11, 16, 35	Total of CR questions/4
Idealized Influence (Attributes)[F]	10, 18, 21, 25	Total of IIA questions/4
Idealized Influence (Behaviors)[F]	6, 14, 23, 34	Total of IIB questions/4
Inspirational Motivation[F]	9, 13, 26, 36	Total of IM questions/4
Intellectual Stimulation[F]	2, 8, 30, 32	Total of IS questions/4
Individual Consideration[F]	15, 19, 29, 31	Total of IC questions/4
NGSES		
Variable	**Questions**	**Scoring**
General Self-Efficacy	1-8	Sum of questions/8
[LF] identifies Laissez-Faire leadership behavior		
[X] identifies Transactional leadership behavior		
[F] identifies Transformational leadership behavior		
(Questions 37-45 measure other data not associated with the variables of this study).		

Individualized Consideration (IC) Leadership. The leader personalizes mentoring, coaching, and leadership approaches to meet the developmental requirements of the individual subordinate. The leader makes an effort to become familiar with the subordinate's background and development needs and tailors his or her leadership style to

the individual to create a supportive environment and trusting relationship (Sosik & Jung, 2010). This independent variable will be measured utilizing the MLQ 5x survey. The scoring process for each variable is provided in Table 2 (see Table 2).

Inspirational Motivation (IM) Leadership. The leader provides an attractive vision and challenges subordinates to strive for and meet goals. The leader conveys enthusiasm, confidence, and optimism in the future of the organization, for the team, and each individual (Avolio & Bass, 2004). This independent variable will be measured utilizing the MLQ 5x survey. The scoring process for each variable is provided in Table 2 (see Table 2).

Idealized Influence (Attributes) (IIA) Leadership. Idealized influence (attributes) (IIA) leadership is defined as the perception by subordinates of their superior officer's leadership qualities. Some of these qualities include their ability to instill pride, their willingness to self-sacrifice, their respect for others, and their level of confidence and power (Sosik & Jung, 2010). The scoring process for each variable is provided in Table 2 (see Table 2).

Idealized Influence (Behaviors) (IIB) Leadership. The leader's conduct provides a positive example for others to emulate or follow. His or her actions demonstrate superior adherence to a strong personal value system, commitment to the organization, and ethics (Sosik & Jung, 2010). This independent variable will be measured utilizing the MLQ 5x survey. The scoring process for each variable is provided in Table 2 (see Table 2).

Intellectual Stimulation (IS) Leadership. Leaders encourage critical, creative, and innovative thought. They challenge paradigms and allow subordinates the freedom

to think and make mistakes. They force subordinates to exert cognitive energy in problem-solving to develop ideas (Avolio, 2011). This independent variable will be measured utilizing the MLQ 5x survey. The scoring process for each variable is provided in Table 2 (see Table 2).

Age. The age of the participants. Respondents will be asked to provide their age as part of demographical date collection and will be categorized as an independent variable. This variable will not be scored but utilized to categorize the potential moderating effect of respondent's age on the relationship between specific leadership behaviors and CGO GSE.

Data Collection, Processing, and Analysis

Data was collected utilizing two surveys, the MLQ 5x to measure the independent variables of leadership behaviors, as defined by the FRLM, and the NGSES to measure the dependent variable of general self-efficacy. The respondents took the NGSES to assess their general self-efficacy on a 5-point Likert-type scale with a range of 0-4 measuring from strongly disagree (0) to strongly agree (4) (Chen, Gully, & Eden, 2001). The overall measurement for this independent variable is assessed by averaging the sum for all questions in the NGSES.

The independent variables of laissez-faire, management-by-exception-passive, management-by-exception-active, contingent reward, idealized influence-both behavioral and attribute-based, inspirational motivation, individual consideration, and intellectual stimulation were assessed utilizing the MLQ 5x. The respondent assessed their superior officer's leadership behaviors on a 5-point Likert-type scale with a range of 0-4: 0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, and 4 = frequently, if not

always (Avolio & Bass, 2004). The overall measurement for this independent variable is assessed by averaging the sum for all questions related to this construct in the MLQ 5x. Since there are not established criterion for what constitutes a high or low score, the mean scores for each variable will calculated to define what constitutes a high or low score. These scores will be used as the basis to ascertain the degree of correlation between each independent variable and the dependent variable.

The results of the MLQ 5x and NGSES surveys were analyzed through statistical correlation. All statistical analyses were performed using SPSS for Windows Version 20. All of the analyses was assessed with a 5% alpha level. Descriptive statistics of the study sample are described using the mean, standard deviation, and range of responses for each variable. Cronbach's alpha is used to assess the internal consistency reliability of the leadership behaviors and styles and general self-efficacy of the company grade officers.

Hypothesis 1 was tested using Pearson's correlation coefficient to determine whether there is a correlation between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy by assessing each of the specific leadership behaviors of laissez-faire, Management by Exception (Passive), Management by Exception (Active), Contingent Reward, Idealized Influence, Intellectual Stimulation, Inspirational Motivation, and Individual consideration were assessed using the MLQ 5x against the general self-efficacy scores gathered on the NGSES. Scores above zero are used to reject the null hypothesis.

To examine research question 2, a step-wise multiple linear regression was conducted. The multiple linear regression is the appropriate analysis to conduct when the goal is to assess if a set of continuous predictor variables relate to a continuous dependent

variable. In this case, the leadership behaviors are the continuous predictor variables. The general self-efficacy is the dependent variable of the analysis. A step-wise method was used, which entered only variables that significantly improve the model into the regression. It entered these variables into the model until no other predictor variables are related to the dependent variable.

To examine research question 3, a Baron and Kenny (1986) moderation analysis was conducted to assess if age moderated the relationship between leadership behaviors and general self-efficacy. A moderation analysis is the appropriate analysis to conduct when the goal is to assess if the relationship between two continuous variables is moderated by another variable. In this case, age is the moderator, the leadership behaviors are the independent predictor variables, and the general self-efficacy is the dependent variable. Only those variables left in the model from Research Question 2 were assessed for moderation.

Methodological Assumptions, Limitations, and Delimitations

Extreme care was taken to consider validity and reliability in building the research plan. Some areas of concern are aspects of internal, external, and convergent validity and reliability of instrumentation. Each has been addressed to either reduce or eliminate the potential negative impact on the research.

The population sample is a potential threat to both internal and external validity. The selection of participants are all commissioned CGOs in the USAF. This could impact the generalization of the research findings as they share very similar experiences which could predispose their responses while completing the surveys (Trochim &

Donnelly, 2008). In addition, all participants are volunteers which could also skew results (Trochim & Donnelly, 2008).

The population is also a threat to external validity. One could argue the research may or may not be sufficiently generalized to apply to the civilian sector or other occupations. However, the research data should be applicable to the other estimated 36,000 company grade officers on active duty in the USAF (Air Force Personnel Center, 2012) as the participants were from across the service and a cross-section of specialties. The threat to internal and external validity were mitigated by ensuring the applicability of the study is sufficiently explained, and results are not generalized beyond the scope of validity.

Convergent validity identifies similarities with other studies where results of the proposed study could be similar with comparable studies (Cozby, 2009). This is a concern, as there are several studies in measuring leadership impact on various aspects of subordinate performance. The construct of this study is similar to other studies measuring the impact of FRLM on subordinate general self-efficacy, the main difference will be the population. There has not been a similar study utilizing Air Force Lieutenants and Captains concerning leadership influence on self-efficacy, reducing or eliminating threats to the convergent validity of the proposed study.

The instrumentation and definitions used in the research have been shown to be reliable. This study is focused on full-range leadership behaviors measured by the MLQ 5x and general self-efficacy measured by the NGSES. The MLQ 5x survey has been shown to be valid and reliable in measuring the leadership behaviors as defined in the

FRLM (Xirasagar, 2008). The leadership definitions have been shown to effectively measure and differentiate between similar leadership behaviors.

The questions contained in the NGSES are focused on responses used to measure general self-efficacy. One could argue the characteristics of general self-efficacy could be used to describe other traits such as confidence or self-esteem. However, the NGSES has been shown to be both reliable and valid in measuring the self-perceived general self-efficacy of individuals (Chen, Gully & Eden, 2001) negating this claim.

Ethical Assurances

Participants in this study are protected under the policies and guidelines of the Northcentral University Institutional Review Board (IRB). Approval was secured from the IRB prior to administering any surveys or attempting to collect data. The survey was limited to gathering demographical data and did collect personal identifiable information. Participants were informed of the use of the survey data to support independent research, and it is not associated with the United States Air Force, and did not link responses to the individual, nor provided to the United States Air Force. No questions were asked which could be used to identify a specific individual participant.

Survey data is stored on a password protected computer until after completion of the dissertation defense. After which the data will be stored on a removable external storage device, password protected, and secured in the researcher's safe for seven years after the date the dissertation is approved, defended and published, whichever is later. After seven years, the data will be erased.

The surveys were conducted in a forthright manner providing transparency on the use of the data to ensure full-disclosure. No monetary incentives were offered or

provided, and participation was voluntary. There is a minimal risk to the participant in regard to harm, informed consent, right to privacy, and honesty as required by the Northcentral University IRB.

Summary

This chapter discussed the research methods and designs used to research the effect of specific leadership behaviors on USAF CGOs' general self-efficacy to foster effectiveness. In addition, this chapter provided information regarding the population sample and participants of the study in order to gather data to quantitatively support acceptance or rejection of the hypotheses posed to answer the research questions. This chapter also provided information on the MLQ 5x and NGSES surveys, the rationale for their use and their reliability and validity. Also provided were the operational definitions of the variables, data collection, procedures and analysis as well as the methodological assumptions, limitations and delimitations associated with the construct of the research. Lastly, ethical assurances to ensure the privacy of the participants and the methods used to secure their responses was provided.

The results of this study could be generalized across an estimated 36,000 company grade officers on active duty in the USAF (Air Force Personnel Center, 2012) as the participants would be from across the service and a cross-section of specialties. Additionally, the findings may also be applicable to other branches of the military in the United States as well as other military services worldwide. Potentially, although not military, these findings could be useful to the civilian sector for businesses with similar demographics but comparisons may risk validity.

Chapter 4: Findings

The 2011 United States National Military Strategy (NMS) addresses the need to develop future military leaders to meet the challenges of a world exponentially growing in complexity (United States Government, 2011). One way to develop future leaders is through effective leadership. Superior officers are charged with the development of their subordinates who are the future leaders of the military (United States Air Force, 2011).

Development of subordinates can be approached from several different perspectives: providing job knowledge, counseling, coaching, and mentoring (Yukl, 2006, United States Air Force, 2011). Regardless of the approach utilized by the manager to develop the subordinate, one critical component for successful development lays in increasing the subordinate's self-efficacy (Moen & Allgood, 2009). Self-efficacy has been shown to be directly correlated with an individual's effectiveness; it has been empirically proven that subordinates with higher levels of self-efficacy are better at completing both simple, well-defined tasks and broad, complex duties than subordinates with lower levels of self-efficacy (Zulkosky, 2009; Walumba, Avolio & Zhu, 2008; Yeo & Neal, 2006; Chen, Casper & Cortina, 2001).

Despite numerous studies conducted exploring independent effects of leadership and self-efficacy, practically no research has been conducted regarding the interactive effects of specific leadership behaviors on subordinate general self-efficacy (Walumbwa, Lawler, Avolio, Wang & Shi, 2005). There have been several studies correlating various aspects of with subordinate self-efficacy, however, they have not identified which specific leadership behaviors or traits have the most impact on the general self-efficacy of a subordinate (Walumbwa, et al., 2008). Also, a significant portion of related research

involved the analysis of self-efficacy in various and specific forms, to include task or job-specific, clinical, learning, health, familial roles, and voting (Judge, Shaw, Jackson, Scott, & Rich, 2007) but do not focus on the overall general self-efficacy of the subordinate (Judge, et al., 2007). The purpose of this quantitative study is to analyze, through correlational and regression analysis, if specific leadership behaviors can predict increased levels of general self-efficacy (GSE) in United States Air Force (USAF) Company Grade Officers (CGO).

This chapter begins with a brief synopsis of the purpose of this research study. Next, the results of the study are provided to include demographic data and descriptive statistics of the data. In addition, an evaluation of the findings for each research question and corresponding hypotheses is provided. This chapter will conclude with a summary of the key points applicable to this chapter.

Results

Active duty United States Air Force Company Grade Officers were recruited via the Air Force Company Grade Officer Council Facebook page to participate in this research. Each participant completed the informed consent disclaimer and provided demographic data prior to completing a combined survey of the Multifactor Leadership questionnaire (MLQ 5x) and the New General Self-Efficacy Survey (NGSES). The first 45 questions were from the MLQ 5X and the remaining eight were from the NGSES. 525 CGOs participated in the survey with 339 providing complete information for a 65% usable response rate. Incomplete data invalidated the responses as each variable was measured as a mean of the applicable questions. The total sample size (N=339) exceeded the required amount to attain a power level of .80 and an alpha level of .05.

Demographic Data

The mean age of all respondents was 31 years old (SD = 5.64). The majority of participants were male (n=235, 69%) falling in line with Air Force demographics. Approximately three-fourths of the participants identified themselves as Captains (n= 237, 70%), with almost one quarter being First Lieutenants (n=80, 24%), and the remainder Second Lieutenants (n= 22, 6%). In addition, about three quarters of the participants were line officers (n= 267, 79%) and the remainder were non-line officers

Table 3

Demographic Frequency and Percentage of Participants

Demographics	*n*	%
Female	104	31%
Male	235	69%
Second Lieutenant	22	6%
First Lieutenant	80	24%
Captain	237	70%
Line	267	79%
Non-Line	72	21%
Rated	53	16%
Non-Rated	286	84%
Prior Enlisted	87	26%
Non-Prior Enlisted	252	74%

(n=72, 21%). Line officers make up the majority of the officers in the military. Non-line officers are considered professional officers like medical doctors, nurses, lawyers, and chaplains. Of the participants, the majority were non-rated, in other words did not possess an aeronautical rating (n=286, 84%), with the remainder being rated officers (n=53, 16%). The final demographic was whether the participant served in an enlisted capacity prior to their commissioning: 87 (26%) had served prior with 252 (74%) being

direct accessions. Table 3 contains a summary of the demographic information of the participants.

Descriptive Statistics

Descriptive statistics were calculated for all of the independent and dependent variables in the study. General self-efficacy ranged from a score of 2.30 to 5.00 (M=4.41, SD=0.53). All other variables of interest were rated on a scale of zero to four, with the highest means being held by survey responses pertaining to idealized influence (attributes; 2.60) and followed closely by inspirational motivation (2.53) and idealized influence (behaviors; 2.50). Responses to individual consideration (1.06) and idealized influence (attributes; 1.05) had the highest standard deviations.

Table 4

Means and Standard Deviations for Variables of Interest

Variable	*M*	*SD*	Skewness	Kurtosis
Age	31.43	5.64	0.88	0.18
General self-efficacy	4.41	0.53	-0.77	0.73
Laissez-Faire	0.86	0.77	0.81	0.11
Management by exception (passive)	1.50	0.88	0.44	-0.07
Management by exception (active)	1.74	0.91	0.28	-0.61
Contingent reward	2.45	0.85	-0.61	0.07
Idealized influence (behaviors)	2.50	0.97	-0.46	-0.47
Idealized influence (attributes)	2.60	1.05	-0.54	-0.67
Individual consideration	2.33	1.06	-0.55	-0.54
Inspirational motivation	2.53	1.00	-0.37	-0.79
Intellectual stimulation	2.32	0.95	-0.53	-0.52

The following questions and associated hypotheses were created to help frame this quantitative correlational design study:

Research Question One. The following is a restatement of Research Question One and the corresponding null and alternative hypotheses.

Q1. What, if any, correlation exists between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy?

$H1_0$: There is no correlation between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy?

$H1_a$: A statistically significant correlation exists specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy?

To assess this research question, a Pearson correlation was conducted between the nine listed leadership behaviors and general self-efficacy scores. Three behaviors showed a statistically significant relationship with general self-efficacy. These behaviors included idealized influence (behaviors; $r = .140$, $p = .010$), inspirational motivation ($r = .134$, $p = .014$), and individual consideration ($r = .110$, $p = .044$). As indicated by the positive Pearson correlation coefficients, as these particular leadership behaviors increase so too do the self-perceived general self-efficacy scores. Results of the Pearson correlation are presented in Table 5.

Table 5

Pearson Correlations between Leadership Behaviors and General Self-Efficacy

Leadership Behaviors	General Self-Efficacy
Laissez-Faire	-.04
Management by exception (passive)	-.01
Management by exception (active)	-.01
Contingent reward	.06
Idealized influence (behaviors)	.14**
Idealized influence (attributes)	.09
Individual consideration	.11*
Inspirational motivation	.13*
Intellectual stimulation	.05

Note: * $p < .05$. ** $p < .01$.

Research Question Two. The following is a restatement of Research Question Two and the corresponding null and alternative hypotheses.

Q2. Which specific leadership behaviors predict USAF CGO's self-perceived general self-efficacy?

$H2_0$: There are no specific leadership behaviors that can predict USAF CGO's self-perceived general self-efficacy.

$H2_a$: There are specific leadership behaviors that can predict USAF CGO's self-perceived general self-efficacy.

In order to assess the question, a step-wise multiple linear regression was conducted. General Self-efficacy was entered as the dependent variable, with all nine leadership behaviors entered as potential independent variables. Only idealized influence (behaviors) was related enough to be entered into the model, and thus multicollinearity was not considered. The assumption of normality was assessed using a P-P plot and the plot did not deviate strongly from normality. This indicated that the assumption was met. The assumption of homoscedasticity was assessed using a residuals scatterplot. The scatterplot followed a rectangular distribution, which implies that the assumption was met. The results of the linear regression suggest that idealized influence (behaviors) alone was a statistically significant predictor ($p = .010$) of self-efficacy scores. For every one unit increase in idealized influence (behavior), general self-efficacy scores increased by (B) 0.08 units. Results of the step-wise multiple linear regression are presented in Table 6.

Research Question Three. The following is a restatement of Research Question Three and the corresponding null and alternative hypotheses.

Q3. What influence does the age of the CGO have on the relationship between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy?

$H3_0$: The relationship between specific leadership behaviors and USAF CGO's self-perceived general self-efficacy is not moderated by the age of the CGO.

$H3_a$: The relationship between specific leadership behaviors and USAF CGO's self-perceived general self-efficacy is moderated by the age of the CGO.

Table 6

Linear Regression of Self-Efficacy Predicted by Idealized Influence (Behaviors)

Source	*B*	*SE*	β	*t*	*p*
Idealized influence (behaviors)	0.08	0.03	0.14	2.60	.010

Note. $F(1, 337) = 6.76, p = .010, R^2 = 0.02$

To assess this question, a moderation analysis was conducted using only independent variables from the step-wise regression as potential independent variables to determine what effect age has upon the relationship. Because only idealized influence (behaviors) was used in the step-wise regression, only the relationship between it and self-efficacy scores was evaluated using age as a moderator. In this regression, idealized influence (behavior), age, and the interaction of the two was examined as predictors of general self-efficacy scores. The interaction term is created by taking the product of idealized influence (behaviors) and age, after they have been centered to have a mean of zero. The results of the regression were significant $F(3, 335) = 6.31, p < .001, R^2 = 0.05$. The interaction was examined for significance and was found to be statistically significant ($B = 0.02, p = .001$) suggesting moderation can be supported. Results of the regression can be found in Table 7.

To assess further for moderation, participants were split at the mean (M=31.43) into two categories of age: 30 and younger, and 31 and older. Correlations were conducted between idealized influence (behaviors) and general self-efficacy separately for both age groups to assess whether the relationship changed. Results of the correlation were significant only for the group including the 31 year and older CGOs ($r = .33, p < .001$) suggesting that the older age group had a significant relationship between idealized influence (behaviors) and self-efficacy scores while the younger group did not. Results from the correlations are presented in Table 8.

Table 7

Results for Multiple Linear Regression with the Interaction between Age and Idealized Influence (Behaviors) Predicting Self-Efficacy Scores

Source	*B*	*SE*	β	*t*	*p*
Idealized influence (behaviors)	0.07	0.03	.12	2.21	.028
Age	0.00	0.01	.04	0.73	.466
Interaction of IIB and age	0.02	0.01	.18	3.39	.001

Note. $F(3,335) = 6.31, p < .001, R^2 = 0.05$

Table 8

Pearson Correlation between Idealized Influence (Behaviors) and Self-Efficacy for Two Age Groups

Age group	General self-efficacy with idealized influence (behaviors)
30 or less	-.08
31 or more	.33**

Note: * $p < .05$. ** $p < .01$.

Evaluation of the Findings

The purpose of this quantitative study was to explore whether there was a relationship between specific leadership behaviors, as defined by the FRLM (independent variables) and general self-efficacy of USAF company grade officers (dependent variable) and, whether those relationships are moderated by the age of the subordinate (moderating variable). While there is a significant amount of research on the effects of leadership on the general self-efficacy of subordinates, it has primarily focused on the transformational leadership and transactional traits and behaviors. Subsequently, the research has looked at those relationships from the lens of transformational and transactional leadership as a whole, not identifying the impact of specific leadership traits and behaviors on the subordinate's GSE. This study is an attempt to contribute to the limited research in these specific areas. The following information is an evaluation of findings organized by each research question used in the current study.

RQ1: The first research question explored what, if any, leadership behaviors were correlated with an USAF CGO's self-perceived general self-efficacy. In research question one, idealized influence (behaviors), inspirational motivation, and individual consideration leadership behaviors were shown to have a statistically significant relationship with the level of general self-efficacy of subordinate USAF CGOs. All of these independent variables fall under the broader classification of transformational leadership. Idealized influence (attributes) and intellectual stimulation also fall under the transformational leadership classification but were not statistically correlated. Laissez-faire nor any of the transactional leadership behaviors (CR, MBEA, and MBEP) were shown to have a significant correlation on the dependent variable. This finding is

consistent with past research. Transformational leadership has been correlated with GSE levels in several studies (Yukl & Mahsud, 2010, Moen & Allgood, 2009; Walumbwa, et al., 2008).

Studies by Walumbwa, et al. (2008) and Liu, Siu, & Shi (2010) each revealed an extremely strong correlation between Transformational Leadership behaviors and GSE, Walumbwa, et al. (2008) results indicated a correlation of (r=.23, p<.010) and Liu, et al, (2010) research indicated a correlation of (r=.20, p<.010). While this study did not measure Transformational leadership levels as a whole, the correlations in the subsets of idealized influence (behaviors), inspirational motivation, and individual consideration leadership behaviors showed similar correlations, especially in idealized influence (behaviors) (r=.14, p< .010). Inspirational motivation, and individual consideration leadership behaviors had a correlation but were not as strong (R=.11, p<.05) and (r=.13, p<.05) respectively.

Additionally, in Walumbwa, et al's study (2008), they link the correlation of leadership behaviors with GSE and identify the actions of the leader have a significant impact on subordinate GSE. While the variable measured in the study was transformational leadership, the study indicated that, specifically, the ethical and sound judgment of the leader impacts the GSE of the subordinate. This conclusion directly relates to the idealized influence (behavior) variable. This study helps to quantify Walumbwa et al.'s conclusion about the relationship between leadership behaviors impact on subordinate GSE. The paper elaborates the leadership behaviors provide an example for the subordinate to emulate which fosters confidence and GSE (2008).

RQ2: The second research question examined which specific leadership behaviors predicted USAF CGO's self-perceived general self-efficacy. For research question two, only the idealized influence (behaviors) variable was significantly correlated enough to be factored into the model ($r = .140$, $p = .010$). The data potentially adds a deeper level of understanding to the influence of specific transformational leadership behaviors have on general self-efficacy.

Previous studies have shown that transformational leadership behaviors have a positive impact on the GSE of subordinates (Moen & Allgood, 2009; Walumbwa, Avolio, & Zhu, 2008; and Sosik & Jung, 2010). The finding that idealized influence (behaviors) have a correlation of ($r = .140$, $p = .010$), while the other subsets are significantly lower, these results provide a different perspective on how much influence each subset has as it relates to transformational leadership. One could question whether idealized influence (behavior) is the only effective behavior necessary to be a transformational leader and the other facets of transformational leadership may not have any significance to the effect of leadership truly being transformational. In this study, Idealized influence (attributes) and intellectual stimulation were not significantly correlated, further research could help determine the overall significance of these attributes in the FRLM.

Also, in light of what we already know about transformational leadership, specifically idealized influence (behavior), the results of this study support the ethical behavior of leaders and is consistent with the results of other similar studies. Subordinates emulate the positive actions of their leaders (Walumbwa, et al, 2008). The ethical behavior of the leader builds confidence in the subordinate and reinforces positive

and moral decision-making of the subordinate when it is their time to lead (Yukl, 2012 & Mahsud, 2010). The positive actions of the leaders impact the self-perceived GSE of the subordinate (2010). Based on the data from this study and supporting literature, whether the leader is a role model, guide, mentor, or supervisor, their positive actions help the subordinate develop positive GSE .

There have been many studies regarding the effect of transactional or transformational leadership behaviors on various dependent variables, but very few, if any, studies have been performed identifying the effects of the specific leadership behaviors impact on a dependent variable. The fact that there is a statistically predictable relationship between idealized influence (behaviors) and GSE in this study is unprecedented and could be a starting point for significant further research.

RQ3: The third research question investigated what influence the age of the CGO has on the relationship between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy. The results reflected a major significance, which is consistent with research. In addition, after splitting the population into two groups at the mean age, it indicated age was a significant moderator of the relationship between idealized influence (behaviors) and GSE, specifically in the older mean age group. The result of older participants having higher GSE than younger participants in the same study is consistent with previous research (Brenlla, Aranguren, Rossaro & Vázquez, 2010).

However, the results of this study are somewhat counter to the studies conducted by Ojode, Walumbwa, and Kuchinke (1999) and Vecchio and Boatright (2002) which deduced older followers actually appreciate a more directive approach from their leaders.

While idealized influence (behavior) does not specify whether a directive or non-directive style of leadership, it falls under transformational leadership whereas directiveness is measured through questions on the MLQ x5 associated with transactional leadership behaviors. None of the variables identified as transactional leadership indicated a significant correlation with GSE.

Moving forward, the age of the CGO is shown to have a significant moderating effect on the relationship with idealized influence (behavior) and self-perceived GSE. Whether it be with younger CGOs or older CGOs, understanding this relationship could help senior leaders align their leadership style to capitalize on the effect of age on the GSE and idealized influence (behavior) relationship.

The moderating effect of age on the relationship between idealized influence (behaviors) and GSE is more specific than has been explored in the past. Anecdotally, a supervisor's actions have much greater impact on older employees, this could be due to age or experience of the employee. The results of this study provide an interesting starting point for further research into the effect of supervisor's behavior and the impacts on their subordinates.

Summary

Historically, studies using the FRLM to assess the leadership impact on subordinate general self-efficacy have focused on the broader classifications of transactional and transformational leadership, and did not explore the impact of specific leadership behaviors. This study utilized each of the nine specific leadership behaviors as independent variables in order to adequately explore each of the research questions. The null hypotheses for all three research questions were rejected. The analyses conducted to

answer the three research questions indicated there are significant statistical correlations between specific leadership behaviors and general self-efficacy. Furthermore, step-wise multi-linear regression was used to analyze the predictability of all nine FRLM leadership behaviors on GSE. Only idealized influence (behavior) was shown to be a statistically significant predictor. Lastly, age does have a moderating effect on the relationship of the idealized influence (behaviors) independent variable and GSE for populations 31 years old and older.

Overall, the results of this study have been consistent with previous research on the effect of leadership on the overall GSE of subordinates. Transformational leadership has been positively correlated with the GSE level of subordinates in previous research (Yukl & Mahsud, 2010, Moen & Allgood, 2009; Walumbwa, et al., 2008). The results of this study provide additional support for this relationship, but also narrow down the relationship to a specific leadership behavior, idealized influence (behaviors), as it relates to GSE of USAF CGOs. In addition, the correlation between age and subordinate GSE were also consistent with current research as older participants tended to score higher than younger participants, specifically in the relationship between idealized influence (behaviors) and GSE of USAF CGOs. These data from the research are not only consistent with current research it also provides a new perspective for further research.

Chapter 5: Implications, Recommendations, and Conclusions

The world has become increasingly dynamic place since the ushering in of the new century (Yukl & Mahsud, 2010). The military, to include the United States Air Force (USAF) is not immune to these changes and the National Military Strategy addresses the need for its leasers to be able to effectively execute their duties across a turbulent spectrum of operations (United States Government, 2011). Leaders with high levels of self-efficacy have been shown to be more effective across a myriad of challenges (Griffin, Parker & Mason, 2010). One way to develop general self-efficacy is through leadership. The effect leaders have on their subordinates impacts the subordinate's self-efficacy levels (Walumbwa, et al., 2008). The question remains of which leadership principle impacts the self-efficacy of the subordinate.

While there are numerous theories to explain, define, and quantify leadership traits, characteristics, and actions, the Full-Range Leadership Model (FRLM) has been tested and statistically proven to be both valid and reliable (Sosik & Jung, 2010). The FRLM provides a well-defined set of nine specific leadership behaviors that fall into three leadership styles; laissez-faire, transactional and transformational (Sosik & Jung, 2010). The transactional level consists of management-by-exception-passive (MBEP), management-by-exception-active (MBEA), and contingent reward (CR). Transformational leadership consists of idealized influence-both behavioral (IIB) and attribute-based (IIA), inspirational motivation (IM), individual consideration (IC), and intellectual stimulation (IS). Laissez-faire leadership is the absence of any leadership characteristics or associated behavior, non-action.

The problem addressed is identifying which specific leadership behaviors have the greatest impact on the GSE of USAF CGOs. If a significant statistical correlation could be made between specific leadership behaviors, and the GSE of a CGO, then superiors would know which specific behaviors to develop and utilize when leading. As a result, this could help develop AF CGOs to more effectively lead through the tumultuous environment ushered in with the 21st century.

To gather data, 339 active duty USAF CGOs completed two surveys; the Multifactor Leadership Questionnaire (MLQ 5x) and the New General Self-Efficacy Survey (NGSES). Participants were solicited through the Air Force Company Grade Officer Council's Facebook website. Participants were self-selected volunteers. They clicked on a link to the Transform database on the Mindgarden, Inc website. The participants were provided consent information, verified they agreed to participate, and were also informed they could opt out at any time in the process. They were asked to provide some demographic information and then took the two surveys consisting of 45 questions. Surveying took place between May-Aug 2013.

The instruments used to gather the data in this research have both been shown to be valid and reliable. The participants in this study were from across the service and a cross-section of specialties and represent the 36,000 active duty CGOs currently in the Air Force. This could impact the generalization of the research findings as they share very similar experiences which could predispose their responses while completing the surveys (Trochim & Donnelly, 2008). In addition, all participants are volunteers which could also skew results (Trochim & Donnelly, 2008).

The MLQ 5x assessed how the participants rated their supervisor specific leadership behaviors on a Likert -type scale. Liassez-faire, management-by-exception (passive), management-by-exception (active), contingent reward, idealized influence (attribute), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individual consideration are the independent variables used in the study. The NGSES assessed the participants self-efficacy by asked them to answer eight questions about how they feel they would react in certain situations and scored on a Likert-type scale. The GSE level was calculated and used as the dependent variable. Each participant was asked their age when providing demographic data before beginning the survey, this data was used as a moderating variable.

The results of the surveys was used to quantifiably answer the research questions and support corresponding hypotheses. This was achieved by identifying statistically significant correlations between GSE and the independent variables. Furthermore, step-wise multiple linear regression methods were used to statistically predict effects on the GSE by the independent variables. Multiple regression was used again to explore to calculate the moderating impact of age on the correlation between GSE and statistically significant independent variable(s).

This study was limited by the small sample size (N= 339) of a large population of over 30, 000 active duty USAF CGOs. While the power analysis indicated this study was robust enough to be indicative of the population, it still leaves a question as to whether these results were truly representative of the population. Also, the data was obtained through online surveys and not through observations of actual behaviors and results. The MLQ x5 and the NGSES have both been statistically proven to be both valid and reliable,

but these are tools used to assess self-perceived and observed behavior of others and are limited to the translation of the instruments by the participant. Caution should be exercised in the generalization of the findings in a larger population or demographic.

This chapter provides information regarding implications of the findings. Each research question and corresponding hypotheses are addressed. In addition, possible practical application of the research and opportunities for further research are provided.

Implications

The foundation of this study was to explore the influence of specific leadership on the subordinate's development, specifically, the development of general self-efficacy of USAF CGOs. This study diverges from, and extends, prior research by exploring the effect of specific leadership behaviors, not the overall classification of leadership, on GSE. This was explored by asking three research questions, and corresponding hypotheses.

Research Question 1. What if any, correlation exists between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy? Pearson's correlation was used to assess whether there was a statistically significant correlation between the supervisor's leadership behaviors, as defined by the FRLM, and the subordinate's self-perceived general self-efficacy. The results indicated idealized influence (behaviors; $r = .140$, $p = .010$), inspirational motivation ($r = .134$, $p = .014$), and individual consideration ($r = .110$, $p = .044$), listed in order of descending significance, all had a statistically significant correlation at $p < .05$ which indicates a statistically significant correlation exists between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy rejecting a null hypothesis. This is

interesting for two reasons. First, these specific leadership behaviors are all classified as Transformational leadership behaviors. Second, there is a positive correlation versus a negative correlation between these independent variables and GSE. Of additional note, none of the independent variable classified as Transactional or Laissez-Faire had a positive correlation with the exception of contingent reward (r=.06) however, p> .05 and was not of great enough significance to pursue further correlation.

This data provides additional support to the study conducted by Walumbwa, et al. which found Transformational leadership to have an extremely strong and significant relationship with the self-efficacy of subordinates (2008). The data from this study indicated which specific Transformational leadership behaviors have a statistically significant correlation and the strength of their relationship.

These findings are not only significant because they corroborate with previous research, they also support the relationship consistently translates to the sample population, USAF CGOs. These data are important to help support the claims of previous research and literature that the application of Transformational leadership by USAF superiors may indeed positively impact the GSE of their subordinates. In addition, this data identified which specific leadership behaviors had the most significant correlation with GSE. This information could be useful in leadership development to help refine the behaviors that have the highest significance as it relates to GSE. While correlation is not causation, the data suggests Transformational leadership, specifically IIB, IM, and IC behaviors, may have an impact on USAF CGO's GSE, which has been empirically demonstrated to positively influence an individual's ability to effectively

operate in dynamic situations (Zulkosky, 2009; Walumba, Avolio & Zhu, 2008; Yeo & Neal, 2006; Chen, Casper & Cortina, 2001).

Research Question 2. Which specific leadership behaviors predict USAF CGO's self-perceived general self-efficacy? A step-wise multiple linear regression was conducted to assess this question. While all of the independent variables were used in the regression analysis, the results indicate that idealized influence (behaviors) is a statistically significant predictor ($p = .010$) of GSE. For every one unit increase in idealized influence (behavior), GSE increased by (B) 0.08 units indicating there are specific leadership behaviors that can predict USAF CGO's self-perceived general self-efficacy, rejecting the null hypothesis. Idealized influence, behavior was defined as the leader's conduct providing a positive example for others to emulate or follow. His or her actions demonstrate superior adherence to a strong personal value system, commitment to the organization, and ethics.

Based off the data, this could suggest there is a possible linkage in the positive example exhibited by the superior on the GSE of the AF CGO subordinate. This data supports Bandura's Social Learning Theory which purports subordinates are influenced by ethical leadership through modeling where the subordinate vicariously learns and exhibits ethical behavior, which, in turn, builds confidence promoting positive self-efficacy (1977). In addition, ethical leaders generally provide a psychologically safe work environment and promote mutual trust which makes subordinates more confident in their abilities increasing self-efficacy (Walumbwa, Mayer, Wang, Wang, Workman, & Christensen, 2011).

Idealized influence (behaviors) possible predictive linkage with subordinate GSE impacts the subordinates ability to think strategically and become more effective in meeting unit goals (De Hoog & Den Hartog, 2008). The ability to think on a larger strategic scale and bolstering effectiveness could be critical components to addressing the requirements of future leaders to perform in a rapidly changing and turbulent operating environment outlined in the NMS. With this knowledge regarding the predictive nature of the relationship with a supervisors idealized influence (behaviors) level with the GSE level of USAF CGOs, the Air Force may want to consider stressing the importance of this interaction to current field grade and senior officers in their leadership development programs.

Lastly, there have been several studies conducted regarding the effect of transactional and transformational leadership behaviors on assorted dependent variables. Both transactional and transformational leadership behaviors are categorical and comprised of specific behaviors. This study explored the impact of specific leadership behaviors, namely idealized influence (behavior), which has not been researched before. The data from this study provides a deeper level of knowledge about the interaction between specific leadership behaviors on subordinate GSE. While this study gathered data by surveying active duty USAF company grade officers, it could prove beneficial toward research involving other populations.

Research Question 3. What influence does the age of the CGO have on the relationship between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy? To examine this research question, a moderation analysis was conducted to assess if age moderated the relationship between leadership behaviors and

general self-efficacy. Idealized influence (behaviors) was the only leadership behavior independent variable used in the moderation analysis due to its significance level with the dependent variable. Between all nine leadership independent variables, only idealized influence (behaviors) scored a significance rating of $\geq .05$. This also means the relationship between specific leadership behaviors and USAF CGO's self-perceived general self-efficacy is moderated by the age of the CGO, at least for idealized influence (behaviors). The null hypothesis was rejected. To assess the moderation of age on the relationship between idealized influence (behavior) and GSE; the age demographic of the population was divided into two categories at the mean (31.4 years); ≥ 31 and < 31. The data for ≥ 31 ($r = .33, p < .001$) showed a significant statistical relationship between IIB and GSE whereas data from ≥ 30 did not (see Table 8).

The data from this research question supports current literature about the impact of age on self-efficacy (Rabl, 2010; Brenlla,et al., 2010). These results could be caused by several different reasons to include; maturity, experience level, or other generational characteristics or influences (Brenlla, Aranguren, Rossaro & Vázquez, 2010). Additional research would be required to find out the reasons for the disparity in the significance level between both categories.

In addition to supporting existing research, the findings have greater implication toward the application of effective leadership as it applies to the vast age range of the population. The age of the active duty USAF CGO population extends from 22 to 49 years old. While this data was only calculated as a moderator variable on the relationship between IIB and GSE, the data indicates there is a possible relationship in the application of IIB to GSE. The effective application of idealized influence (behaviors) is even more

important when leading older CGOs as the impact of this leadership behavior may have much more impact on the CGO's GSE.

This information provides justification to focus on current senior leaders' positive and ethical leadership behavior as these actions reflect a rather significant impact on the GSE development of future USAF senior leaders. Their actions today will most likely impact the GSE of the senior leaders of tomorrow. However, further research would need to be conducted to unequivocally determine any potential correlation or prediction.

Recommendations

The results of this study could be useful to the supervisors of an estimated 36,000 company grade officers on active duty in the USAF (Air Force Personnel Center, 2012). This data could be beneficial to the curriculum developers in charge of developing lesson material for leadership development programs in the Air Force, specifically Air University's Air War College, Air Command and Staff College, and Squadron Officer College.

The data from research question 1 indicated significant correlations ($p < .05$) between idealized influence (behaviors) ($r = .140, p = .010$), inspirational motivation ($r = .134, p = .014$), and individual consideration ($r = .110, p = .044$) and general self-efficacy. These independent variables are all categorized as transformational leadership behaviors. Intellectual stimulation and individual consideration are the other two variables defined as transformational but did not score a significant statistical relationship with general self-efficacy, nor did laissez-faire or transactional independent variables. This would indicate transformational leadership has a stronger positive relationship than transactional, or laissez-faire leadership behaviors.

Also, the findings may apply to the other branches of the armed forces, or military services worldwide depending on cultural and other similarities. In addition, while they are not military, the results from this research could also apply to various sections of the civilian business sector. However, like foreign military applications, care would need to be taken to ensure a similar demographic fit or results may risk validity.

Further research could be conducted to focus more on the moderating effect of age on the relationship between idealized influence (behavior) and GSE to determine the reason for the disparity between the ≥ 31 and < 31 age groups. In addition, future research could concentrate on the specific behaviors associated with the idealized influence (behavior) to determine which specific behaviors have the most impact of the relationship with GSE. Lastly, this study could be conducted in the different branches of the United States military, foreign military, and civilian sectors to determine the generalization of the findings.

Conclusions

An overview of the research was provided as an introduction to the chapter. This overview provided information on the unique challenges facing the U.S. military of operating in a dynamic leadership environment ushered in by the 21st century, and the need for future senior leaders with high levels of general self-efficacy who can effectively execute within such an environment. Leadership engagement was discussed as an option to better prepare today's junior leaders (CGOs) to become tomorrow's senior leaders. Other studies have been conducted exploring the relationship between leadership behaviors, specifically FRLM categories of laissez-faire, transactional, and transformational. However, no research has been conducted to explore the relationship of

specific leadership behaviors which comprise each category and their relationship with GSE.

The MLQ 5x and NGSES was given to active duty USAF CGOs to self-select and volunteer to take the surveys resulting in 339 responses. The MLQ 5x asked the participant to score their supervisor's leadership behavior and then score their own general self-efficacy. The data was used to calculate correlation and regression to assess the relations. Also, the age of each participant was factored to determine the moderating effect it has on the relationship between the independent, leadership behavior variables, and the GSE dependent variable.

Next, the implications for the findings of this research was provided explaining the results. Research question 1, which, if any, correlation exists between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy. The results indicated idealized influence (behaviors); ($r = .140$, $p = .010$), inspirational motivation ($r = .134$, $p = .014$), and individual consideration ($r = .110$, $p = .044$), listed in order of descending significance, all had a statistically significant correlation at $p < .05$.

Research question 2; which specific leadership behaviors predict USAF CGO's self-perceived general self-efficacy? Idealized influence (behavior) was the only independent variable which had a high enough statistical significance to predict GSE ($p = .010$). For every one unit increase in idealized influence (behavior), GSE increased by (B) 0.08 units. None of the other independent variables were of enough significance to be considered an influence.

What influence does the age of the CGO have on the relationship between specific leadership behaviors and an USAF CGO's self-perceived general self-efficacy?

The idealized influence (behaviors) independent variable and the GSE regression was run again with the age of the participants added as a moderating variable. It was determined age does have a statistically significant moderating effect on the relationship. However, when age was split into two groups at the mean (31.4) and delineated into <31 and ≥31 to assess the moderating effect the moderation the ≥31group had a strong significance ($r = .33$, $p < .001$) and the <31 group did not.

The results gleaned from this study could be useful to any of the supervisors of an active duty USAF CGO. It could also be useful in leadership development of supervisors. Additional tests should be conducted in order to further generalize the findings. Specifically in scope to better define which idealized influence (behaviors) have the greatest effect. Also, more research could be conducted on the moderating effect of age and the disparity of results reached between <31 and ≥31 variables. Finally, this research could be generalized further with additional research in different branches of the military, civilian sector, or in other countries to determine any variances in data caused by different population samples.

References

Air Force Personnel Center (2012). The United States Air Force Interactive Demographic Analysis System (IDEAS) database. Retrieved November 12, 2012 from http://w11.afpc.randolph.af.mil/vbin/broker8.exe?_program=ideas.IDEAS_default.sas&_service=proR2pool3&_debug=0

Arquilla, J. (2010). The New Rules of War. *Foreign Policy*, (178), 1.

Avolio, B. (2011). Full Range Leadership Development (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Avolio, B., & Bass, B. M. (2004). Manual for the multifactor leadership questionnaire (MLQ - Form 5x). Redwood City, CA: Mindgarden.

Avolio, B.J., Bass, B.M., & Jung D.I. (1999). Re-examining the components of transformational and transactional leadership using the multifactor leadership questionnaire. *Journal of Occupational and Organizational Psychology, 4*, 441-462.

Bandura, A. (1977). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.

Bandura, Albert. (1989). Human Agency in Social Cognitive Theory. *The American Psychologist, 44*(9), 1175-1182. Retrieved from http:// http://www.apa.org/pubs/journals/amp/index.aspx

Bandura, A. (1995). *Self-efficacy in changing societies.* New York, NY: Cambridge University.

Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology, 88*(1), 87-99. doi:10.1037/0021-9010.88.1.87.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistics considerations. Journal of Personality and Social Psychology, 51, 1173-1182.

Bass, B. M., Avolio, B., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology, 88*(2), 207–218.

Bass B., & Bass R. (2008). The Bass handbook of leadership: Theory, research, and managerial applications. New York, NY: Free Press.

Boies, K., Lvina, E., & Martens, M. L. (2010). Shared leadership and team performance in a business strategy simulation. *Journal Of Personnel Psychology, 9*(4), 195-202. doi:10.1027/1866-5888/a000021

Borrego, M., Douglas, E., & Amelink, C. (2009). Quantitative, qualitative, and mixed research methods in engineering education. *Journal of Engineering Education, 98*(1), 53-66.

Brendtro, L. K., & Mitchell, M. L. (2010). The Profound POWER of Groups. *Reclaiming Children & Youth*, *19*(3), 5-10. Retrieved from http://reclaimingjournal.com/.

Brenlla, M., Aranguren, M., Rossaro, M., & Vázquez, N. (2010). Adaptación para Buenos Aires de la Escala de Autoeficacia General. *Interdisciplinaria Revista De Psicología Y Ciencias Afines*, *27*(1), 77-94.

Burns, J.M. (2003). *Transforming Leadership*. New York, NY: Atlantic Monthly Press

Burnes, B., & Cooke, B. (2012). Review Article: The past, present and future of organization development: Taking the long view. *Human Relations*, *65*(11), 1395-1429. doi:10.1177/0018726712450058

Casimir, G. (2010). Combinative aspects of leadership style and the interaction between leadership behaviors. *Leadership & Organization Development Journal, 31*(6), 501-501-517. doi:10.1108/01437731011070005.

Chen, G., Casper, W. J., & Cortina, J. M. (2001). The Roles of Self-Efficacy and Task Complexity in the Relationships Among Cognitive Ability, Conscientiousness, and Work-Related Performance: A Meta-Analytic Examination. *Human Performance*, 14(3), 209-230.

Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a New General Self-Efficacy Scale. *Organizational Research Methods, 4 (1),* 62-68.

Chen, G., Gully, S. M., Whiteman, J., & Kilcullen, R. N. (2000). Examination of relationships among trait-like individual differences, state-like individual differences, and learning performance. *Journal Of Applied Psychology*, *85*(6), 835-847. doi:10.1037/0021-9010.85.6.835

Chong, E., & Wolf, H. (2010). Factors influencing followers' perception of organisational leaders. *Leadership & Organization Development Journal*, *31*(5), 402-419. doi:10.1108/01437731011056434

Choudhury, A., & Jones, J. (2010). Effect of job level on the performance of human capital attainment: an exploratory analysis. *Academy Of Strategic Management Journal*, *9*(2), 89-103.

Colbert, T., Judge, T., Choi, D. & Wang, G. (2012). Assessing the trait theory of leadership using self and observer ratings of personality: The mediating role of contributions to group success. *Leadership Quarterly, 23* (4), 670–685. doi:10.1016/j.leaqua.2012.03.004

Cozby, P. (2009). *Methods in Behavioral Research* (10th ed.). New York, NY: McGraw-Hill.

Da Cruz, M., Nunes, A., & Pinheiro, P. (2011). Fiedler's Contingency Theory: Practical Application of the Least Preferred Coworker (LPC) Scale. *IUP Journal Of Organizational Behavior*, *10*(4), 7-26.

De Hoog, A & Den Hartog, D. (2008). Ethical and despotic leadership, relationships with leader's social responsibility, top management team effectiveness and subordinates' optimism: A multi-method study. *Leadership Quarterly*, *19*(3), 297-311. doi: 10.1016/j.leaqua.2008.03.002

DeRue, D., Nahrgang, J. D., Wellman, N., & Humphrey, S. E. (2011). Trait and behavioral theories of leadership: an integration and meta-analytic test of their relative validity. *personnel psychology*, 64(1), 7-52. doi:10.1111/j.1744-6570.2010.01201.x

De Vries, R. E., Bakker-Pieper, A., & Oostenveld, W. (2010). Leadership = Communication? The Relations of Leaders' Communication Styles with Leadership Styles, Knowledge Sharing and Leadership Outcomes. *Journal Of Business & Psychology*, *25*(3), 367-380. doi:10.1007/s10869-009-9140-2

Dierdorff, E. C., Surface, E. A., & Brown, K. G. (2010). Frame-of-reference training effectiveness: Effects of goal orientation and self-efficacy on affective, cognitive, skill-based, and transfer outcomes. *Journal Of Applied Psychology*, *95*(6), 1181-1191. doi:10.1037/a0020856

Digman, J. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology, 4*, 417-440. Palo Alto, CA Annual Reviews

Dixon, M. L., & Kozloski, L. (2010). The Impact of Path-Goal Leadership Styles on Work Group Effectiveness and Turnover Intention. *Journal Of Managerial Issues*, *22*(1), 52-69.

Dragoni, L., In-Sue, O., Vankatwyk, P., & Tesluk, P. E. (2011). Developing executive leaders: the relative contribution of cognitive ability, personality, and the accumulation of work experience in predicting strategic thinking competency. *Personnel Psychology*, *64*(4), 829-864. doi:10.1111/j.1744-6570.2011.01229.x

Dvir, T., Eden, D., Avolio, B., & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: A field experiment. *Academy of Management Journal, 45*(4), 735-744.

Eagly, A. H., & Chin, J. (2010). Are memberships in race, ethnicity, and gender categories merely surface characteristics?. *American Psychologist*, 65(9), 934-935. doi:10.1037 /a0021830

Eberly, M. B., Holley, E. C., Johnson, M. D., & Mitchell, T. R. (2011). Beyond internal and external: a dyadic theory of relational attributions. *Academy Of Management Review*, *36*(4), 731-753. doi:10.5465/AMR.2011.65554734

Fernandez, S. (2008). Examining the effects of leadership behavior on employee perceptions of performance and job satisfaction. *Public Performance & Management Review*, *32*(2), 175-205.

Field A. (2004). *Discovering Statistics Using SPSS* (2nd ed). Thousand Oaks, CA: Sage Publications, Inc.

Fisher, W. P., & Stenner, A. (2011). Integrating qualitative and quantitative research approaches via the phenomenological method. *International Journal Of Multiple Research Approaches*, *5*(1), 89-103. doi:10.5172/mra.2011.5.1.89

Galvin, B. M., Waldman, D. A., & Balthazard, P. (2010). Visionary communication qualities as mediators of the relationship between narcissism and attributions of leader charisma. *Personnel Psychology*, 63(3), 509-537. doi:10.1111/j.1744-6570.2010.01179.x

Gilley, A., Gilley, J. W., & McMillan, H. S. (2009). Organizational change: Motivation, communication, and leadership effectiveness. *Performance Improvement Quarterly, 21*(4), 75-94.

Giri, V. N., & Santra, T. (2010). Effects of Job Experience, Career Stage, and Hierarchy on Leadership Style. *Singapore Management Review*, *32*(1), 85-93.

Golden-Pryor, M., Humphreys, J., Taneja, S., & Toombs, L. (2011). Where Are the New Organization Theories? Evolution, Development and Theoretical Debate. *International Journal Of Management*, *28*(3), 959-978.

Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. *Research In Organizational Behavior*, *28*3-34. doi:10.1016/j.riob.2008.04.002

Grant, A. M., Gino, F., & Hofmann, D. A. (2011). Reversing the extraverted leadership advantage: the role of employee proactivity. *Academy of Management Journal*, *54*(3), 528-550. doi:10.5465/AMJ.2011.61968043

Griffin, M. A., Parker, S. K., & Mason, C. M. (2010). Leader vision and the development of adaptive and proactive performance: A longitudinal study. *Journal Of Applied Psychology*, *95*(1), 174-182. doi:10.1037/a0017263

Hakimi, N., van Knippenberg, D., & Giessner, S. (2010). Leader Empowering Behaviour: The Leader's Perspective. *British Journal Of Management*, *21*(3), 701-716. doi:10.1111/j.1467-8551.2010.00703.x

Hargis, M. B., Watt, J. D., & Piotrowski, C. (2011). Developing Leaders: Examining the Role of Transactional and Transformational Leadership Across Contexts Business. *Organization Development Journal, 29*(3), 51-66.

Hepler, T. J., & Chase, M. A. (2008). Relationship between decision-making self-efficacy, task self-efficacy, and the performance of a sport skill. *Journal of Sports Sciences, 26*(6), 603-610. doi:10.1080/02640410701654280

Hoffman, B. J., Bynum, B. H., Piccolo, R. F., & Sutton, A. W. (2011). Person-organization value congruence: How transformational leaders influence work group effectiveness. *Academy Of Management Journal, 54*(4), 779-796. doi:10.5465/AMJ.2011.64870139

House, R.J. (1971). "A Path-Goal Theory of Leader Effectiveness." Administrative Science Quarterly 321-328.

Jawahar, I., Meurs, J., Ferris, G., & Hochwarter, W. (2008). Self-Efficacy and Political Skill as Comparative Predictors of Task and Contextual Performance: A Two-Study Constructive Replication. *Human Performance, 21*(2), 138-157. doi:10.1080/08959280801917685.

Jepson, D. (2009). Leadership context: The importance of departments. *Leadership & Organization Development Journal, 30*(1), 36-52. doi: 10.1108/01437730910927098

Johnson, J. (2009). *Health Organizations: Theory, Behavior, and Development*. Sadbury, MA: Jones and Bartlett Publishers.

Judeh, M. (2012). Assessing the Influence of Job Characteristics and Self-Efficacy on Job Performance: A Structural Equation Modeling Analysis. *European Journal Of Social Science, 28*(3-4), 355-365.

Judge, T. A., Shaw, J., C., Jackson, C. L., Scott, B. A., & Rich, B. L. (2007). Self-efficacy and work-related performance: The integral role of individual differences. *Journal of Applied Psychology*, 92(1), 107-127. doi:10.1037/0021-9010.92.1.107

Kaiser, R. B. (2010). Introduction to the special issue on developing flexible and adaptable leaders for an age of uncertainty. *Consulting Psychology Journal: Practice and Research*, 62(2), 77-80. doi:10.1037/a0019986

Kanste, O., Kääriäinen, M., & Kyngäs, H. (2009). Statistical testing of the full-range leadership theory in nursing. *Scandinavian Journal Of Caring Sciences, 23*(4), 775-782. doi:10.1111/j.1471-6712.2008.00663.x

Kark, R., Shamir, B., & Chen, G. (2003). The Two Faces of Transformational Leadership: Empowerment and Dependency. *Journal Of Applied Psychology, 88*(2), 246-255. doi:10.1037/0021-9010.88.2.246

Khalid, A., & Rehman, R. (2011). Effect of Organizational Change on Employee Job Involvement: Mediating Role of Communication, Emotions and Psychological Contract. *Information Management & Business Review, 3*(3), 178-184.

Kirkbride, P. (2006). Developing transformational leaders: the full range leadership model in action. *Industrial and Commercial Training, 38* (1), 23-32. Retrieved from http://www .researchgate.net/journal/0019-7858_Industrial_and_Commercial_Training

Klein, K. M., & Wang, M. (2010). Deep-level diversity and leadership. *American Psychologist*, 65(9), 932-934. doi:10.1037/a0021355

Koenig, A. M., Mitchell, A. A., Eagly, A. H., & Ristikari, T. (2011). Are Leader Stereotypes Masculine? A Meta-Analysis of Three Research Paradigms. *Psychological Bulletin, 137*(4), 616-642. doi:10.1037/a0023557

Lilienfeld, S., Waldman, I., Watts, A., Landfield, K., Rubenzer, S., & Faschingbauer, T. (2012). Fearless Dominance and the U.S. Presidency: Implications of Psychopathic Personality Traits for Successful and Unsuccessful Political Leadership. *Journal Of Personality & Social Psychology, 103*(3), 489-505. doi:10.1037/a0029392

Lussier, R. & Achua, C. (2012). *Leadership: Theory, Application, and Skill Development* (5th ed.). Mason, OH: Thomson Higher Education.

Larsson, J., & Vinberg, S. (2010). Leadership behaviour in successful organisations: Universal or situation-dependent?. *Total Quality Management & Business Excellence, 21*(3), 317-334. doi:10.1080/14783360903561779

Lee, Y. (2011). A comparison of leadership behaviors in the financial industry in the United States and Taiwan. *Journal of International Management Studies, 6*(2), 1-12.

Lester, N. (2011). Relationship building: understanding the extent and value. *Education in Rural Australia*, 21(1), 79-93.

Lewis-beck, M., & Nadeau, R. (2010). Leadership traits in french national election studies: Measurement issues. *French Politics, 8*(2), 215-221. doi:10.1057/fp.2010.7

Long, S., & Spurlock, D. G. (2008). Motivation and stakeholder acceptance in technology-driven change management: Implications for the engineering manager. *Engineering Management Journal, 20*(2), 30-36. Retrieved from http://www.asem.org/asemweb-emj.html

Liu, J., Siu, O., & Shi, K. (2010). Transformational Leadership and Employee Well-Being: The Mediating Role of Trust in the Leader and Self-Efficacy. *Applied Psychology: An International Review*, *59*(3), 454-479. doi:10.1111/j.1464-0597.2009.00407.x

Lussier, R. N., & Achua, C. F. (2007). Leadership: Theory, application, and skill development (3rd ed.). Mason, OH: Thomson South-Western.

MacKenzie, S. B., Podsakoff, P. M., & Podsakoff, N. P. (2011). Construct measurement and validation procedures in mis and behavioral research: integrating new and existing techniques. *MIS Quarterly*, *35*(2), 293-A5.

Mayfield, J., & Mayfield, M. (2012). The Relationship Between Leader Motivating Language and Self-Efficacy: A Partial Least Squares Model Analysis. *Journal of Business Communication*, *49*(4), 357-376. doi:10.1177/0021943612456036

Merrell, P. (2012). Effective Change Management: The Simple Truth. *Management Services*, *56*(2), 20-23.

Modaff, D.P., Butler, J.A., DeWine, S. (2008). Organizational Communication: Foundations, Challenges, and Misunderstandings (Third Edition). Glenview: Pearson Education, 59-62

Mannheim, B. & Halamish, H. (2008). Transformational leadership as related to team outcomes and contextual moderation. *Leadership & Organization Development Journal, 29*(7), 617-630.

Martelli, J., & Abels, P. (2010). The Education of a Leader: Educational Credentials and Other Characteristics of Chief Executive Officers. *Journal of Education for Business*, 85(4), 209-217. doi:10.1080/08832320903449592

Miller, R. L., Butler, J., & Cosentino, C. J. (2004). Followership effectiveness: An extension of Fiedler's contingency model. *Leadership & Organization Development Journal*, *25*(4), 362-368. doi:10.1108/01437730410538680

Moen, F., & Allgood, E.. (2009). Coaching and the effect on self-efficacy. *Organization Development Journal, 27*(4), 69-82

Nazari, K., & Emami, M. (2012). Leadership A critical review of the concept. *Interdisciplinary Journal of Contemporary Research in Business*, *3*(9), 545-553.

Neufeld, D. J., Wan, Z., & Fang, Y. (2010). Remote leadership, communication effectiveness and leader performance. *Group Decision and Negotiation, 19*(3), 227-227-246. doi:10.1007/s10726-008-9142-x

Ng, K., Ang, S., & Chan, K. (2008). Personality and leader effectiveness: A moderated mediation model of leadership self-efficacy, job demands, and job autonomy. *Journal of Applied Psychology*, *93*(4), 733-743. doi:10.1037/0021-9010.93.4.733

Norris,E. (2010) The third dimension of leadership: change-oriented behaviors. *Journal of the Academy of Business & Economics*, *10*(4), 126-136.

Nurittamont, W. (2012). The relationship among organizational commitment, self-efficacy and businesses performance: an empirical study of hotel businesses in Thailand. *Journal Of The Academy Of Business & Economics*, *12*(2), 99-108.

Ojode, L.A., Walumbwa, O. & Kuchinke, P. (1999), "Developing human capital for the evolving work environment: transactional and transformational leadership within an instructional setting". Organizational Behavior Conference Paper Abstracts. (2005). *Academy of Management Annual Meeting Proceedings*, 1-95. doi:10.5465/AMBPP.2005.18780221

Pihlak, Ü., & Alas, R. (2012). Leadership Style and Employee Involvement during Organizational Change. *EBS Review*, (29), 46-66.

Papworth, M. A., Milne, D., & Boak, G. (2009). An exploratory content analysis of situational leadership. *The Journal of Management Development, 28*(7), 593-606. doi: 10.1108/02621710910972706

Payette, D. L., & Libertella, A. F. (2011). Nascent Leadership Behaviors. *American Journal Of Business Education*, *4*(6), 19-34.

Perry, S., Witt, L. A., Penney, L. M., & Atwater, L. (2010). The downside of goal-focused leadership: The role of personality in subordinate exhaustion. *Journal of Applied Psychology*, 95(6), 1145-1153. doi:10.1037/a0020538

Rabl, T. (2010). Age, discrimination, and achievement motives. *Personnel Review, 39*(4), 448-467. doi: http://dx.doi.org/10.1108/00483481011045416

Rafferty, A. & Griffin, M. (2006). Refining individualized consideration: Distinguishing developmental leadership and supportive leadership. *Journal of Occupational and Organizational Psychology, 1*(79), 37-61

Raguz, I. V. (2010). Top level manager's leadership styles in large croatian companies. *The Business Review, Cambridge, 14*(2), 154-160. Retrieved from http://www.jaabc.com/brc. html

Robbins & Judge, (2010). *Organizational Behavior* (14th ed.). Reason Education, Inc., Upper Saddle River, NJ.

Rule, N. O., & Ambady, N. (2008). The Face of Success: Inferences From Chief Executive Officers' Appearance Predict Company Profits. *Psychological Science (Wiley-Blackwell)*, *19*(2), 109-111. doi:10.1111/j.1467-9280.2008.02054.x

Saccomano, S. J., & Pinto-Zipp, G. (2011). Registered nurse leadership style and confidence in delegation. *Journal Of Nursing Management*, *19*(4), 522-533. doi:10.1111/j.1365-2834.2010.01189.x

Sadeghi, A., & Pihie, Z. (2012). Transformational Leadership and Its Predictive Effects on Leadership Effectiveness. *International Journal Of Business & Social Science*, *3*(7), 186-197.

Scholz, U., Doña, B., Sud, S., & Schwarzer, R. (2002). Is general self-efficacy a universal construct? Psychometric findings from 25 countries. *European Journal Of Psychological Assessment*, *18*(3), 242-251. doi:10.1027//1015-5759.18.3.242

Schröder, T., & Scholl, W. (2009). Affective dynamics of leadership: An experimental test of affect control theory. *Social Psychology Quarterly, 72*(2), 180-180-197.

Schaffer, S., Xiaojun Chen1, x., Xiumei Zhu1, z., & Oakes, W. (2012). Self-Efficacy for Cross-Disciplinary Learning in Project-Based Teams. *Journal Of Engineering Education*, *101*(1), 82-94.

Schwarzer, R. (Ed.) (1992). Self-efficacy: Thought control of action. Washington, DC: Hemisphere.

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, Measures in health psychology: A user's portfolio. Causal and control beliefs (pp. 35-37). Windsor, UK: NFER-Nelson.

Simonton, D. (2009). The "other IQ": Historiometric assessments of intelligence and related constructs. *Review of General Psychology*, *13*(4), 315-326. doi:10.1037/a0017141

Sims, H. P., Faraj, S., & Yun, S. (2009). When should a leader be directive or empowering? How to develop your own situational theory of leadership. *Business Horizons*, *52*(2), 149-158. doi:10.1016/j.bushor.2008.10.002

Smothers, J. (2011). Assumption-based leadership: A historical post-hoc conceptualization of the assumptions underlying leadership styles. *Journal of Applied Management and Entrepreneurship, 16*(3), 44-59. Retrieved from http://www.huizenga.nova.edu/JAME/

Sosik, J., & Jung, D. (2010). *Full Range Leadership Development.* New York, NY: Psychology Press

Sowell, T. (2008). A Prestigious Degree Doesn't Always Equal Success. *Chronicle Of Higher Education*, *54*(19), A34.

Stajkovic, A.D. & Luthans, F. (1998). Self-Efficacy and work-related performance: A meta-analyis. *Psychological Bulletin*, 124, 240-261.

Stoeber, J., Otto, K., & Dalbert, C. (2009). Perfectionism and the Big Five: Conscientiousness predicts longitudinal increases in self-oriented perfectionism. *Personality and Individual Differences*, *47*(4), 363-368. doi:10.1016/j.paid.2009.04.004

Tabernero, C., Chambel, M. J., Curral, L., & Arana, J. M. (2009). The role of task-oriented versus relationship-oriented leadership on normative contract and group performance. *Social Behavior and Personality, 37*(10), 1391-1391-1404.

Test, D., & Cease-Cook, J. (2012). Evidence-Based Secondary Transition Practices for Rehabilitation Counselors. *Journal of Rehabilitation, 78*(2), 30-38.

Thompson, G., & Vecchio, R. P. (2009). Situational leadership theory: A test of three versions. *The Leadership Quarterly, 20*(5), 837-848. doi:10.1016/j.leaqua. 2009.06.014

Trochim, W. & Donnelly, J. (2008). *The Research Methods Knowledge Base* (3rd ed.). Mason, OH: Cengage Learning.

Turesky, E., & Mundhenk, L. (2010). Going Beyond Contemporary Leader Development Practices: Assessing Leader Readiness Using Cognitive Stage Development and Experiential Learning Theories. *Academic Leadership (15337812), 8*(3), 82-86.

United States Air Force, (November 8, 2011). Leadership and Force Development (AFDD 1-1).

United States Air Force, (2007). Chief of Staff of the Air Force White Paper; The Nation's Guardians, America's 21st Century Air Force. Retrieved June 26, 2011 from www.af.mil/shared/media/document/AFD-080207-048.pdf

U.S. Department of Defense (2011). United States Military Officer Rank Insignia [Webpage]. Retrieved on June 26, 2011 from http://www.defense.gov/about/ insignias/officers.aspx

U.S. Department of Defense (2011). Quadrennial Defense Review. Retrieved June 26, 2011 from www.defense.gov/qdr

United States Government. (2011). The National Military Strategy of the United States of America 2011: Redefining America's Military Leadership. Retrieved June 16, 2011, from http://www.jcs.mil//content/files/2011-02/020811084800_2011 _NMS_-_ 08_FEB_2011.pdf.

Vardaman, J., Amis, J., Dyson, B., Wright, P., & Van de Graaff Randolph, R. (2012). Interpreting change as controllable: The role of network centrality and self-efficacy. *Human Relations, 65*(7), 835-859. doi:10.1177/0018726712441642

Van Iddekinge, C. H., Ferris, G. R., & Heffner, T. S. (2009). Test of a multistage model of distal and proximal antecedents of leader performance. *Personnel Psychology*, 62(3), 463-495. doi:10.1111/j.1744-6570.2009.01145.x

Van Woerkom, M., & de Reuver, R. M. (2009). Predicting excellent management performance in an intercultural context: a study of the influence of multicultural personality on transformational leadership and performance. *International*

Journal of Human Resource Management, 20(10), 2013-2029. doi:10.1080/09585190903175589

Vecchio, R.P. & Boatwright, K.J. (2002), "Preferences for idealized styles of supervision", Leadership Quarterly, Vol. 13 No. 4, pp. 327-42

Vroom, V. H. & Yetton, P.W. (1973). Leadership and decision making. Pittsburgh: University of Pittsburgh.

Vroom, V. H., & Jago, A. G. (2007). The role of the situation in leadership. *American Psychologist, 62,* 17–24. doi:10.1037/0003-066X.62.1.17

Walumbwa, F. O., Mayer, D. M., Wang, P., Wang, H., Workman, K., & Christensen, A. L. (2011). Linking ethical leadership to employee performance: The roles of leader–member exchange, self-efficacy, and organizational identification. *Organizational Behavior And Human Decision Processes*, *115*(2), 204-213. doi:10.1016/j.obhdp.2010.11.002

Walumbwa, F. O., & Hartnell, C. A. (2011). Understanding transformational leadership-employee performance links: The role of relational identification and self-efficacy. *Journal Of Occupational & Organizational Psychology*, *84*(1), 153-172. doi:10.1348/096317910X485818

Walumbwa, F. O., & Schaubroeck, J. (2009). Leader personality traits and employee voice behavior: Mediating roles of ethical leadership and work group psychological safety. *Journal of Applied Psychology*, 94(5), 1275-1286. doi:10.1037/a0015848

Walumbwa, F., Avolio, B., & Zhu, W. (2008). How transformational leadership weaves its influence on individual job performance: the role of identification and efficacy beliefs. *Personnel Psychology, 61*(4), 793-825. DOI: 10.1111/j.1744-6570.2008.00131.x

Xirasagar, S. (2008). Transformational, transactional and laissez-faire leadership among physician executives. *Journal of Health Organization and Management*, 22(6), 599-613. Retrieved from http://www.emeraldinsight.com/journals.htm?

Yeo, G. B., & Neal, A. (2006). An examination of the dynamic relationship between self-efficacy and performance across levels of analysis and levels of specificity. *Journal of Applied Psychology, 91*(5), 1088-1101. doi:10.1037/0021-9010.91.5.1088

Yukl, G. (2012). *Leadership in Organizations* (8th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Yukl, G., & Mahsud, R. (2010). Why flexible and adaptive leadership is essential. *Consulting Psychology Journal: Practice and Research, 62*(2), 81-93. doi:10.1037/a0019835

Zaccaro, S. J. (2012). Individual differences and leadership: Contributions to a third tipping point. *The Leadership Quarterly*, *23*(4), 718-728. doi:10.1016/j.leaqua.2012.05.001

Zikmund, W, Babin, B, Carr, J & Griffin, M.. (2009). *Business Research Methods* (8th ed.). Mason, OH: Thomson Learning

Zulkosky, K. (2009). Self-Efficacy: A Concept Analysis. *Nursing Forum, 44*(2), 93-102.

Appendix A

Sample Multifactor Leadership Questionnaire (MLQ 5x)

Multifactor Leadership Questionnaire
Rater Form

Name of Leader ____ Date: _____

Organization ID #: _____ Leader ID #: _____

This questionnaire is used to describe the leadership style of the above-mentioned individual as you perceive it. *Answer all items on this answer sheet.* ***If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.*** Please answer this questionnaire anonymously

Important (necessary for processing): Which best describes you?

_ I am at a higher organizational level than the person I am rating.
_ The person I am rating is at my organizational level
_ I am at a lower organizational level than the person I am rating.
_ Other than the above.

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits the person you are describing. Use the following rating scale:

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

The Person I Am Rating. . .

1.	Provides me with assistance in exchange for my efforts	0	1	2	3	4
2.	Re-examines critical assumptions to question whether they are appropriate	0	1	2	3	4
3.	Fails to interfere until problems become serious	0	1	2	3	4
4.	Focuses attention on irregularities, mistakes, exceptions, and deviations from standards	0	1	2	3	4
5.	Avoids getting involved when important issues arise	0	1	2	3	4
6.	Talks about his/her most important values and beliefs	0	1	2	3	4
7.	Is absent when needed	0	1	2	3	4
8.	Seeks differing perspectives when solving problems	0	1	2	3	4
9.	Talks optimistically about the future	0	1	2	3	4
10.	Instills pride in me for being associated with him/her	0	1	2	3	4
11.	Discusses in specific terms who is responsible for achieving performance targets	0	1	2	3	4
12.	Waits for things to go wrong before taking action	0	1	2	3	4
13.	Talks enthusiastically about what needs to be accomplished	0	1	2	3	4
14.	Specifies the importance of having a strong sense of purpose	0	1	2	3	4
15.	Spends time teaching and coaching	0	1	2	3	4

Continued ➔

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

16.	Makes clear what one can expect to receive when performance goals are achieved	0	1	2	3	4
17.	Shows that he/she is a firm believer in "If it ain't broke, don't fix it"	0	1	2	3	4
18.	Goes beyond self-interest for the good of the group	0	1	2	3	4
19.	Treats me as an individual rather than just as a member of a group	0	1	2	3	4
20.	Demonstrates that problems must become chronic before taking action	0	1	2	3	4
21.	Acts in ways that builds my respect	0	1	2	3	4
22.	Concentrates his/her full attention on dealing with mistakes, complaints, and failures	0	1	2	3	4
23.	Considers the moral and ethical consequences of decisions	0	1	2	3	4
24.	Keeps track of all mistakes	0	1	2	3	4
25.	Displays a sense of power and confidence	0	1	2	3	4
26.	Articulates a compelling vision of the future	0	1	2	3	4
27.	Directs my attention toward failures to meet standards	0	1	2	3	4
28.	Avoids making decisions	0	1	2	3	4
29.	Considers me as having different needs, abilities, and aspirations from others	0	1	2	3	4
30.	Gets me to look at problems from many different angles	0	1	2	3	4
31.	Helps me to develop my strengths	0	1	2	3	4
32.	Suggests new ways of looking at how to complete assignments	0	1	2	3	4
33.	Delays responding to urgent questions	0	1	2	3	4
34.	Emphasizes the importance of having a collective sense of mission	0	1	2	3	4
35.	Expresses satisfaction when I meet expectations	0	1	2	3	4
36.	Expresses confidence that goals will be achieved	0	1	2	3	4
37.	Is effective in meeting my job-related needs	0	1	2	3	4
38.	Uses methods of leadership that are satisfying	0	1	2	3	4
39.	Gets me to do more than I expected to do	0	1	2	3	4
40.	Is effective in representing me to higher authority	0	1	2	3	4
41.	Works with me in a satisfactory way	0	1	2	3	4
42.	Heightens my desire to succeed	0	1	2	3	4
43.	Is effective in meeting organizational requirements	0	1	2	3	4
44.	Increases my willingness to try harder	0	1	2	3	4
45.	Leads a group that is effective	0	1	2	3	4

Appendix B

New General Self-Efficacy Scale Questions (NGSES)

Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree
0	1	2	3	4

1	I will be able to achieve most of the goals I have set for myself.	0	1	2	3	4
2	When facing difficult tasks, I am sure I will accomplish them.	0	1	2	3	4
3	In general, I think that I can obtain outcomes that are important to me.	0	1	2	3	4
4	I believe I can succeed at most any endeavor to which I set my mind.	0	1	2	3	4
5	I will be able to successfully overcome many challenges.	0	1	2	3	4
6	I am confident I can perform effectively on many different tasks.	0	1	2	3	4
7	Compared to other people, I can do most tasks very well.	0	1	2	3	4
8	Even when things are tough, I can perform quite well.	0	1	2	3	4

Appendix C

Permission to Utilize New General Self-Efficacy Survey

Joel,
You have my permission. The attached file may be helpful.
Good luck,
Gilad

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Cc: Joel A Capt Usaf Pacaf 51 Lrs/ Lgrd Scherer
Subject: Request To Use NGSES In Dissertation

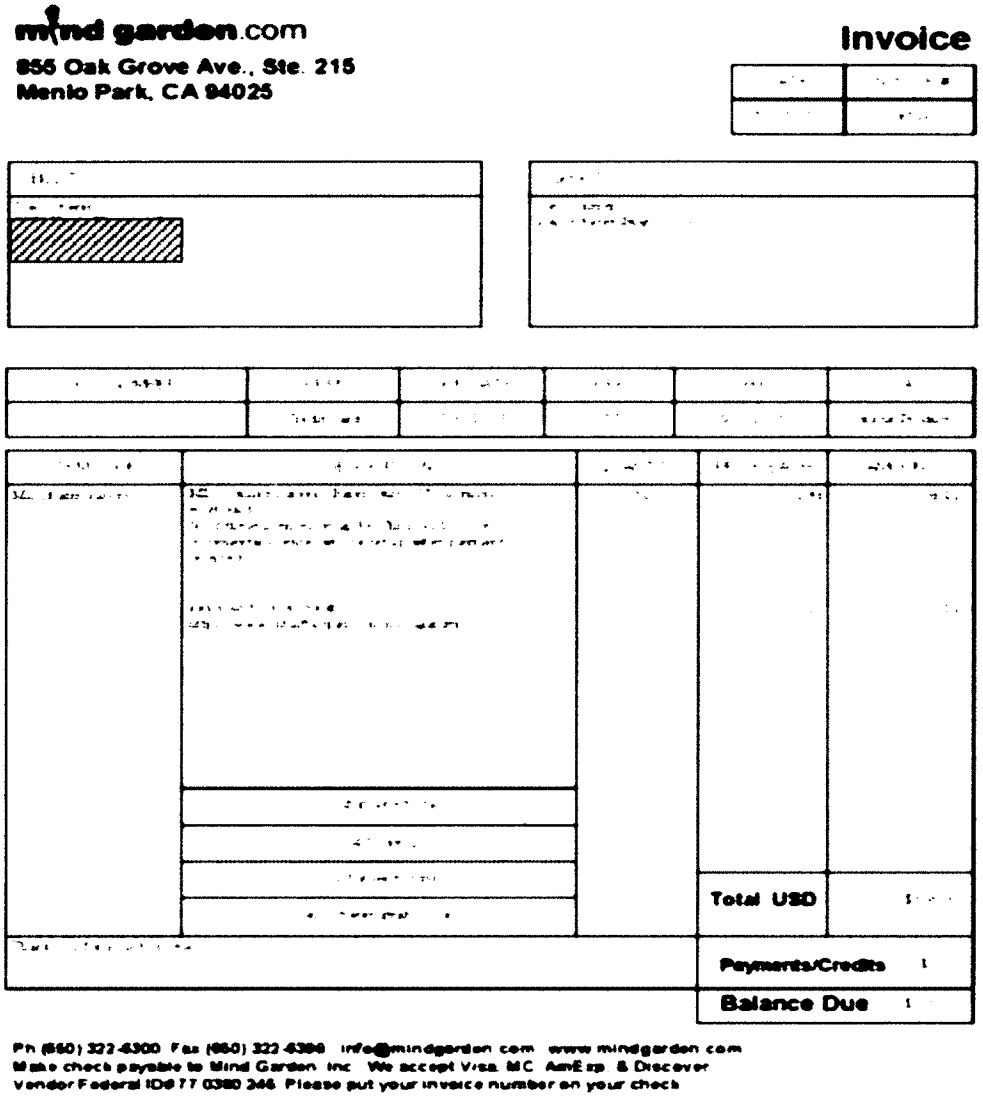
Dr. Chen,

I am a doctoral candidate at Northcentral University and am developing my dissertation to explore the "Impact Of Specific Leadership Behaviors on the Self-Efficacy of United States Air Force Company Grade Officers" and was wondering if you would permit me to use your new general self-efficacy scale to survey the population for my study.
My dissertation will be a correlational assessment between an individual's self-perceived general self-efficacy and specific leadership behaviors as defined by Bass & Avolio's Full-Range Leadership Model. I will attempt to correlate which specific leadership behavior(s) (i.e. Idealized influence, inspirational motivation, contingent reward) is/are most strongly correlated with increased levels of self-perceived GSE.

I appreciate your consideration and am more than happy to answer any questions/address any concerns. V/R, Joel Scherer
P.S. I am in the Air Force and currently stationed in So. Korea, so there may be some lag time in my responses.

Appendix D

Invoice for MLQ x5 Licenses



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