

PREDICTING GOVERNMENT NON-MANAGER EMPLOYEES' CREATIVE SELF-
CONCEPT BASED ON THEIR LEADERS' TRANSFORMATIONAL LEADERSHIP
QUALITIES

by

Steven Ray Palmer

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

Liberty University

2024

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ABSTRACT

This quantitative non-experimental, predictive, correlational study aimed to evaluate the predictive relationship between government leaders exercising transformational leadership attributes and government service employees' potential to engage in creative problem-solving. This study contributes to the existing knowledge on leadership and creative self-concept by focusing on the government civilian service sector. This sector represents a large population with limited exposure to the correlation between leadership and creativity. The sample for this study was 1,432 engineering and contracting professionals from a government acquisition center in northern Alabama who designed and built weapons systems for combat forces. The data analysis included 609 participants. The Team Multifactor Leadership Questionnaire was used to measure the key attributes of transformational leadership and the Short Scale of Creative Self-measured employees' creative self-concept. Data were collected through an online survey platform, and the participants volunteered to complete the survey. A multiple linear regression model was used to analyze the leadership attributes' predictive capability related to employees' self-perceived creativity. The results demonstrated a predictive relationship between transformational leadership and employee creativity. Idealized attributes, intellectual stimulation, and inspirational motivation were found to be the best predictors of employee creativity. Recommendations for future studies include continued exploration into other career areas in government service to determine the generalizability of results across the government civilian service career fields and explore how transformational leadership impacts employee creativity in different contexts.

Keywords: idealized attributes, idealized behaviors, individual consideration

Dedication

First, I would like to thank God for his impact on completing this endeavor and my life overall. The Word of God has instilled in me a profound desire to learn and persevere throughout this Ph.D. journey and in life. Next, I dedicate this work to my father, the late Owen Palmer, who encouraged me to pursue the next step in my education. His mentoring and guidance have served both the boot to keep moving through my studies and the wisdom to gather and analyze the information I needed to be successful. While he passed in my first year of study, our prior conversations continued to provide the strength and encouragement to complete this program. He had a high school education with 79 years of on-the-job experience. He was an avid reader and studied everything from horticulture and leadership to engineering. He was the most intelligent man I know, with the ability to speak on any subject to anyone in a manner that brought understanding to the topic. I continue to pray that I can be half the man he was in my lifetime. As in this program, his words continue to provide the answers to some of the most complex problems I face. Thanks for everything you have done and continue to do for me. Love you, Dad.

Acknowledgments

First, I thank my committee members for their support and guidance in making the Ph.D. goal a reality. To Dr. Maryna Svirska-Otero, my chair, I thank you for your mentorship and patience as you guided me through the dissertation process. Your mentoring served as the encouragement I needed to persevere. You were always there, even during your vacations. Your patience is second to none. During the complex study areas, your thorough explanations provided that final touch of understanding that moved me forward. Thank you for joining me on this journey. To Dr. Darren Wu, you are direct and exacting, the combination of attributes I needed at the right time. You helped ensure that I understand the statistical analysis process. You have the gift of making statistics understandable at my level. Thank you for all your efforts in keeping me on track and pushing me to complete this study.

Next, to my family, the rock that holds the team together. My wife, Stephenie, thank you for your love and support; this endeavor would not have been possible without you. You have sacrificed much to allow me the time needed for research and writing. Love you. To my wonderful daughters, sons-in-law, and grandchildren, this project has taken a great deal of time from you. I appreciate your understanding and letting me pursue a lifelong dream. The future will allow us more time, and I look forward to our adventures. I love you guys.

Table of Contents

ABSTRACT	2
Dedication	3
Acknowledgments	4
List of Tables	9
List of Figures	10
List of Abbreviations	11
CHAPTER ONE: INTRODUCTION.....	12
Overview.....	12
Background.....	12
Historical Overview	13
Society-at-Large.....	14
Theoretical Background.....	16
Problem Statement	18
Purpose Statement.....	20
Significance of the Study	21
Research Question	23
Definitions.....	23
CHAPTER TWO: LITERATURE REVIEW.....	25
Overview.....	25
Theoretical Framework.....	25
Transformational Leadership Theory	25
Creativity Theory	29

The Relationship Between Transformational Leadership and Creativity Theories	33
Related Literature.....	37
Leadership Styles	38
Leadership Styles and Employee Creativity	45
Summary	62
CHAPTER THREE: METHODS	65
Overview.....	65
Design	65
Research Question	68
Hypothesis.....	68
Participants and Setting.....	68
Population	68
Participants.....	69
Setting	70
Instrumentation	71
Team Multifactor Leadership Questionnaire	71
Short Survey of Creative Self.....	75
Procedures.....	77
Data Analysis	80
CHAPTER FOUR: FINDINGS.....	84
Overview.....	84
Research Question	84

Null Hypothesis	84
Data Screening.....	84
Descriptive Statistics.....	88
Assumption of Linearity	89
Assumption of Independence of Observations	89
Assumption of Homoscedasticity	90
Assumption of Multicollinearity.....	90
Assumption of No Significant Outliers.....	91
Assumption of Bivariate Normal Distribution.....	91
Results.....	92
CHAPTER FIVE: CONCLUSIONS	95
Overview.....	95
Discussion.....	95
Implications.....	99
Limitations	101
Recommendations for Future Research	103
REFERENCES	105
APPENDICES	137
Appendix A.....	137
Appendix B.....	138
Appendix C	139
Appendix D.....	140
Appendix E	141

Appendix F.....	142
Appendix H.....	146
Appendix I	147
Appendix J	148
Appendix K.....	149

List of Tables

Table 1: Team Multifactor Leadership Questionnaire.....	74
Table 2: Short Scale of Creative Self Subscales.....	76
Table 3: Descriptive Statistics	88
Table 4: Model Summary	90
Table 5: Collinearity Statistics.....	91
Table 6: Regression Model Results	93
Table 7: Coefficients.....	94

List of Figures

Figure 1: Partial Regression Plot for Idealized Attributes	85
Figure 2: Partial Regression Plot for Idealized Behaviors.....	86
Figure 3: Partial Regression Plot for Inspirational Motivation.....	86
Figure 4: Partial Regression Plot for Intellectual Stimulation.....	87
Figure 5: Partial Regression Plot for Individual Consideration.....	87
Figure 6: Residual Scatter Plot	Error! Bookmark not defined.
Figure 7: Histogram	92
Figure 8: P-P Plot.....	92

List of Abbreviations

Association of Christian Schools International (ACSI)

Department of Defense (DoD)

Global Leadership and Organizational Behavior Effectiveness (GLOBE)

IBM Statistical Package for the Social Sciences (SPSS)

Implementation Leadership Scale (ILS)

Institutional Review Board (IRB)

Multifactor Leadership Questionnaire (MLQ)

National Center for Education Statistics (NCES)

Short Scale of Creative Self (SSCS)

Team Multifactor Leadership Questionnaire (TMLQ)

United States (U.S.)

Variance Inflation Factor (VIF)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this quantitative non-experimental predictive, correlational study was to determine the relationship between the transformational leadership of government managers and government service non-manager employees' creativity as perceived by employees. Chapter One provides a background for transformational leadership and employee creativity. Included in the background is an overview of the theoretical framework for this study. Next, the problem statement includes a discussion of the scope of the recent literature on this topic. The purpose of the study is then discussed, and the significance of the current study follows the study's purpose discussion. Finally, the research questions are introduced, and definitions pertinent to this study are provided.

Background

The United States government employs nearly 2.9 million employees in various fields from medicine to acquisition (Duffin, 2020; Lambert, 2019). Despite the large number of government employees who constitute 16% of the total U.S. workforce, there is limited research focused on this population in the field of leadership and creativity. While leadership is essential for businesses to survive, the investigative focus has been on the commercial business fields (Alblooshi et al., 2021; Donkor et al., 2022; Gelaidan et al., 2022). Similarly, creative problem-solving is critical to a government sector sustaining or increasing market share but the exploration of creative thinking is dominated by the commercial business sector (Alblooshi et al., 2021; Donkor et al., 2022; Gelaidan et al., 2022).

Additionally, government organizations often strive to improve their services and deliver better outcomes (Ballaro et al., 2020; Regényi, 2022). Creativity plays a crucial role in

generating innovative solutions to complex problems (Dai et al., Wang, 2022). By examining the impact of transformational leadership on employee creativity, insights into how government managers can enhance the creativity of their non-manager employees can be discovered. Enhancing employee creativity can lead to more effective and efficient government services (Esguerra et al., 2022; Ntseke et al., 2022). This research can inform leadership development programs. It can identify specific leadership behaviors and attributes that have a positive impact on employee creativity guiding the training and development of government managers, promoting more effective leadership practices (Fu et al., 2022; Han et al., 2022). Further, providing empirical evidence and insights into the relationship between transformational leadership and employee creativity can assist policymakers and organizational leaders in making informed decisions about leadership practices, employee development, and organizational culture (Cai et al., 2020; Fischer & Walker, 2022; Zhao et al., 2022a). Implementing evidence-based practices can lead to more effective management strategies and ultimately improve the overall performance of government organizations.

Historical Overview

Leadership has been studied extensively over the centuries. Leaders were once thought to be ordained by God (Witzel, 2019). As scholars studied leadership, beliefs regarding leadership shifted from leaders being born to lead (Benmira & Agboola, 2021; Zaccaro, 2007) to leaders being made to lead (Hunt et al., 2019) and from leaders being made to lead to leaders being taught to lead (Witzel, 2019). Stogdill (1950) posited that leadership is an individual's ability to develop leadership competencies, which evolved into transforming leadership (Burns, 1978) and later transformational leadership (Bass, 1985). While the thought of leaders being ordained by God was a 16th-century idea, transformational leadership was a 20th-century concept (Witzel,

2019). At the beginning of the 21st century, technology's impact on leadership became a focus of leadership study (Day et al., 2014).

The creative theory, developed by Guilford in 1950 and suggests that leaders who promote empowerment, trust build creativity in followers. The study of creativity further considered societal and contextual factors. Csikszentmihalyi's (1990) concept of "flow" proposes that optimal creative experiences involve intense concentration and enjoyment. Later, there was an interdisciplinary approach to creative theory that integrated insights from psychology and sociology (Liu et al., 2021b; McGregor & Frodsham, 2022; Zhang et al., 2023). A more comprehensive understanding of creativity by exploring individual differences, motivation, and the neurological basis of creative thinking (Lee et al., 2020; Wang, 2022; Wulansari et al., 2021). Dynamic models were developed highlighting interactions between preparation, incubation, illumination, and verification (Han et al., 2022; Wulansari et al., 2021; Yuan et al., 2022a). Finally, researchers focus on the role of the environment in fostering creativity, including studying the impact of leadership effects in creative thinking (Han et al., 2022; Yang & Xu, 2022; Zhang et al., 2023).

Society-at-Large

Technological advances in manufacturing technology in the areas of computing and tracking in today's industrial markets challenge nearly every business within the commercial and government sectors (Dedyulin et al., 2022; Mohammadi et al., 2021; The Defense Acquisition System, DoDD 5000.01 C.F.R., 2020). In today's industrial markets, technological advances in manufacturing technology, computing, and tracking have a significant impact on the organizational environment. In addition to the organizational environment, businesses also operate within a community environment. The community environment refers to the external

factors and conditions that impact a business, such as the industry, market, customers, and competitors. The organization's leadership influences the organizational environment while the community environment is a product of the community wherein citizens live, work, and volunteer (Becker et al., 2022; Begum et al., 2022). Citizens work in industrial, government, and volunteer organizations.

Those citizens, whose training, self-efficacy, and motivation are a product of a supportive organizational culture, set a positive and supportive environment within the community (Becker et al., 2022). Conversely, a non-supportive organizational culture tends to produce a negative feeling toward social activities and hinder community support (Becker et al., 2022). Thus, the community depends greatly on the capabilities of the employees of the industrial sector and its citizens to keep the community and the business relevant and ensure their survival (Kouzes & Posner, 2017; Northouse, 2019). Employees who engage in creative thinking in the workplace are more likely to participate in the operations of the community (Bajcar & Babiak, 2022; Donkor et al., 2022). The community thrives when citizens who engage in volunteer activities, community watch, and support organizations are creatively engaged at work (Caulfield & Brenner, 2020; Chaubey et al., 2019).

In today's global marketplace, a business must promote creativity within its workforce to remain relevant and thrive as technological advances come to the marketplace (Becker et al., 2022; Gelaidan et al., 2022; Middleton & Hall, 2021; O'Connor et al., 2022). When businesses thrive, the community is prosperous and vibrant. Thriving in the globalized marketplace challenges businesses at all levels (Banks et al., 2016). Complex knowledge requirements of an ever-changing marketplace and technology are the leader's critical struggles in the organization's quest to survive and prosper (Helmold, 2021). The rapid pace of technological advancement and

the complex knowledge requirements of learning and implementing innovative technology quickly force managers to trust and empower employees and employees to rethink the problem (Al Harbi et al., 2019).

Developing creative employees in the workplace not only benefits the organization but also has a positive impact on the community (Bajcar & Babiak, 2022; Cai et al., 2020; Donkor et al., 2022). When employees are encouraged to think creatively and come up with innovative solutions, they develop skills that can be applied beyond the workplace. These creative individuals can then contribute their ideas and talents to improve the community they live in. By fostering creativity in the workplace, organizations empower their employees to think outside the box and find new ways to address community challenges (Caulfield & Brenner, 2020; Chaubey et al., 2019). Whether it's volunteering for local initiatives, participating in community projects, or using their creative skills to solve community problems, these employees become active and engaged citizens.

Theoretical Background

The transformational leadership theory (Burns, 1978) and creativity theory (Guilford, 1950) were the theoretical frameworks for this study. Transformational leadership theory focuses on the relationship between the leader and the employee (Burns, 1978). It provides purpose and direction and inspires employees to identify with and commit to leaders and their vision (Northouse, 2019). The constructs of transformational leadership theory are idealized influence (composed of attributes and behaviors), inspirational motivation, intellectual stimulation, and individualized consideration (Burns, 1978). These constructs are essential to this study as it helps identify individuals who exhibit transformational leadership tendencies. By examining the behaviors, traits, and actions of leaders within the organization, researchers can determine the

extent to which they demonstrate transformational leadership qualities. Additionally, the constructs are used to identify their predictive influence on employee creativity.

Transformational leaders motivate employees to foster and promote their desire to be creative (Abbas & Ali, 2023; Khan et al., 2021; Ma et al., 2020). Efficiency increases when transformational leaders genuinely care about the well-being of their employees (Afsar & Umrani, 2019; Ramadani Rachmah et al., 2022). The presence of transformational leadership within an organization can have a positive influence on creativity while the absence of it can have a negative influence on creativity (Becker et al., 2022; Lee et al., 2020; Ma et al., 2020). The researcher used the transformational leadership factors of idealized influence (attributes and behaviors), inspirational motivation, intellectual stimulation, and individualized consideration to investigate employee creativity in the government civilian service.

The creative theory (Guilford, 1950) posits that leaders who promote empowerment, trust, and motivation in employees promote a positive, creative work environment (Northouse, 2019; O'Connor et al., 2022). The study of creativity expanded to encompass societal and contextual factors as researchers recognized that culture, education, and social environments influence creativity (Liu et al., 2021b; McGregor & Frodsham, 2022; Zhang et al., 2023). This shift gave rise to new theories such as Csikszentmihalyi's (1990) concept of "flow", which suggested that optimal creative experiences are marked by intense concentration and enjoyment. Csikszentmihalyi argued that flow experiences are not limited to specific activities but can be found in a wide range of contexts, including sports, art, and work.

During the 1980s and 1990s, there was a move towards an interdisciplinary approach to creative theory. Researchers began integrating insights from fields like psychology, neuroscience, anthropology, and sociology (Ma et al., 2020; Zhang et al., 2018). This

interdisciplinary perspective allowed for a more comprehensive understanding of creativity by exploring individual differences, motivation, and the neurological basis of creative thinking (Lee et al., 2020; Wang, 2022; Wulansari et al., 2021). In the early 2000s, there was a growing recognition of the importance of the creative process itself (Ma et al., 2020; Wang, 2022; Wulansari et al., 2021). This led to the development of dynamic models that emphasized the iterative and nonlinear nature of creativity (Han et al., 2022; Wulansari et al., 2021; Yuan et al., 2022a). These models highlighted interactions between various stages of creativity such as preparation, incubation, illumination, and verification. Additionally, in recent years there has been increased attention on how the organizational environment fosters creativity in employees. Scholars have explored how technology and digital platforms impact creative processes by studying leadership effects in creative thinking (Han et al., 2022; Yang & Xu, 2022; Zhang et al., 2023).

In this study, the investigation of transformational leadership relied on the application of creative theory constructs such as empowerment, trust, and motivation. These constructs served as a foundation for understanding how transformational leaders inspire and influence their followers to be and act with a higher level of creativity (Day et al., 2014; Northouse, 2019). The constructs of transformational leadership were key to developing the hypotheses, defining the conceptual framework, and selecting the measurement tool for this study.

Problem Statement

Like their counterparts in civilian industries, the government civilian workforce must apply creative solution decision-making behaviors to remain relevant when providing services (Austin, 2021; Cai et al., 2019; Ready & Prendergast, 2022). Caulfield and Brenner (2020) explored leadership activities in organizational change within the nonprofit business sector.

There exists some research on transformational leadership's influence on teaming with industry (Willems et al., 2017), innovation in the local government, and educational institutions (Gelaidan et al., 2022; Hunt et al., 2019), and healthcare performance (Koh et al., 2019; van der Hoek et al., 2018). Chaubey et al. (2019) and Setiawan et al. (2021) explored the links between organizational and innovative climates. Gao et al. (2011) underscored the need to conduct further research on the relationship between interpersonal trust and its influences on employee creativity. Mooijman et al. (2019) listed the dependency on the leader-employee relationship and how this relationship interacting with power-loss concerns could assist in subordinates' low trust predictions and lead to low creativity as an area for further research. Chow (2018) noted that research investigating employee processes and how those processes impact the acceptance of leadership style was needed.

Further research investigating interactions between leadership and creativity would greatly contribute to our understanding of the overall connection between these two factors and their impact on an employee's behavior. When applied to the complex problems of today's marketplace, employee creativity is shown to be the key to innovative solutions, and ultimately, organizational success in the commercial sector (Adeel et al., 2018; Ahearne et al., 2005; Bai et al., 2016). The link between leadership style and creative employee decision-making has been explored in depth across various civilian sectors: (a) services and manufacturing (Afsar & Umrani, 2019), (b) technology (Akbari et al., 2020), and (c) education (Ninković & Knežević Florić, 2018). In contrast, the literature on government civilian employee creativity and its link to leadership is limited and requires more investigation, as supported by the current peer-reviewed research (Adeel et al., 2018; Ahmad et al., 2020; Alblooshi et al., 2021; Fleming & Millar, 2019). The problem is that research investigating the link between transformational leadership

and employee creativity in the federal government service sector is needed to evaluate the predictive nature of transformational attributes and add government service results to the literature knowledge base (Asif et al., 2022; Ma et al., 2020; Shao et al., 2022).

Purpose Statement

The purpose of this quantitative non-experimental predictive correlational study was to investigate the relationship between government managers' transformational leadership attributes and government service non-manager employees' self-perceived creativity. The predictor variables were government managers' idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration as perceived by the government service non-manager employees (Avolio & Bass, 1995). The criterion variable was government service non-manager employees' creative self-concept (Karwowski et al., 2018).

Idealized attributes are a measure of followers' willingness to identify with their leader and to emulate the leader's actions (Afshan et al., 2022; Afshari, 2022; Avolio & Bass, 1995). Idealized behaviors are a measure of the degree to which a leader consistently displays ethical, principled, and value-based decision-making while sharing risks with employees (Afshari, 2022; Avolio & Bass, 1995; Helmold, 2021). Inspirational motivation is the measure of a leader's behaviors; specifically, it is a measure of the leader's ability assign meaningful and challenging employee tasks (Al Harbi et al., 2019; Avolio & Bass, 1995; Maran et al., 2022). Intellectual stimulation is a measure of a leader's ability to encourage followers to question assumptions and look at challenges from all aspects (Avolio & Bass, 1995; Jacobsen et al., 2022; Lambert, 2019). Individual consideration is a measure of a leader's ability to coach and mentor employees and promote their achievement and professional growth (Avolio & Bass, 1995; Garfield et al., 2020;

Maran et al., 2022). As defined in their study, Karwowski et al. (2018) posited that employee creativity is an employee's capacity to generate valuable and innovative ideas.

The study's population was 1432 government service employees assigned to a government research and procurement division's weapons design and contracting section. The study's sample was 609 individuals. The sample consisted of voluntary participants drawn from the population described above.

Significance of the Study

This study sought to contribute to the body of knowledge by investigating the relationship between transformational leadership and employee creativity in the federal government service sector. Prior studies investigated the relationship between transformational leadership and employee creativity in the commercial sector (Afsar & Umrani, 2019; Koh et al., 2019; Li & Zhang, 2016; Ninković & Knežević Florić, 2018; Yammarino & Bass, 1990). This study may validate prior studies that identified a link between transformational leadership and employee creativity using the government service employee population. Each commercial industrial center had a distinct organizational value set that was challenging to generalize to government settings. The unique value set taught and utilized by the government civil service is the major separating factor between commercial sector leaders and employees and government leaders and employees. All civil service employees are taught the same basic values. Loyalty, duty, respect, selfless service, honor, integrity, and personal courage are the values that all employees are expected to follow. The commercial sector does not teach or expect all employees across companies to follow the same set of values.

There are several reasons why the Department of Defense (DoD) is a significant organization to study in terms of leadership and employee creativity. The first reason is DoD is

one of the largest employers in the world, with a diverse workforce spanning various military branches and civilian roles. Understanding how leadership and creativity can be fostered within such a large organization has the potential to impact a considerable number of employees and their work environment. The next reason is the DoD operates in a unique and complex environment. The nature of military operations requires innovative and creative solutions to address challenges and ensure mission success. By studying leadership and employee creativity within the DoD, researchers can discover strategies and approaches that can be applied to other high-stakes industries or organizations operating in complex environments.

The final reason is the DoD is responsible for national security and defense. Enhancing leadership skills and promoting employee creativity within the organization can lead to more effective decision-making, improved performance, and increased innovation. These outcomes can have direct benefits for the defense sector, national security, and, ultimately, society. By focusing research attention on the DoD, practitioners can develop tailored transformational leadership training programs that address the unique challenges and requirements of the organization where most appropriate. These programs can equip supervisors with the necessary skills to inspire and motivate their teams, fostering a culture of creativity and innovation.

By empowering non-managerial employees to contribute their ideas and creativity, the DoD can tap into a diverse range of perspectives and expertise. This can lead to the development of novel solutions and approaches to complex problems, ultimately enhancing the organization's overall effectiveness and agility. Studying leadership and employee creativity within the DoD has practical benefits that extend beyond the organization itself. By promoting focused transformational leadership training to supervisors and encouraging creativity among non-

managerial employees, the DoD can generate value for not only its own sections and divisions but also the entire organization and society at large.

Research Question

RQ1: How accurately can government non-manager employee creative self-concept be predicted from a linear combination of government service leaders' transformational leadership qualities of *idealized attributes*, *idealized behaviors*, *inspirational motivation*, *intellectual stimulation*, and *individual consideration* as perceived by the employees?

Definitions

1. *Behavioral integrity* - Behavioral integrity is a leader's consistency in what they do and say (Hinkin & Schriesheim, 2015).
2. *Creativity* - Creativity is an employee's generation of valuable and innovative ideas. (Karwowski et al., 2018)
3. *Creative self-concept* - Creative self-concept is defined as an employee's perception of their competency to generate creative ideas (Karwowski et al., 2018).
4. *Empowering leadership* - Empowering leadership is the sharing of power and pushing down of responsibility, authority, and autonomy to employees (Byun et al., 2016; Chow, 2018).
5. *Employee* - Employee is an individual employed at an organization who is not leading or managing others (Tan et al., 2022).
6. *Idealized attributes* - Idealized attributes are a leader's behavior that followers identify with and want to emulate (Avolio & Bass, 1995).

7. *Idealized behaviors* - Idealized behaviors are a leader's ethical, principled, and value-based decision-making behaviors while sharing risks with employees (Avolio & Bass, 1995).
8. *Inspirational motivation* - Inspirational motivation is the leaders' actions inspiring employee behaviors that provide meaning and challenge to tasks (Avolio & Bass, 1995).
9. *Intellectual stimulation* - Intellectual stimulation is the employees' behavioral state when a leader promotes questioning of assumptions, problem definitions, and analysis of challenges from all aspects (Avolio & Bass, 1995).
10. *Individual consideration* - Individual consideration is a leader's actions that serve to improve an employee's productivity and professional growth (Avolio & Bass, 1995).
11. *Leadership attributes* - Leadership attributes are "the inner or personal qualities that constitute effective leadership" (Saha, 2006, p. 290).
12. *Managers* - Managers are people within an organization who lead or supervise other employees (Slavich & Svejnova, 2016).
13. *Trust* - Trust is "the willingness to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer et al., 1995, p. 712).

CHAPTER TWO: LITERATURE REVIEW

Overview

The purpose of this literature review is to present the essential elements of and the relationship between transformational leadership and employee creativity and to describe the relationship between them. The chapter opens with a discussion of the theoretical framework. A thorough review of the literature pertinent to leadership styles, attributes, employee creativity, leadership in government contexts, and organizational relationships completes the chapter, which ends with a summary.

Theoretical Framework

The theoretical foundation for this study is transformational leadership theory (Burns, 1978) and creativity theory (Guilford, 1950). This section begins with a discussion on transformational leadership, including the origin and major theorists. Next, the section examines how the theory advances the literature on the topic followed by a review of the definition, origin, and major theorists of creativity theory. This section then describes literature covering the advancements creativity. Finally, the section closes with a discussion of how this study relates to theory and any potential advancements in literature.

Transformational Leadership Theory

The transformational leadership theory (Burns, 1978) emerged in the late 1970s as a response to previous leadership theories that predominantly focused on transactional aspects of leadership (Benmira & Agboola, 2021; Day et al., 2014). While transactional leadership focuses on rewards and punishments, transformational leaders transform people. Transformational leadership theory (Burns, 1978) emphasizes the leader's ability to inspire and motivate their

followers to achieve significant improvements, both individually and collectively (Khorakian & Sharifirad, 2019; Northouse, 2019).

One of the major theorists who contributed to the development of the transformational leadership theory is James V. Downton (Benmira & Agboola, 2021; Day et al., 2014). In 1973, Downton introduced the concept of "charismatic leadership," which laid the groundwork for future studies in this area (Baum & Haveman, 2020; Benmira & Agboola, 2021). Downton (1973) provided a comprehensive understanding of a leader's navigation and influence in situations where established norms and power structures within an organization are challenged. He described how leaders rally followers, maintain group cohesion, and achieve objectives by providing transformational influences, motivations, and ideologies. According to Downton (1973) the increase in employee creativity was attributed to the charismatic nature of these leaders. He analyzed the influence of charismatic leaders on their followers, highlighting their ability to inspire trust, loyalty, and a keen sense of identity (Adeel et al., 2018; Northouse, 2019). Downton's (1973) work became the basis of the transformational leadership components of influence, motivation, and individualized consideration.

Another influential figure in transformational leadership theory is James MacGregor Burns and his concept of transforming leadership shaped (Benmira & Agboola, 2021; Burns, 1978). In his book *Leadership*, James MacGregor Burns introduced the concept of transforming leadership in 1978. Burns (1978) posited that this style of leadership goes beyond transactional relationships by focusing on motivating and inspiring followers to pursue higher goals. By doing so, significant changes can be achieved in individuals and society. Burns (1978) believed that transforming leaders create a vision that inspires their followers to work towards achieving it. The leader emphasizes development, empowerment, and ethical reasoning and encourages their

followers to become better versions of themselves. They aim to bring about collective growth and development by fostering strong relationships based on trust, respect, and mutual understanding. Transforming leaders are often seen as role models who challenge the status quo and take risks to bring about positive changes (Burns 1978; Northouse, 2019). They go beyond organizational goals and focus on promoting social justice, equality, and social progress. Burns believed that this style of leadership has the potential to address societal challenges and lead to positive transformations at various levels.

Transforming leadership is an approach that aims to inspire and empower followers to work towards greater goals while making positive changes in themselves and society (Benmira & Agboola, 2021; Day et al., 2014). It involves building strong relationships based on trust and mutual understanding while emphasizing personal growth and social progress. This idea of leadership as a mutual process of transformation and growth has influenced contemporary understandings of transformational leadership (Day et al., 2014; Northouse, 2019).

More recently, Bernard M. Bass (Bass, 1995) expanded upon Burn's work and further developed the transformational leadership theory (Burns, 1978). Transformational leadership theory emphasizes the importance of leaders who can create positive change within their organizations and inspire their followers to reach their full potential (Burns, 1978). Leaders can achieve this by transforming the beliefs, values, and attitudes of their followers. One key aspect of transformational leadership is the ability to inspire and motivate others. These leaders have a clear vision of a brighter future and can effectively communicate this vision to their followers. They can create a sense of purpose and meaning, which motivates their followers to work towards achieving the shared vision (Day et al., 2014; Northouse, 2019).

In addition to inspiring and motivating, transformational leaders also prioritize the growth and progress of their followers (Burns, 1978). They are invested in the development of their followers and provide them with the necessary support and resources to reach their goals. They encourage continuous learning and provide opportunities for personal and professional growth. Transformational leaders also foster an environment that encourages creativity and innovation (Afsar & Umrani, 2019; Burns, 1978; Karimi et al., 2023; Wulansari et al., 2021). They encourage their followers to think outside of the box, challenge the status quo, and come up with innovative solutions to problems. By doing so, they create a culture of innovation within their organization and drive positive transformations (Gui et al., 2022; Khan et al., 2021).

Furthermore, transformational leaders cultivate trust and collaboration (Yuan et al., 2022b; Zainab et al., 2022). These leaders build strong relationships with their followers based on mutual respect and trust. They involve their followers in decision-making processes and create a collaborative environment where everyone's opinions and contributions are valued (Begum et al., 2022; Burns, 1978; Ma et al., 2020).

In summary, the transformational leadership theory (Burns, 1978) emerged as a response to transactional leadership theories and emphasizes the leader's ability to inspire and motivate their followers. Bass identified four key components of transformational leadership: idealized influence (attributes and behaviors), inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1995; Benmira & Agboola, 2021). Major theorists in this field include James V. Downton (1973), James MacGregor Burns (1978), and Bernard M. Bass (1995). Their contributions have provided valuable insights into the characteristics and behaviors of transformational leaders.

Transformational leadership theory (Burns, 1978) has contributed to the literature on the topic in several ways. First, it has provided a comprehensive framework for understanding how leaders can inspire, motivate, and empower their followers to achieve higher levels of performance and satisfaction (Adelekan & Erigbe, 2021; Alrowwad et al., 2020). Second, it has identified the key behaviors and attributes of transformational leaders such as charisma, vision, intellectual stimulation, individualized consideration, and moral values (Karimi et al., 2023; Yi et al., 2020; Zhao et al., 2022b). Third, it has offered empirical evidence for the positive effects of transformational leadership on various organizational outcomes, including innovation, commitment, trust, and citizenship (Fu et al., 2022; Kasımoğlu & Ammari, 2020; Thanh & Quang, 2022). Fourth, it has challenged the traditional assumptions and models of leadership that focus on transactional exchanges, contingency factors, and situational variables (Becker et al., 2022; Ma et al., 2020). Finally, transformational leadership theory has stimulated further research and development of related concepts and theories such as authentic leadership, servant leadership, and ethical leadership (Hoch et al., 2018; Liu & Pak, 2022).

Creativity Theory

Guilford (1950) developed creativity theory and described intelligence and motivation as the essential components to capturing individual creative ability. Creativity theory aims to comprehend how individuals manage to conceive original thoughts, products, or artistic expressions (Begum et al., 2022; Huang et al., 2016; Jaiswal & Dhar, 2015). The roots of creative theory can be traced back to several influential thinkers and psychologists who sought to explore the phenomenon of creativity. One early attempt at explaining creativity was made by Graham Wallas in his 1926 book, *The art of thought*. Wallas proposed a model known as the

four-stage model of creative thinking, which identified preparation, incubation, illumination, and verification as sequential stages in the creative process.

Another significant contributor to creative theory was J.P. Guilford, who posited that creativity entailed divergent thinking—the ability to generate a diverse range of ideas or solutions (Guilford, 1950). Guilford also introduced convergent thinking, which involves evaluating and selecting the best idea or solution from a pool of possibilities. Since then, numerous psychologists and theorists have expanded upon creative theory, offering fresh insights and perspectives on the creative process.

In the following years, researchers recognized the significance of social and environmental factors for fostering creativity. Theories emphasizing culture, social context, and supportive environments emerged. Viktor Lowenfeld (1970) emphasized the role of cultural, social, and environmental factors in fostering creativity. He believed that the nurturing of creativity should start in early childhood and encompass various social and cultural dimensions.

Gardner's (1983) theory of multiple intelligences is not exclusively focused on creativity; it highlights how individuals interact with their environment to develop and manifest various human capacities, including creative thinking. For example, he proposed that individuals with strong spatial intelligence may excel in creative fields like architecture or visual arts while those with high musical intelligence may demonstrate creativity through music composition. Gardner's theory emphasizes the importance of providing diverse learning opportunities and multiple modes of expression to nurture and cultivate individuals' creative abilities across different intelligences. Additionally, he emphasizes the role of the environment in fostering creativity, suggesting that individuals need access to tools, materials, and supportive mentors who can help bring their creative ideas to life (Gardner, 1983).

Csikszentmihalyi's (1990) work on flow and creativity highlighted the importance of environmental factors in facilitating creative experiences. He proposed that individuals are more likely to experience heightened creativity when they are in a supportive and stimulating environment. Sternberg and Lubart's (1991) theory of intelligence introduced the concept of the investment theory of creativity, challenging the notion that creativity is solely dependent on innate abilities. Instead, it can be cultivated and developed through investment in knowledge acquisition and a deliberate choice of thinking style. Sternberg and Lubart (1991) emphasized the importance of investing time, effort, and resources into developing expertise in a domain and actively seeking out opportunities to expand one's knowledge. He also argued that an individual's ability to recognize and seize creative opportunities is crucial for their creative development. Sternberg provided examples of how some individuals have excelled in their creative pursuits by actively seeking out challenging projects, collaborating with other creative individuals, and taking advantage of opportunities for growth and experimentation.

Sternberg's (2006) investment theory of creativity combines cognitive abilities with knowledge and personality factors to explain creative behavior. He argued that intelligence, creative thinking skills, and motivation are all integral to fostering creativity. His theory underscores how the environment and cultural influences can either facilitate or hinder creative expression.

According to Gardner (2011), creativity can manifest in diverse ways based on his theory of multiple intelligences. Gardner proposed that intelligence is not a single, unified entity, but rather a combination of distinct intelligences that individuals possess to varying degrees. Gardner's theory of multiple intelligences identifies several different types of intelligences, including linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal,

intrapersonal, and naturalistic intelligences. Each of these intelligences represents a different way of processing information and engaging with the world. In the context of creativity, Gardner suggests that individuals can express their creative abilities through these different intelligences. For example, someone with high musical intelligence may demonstrate creativity through composing music or playing an instrument, while someone with high spatial intelligence may express creativity through visual arts or architectural design.

The final theory discussed in this section is componential theory of creativity. Amabile (2012) presented the componential theory of creativity, which states that creative performance arises from interactions between three key components: domain-relevant skills, creativity-relevant skills, and task motivation. She highlighted intrinsic motivation, autonomy, and external support as factors that enhance creativity. Overall, creative theory has evolved through the integration of diverse perspectives, and it remains an intriguing field of study.

By integrating diverse perspectives, creativity theory has played a significant role in advancing and informing the literature. Specifically, creativity theory has provided a foundation for understanding and defining creativity. It has helped researchers and scholars establish common terminology and conceptual frameworks to study the creative process (Sternberg, 2006). For example, theories like the components of creativity theory by Teresa Amabile and the four c model of creativity (Amabile, 2012), have provided researchers with a structure to explore creative thinking, creative problem-solving, and the factors that influence creativity (Sternberg, 2006; Thomson & Jaque, 2017).

Numerous creativity theories have contributed to understanding the creative process (Amabile, 2012; Wallas, 1926). For instance, the stage-based models proposed by Graham Wallas and later extended by others with the stages of preparation, incubation, illumination, and

verification, have been used to examine how creative ideas are generated and developed (Amabile, 2012; Gardner, 2011; Wallas, 1926). The theory of creative problem-solving has also provided a systematic approach to generating and evaluating ideas (Ravenell, 2018).

Creativity theory (Guilford, 1950) has guided the development of strategies and interventions to enhance creative thinking and problem-solving skills. The insights gained from creativity theories have been used to shape educational programs, training methodologies, and organizational practices focus on fostering creativity (Thomson & Jaque, 2017). For example, research on the creative process has led to the development of techniques like brainstorming, mind mapping, and design thinking (Sternberg, 2006; Thomson & Jaque, 2017). Overall, creativity theory (Guilford, 1950) has helped shape and inform the literature on creativity by providing theoretical frameworks, identifying characteristics associated with creativity, understanding the creative process, examining environmental influences, and guiding the development of strategies to enhance creativity (Amabile, 2012; Gardner, 2011).

The Relationship Between Transformational Leadership and Creativity Theories

Transformational leadership (Burns, 1978) and creativity (Guilford, 1950) theories share a close relationship because of their shared focus on promoting innovative thinking and improved performance (Barr et al., 2020; Dai et al., Wang, 2022). Transformational leadership theory (Burns, 1978) focuses on leaders who inspire and motivate their followers to surpass their own self-interests and achieve exceptional performance (Barr et al., 2020; Dai et al., 2022; Esguerra et al., 2022; Ntseke et al., 2022; Wang, 2022). These leaders possess vision, charisma, and exhibit high levels of intellectual stimulation by challenging their followers to think creatively and critically. They encourage their followers to question existing assumptions and develop

innovative ideas to solve problems and reach goals (Barr et al., 2020; Cai et al., 2020; Fu et al., 2022; Han et al., 2022; Yuan et al., 2022b).

On the other hand, creativity theories explore the cognitive processes and environmental factors that influence creative thinking and behavior (Ma et al., 2020; Setiawan et al., 2021; Thanh & Quang, 2022). These theories highlight the importance of generating original and useful ideas, as well as the ability to take risks and overcome obstacles in implementing those ideas (Hancock et al., 2023; Northouse, 2019; Ramadani Rachmah et al., 2022). Key theories in this area include cognitive theory of creativity, componential theory of creativity, and social-cultural perspective on creativity (Barr et al., 2020; Fu et al., 2022; Thanh & Quang, 2022).

The relationship between transformational leadership and creativity theories can be understood in several ways. First, transformational leaders create an environment that fosters creativity. These leaders establish a supportive work climate where innovative ideas are valued and encouraged (Ahmad, 2022; Lei et al., 2020; Li et al., 2023). Second, they provide autonomy, resources, and psychological safety for their followers to take risks, experiment, and explore new possibilities (Barr et al., 2020; Dai et al., 2022; Ntseke et al., 2022). By creating those conditions, they enhance creative thinking skills among followers. Third, transformational leaders enhance intrinsic motivation for creativity. By articulating a clear vision, setting challenging goals, and promoting a sense of purpose, transformational leaders inspire followers intrinsically (Fu et al., 2022; Kasımoğlu & Ammari, 2020; Thanh & Quang, 2022). This type of motivation is crucial for fostering creativity as it leads to higher levels of engagement, persistence, and exploration—all important factors for generating creative ideas (Ballaro et al., 2020; Kasımoğlu & Ammari, 2020; Regényi, 2022).

Transformational leaders not only inspire and motivate their followers but also serve as role models for creative behaviors (Barr et al., 2020; Kasımoğlu & Ammari, 2020; Ntseke et al., 2022). These leaders actively engage in creative thinking themselves, setting an example for their followers to follow. By actively participating in creative problem-solving, brainstorming sessions, and innovative initiatives, transformational leaders demonstrate their commitment to creativity. They encourage their followers to think outside the box, take risks, and explore new ideas. This hands-on involvement in creative processes sends a powerful message to their team members about the importance of creativity and its value within the organization (Fischer & Walker, 2022; Zhao et al., 2022a; Zhu et al., 2022). Furthermore, they also recognize, and reward efforts made toward achieving something, which promotes continuous expression (Korku & Kaya, 2023; Li et al., 2023; Ma et al., 2020; Setiawan et al., 2021).

Finally, transformational leaders bridge the gap between individual and organizational creativity by connecting individual pursuits and goals with the vision of the organization (Fu et al., 2022; Kasımoğlu & Ammari, 2020; Thanh & Quang, 2022). They create a collective identity that helps individuals understand how their creative efforts contribute to the team or organization's success (Barr et al., 2020; Thanh & Quang, 2022; Zhao et al., 2022a). By emphasizing the connection and significance of individual creativity within a larger context, transformational leaders facilitate the integration of diverse ideas and perspectives—ultimately leading to more innovative outcomes (Guilford, 1950; Kipfelsberger et al., 2022; Zhao et al., 2022a).

Overall, transformational leadership plays a crucial role in fostering a climate conducive to creativity, enhancing intrinsic motivation, modeling, and reinforcing creative behaviors, and aligning individual and organizational creativity (Barr et al., 2020; Fu et al., 2022; Northouse,

2019). These factors together contribute to creating a culture that values creativity and innovation within an organization, thereby driving enhanced performance and competitive advantage (Ballaro et al., 2020; Regényi, 2022).

The examination of the correlation between transformational leadership and employee creativity in government service employees serves to align leadership theory and creativity theory in several significant ways. One way is leadership theory emphasizes the crucial role of leaders in influencing and motivating their followers toward achieving organizational objectives (Fu et al., 2022; Kasımoğlu & Ammari, 2020; Thanh & Quang, 2022). Within the context of transformational leadership theory (Burns, 1978), leaders who display qualities such as idealized influence (attributes and behaviors), inspirational motivation, intellectual stimulation, and individualized consideration can effectively cultivate employee creativity (Bass, 1995; Benmira & Agboola, 2021).

Next, creativity theory centers on the cognitive processes and individual characteristics that contribute to creative thinking and problem-solving abilities (Korku & Kaya, 2023; Li et al., 2023; Ma et al., 2020). It underscores the importance of intrinsic motivation, domain knowledge, cognitive flexibility, and the capacity for remote associations (Esguerra et al., 2022; Korku & Kaya, 2023; Simon et al., 2018). The exploration of the relationship between transformational leadership and employee creativity advances creativity theory by examining how leadership behaviors can impact these cognitive processes and individual characteristics associated with creativity (Austin, 2021; Visser & Kruyen, 2021; Zhang et al., 2018). This exploration seeks to understand how government service transformational leaders stimulate and enhance employee creativity beyond individual factors.

Studying the correlation between transformational leadership and employee creativity in government service employees offers practical implications for organizations (Austin, 2021; Visser & Kruyen, 2021; Zhang et al., 2018). Insights gained from this research can provide evidence-based strategies for government service leaders to engage in transformative behaviors that foster employee creativity. By identifying specific leadership behaviors that promote creative thinking, government service organizations can design programs and interventions aimed at enhancing employee creativity. Ultimately, these efforts lead to increased innovation levels and enhanced competitiveness for government service organizations.

Exploring the relationship between transformational leadership and employee creativity also expands the understanding of effective government service leadership practices beyond traditional notions focused solely on task accomplishment and compliance (ALFadhlah & Elamir, 2021; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). It broadens the concept of government service leadership by incorporating creative thinking as a vital element within frameworks of effective leadership. The examination of the connection between government service transformational leadership and employee creativity framework contributes to the advancement of both theories by exploring how leadership influences creative thinking processes and providing practical strategies for fostering employee creativity within organizations.

Related Literature

The section begins with a discussion on transactional, laissez-faire, and transformational leadership styles. Following a discussion of the comparisons of leadership styles, leader and follower attributes are examined. Then an analysis of the link between leadership style and creativity is discussed focusing on the influences, challenges, and leadership in government,

military, and civilian training. Intellectual stimulation is discussed through the exploration of boss-subordinate communications relationships. The section concludes with a summary.

Leadership Styles

In the field of leadership, there exists a myriad of different styles that leaders may adopt to guide and manage their teams. However, for this study, three specific leadership styles will be examined in the subsequent sections: transactional, laissez-faire leadership, and transformational styles. The section concludes with a comparison of leadership styles.

Transactional Leadership

Transactional leadership is a leadership style in which leaders focus on setting clear expectations and goals for their followers and provide rewards or punishments based on the achievement of those goals (Mesu & Sanders, 2022; Thomas & Cangemi, 2021; Young et al., 2021). It is rooted in a transactional exchange between the leader and the followers where followers agree to obey and follow the leader's instructions to receive rewards or avoid punishment. One of the strengths of transactional leadership is its ability to drive performance and achieve short-term goals (Donkor et al., 2022; Jacobsen et al., 2022; Nguyen et al., 2022). The clear expectations and rewards help create a structured environment that encourages employees to meet their targets and deliver results. This can be especially effective in situations where consistency, accuracy, and efficiency are crucial (Nguyen et al., 2022; Young et al. (2021).

However, transactional leadership may not be as effective in promoting creativity, adaptability, and long-term growth (Mesu & Sanders, 2022; Nguyen et al., 2022). The emphasis on following established procedures and meeting specific goals can stifle innovation and limit the exploration of novel solutions. Employees may feel constrained and less likely to take risks

or develop creative ideas (Mesu & Sanders, 2022; Young et al., 2021). Moreover, this leadership style relies heavily on extrinsic rewards and punishments, such as bonuses, promotions, or reprimands. While these external motivators can be effective for some individuals, they may not be as meaningful or effective for others (Donkor et al., 2022; Jacobsen et al., 2022). Different employees have diverse needs and motivations, and a one-size-fits-all approach may not address their needs and motivations. To overcome that limitation, leaders using transactional leadership should be mindful of the diverse needs of their employees (Mesu & Sanders, 2022; Nguyen et al., 2022). They should take the time to understand what drives each individual and adapt their approach accordingly. Some employees might be more motivated by intrinsic factors like autonomy, personal growth, or recognition rather than material rewards (Donkor et al., 2022; Mesu & Sanders, 2022; Nguyen et al., 2022; Young et al., 2021). By tailoring rewards and recognition to align with employees' motivations, leaders can better engage and inspire their teams (Donkor et al., 2022; Young et al., 2021).

Transactional leadership can be a useful leadership style for driving performance and achieving short-term goals (Donkor et al., 2022; Jacobsen et al., 2022; Nguyen et al., 2022). However, it may not be as effective in promoting creativity, adaptability, and long-term growth (Mesu & Sanders, 2022; Nguyen et al., 2022). To maximize its potential, leaders should be aware of individual differences in rewards and adapt their approach to meet the diverse needs of their employees (Mesu & Sanders, 2022; Nguyen et al., 2022).

Laissez-Faire Leadership

Laissez-faire leadership (LFL), also known as hands-off leadership, allows employees to have freedom and independence in decision-making and task execution (Ågotnes et al., 2021; Robert & Vandenberghe, 2022; Salin et al., 2022). Leaders intentionally refrain from interfering

or engaging with employees during tasks or problem resolution. This can be beneficial in certain situations where employees are highly skilled, intrinsically motivated, and capable of working autonomously (Norris et al., 2021; Salin et al., 2022). It fosters a sense of ownership and responsibility among employees, leading to increased creativity and innovation (Ågotnes et al., 2021; Robert & Vandenberghe, 2021; Thanh & Quang, 2022). Conversely, laissez-faire leadership can have its drawbacks. Leaders exhibiting LFL attributes often fail to make critical decisions, participate in decision-making activities, follow through on tasks, and demonstrate care for their employees (Norris et al., 2021; Robert & Vandenberghe, 2022). When employees are low performers, they may choose the path of least resistance when completing tasks under LFL (Hu et al., 2023; Robert & Vandenberghe, 2022; Salin et al., 2022). This often results in a lack of creativity and innovation in problem-solving. Leaders embracing LFL may provide little to no encouragement or guidance to employees with low levels of skill, knowledge, and performance, further inhibiting their development (Norris et al., 2021; Salin et al., 2022).

Without proper guidance and direction, employees may lack clarity on goals and expectations, leading to confusion and inefficiency (Hu et al., 2023; Robert & Vandenberghe, 2021). Some employees may require more support and direction to perform at their best, and a laissez-faire approach may neglect their needs, resulting in decreased productivity and growth (Norris et al., 2021; Salin et al., 2022). Employees may perceive their leaders as apathetic, disengaged, and ineffective (Hu et al., 2023; Robert & Vandenberghe, 2021).

Despite concerns about its effectiveness, LFL remains the most prevalent leadership style in organizations throughout the United States (Ågotnes et al., 2021; Hu et al., 2023; Norris et al., 2021; Robert & Vandenberghe, 2022; Salin et al., 2022). Leaders possess certain LFL attributes such as intrinsic motivation, confidence, delegation skills, trustworthiness, and a clear vision.

These qualities contribute to their ability to effectively lead their teams while maintaining a hands-off approach (Ågotnes et al., 2021; Norris et al., 2021; Robert & Vandenberghe, 2021).

There is a correlation between LFL and employee creativity (Norris et al., 2021; Thanh & Quang, 2022). High-performing individuals who work under laissez-faire leaders tend to be more innovative and creative (Hu et al., 2023; Thanh & Quang, 2022). The autonomy given by leaders' embracing LFL allows self-disciplined employees to thrive and explore their creativity without constant supervision or micromanagement.

To be an effective leader, it is essential to strike a balance between granting autonomy and providing guidance (Ågotnes et al., 2021; Hu et al., 2023; Robert & Vandenberghe, 2022). Leaders should establish clear goals and expectations, communicate effectively, and ensure employees have the necessary resources and support to succeed (Hu et al., 2023; Thanh & Quang, 2022). Regular check-ins, feedback, and coaching can help monitor performance and address any issues or concerns (Norris et al., 2021; Thanh & Quang, 2022).

Transformational Leadership

Transformational leadership is a leadership style that inspires and motivates followers to achieve their full potential and surpass their own expectations (Asif et al., 2022; Fu et al., 2022; Lei et al., 2020). Global Leadership and Organizational Behavior Effectiveness (GLOBE) (House et al., 2004) found that the transformational leadership style is the most widely accepted leadership style across countries and diverse organizations (Abdullahi et al., 2020; Knappert et al., 2023; Nakamura, 2021). Transformational leadership involves the leader actively engaging with their team members and empowering them to think creatively, take risks, and challenge the status quo. Transformational leaders can create a vision for the future that resonates with their followers and helps them see the bigger picture (Becker et al., 2022; Gerlach et al., 2020). They

are excellent communicators who can clearly articulate goals and expectations while also providing feedback and guidance to support their team's development. A transformational leader sets high expectations for their team members (Bass, 1985; Ramadani Rachmah et al., 2022; Yuan et al., 2022b). These leaders believe in their followers' abilities and challenge them to constantly improve and grow. Leaders who transformational leadership characteristics emphasize the importance of individualized consideration in which they take the time to understand the unique strengths and weaknesses of each team member (Afsar & Umrani, 2019; Ramadani Rachmah et al., 2022). The leader personalizes support and guidance to employees, which fosters trust and loyalty within the team.

Transformational leadership is the leadership style most often linked to employee creativity (Abbas & Ali, 2023; Afsar & Umrani, 2019; Ma et al., 2020). Transformational leadership consists of four constructs: idealized influence (attributes and behaviors), inspirational motivation, intellectual stimulation, and individualized consideration (Al Harbi et al., 2019; Avolio & Bass, 1995; Becker et al., 2022; Begum et al., 2022). Idealized influence promotes freethinking and behaviors outside the normal problem-solving patterns (Avolio & Bass, 1995; Fu et al., 2022; Yuan et al., 2022b). Transformational leaders act as role models and gain the trust and respect of their followers. They showcase a high level of moral and ethical behavior, motivating others to emulate their actions. Transformational leaders promote an inspiring vision and push employees to produce innovative ideas (Avolio & Bass, 1995; Bass, 1985; Ramadani Rachmah et al., 2022; Yuan et al., 2022b). These leaders effectively communicate a vision and inspire others to see the significance of their contributions. They motivate employees by setting high expectations and conveying optimism and enthusiasm.

Transformational leaders motivate employees and promote their desire to be creative (Abbas & Ali, 2023; Avolio & Bass, 1995; Khan et al., 2021; Ma et al., 2020). Transformational leaders encourage critical thinking and creativity by challenging conventional wisdom and inviting innovative ideas. They foster an environment that promotes innovative thinking and problem-solving.

Efficiency increases when transformational leaders genuinely care about the wellbeing of their employees (Afsar & Umrani, 2019; Avolio & Bass, 1995; Ramadani Rachmah et al., 2022). These leaders pay close attention to the needs, abilities, and aspirations of their followers. They provide support, guidance, and mentorship to help individuals reach their full potential.

Transformational leadership has numerous benefits for both individuals and organizations. It promotes personal growth and development in followers, as they are inspired to reach their full potential (Avolio & Bass, 1995; Becker et al., 2022; Cai et al., 2020; Ma et al., 2020). This style of leadership also fosters innovation, as followers are encouraged to think creatively and challenge existing norms (Avolio & Bass, 1995; Fischer & Walker, 2022; Zhao et al., 2022b; Zhu et al., 2022). The positive and supportive environment created by transformational leaders enhances employee satisfaction and loyalty, leading to increased productivity and performance. Ultimately, transformational leadership drives positive changes in individuals and organizations and contributes to growth and innovation, and the development of high-performance cultures (Abbas & Ali, 2023; Curtis, 2020; Peng et al., 2020; Thomas & Cangemi, 2021).

Previous research on leadership styles provides valuable insights into understanding how different leadership behaviors impact employee outcomes in commercial enterprises (Abbas & Ali, 2023; Avolio & Bass, 1995; Khan et al., 2021; Ma et al., 2020). By examining the

relationship between transformational leadership qualities demonstrated by government service leaders and employee creativity, researchers can build upon existing knowledge and contribute to a deeper understanding of how leaders can effectively inspire and cultivate creative thinking within government service teams and organizations (Al Harbi et al., 2019; Avolio & Bass, 1995; Maran et al., 2022). Several studies have already established a positive association between transformational leadership and employee creativity in the commercial business sectors (Afsar & Umrani, 2019; Koh et al., 2019; Ninković & Knežević Florić, 2018). These studies have shown that employees who perceive their leaders as transformational are more likely to engage in creative problem-solving and generate innovative ideas. By identifying and understanding the link between government service leaders and government service employees, government organizations can benefit from implementing transformational leadership practices, as it has the potential to enhance employee creativity and ultimately drive government organizational success (Austin, 2021; Cai et al., 2019). Better leadership practices can lead to enhanced productivity, competitive advantage, and overall success in today's rapidly evolving government business landscape (Han et al., 2022; Ready & Prendergast, 2022).

Comparing Leadership Approaches

Yammarino and Bass (1990) expanded the analysis of transformational leadership by comparing it to transactional leadership and LFL . They found that transactional leadership was similar to transformational leadership in that the attributes of influence, motivation, and individualized considerations were present. However, in the area of motivation, transactional leaders used a reward and punishment system while transformational leaders pushed employees to do their best for future positions within their organizations and used charisma for idealized interactions (Karia & Abu Hassan Assari, 2019; Muczyk, 2020; Titus & Hoole, 2021).

Yammarino and Bass (1990) found that LFL had a positive impact on employee creativity among high-performance employees but a negative impact among low-performance employees.

Leadership Styles and Employee Creativity

House et al. (2004) founded the GLOBE project to evaluate leadership and organizational effectiveness and the relationship between the two concepts. The researchers investigated leadership dimensions across 62 countries over 10 years to determine universally acceptable leadership attributes. They identified six universally acceptable leadership dimensions:

charismatic/value-based, team-oriented, participative, humane, self-protective, and autonomous.

House et al. (2004) categorized charismatic/value-based, team-oriented, participative, and humane as positive leadership dimensions. Leaders who demonstrated charismatic or value-based dimension valued innovation, inspired others, promoted decisiveness and job satisfaction, and tended to be transformational leaders (Abdullahi et al., 2020; Nazarian et al., 2021; Pathak & Muralidharan, 2018). Pathak and Muralidharan (2018) found that the transformational leadership style was most aligned with the charismatic or value-based leadership dimension.

Transformational leadership promotes employee creativity and is the dominant leadership style present in organizations with a creative work environment (Knappert et al., 2023; Kuknor & Bhattacharya, 2021; Lerutla & Steyn, 2022; Stankov et al., 2022).

Creativity is an employee's ability to generate valuable and innovative ideas when accomplishing complex tasks (Tan & Ong, 2019b; Zhou & George, 2001). Employee creativity is the development of new ideas or accepting the ideas of others when no prior processes or procedures exist (Korku & Kaya, 2023; Li et al., 2023; Ma et al., 2020; Setiawan et al., 2021). Employee creativity is the key to an organization's success in the marketplace (ALFadhlah & Elamir, 2021; Chaubey et al., 2019; Lim & Moon, 2021). Promoting creative behaviors is

essential for leaders at all levels within any organization and business sector (Cai et al., 2019; O'Connor et al., 2022; Xu & Wang, 2019). Leadership style (Dominguez et al., 2022; Sarwar et al., 2022; Thanh & Quang, 2022), relationships (Korku & Kaya, 2023; Salin et al., 2022; Tan et al., 2022), and communication (Han et al., 2022; Hunt et al., 2019; Leroy et al., 2022) influence the employees' perception of innovative behavior acceptance within an organization.

Several studies have explored the relationship between leadership style, particularly transformational leadership and employee creativity (Ahmad et al., 2020; Begum et al., 2022; Sarwar et al., 2022). Transformational leadership is characterized by leaders who inspire and motivate their followers, stimulate intellectual growth and individual development, and encourage innovation and creativity within the organization (Akbari et al., 2020; Tan et al., 2019a; Thanh & Quang, 2022).

Ahmad et al. (2020) and Akbari et al. (2020) examined the relationship between transformational leadership and employee creativity through a mediated model. They found that transformational leadership positively influenced employee creativity by fostering intrinsic motivation and creative self-concept in private companies and high-tech companies. Begum et al. (2022) and Tan et al. (2019a) explored the role of transformational leadership in promoting employee creative performance. They found that transformational leadership positively influenced employee creativity by enhancing creative self-efficacy, intrinsic motivation, and creative process engagement in high-tech industries and universities. Sarwar et al. (2022) and Thanh and Quang (2022) investigated the impact of various leadership styles, including transformational leadership, on employee creativity. They found that transformational leadership had a strong positive relationship with employee creativity and suggested that transformational leaders create an environment that fosters and supports creative thinking in universities and local

governments. These studies provide evidence to support the link between transformational leadership and employee creativity. They suggest that transformational leaders, through their inspiring and motivating behaviors, create an environment that encourages and supports employee creativity by enhancing intrinsic motivation, creative self-concept, innovative thinking, and knowledge sharing.

Although the positive relationship between transformational leadership and employee creativity has been established (Ahmad, 2022; Becker et al., 2022; Shafi et al., 2020), there is a need to delve deeper into understanding this relationship in a government context (Kasimoğlu & Ammari, 2020; Lim & Moon, 2021; Wang, 2022). To gain a more comprehensive understanding, it is essential to further examine this relationship from other sources within the government sector (Karimi et al., 2023), generalizability (Ma et al., 2020), and different samples and research settings (Chaubey et al., 2019). Exploring these influences would provide valuable insights into how transformational leadership impacts employee creativity in different government aspects such as psychological capital (Karimi et al., 2023), and teaming (Dai et al., 2022). Additionally, it could help identify potential dynamic patterns or changes in this relationship adding to the body of literature.

Influence of Leadership Style on Employee Creativity

Trust in leadership positively impacts follower creativity (Epitropaki et al., 2021; Mo et al., 2019; Norman et al., 2020). Conversely, leaders who do not have their employees' trust will not see followers exercise originality in decision-making (Gruda et al., 2022; Mirowska et al., 2022; Soderberg & Romney, 2022). Leaders who exhibit positive leadership leader attributes such as integrity, vision, and confidence promote the followers' trust (Allison, 2021; Fischer & Walker, 2022; Peng & Wei, 2018; Soderberg & Romney, 2022).

Peng and Wei (2018) and Soderberg and Romney (2022) argue that trust is the foundation of successful leadership and is essential for creating a positive and productive work environment. Without trust, followers may feel disengaged and uncommitted and may not fully support the leader's vision and goals. To build trust, the authors suggested that leaders should demonstrate integrity. This involves being honest, ethical, and consistent in their actions and decision-making. Allison (2021) and Fischer and Walker (2022) emphasized the significance of employee competence in fostering trust. Employees who were perceived as skilled and knowledgeable in their respective roles were more likely to gain the trust of their colleagues and superiors. Reliability was also identified as a vital component in trust dynamics. Participants highlighted the importance of consistently delivering on commitments and fulfilling obligations in order to gain trust. Furthermore, the studies found that integrity played a critical role in establishing trust. Employees who exhibited honesty, ethical behavior, and strong moral principles were considered more trustworthy by their peers and superiors.

Conversely, those who exemplify abusive leadership attributes such as self-serving, uncaring, and non-supportive erode the trust of followers (Ågotnes et al., 2021; Ahmad et al., 2020). Ahmad et al. (2020) and Ågotnes et al. (2021) found that leaders who were self-serving, uncaring, and non-supportive, amplified the relationship between work pressure and exposure to bullying. The lack of guidance and neglect from these leaders may contribute to a sense of uncertainty and lack of support, which can exacerbate the negative effects of work pressure and increase the likelihood of bullying incidents. The studies underscore the important role that leaders play in preventing and addressing workplace bullying. Leaders who neglect their responsibilities may inadvertently contribute to a toxic work environment where bullying thrives.

When followers feel safe, they are more active in creative decision-making (Korku & Kaya, 2023; Mo et al., 2019; Zhang et al., 2018). Leadership behavior, specifically empowering behaviors, promotes high levels of follower trust and confidence in the leader's competence, thereby creating an innovative working environment (Wang, 2022; Zainab et al., 2022; Zhang et al., 2018). High levels of trust and perceived leader competence are conducive to promoting the safe environment followers need for creative thinking (Liu et al., 2021a; Mo et al., 2019; Peng & Wei, 2018; Zhang et al., 2018).

The existing knowledge on trust plays a critical role in understanding the relationship between transformational leadership and government service employee creativity. Trust is considered a fundamental component of a transformational leadership style, empowering followers to achieve their full potential (Epitropaki et al., 2021; Mo et al., 2019; Norman et al., 2020). Transformational leaders empower their subordinates, encourage their creativity and innovation, and build trust within the organization. When employees trust their leaders, they are more likely to engage in risk-taking behaviors and feel comfortable expressing their ideas or exploring new perspectives without fear of negative consequences. This trust creates an environment that fosters creativity and innovation.

In the context of government service employees, trust in leaders becomes even more crucial (ALFadhlah & Elamir, 2021; Alpkhan et al., 2021). These employees often deal with complex and challenging tasks, and their work is subject to stringent regulations and scrutiny. The level of trust they have in their leaders can determine their willingness to take risks, find creative solutions, and adapt to changing environments. Research has shown that transformational leadership positively influences employees' creative behaviors in various organizational settings, including government organizations (Alpkhan et al., 2021; Mooijman et

al., 2019; Su et al., 2020). When transformational leaders exhibit characteristics such as vision, inspiration, intellectual stimulation, and individual consideration, they enhance employees' trust in them. This relationship between trust and transformational leadership contributes to the prediction of government service employee creativity. The existing knowledge on trust provides insights into the link between transformational leadership and government service employee creativity. Trust serves as a key mechanism through which transformational leaders inspire and motivate employees to be creative, take risks, and contribute innovative solutions in government service contexts.

The topic of trust is constantly evolving in leadership literature as researchers continue to unveil new insights and perspectives. For example, the concept of trust in leadership is increasingly recognized as multidimensional (Hanna et al., 2019; Peng et al., 2020; Su et al., 2020; Zainab et al., 2022). Scholars are focusing on different dimensions of trust such as competence, integrity, benevolence, reliability, and openness. Understanding these dimensions and their interactions in the leadership context allows for a more comprehensive understanding of trust. Trust is influenced by various contextual factors (Fischer & Walker, 2022; Norman et al., 2020). Leadership literature explores how trust differs across different organizational, cultural, and societal contexts. Researchers seek to understand the factors that promote the development and preservation of trust in different contexts such as virtual teams, diverse environments, or crises. Trust can be fragile, and when it is broken, leaders need to work on repairing and recovering it (Ahmad et al., 2020; Soderberg & Romney, 2022; Yuan et al., 2022b). The literature examines strategies and processes to repair trust, including apologies, transparency, accountability, and consistent behavior. Understanding these strategies and processes can empower leaders to rebuild trust when it has been damaged. Overall, the topic of

trust in leadership literature continues to evolve as researchers delve deeper into its dimensions, examine context-specific aspects, focus on trust repair and recovery, explore virtual trust, and emphasize the relationship between trust and ethical leadership. These ongoing developments contribute to a more nuanced understanding of trust and its implications for effective leadership practices.

This study can help fill the gap in the literature by considering the role of leadership in encouraging creativity within government organizations. Additionally, understanding the relationship between trusted leaders and creativity can help to fill the gap in trust literature. This study can also highlight how trust in leadership and trust among colleagues influences employees' willingness to engage in creative thinking and generate innovative ideas. This research can highlight the crucial role of trust in enhancing employee creativity. Finally, studying transformational leadership and employee creativity in government service organizations can contribute to the existing trust literature and provide practical implications to improve leadership practices, foster trust, and enhance creativity among government employees.

Motivation fits into the understanding of leader empowerment and why it is effective or ineffective in creating an innovative working environment (Gloor, 2021; Northouse, 2019; Soderberg & Romney, 2022). Motivation pertains to the leader empowering, trusting, and setting the environment for the employee to improve (Hemshorn de Sanchez et al., 2022; Mirowska et al., 2022). Motivation is also a key attribute to influencing a creative response of an employee supported by an empowering leader (Esguerra et al., 2022; Ramadani Rachmah et al., 2022; Yang & Xu, 2022). Two employees, each with a different motivation level, will respond to the same leader in a manner consistent with their level of motivation (Awang et al., 2020; Khassawneh et al., 2022; Sinek, 2011).

The two types of motivation are intrinsic and extrinsic (Guilford, 1950). The creative theory (Guilford, 1950) focuses on the intrinsic motivation of followers (Al-Thawabiya et al., 2023; Mirowska et al., 2022; Soderberg & Romney, 2022). Intrinsic motivation increases when employees are challenged and engaged and derive inherent enjoyment from their jobs (Gruda et al., 2022; Guo et al., 2022; Wang & Wang, 2022). Intrinsic motivation in employees has a positive influence on their interpretation of leaders empowering employees (Al-Thawabiya et al., 2023; Epitropaki et al., 2021; Gruda et al., 2021).

Extrinsic motivation is a behavior based on an external reward and the drive to complete the task because of the reward (Caputo et al., 2021; Gruda et al., 2022; Guilford, 1950). Extrinsic motivation is detrimental to creativity because extrinsic motivation is influenced by the social environment and peers (Hemshorn de Sanchez et al., 2022; Mirowska et al., 2022; Norman et al., 2020). Intrinsic motivation is the motivation within employees or leaders that drives openness to learning experiences (Al-Thawabiya et al., 2023; Gruda et al., 2021; Peng et al., 2020; Wang et al., 2021). Intrinsic motivation from the perspective of leadership and non-managers is a vital part of the review.

Motivation is constantly evolving in leadership literature for several reasons. The first reason is the workplace has undergone significant changes in recent years, with the rise of technology, remote work, and a diverse workforce. This has caused a re-evaluation of traditional motivation concepts and the development of new strategies to motivate employees in these new contexts (Abbas & Ali, 2023; Li et al., 2020; Shafi et al., 2020). Motivation is no longer viewed as a one-size-fits-all approach. To enhance employee engagement, happiness, and overall well-being, organizations need to adopt a more personalized and holistic approach to motivation. Leadership literature is exploring new ways to align motivation with employee well-being to

promote a positive work culture (Abbas & Ali, 2023; Afsar & Umrani, 2019; Garfield et al., 2020). Additionally, leadership theories have evolved, with a shift from traditional hierarchical models to more participative and transformational leadership approaches (Gerlach et al., 2020; Hancock et al., 2023; Karia & Abu Hassan Assari, 2019). Distinctive styles of leadership can impact motivation differently, and contemporary leadership literature explores the relationship between leadership styles and motivation to provide new insights that help leaders adapt their practices. Given these factors, the topic of motivation in leadership literature remains dynamic, reflecting the changing nature of work and the evolving understanding of human motivation. Continuous research and exploration of new perspectives on transformational leadership contribute to the ongoing development of the impact of this leadership style on motivation.

Leadership in Government Contexts

The concept of transformational leadership has gained significant attention in organizational research over the years. Transformational leaders enhance their subordinates' motivation, encourage innovation, and foster a positive work environment (Kasımoğlu & Ammari, 2020; Korcu & Kaya, 2023; Newcomer & Connelly, 2020). This study investigates the relationship between transformational leadership and creativity among government service employees. Understanding how transformational leadership affects creativity in this context can have significant implications for governmental organizations aiming to improve their performance and adaptability.

Governmental entities are often characterized by complex structures and a bureaucratic culture that may hinder creativity. However, research suggests that effective leaders can inspire employees to transcend those constraints (Awang et al., 2020; Nguyen et al., 2022; Piwowar-Sulej & Iqbal, 2023). Transformational leadership, with its emphasis on inspiring followers,

fostering creativity, and promoting positive change, may play a pivotal role in cultivating an environment conducive to creativity within government agencies.

The U.S. government is one of the most culturally diverse organizations in the world (Lambert, 2019). The U.S. government employs nearly 2.9 million people in various fields (Duffin, 2020). The percentage of employees representing diverse cultures and nationalities in government civilian service is approximately 17.7% of the total employee workforce. The U.S. government is one of the most diverse employers globally, with over 32 nationalities and cultures in its employee population (Austin, 2021; Duffin, 2020). Leadership training in the government service falls into two categories: military service member training and civilian service employee training (Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). Military leadership training is well organized and continues throughout the service member's career (Ballaro et al., 2020; Department of Army, 2011; Regényi, 2022). Leadership training among government civilian service employees is less organized than their military counterparts. The training becomes a volunteer training event in the later years of government civilian service (Fisher et al., 2021; Office of the Under Secretary of Defense for Personnel and Readiness, 2022; Sjøvold & Nissestad, 2020). The subsequent section will discuss the layout of the training and the potential impact of the training throughout a career.

The findings of this study are anticipated to provide valuable insights for policymakers and leaders within government agencies. Understanding the impact of transformational leadership on employee creativity could help formulate leadership development programs tailored to foster a more innovative work culture (Lerutla & Steyn, 2022; Stankov et al., 2022). By enhancing training for employees, governments can potentially improve their ability to

address complex challenges, develop more efficient processes, and implement innovative solutions (Tamsah et al., 2020; Wang et al., 2021).

Military Leadership Training

Leadership training in the military begins with basic training (Fisher et al., 2021; Ihme & Sundstrom, 2021; Schmied Blackman et al., 2021). An individual is selected from the class to be the leader, and instructors mentor the individual during the entire class (Fisher et al., 2021; Ihme & Sundstrom, 2021; Pruchnick et al., 2022). There is no specific reason for a leader selection in basic training. All members need leadership training at this level based on the need to integrate all members into the organizational values and climate. During basic training, all military members are trained in basic operational skills, including leading and motivating others, implementing the military decision-making process, and demonstrating core values (Fisher et al., 2021; Office of the Under Secretary of Defense for Personnel and Readiness, 2022; Pruchnick et al., 2022). After 4 to 5 years of service, mid-career for military leaders, leadership training transitions to inspiring others, making decisions to resolve problem sets, and developing high-performance expectations (Els & Meyer, 2022; Šimanauskienė et al., 2021; Sjøvold & Nissestad, 2020). Additionally, during this period core values are refined, raising the base from understanding core values to teaching core values to others (Els & Meyer, 2022; Šimanauskienė et al., 2021; Sjøvold & Nissestad, 2020).

During their mid-career military leadership, military members focus on the primary leadership attributes of vision, self-sacrifice, and integrity (Fisher et al., 2021; Office of the Under Secretary of Defense for Personnel and Readiness, 2022; Sjøvold & Nissestad, 2020). The leadership training in a service member's mid-career period is composed of a 20-person team working together on any given problem (Bricknell, 2021; Cavallaro & French, 2021; Els &

Meyer, 2022). The next level of leadership training comes at the 10-year mark, considered the senior career period, in a military member's service. The leadership training becomes organizational, with teams as large as 400 members (Newcomer & Connelly, 2020; Yogev et al., 2022). The focus of training during the senior period is to fine-tune the leaders' ability to apply the leadership attributes of vision, motivation, inspiration, decisiveness, integrity, decisiveness, and selfless service. Underpinning this training is a sound set of core values at the strategic level of any organization (Newcomer & Connelly, 2020; Office of the Under Secretary of Defense for Personnel and Readiness, 2022; Yogev et al., 2022).

To assist in leadership development, service members have mentors and assessment surveys throughout their leadership training. The training closely follows the leadership dimensions in the GLOBE study (House et al., 2004), specifically the charismatic/value-based leadership dimensions (Bricknell, 2021; Cavallaro & French, 2021; Els & Meyer, 2022). The current training curricula are aligned with the transformational leadership style (Barr et al., 2020; Esguerra et al., 2022) and is delineated in the Army Leadership Field Manual FM, 6-22 (Department of Army, 2011; Office of the Under Secretary of Defense for Personnel and Readiness, 2022). The curricula focus on developing leaders who exhibit innovative behaviors that will assist their company to remain relevant in the changing technological business environment (Middleton & Hall, 2021). However, government service civilian employee leader training has been mostly voluntary over the last 30 years; to improve innovation in government employees, make training mandatory and comprehensive. Foster a culture that encourages creativity, risk-taking, and collaboration, and provide. Resources and support for employees to develop and implement innovative ideas (Austin, 2021; Visser & Kruyen, 2021; Zhang et al., 2018).

Civilian Service Leadership Training

Government service civilian employee leaders at all levels need to be trained appropriately to provide the best support to the military and general services divisions (Ballaro et al., 2020; Regényi, 2022). Administrative staff are the leaders in training and are preferred for selection in most companies when a new leader selection is needed. While in a staff position, potential leaders continue leadership training to prepare the best leaders for selection (Ballaro et al., 2020; Baum & Haveman, 2020). Selection decisions include the style of a leader's leadership and their ability to delegate the authority for employees to act (Esguerra et al., 2022; Yuan et al., 2022b; Zainab et al., 2022).

Leadership training has adjusted over time to compensate for changes in business and the development of innovative behaviors (Els & Meyer, 2023; Farrell, 2018; & Garfield et al., 2020). Business changes refer to the changes in the manufacturing sector in the form of modern technologies to operate more efficiently (Busari et al., 2019; Savolainen & Collan, 2020). Leader development consists of classes on innovative behaviors and techniques that promote innovative thinking (Awang et al., 2020; Boak & Crabbe, 2019).

While the concept for training DoD civilian employees has improved, the application for transitioning curricula has not been completely updated. The leadership training of civilian service is not as well organized as that of military service (Regényi, 2022; Tamsah et al., 2020). The training can be divided into values, mentor guidance, and volunteerism (The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). Both civilian service members and military service members are exposed to the same values (Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). Leaders do not teach civilian and military service members the values;

they post the values in work areas and express them regularly. Therefore, some leaders internalize the values, and their work is based on the Army value set. Other leaders know the values and attempt to follow them when appropriate, and still, other leaders are aware of the values; however, they do not use the value set in decision-making (Ballaro et al., 2020; Regényi, 2022).

Leaders encourage civilian service employees to get and use mentors as a developmental leadership tool (Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). Mentors are not mandated but are assigned upon the request of the employee (The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). Senior leaders in the civilian service division recommend mentors to junior leaders to help them navigate critical mission and personnel issues (Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). Mentors teach leadership mentees about differences in and effectiveness of different leadership styles (The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). They also provide feedback to their mentees on leadership actions, considerations, and potential decision outcomes (Office of the Under Secretary of Defense for Personnel and Readiness, 2022). Mentors conduct leadership discussions based on their specific style of leadership.

Volunteer training within the civilian service is the focus of leader training (Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). Civilian service members at various levels may volunteer to attend leadership training (Office of the Under Secretary of Defense for Personnel and Readiness, 2022). In the beginning stages of a career, a member may volunteer for basic

leadership training in dealing with difficult discussions, crisis management, and productivity expectations (Office of the Under Secretary of Defense for Personnel and Readiness, 2022). In the 10th year of service, civilian service leadership training exposes students to leadership style recognition and effectiveness at the section level (Ballaro et al., 2020; Office of the Under Secretary of Defense for Personnel and Readiness, 2022). At the 15th year of service, leadership training includes motivating teams and teambuilding activities at the organizational level (Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022).

Civilian service members must apply to the available leadership training at each level, and their supervisor must approve the application before confirming attendance (Ballaro et al., 2020; Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). The approval process hinders each level of leadership training, and many service members apply but do not attend (Ballaro et al., 2020; Tamsah et al., 2020). Supervisor approval is based on the workload, and many applications are denied based on work requirements that go unfulfilled when that employee is at a class instead of at work (Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). Another hindrance in leadership training is that the civilian service population is nearly 2 million across the United States (Duffin, 2020). Class allocations are set annually with a cap of not more than 400 individuals, and the 400 individuals selected fill four scheduled classes during the annual period (Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). The enrollment requirements for training are not addressed in this study. However, the requirements to train

leaders for civilian service should be addressed in the curriculum and class enrollment in future years (Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022).

Civilian service members must be exposed to the nuances of leadership styles (Ballaro et al., 2020; Regényi, 2022). The Department of Defense Office of Personnel Management (DoD OPM) publishes directives and instructions to department heads to influence training and leadership opportunities for civilian service members (Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). The code offers employees opportunities but does not mandate any specific leadership training (The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). Instead, subordinate command directives and instructions tell leaders how to pay for the training and at what level employees may volunteer. The leadership curriculum is developed by individuals in subordinate training sections and relies on their competence in leadership (Fluri et al., 2022; Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022). DoD level of training guidance focuses on a leadership training framework recommending that classes introduce specific characteristics including leading self, people, teams, organizations, and institutions (Office of the Under Secretary of Defense for Personnel and Readiness, 2022; The Government Employees Training Act, Part 410 C.F.R. § Title 5, 2022).

A comprehensive examination of the development of leadership training in the government sector for both military members and government civilian employees has not been conducted. While there is information available on the various leadership training programs offered by different government organizations (Els & Meyer, 2022; Fisher et al., 2021; Ihme &

Sundstrom, 2021), a comprehensive analysis of the effectiveness, outcomes, and impact of these programs is lacking. Additionally, a comparison of leadership training practices between military members and government civilian employees and their respective effectiveness has not been thoroughly explored.

A deeper understanding of leadership training in the government sector would entail examining several aspects. First, a systematic evaluation of the leadership training programs offered to military members and government civilian employees is required. This would involve assessing the content, methodologies, duration, and learning outcomes of the programs. It could help determine the strengths and areas for improvement of each program, leading to more effective training for future leaders. Second, a comparative analysis of the leadership training programs provided to military personnel and government civilian employees would shed light on any differences in approaches, methodologies, or outcomes. Understanding these variances could inform the development of more tailored leadership programs for each group, ensuring that specific needs are adequately addressed. Third, alignment with evolving leadership requirements in both the military and government sectors assists those organizations in keeping pace with changing geopolitical landscapes (Els & Meyer, 2022; Nakamura, 2021), societal trends (Caulfield & Brenner, 2020; Hinkin & Schriesheim, 2015), and technological advancements (Gruda et al., 2021; Savolainen & Collan, 2020). When considering those evolving requirements, it is necessary to examine the leadership training programs to ensure that they remain relevant, and adaptive and adequately prepare leaders for the challenges they may face. Addressing these gaps and exploring the development of leadership training through a comprehensive lens may provide a better understanding of the government's efforts in honing leadership skills for military members and government civilian employees (Jacobsen et al., 2022; Nakamura, 2021). This

knowledge could ultimately contribute to enhancing leadership effectiveness, promoting better governance, and improving organizational outcomes within the government sector (Hunt et al., 2019; Willems et al., 2017).

This study aims to contribute to the existing body of knowledge by determining the relationship between transformational leadership and employee creativity within government service organizations. With the potential to revolutionize traditional bureaucratic cultures, transformational leadership practices and training may pave the way for more effective and creative governance (ALFadhlah & Elamir, 2021; Hunt et al., 2019). Ultimately, this research may help in shaping leadership strategies that can fuel creativity and innovation in government service organizations, leading to better service delivery and improved outcomes (Jacobsen et al., 2022; Newcomer & Connelly, 2020).

Summary

The literature on the relationship between transformational leadership's and employee creativity suggests that there is a positive relationship between these two factors (Wulansari et al., 2021; Ye et al., 2022; Żywiołek et al., 2022). Transformational leaders, who inspire and motivate their employees, are more likely to foster a creative work environment. This is because these leaders encourage their employees to think innovatively and take risks.

Research suggests that transformational leadership positively influences employee creativity through various mechanisms (ALFadhlah & Elamir, 2021; Guo et al., 2022; Yogev et al., 2022). For example, transformational leaders promote an open and inclusive culture that encourages the sharing of ideas and opinions, which in turn boosts employee creativity (ALFadhlah & Elamir, 2021; Gui et al., 2022; Kasımoğlu & Ammari, 2020). Additionally, they

provide intellectual stimulation by challenging their employees' assumptions and pushing them to think beyond conventional boundaries (Alrowwad et al., 2020; Yogev et al., 2022).

Furthermore, transformational leaders exhibit visionary behavior, aligning their employees' goals with the overall organizational vision (Guo et al., 2022; Li et al., 2023; Maran et al., 2022). This helps employees understand the purpose and significance of their work, leading to higher levels of creativity. They also offer individualized consideration by providing support and personalized feedback, which boosts employee confidence and self-efficacy in their creative abilities (Adeel et al., 2018; Boak & Crabbe, 2019). In summary, the literature suggests that transformational leadership plays a vital role in predicting employee creativity, emphasizing the importance of leaders in fostering an environment that promotes innovative thinking and creative problem-solving.

While there is substantial literature on the relationship between transformational leadership and employee creativity (Pathak & Muralidharan, 2018; Shafi et al., 2020; Żywiołek et al., 2022), there are aspects that are unknown or require further exploration. For example, the specific mechanisms through which transformational leadership influences employee creativity are not well understood. It is unclear whether factors such as intrinsic motivation, psychological empowerment, organizational climate, or other variables mediate or moderate the relationship between transformational leadership and employee creativity. Additionally, the role of contextual factors in the transformational leadership-creativity relationship is not fully understood. Contextual factors (e.g., industry, culture, and organizational size) may influence how transformational leadership affects employee creativity.

Another factor contributing to the relationship between transformational leadership and employee creativity not being fully understood is that researchers have not used different

research designs. Most existing research on transformational leadership and employee creativity is cross-sectional, which limits individuals' understanding of causality and the direction of effects. Future longitudinal studies could provide insights into how transformational leadership influences creativity over time. Finally, the conditions under which transformational leadership is most effective in predicting employee creativity are not clearly defined. Investigating with different research designs may offer a more nuanced understanding.

More research is needed to understand how transformational leadership predicts employee creativity. Addressing these gaps in the literature can provide practical insights for organizations seeking to foster creativity among their employees. Additionally, the literature on the predictive nature of leadership style on employee creativity in the government sector is limited (ALFadhlah & Elamir, 2021; Awang et al., 2020; Tamsah et al., 2020). Through the study of transformational and creativity theories, researchers have determined that the transformational leadership style can be taught successfully in the commercial sector, and further research in the government service sector is needed (Adeel et al., 2018; Bai et al., 2016). Positive leadership attributes impacting organizational innovation can be taught to current and future leaders (Dong et al., 2017; Huang et al., 2016; Li & Zhang, 2016). However, there needs to be more research in the government sector linking the strength of the relationship between leadership style and employee creativity. Therefore, leadership instruction in government offices must be aligned with effective leadership training (Alblooshi et al., 2021; Fleming & Millar, 2019). A study linking transformational leadership style and government employee creativity will add to the literature on leadership and creativity in a population in which there is limited research.

CHAPTER THREE: METHODS

Overview

The purpose of this quantitative non-experimental predictive correlational study was to evaluate the strength of the predictive relationship between government managers' transformational leadership attributes and government service non-manager employees' creative self-concept. Chapter Three includes a description of the research design, the research question, and the null hypothesis. The next sections include a description of the participants and setting and the instrumentation. The chapter concludes with a description of the procedures for conducting this study and the data analysis process.

Design

The quantitative, non-experimental, predictive-correlational study aimed to evaluate the relationship between government managers' transformational leadership attributes and government service non-manager employees' self-perceived creativity. Researchers use a predictive correlational design when they have multiple predictive variables and one criterion variable to determine the degree to which the predictor variables predict the criterion variable (Creswell & Creswell, 2018; Creswell & Guetterman, 2018; Gall et al., 2007). This study used five predictor variables and one criterion variable.

The advantages of the predictive correlational design are the ease of use when using multiple variables and determining the degree and direction of the relationship between variables (Gall et al., 2007). In this study, multiple variables were correlated to find which predictor variable was significantly related to the movement of the criterion variable (Gall et al., 2007). Multiple variable analysis did enhance the prediction outcome, and the higher the correlation, the more significant the predictive value (Creswell & Creswell, 2018; Creswell & Guetterman,

2018). The degree of the relationship can show combinations of variables that work better together or those variables with little or no increase in predictive value. Gall et al. (2007) noted that a variables' complex behavior patterns are not easily reduced to simple information inputs. However, the ability to see the predictive relationship between all variables on a criterion variable is readily apparent (Creswell & Creswell, 2018; Creswell & Guetterman, 2018; Gall et al., 2007).

There are several limitations to consider for a predictive correlational design. First, correlational designs establish a relationship between variables, but they do not address causation (Creswell & Creswell, 2018; Creswell & Guetterman, 2018). Therefore, although a correlation may be found between two variables, it cannot be concluded that changes in one variable cause changes in the other. Second, predictive correlational designs typically involve a specific sample or population, which may limit generalizability to other contexts or populations (Barthlow et al., 2022; Creswell & Creswell, 2018). The findings may not be applicable to different samples or settings. Third, correlational designs often rely on self-report measures, which are subject to response biases and inaccuracies (Barthlow et al., 2022; Creswell & Guetterman, 2018; Gall et al., 2007). Participants may have difficulties accurately reporting their thoughts, feelings, or behaviors, leading to measurement errors.

The quantitative predictive correlational design was appropriate for this study because the data set contains multiple predictor variables and a single criterion variable (Creswell & Creswell, 2018; Creswell & Guetterman, 2018; Gall et al., 2007). The purpose of this study was to investigate the relationship between the transformational leadership variables (predictor variables) of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration (Avolio & Bass, 1995) and government employee

creative self-concept (criterion variable) (Karwowski et al., 2013). By using a predictive correlational design, the researcher measured the level of transformational leadership exhibited by government leaders and then predicted the level of creativity displayed by employees.

The study measured the variables as they naturally occur, without any manipulation or intervention by the researcher (Creswell & Creswell, 2018; Gall et al., 2007). The data were collected on both the perception of a leader's transformational leadership behaviors and employee creativity from a sample of government employees. The design allowed the researcher to examine multiple variables simultaneously and explore numerous factors that may influence their interrelationships. Correlational designs are best suited for investigating relationships under these circumstances (Creswell & Creswell, 2018; Gall et al., 2007).

The subscale predictor variables were idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration (Avolio & Bass, 1995). Idealized attributes were a measure of followers' willingness to identify with and follow their leaders; idealized behaviors were a measure of leaders' ability to display ethical, principled, and value-based decision-making consistently while sharing risks with employees. Inspirational motivation was a measure of leaders' ability to provide meaning for employees and to challenge them in their tasks. Intellectual stimulation was a measure of leaders' ability to promote employees' willingness to question assumptions and problem definitions while viewing challenges from all aspects. Individual consideration was a measure of leaders' willingness to serve as coaches and mentors to promote employee achievement and professional growth (Avolio & Bass, 1995). The criterion variable was creative self-concept, which was defined as an individual's perception of their competency to generate creative ideas (Karwowski et al., 2013).

Research Question

RQ1: How accurately can government non-manager employee *creative self-concept* be predicted from a linear combination of government service leaders' transformational leadership qualities of *idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration* as perceived by the employees?

Hypothesis

H₀1: There is no significant predictive relationship between the criterion variable creative self-concept, as measured by the Short Scale of Creativity Self, and the linear combination of predictor variables (employee's perception of leader's idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration), as measured by Team Multifactor Leadership Questionnaire for government service employees.

Participants and Setting

The purpose of this section is to present the essential elements of the participants and the setting. The chapter opens with a discussion of the population. Next, the selection of participants is explained. The final part of the chapter is a description of the setting.

Population

The target population for the study was employees within a government research and design organization. Non-managers employed in two skill sets within the same division were targeted: a research and design section with 753 non-manager employees and a contract writing section with 679 non-manager employees. Across both sections, the total population was 1,432 non-manager employees. The statistics above were compiled from the personnel database owned by the U.S. Army (Williams et al., 2023). In a phone conversation in May of this year, Mr. Crawford requested the above information from the manager of the personnel division of the

organization (P, Fisher, personal communication, May 9, 2023). The study included all full-time employees from both sections, including designated non-manager employees. Neither section employed any part-time employees.

The population within the acquisition and contracting sections for this study included engineers, scientists, contracting specialists, and support and administrative employees. Approximately 75% of the population has earned a bachelor's degree, 15% a master's degree, 8% an associate degree, and 2% a doctoral degree. The genders of the population are as follows: 64% male and 36% female. The range of employees' ages was 24 to 70 years old, with 28% aged 41+ years old, 28% aged 30 to 40 years old, and 30% aged 24 to 39 years of age. The years of work experience among the population in the acquisition section was as follows: (a) 39% with work experience of zero to two years, (b) 17% with work experience of three to four years, (c) 11% with work experience of five to seven years, (d) 5% with work experience of eight to 10 years, and (e) 28% with work experience of 11+ years. Skill sets for the population included human resource employees, engineers, writing professionals, business professionals, and scientists. The racial demographics of the population were as follows: (a) 60% White, (b) 11% Hispanic, (c) 11% Asian, (d) 9% Black.

Participants

The sample was composed of participants from both the acquisition and contracting sections, who were available during the time period, convenience sampling, in which the researcher collected data. Additionally, the volunteer sample consisted of non-manager employees from the population who elected to complete the survey (Creswell & Creswell, 2018; Gall et al., 2007). The study was introduced to the population by the senior government executive through a survey link included in an email (see Appendix C). This link described the

study objective, outline of the procedures, and a consent to participate discussion. The email concluded with an additional link to answer the survey questions. Participants understood that by electing to complete the survey they provided their consent for the researcher to gather their data. The expected sample size was 550 employees. In the previous command-sponsored online surveys that included participants from the research and design section and the contract design section, survey response rates ranged from 30% to 50%. Warner (2013) recommended a 110-respondent minimum for a multiple linear regression analysis assuming a medium effect size with a statistical power of .07 at the $\alpha = .05$ alpha level.

Demographic information was collected as part of the online surveys. The demographics for the study were race/ethnicity, gender, years of service, section, and respondents' role. The information collected was used to determine if the demographics of the respondents are similar to those of the population. By collecting demographic information, the researcher provided a comparison of the respondents to the population.

The participants included 609 non-manager employees. The genders of the sample were as follows: 63.6% male and 34.4% female. The years of work experience among the sample in the acquisition division were as follows: (a) 40.8% with work experience of zero to two years, (b) 23.7% with work experience of three to four years, (c) 11.8% with work experience of five to seven years, (d) 5.8% with work experience of eight to 10 years, and (e) 17.9% with work experience of 11+ years. The racial demographics of the population were as follows: (a) 74.6% White, (b) 3.5% Hispanic, (c) 1.2% Asian, and (d) 13.9% Black.

Setting

The setting for this study was an Army Executive Acquisition Office in the southeastern United States. The office is a single-story brick building in which the Army Executive

Acquisition Office operates daily. In the local area, there are several defense research and design and contracting companies, colleges, universities, medical schools, and automotive industries. The military's material acquisition and research facilities are located on a military base in the same area.

Instrumentation

Two instruments were used in this study. The Team Multifactor Leadership Questionnaire (TMLQ) was used to measure the predictor variables of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration (Avolio & Bass, 1995). The Short Scale of Creative Self (SSCS) was used to measure the criterion variable, creative self-concept (Karwowski et al., 2018).

Team Multifactor Leadership Questionnaire

The TMLQ measures the key attributes of the predictor variable that comprise transformational leadership (Avolio & Bass, 1995). The purpose of the TMLQ was to measure behaviors that indicate transformational leadership attributes (see Appendix A for the instrument). In 1985, Bass developed the Multifactor Leadership Questionnaire (MLQ) to distinguish between the transformational and transactional leadership styles. As studies validated his work, Bass refined the questionnaire through 1995. In 1995, Avolio and Bass established Mind Garden, a company that evaluated leaders for transformational leadership attributes. That same year, Avolio and Bass (1995) republished an improved MLQ. After republishing, several leadership scholars evaluated the utility of the questionnaire (Lowe et al., 1996). The outcome of direct critical analysis of the MLQ produced improvements to the questions and produced two versions of the questionnaire: MLQ and TMLQ (Avolio & Bass, 1995). Today, the TMLQ is in

use to measure employee's perception of their supervisor's leadership style (Batista-Foguet et al., 2021b).

Currently, researchers use the TMLQ (Avolio & Bass, 1995) to identify a range of ineffective and effective leadership behaviors (Yammarino & Bass, 1990). In separate studies, Batista-Foguet et al. (2021a) and Bajcar and Babiak (2022) posited that the TMLQ (Avolio & Bass, 1995) was the most utilized survey instrument for evaluating transformational leadership behaviors exhibited by leaders. Researchers used the TMLQ to investigate leadership styles across various skill sets: law enforcement (Batista-Foguet et al., 2021), Polish industrial sectors (Bajcar & Babiak, 2022), doctors (Dominguez et al., 2022), and nurses, (Moon et al., 2019; & Sabbah et al., 2020). Therefore, the TMLQ (Avolio & Bass, 1995) was better suited for use across production, service, and military organizations (Bass, 1997).

Discriminatory and confirmatory factor analysis of the TMLQ revealed that the instrument has high validity (Avolio & Bass, 1995). The reliability, as determined by Cronbach's alpha, is $\alpha = .92$, thereby demonstrating high reliability. Braathu et al. (2022) conducted a study in a Norwegian mental health care setting in which they evaluated the psychometric properties of the TMLQ. They concluded that the reliability of the instrument was $\alpha = .96$.

Data analysis revealed that the validity was high with a goodness of fit ranging from $r = .90$ to $r = .91$. The fit indices generated by the Linear Structural Relationships program to test the subscales of the TMLQ (Avolio & Bass, 1995) was the goodness of fit index (GFI) (Franke & Mueller, 1996). Subscale reliability for each subscale was as follows: idealized attributes ($r = .91$), idealized behaviors ($r = .90$), inspirational motivation ($r = .90$), intellectual stimulation ($r = .91$), and individual consideration ($r = .91$).

The TMLQ (Avolio & Bass, 1995) has 54 items associated with leadership behaviors and

12 leadership subscales composed of five subscales for transformational leadership, two subscales for transactional leadership, two subscales for passive avoidant leadership, and three subscales related to outcomes of leadership (Table 1).

The transformational subscales and questions on TMLQ (Avolio & Bass, 1995) were the only questions utilized for this study. The five subscales of transformational leadership were measured across 20 questions. The TMLQ utilizes a 5-point Likert scale ranging from Not at all to Frequently, if not always. Responses were as follows: Not at all = 0, Once in a while = 1, Sometimes = 2, Fairly often = 3, and Frequently, if not always = 4. The TMLQ subscales used for this study were idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. Each subscale score was calculated by averaging the total score for the subscale question.

The total score for each subscale ranges from 0 to 4 points. A score of 0 points was the lowest possible score meaning that a leader exhibits behaviors less than the norm, and a score of 4 points was the highest, meaning that a leader exhibits behaviors more than the norm. For example, an idealized attributes score of 0 meant the leader exhibits idealized attributes less than the norm, and a score of 4 meant the leader exhibits idealized attributes more than the norm. An idealized behavior score of 0 meant the leader exhibits idealized behaviors less than the norm, and a score of 4 meant the leader exhibited idealized behaviors more than the norm.

Table 1*Team Multifactor Leadership Questionnaire*

Characteristic	Scale Names	Questions
Transformational	Idealized Attributes	10, 18, 21, 25
Transformational	Idealized Behaviors	6, 14, 23, 34
Transformational	Inspirational Motivation	9, 13, 26, 36
Transformational	Intellectual Stimulation	2, 8, 30, 32
Transformational	Individual Consideration	15, 19, 29, 31
Transactional	Contingent Reward	1, 11, 16, 35
Transactional	Mgmt by Exception (Active)	4, 22, 24, 27
Passive Avoidant	Mgmt by Exception (Passive)	3, 12, 17, 20
Passive Avoidant	Laissez-Faire	5, 7, 28, 33
Outcomes of Leadership	Extra Effort	39, 42, 44
Outcomes of Leadership	Effectiveness	37, 40, 43, 45
Outcomes of Leadership	Satisfaction	38, 41

Note. Data from Team Multifactor Leadership Questionnaire Manual, page 121 (Avolio & Bass, 1995)

An inspirational motivation score of 0 meant the leader exhibits inspirational motivation less than the norm, and a score of 4 meant the leader exhibits inspirational motivation more than the norm. An intellectual stimulation of 0 meant the leader exhibits intellectual stimulation less than the norm, and a score of 4 meant the leader exhibits intellectual stimulation more than the norm. An individual consideration score of 0 meant the leader exhibits intellectual stimulation

less than the norm, and a score of 4 meant the leader exhibits individual consideration more than the norm.

The combined total score of the TMLQ was calculated by adding all subscale responses and dividing by the number of respondents. The total score ranged from 0 to 180. A score of 0 indicated that the leader exhibited no transformational leadership tendencies while a score of 180 indicated that the leader exhibited transformational leadership tendencies frequently, if not always?

All participants received the TMLQ survey, and they needed approximately 15 minutes to complete it. The TMLQ was administered through MindGarden.com at the direction of MindGarden.com (See Appendix A). Training for the rater was administered by MindGarden.com as part of the instrument use permit approval. Permission to use the TMLQ in this study was secured from Mind Garden and was valid until 2024 (see Appendix A).

Short Survey of Creative Self

The SSCS was developed by Karwowski et al. (2018). The purpose of this instrument was to measure employees' existing and dormant creative qualities and talents (See Appendix B for the instrument). It was created to be a concise and practical instrument that allows for a quick assessment of one's creative self-beliefs. The development process of the SSCS involved several crucial steps. Initially, the researchers conducted a thorough review of existing literature on creativity and self-beliefs to generate an initial pool of items (Karwowski et al., 2018). These items were then examined by a panel of experts in the field of creativity to ensure their appropriateness and relevance. Subsequently, a pilot study was conducted to assess the clarity and comprehensibility of these items, resulting in some revisions or eliminations based on the findings (Karwowski et al., 2018).

Ultimately, the final version of the SSCS consisted of 11 items, each utilizing a 5-point Likert scale ranging from Definitely not to Definitely yes (Karwowski et al., 2018). These items were specifically designed to measure two dimensions: creative self-efficacy (CSE), which refers to one's belief in their ability to generate novel and valuable ideas and creative personal identity (CPI), which encompasses one's identity as a creative individual. Since its development, the SSCS has been extensively implemented in various studies in which researchers investigated diverse aspects associated with creativity (Norman et al., 2020; Snyder et al., 2021; Zielińska et al., 2022).

The SSCS (Karwowski et al., 2018) measured the participants' level of creative self-concept. The reliability for the entire scale has been established at $\alpha = .84$. The scale is composed of two sub-scales, CSE, CPI, and an overall scale, creative self-concept (SRC). Questions 3, 4, 5, 6, 8, and 9 measure CSE (creative ideation and accomplishments), and the Cronbach's alpha for those questions is .79; questions 1, 2, 7, 10, and 11 measure CPI (self as a creative person), and the Cronbach's alpha for those questions is .81. All 11 questions measure SRC (existing and dormant creative qualities and talents), and the Cronbach's alpha is .84 (See Table 2, Short Scale of Creative Self Subscales).

Table 2

Short Scale of Creative Self Subscales

Subscale	Questions
Creative Self-concept	All 11 items
Creative Self-efficacy	3, 4, 5, 6, 8, 9
Creative Personal Identity	1, 2, 7, 10, 11

The SSCS consisted of 11 questions and was a self-report instrument. The survey was built on a 5-point Likert scale with responses ranging from Definitely not to Definitely yes. Responses were as follows: Definitely Not = 1, Rather Not = 2, Neither Yes nor Not = 3, Rather Yes = 4; Definitely Yes = 5. The CSE subscale was scored by adding all responses to questions 3, 4, 5, 6, 8, and 9 and dividing by the number of responses. The total score for the CSE subscale ranged from 0 to 24 points. The CPI subscale was scored by adding all responses to questions 1, 2, 7, 10, and 11 and dividing by the number of responses. The total score for this sub-scale ranges from 0 to 20 points.

The SRC scale was scored by averaging the total score for each subscale and then dividing by the total number of responses for the survey. Scores ranged from 0 to 44 points. A score of 0 was the lowest possible score and indicated a low creative self-concept. A score of 44 was the highest score and indicated a high creative self-concept. The questions were distributed in a survey (See Appendix C for survey). The time required to complete the survey was 10 minutes. The researcher administered the survey and scored the scale. No training was required to score the scale. The survey is free for the public or researchers to use, reproduce, and publish without any acknowledgment from the author (Karwowski et al., 2018) (See Appendix C for SSCS Approval).

Procedures

The researcher gained permission to conduct this study from Liberty University's Institutional Review Board (see Appendix D). Next, the researcher met with a senior government official to review the entire data collection process. A senior government official who held official supervisory control over the organization selected participants from acquisition and contracting sections. The senior government executive selected those two sections based on

participants' availability for survey completion. The researcher gained preliminary approval to disseminate the combined survey to participants from the senior government official for the organization (see Appendix E for permission email). After an orientation briefing of the survey and survey instructions to the senior government official on the study, the researcher received permission to conduct the study.

The researcher entered survey questions from the TMLQ (Avolio & Bass, 1995) and the SSCS (Karwowski et al., 2013) into MindGarden.com (See Appendix C for proposed questionnaire). The survey included six demographic questions. The demographic data included race/ethnicity, section name, years of service, gender, age, and manager or non-manager position. The senior government official sent all members of the target population an introductory email that included his comments (See Appendix F for government official instructions), the procedures for obtaining consent to participate in the study (See Appendix G for participant consent form), and a description of the study (See Appendix H for study description), the directions for completing the survey were included in the government officials introduction with a link to the MindGarden.com survey.

As stated above, the email to participants included information on the procedures for obtaining consent to participate in the study. The email advised participants that by completing the survey, they gave their consent to participate in this study. When the researcher received notification that the email was sent, the 3-week survey period began. Members of the population who received the email had the opportunity to volunteer to complete the survey. Participation in this study was completely voluntary, and members of the population did not receive incentives if they completed the survey nor were they penalized if they did not complete the survey. Participants acknowledged their consent to participate in this study by reading the participant

consent information on the survey page and then selecting the continue button on the survey page and completing the survey.

Participants could complete the survey at their convenience, thereby increasing the likelihood of participants completing the survey without interruptions and concentrating on the survey questions. The survey included 54 questions and took approximately 15 minutes, and participants could complete the survey in one sitting or multiple sittings. The survey was accessed on either a home or an office computer. No personal data were collected nor were participants associated with the data collection process.

The survey remained open for 3 weeks. Two reminder emails (See Appendix J), a standard procedure for the participating organization, were sent to all participants at the beginning of each week, immediately after the government's senior executive initiated the survey. When the data collection period was complete, the researcher downloaded the raw data from MindGarden.com into an excel spreadsheet. The data file was examined to ensure that no personally identifiable information was included in the file. Each participant was assigned a unique identifying number (that is, 1, 2, 3, 4...). The survey responses were scored according to the instrument's individual and overall scoring instructions (See Appendix A for TMLQ and Appendix B for SSCS). The scores were then entered into a data file, which was analyzed by IBM Statistical Package for the Social Sciences (SPSS).

Data were loaded on a thumb drive and marked with the researcher's last name and date of data collection. The data file was protected during the analysis process. When in use, the data file remained in the possession of the researcher, and when not in use, the file was stored in a locked file cabinet at the researcher's home office. The data will be retained for 5 years after the completion of this research study.

Data Analysis

Multiple linear regression was used to analyze the predictive relationship between five predictor variables (transformational leadership behaviors) and the criterion variable (creative self-concept) as perceived by non-manager employees. This analysis is used when a linear relationship is hypothesized between a criterion variable and a set of predictor variables (Gall et al., 2007). Regression analysis assists in determining the best combination of variables that provide the most accurate prediction of a criterion variable (Gall et al., 2007). Multiple regression is used extensively in transformational leadership and employee attribute studies (Alwali & Alwali, 2022; Anwar et al., 2022; Busari et al., 2019; Cai et al., 2020; Lee et al., 2020; Peng et al., 2020). Therefore, it was appropriate to use multiple regression analysis for this study.

Multiple regression required that several assumptions were met. The criterion variable and the predictor variables must meet the assumption of continuity. A visual inspection of a histogram revealed that the criterion variable (creative self-concept) and each predictor variable (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration) were continuous (Barthlow et al., 2022; Gall et al., 2007). The assumption of independence of the observations in predictor variables was met by examining the Durbin-Watson statistic. A Durbin-Watson statistic of approximately 2, indicates no correlation between residuals. To meet the assumption of a linearity relationship between variables, an evaluation of a scatter plot of residuals against the predicted values was conducted to determine the linearity between the predictor variables (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration) and the criterion variable (creative self-concept). The scatter plot should form a cigar shape. Partial regression

plots were also used to analyze the linear relationship between the target predictor variable and the criterion variable (Barthlow et al., 2022; Gall et al., 2007).

The assumption of homoscedasticity of residual values of all independent variables was checked by examining a scatterplot of the unstandardized or standardized residuals against the predicted (that is, fitted) values or standardized predicted values. Equal residual values (errors of prediction) across the standardized predicted (that is, fitted) values will indicate homoscedasticity (Barthlow et al., 2022; Gall et al., 2007). Therefore, if homoscedasticity was indicated, a scatterplot would exhibit no pattern, be constantly spread across the fitted values, and display a classic cone shape (Barthlow et al., 2022; Gall et al., 2007). The assumption of the absence of multicollinearity between predictor variables was met by examining Pearson coefficient or Pearson's r to determine the linear relationship between each predictor variable and the criterion variable. The absence of multicollinearity was indicated by a Pearson's r value of greater than .07. Thus, none of the predictor variables should have had an r value greater than .07. Tolerance and variance inflation factor (VIF) were used to detect multicollinearity in a regression model. Tolerance measured the proportion of variance in one predictor variable that was not explained by the other predictor variables. A tolerance value close to 1 suggested a low degree of multicollinearity, meaning the predictor variables were relatively independent and did not strongly correlate with each other. VIF calculated the extent to which the variance of the estimated regression coefficients was inflated due to multicollinearity. A VIF value closer to 1 indicated the absence of multicollinearity while higher values greater than 3 suggested stronger correlations between independent variables.

The assumption of no significant outliers was confirmed using casewise diagnostics. Casewise determined the means of the predictor and criterion variables and identified any

significant outliers with a standardized residual value greater than ± 3 standard deviations. In the case of an extreme outlier, the researcher verified the outlier was not a legitimate data point and was not a data recording error or anomaly. The researcher removed extreme outliers that could not be corrected from the analysis. The presence and handling of an outlier was documented to ensure transparency and reproducibility of the results (Gall et al., 2007). Finally, the assumption of normal distribution of residuals (errors) was conducted. Normal distribution assumes that the residuals are normally distributed and tested with a P-P plot of standardized residuals to determine the normalcy of the distribution (Barthlow et al., 2022; Gall et al., 2007). When examining the P-P plot, normal distribution was evident if the plotted points were generally linear.

Upon checking the eight assumptions, a multiple linear regression analysis was conducted. The product of this analysis was a standardized coefficient (R) for each predictor variable. Using the standard deviation of both variables as a base, the standard coefficient will show the relative influence of any given predictor variable on the criterion variable (Gall et al., 2007). The coefficient of determination or R^2 result described the percentage of the variation in the criterion variable the predictor variable explained.

Cohen's f^2 was used to determine the effect size. A size effect nearing 1 indicated the statistical significance of the result. Next, the F statistic indicated the linearity of the combined scores of the predictor variables with the smallest overall model error. The product of the multiple regression analysis was coefficients for an equation that demonstrated the linear relationship between the predictor variables and the criterion variable. For the validity of the results, Cronbach's alpha was used to determine internal consistency. To measure the goodness of fit of the variables, the analysis of variance (ANOVA) was calculated. If the result of the

ANOVA was $p < .05$ then the hypothesis was rejected. If the value was $p > .05$, the researcher failed to reject the hypothesis.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this quantitative, predictive correlational study was to determine if transformational leadership attributes could predict employee creativity. The predictor variables were government service leaders' transformational leadership qualities identified as idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. The criterion variable was creative self-concept. A multiple linear regression was used to test the hypothesis. This chapter includes the research question, null hypothesis, data screening, descriptive statistics, assumption testing, and results.

Research Question

RQ1: How accurately can government non-manager employee creative self-concept be predicted from a linear combination of government service leaders' transformational leadership qualities of *idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration* as perceived by the employees?

Null Hypothesis

H₀1: There is no significant predictive relationship between the criterion variable (creative self-concept) as measured by the Short Scale of Creativity Self and the linear combination of predictor variables (employee's perception of leader's idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration) as measured by the Team Multifactor Leadership Questionnaire for government service employees.

Data Screening

The researcher reviewed data for each variable and looked for inconsistencies in participants' responses. The researcher received 613 responses from the target population. Four

surveys were identified as incomplete and were removed from the data set based on the instructions developed by the instruments' authors. A total of 609 responses comprised the data set. The data were then applied to a scatter plot to detect bivariate outliers between the criterion and predictor variables. No bivariate outliers were identified (See Figures 1 through 5 for the scatter plots).

Figure 1

Partial Regression Plot for Idealized Attributes

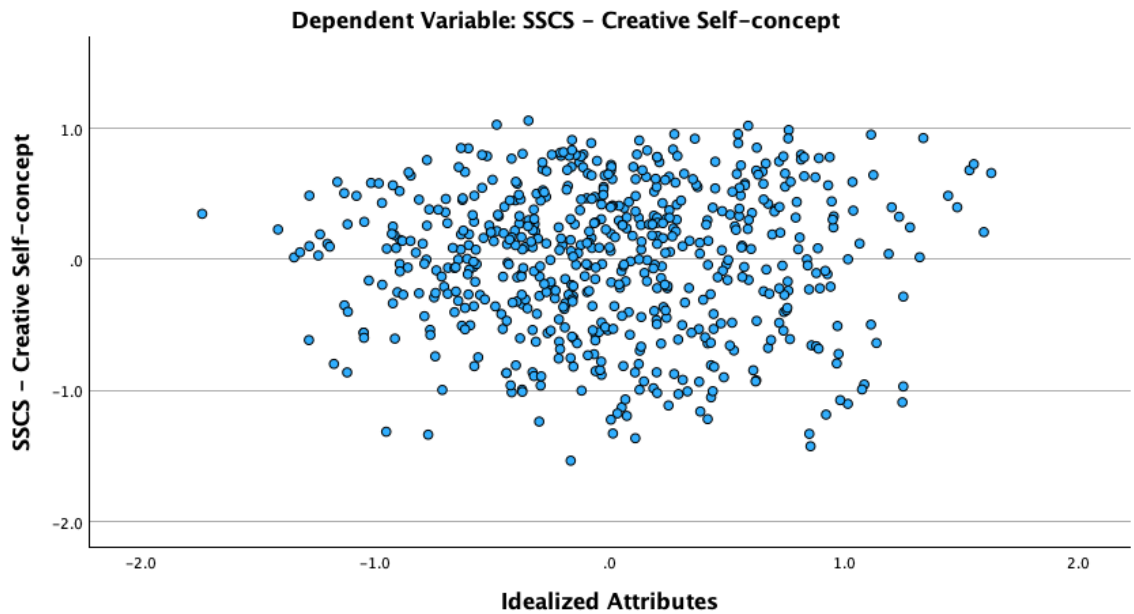
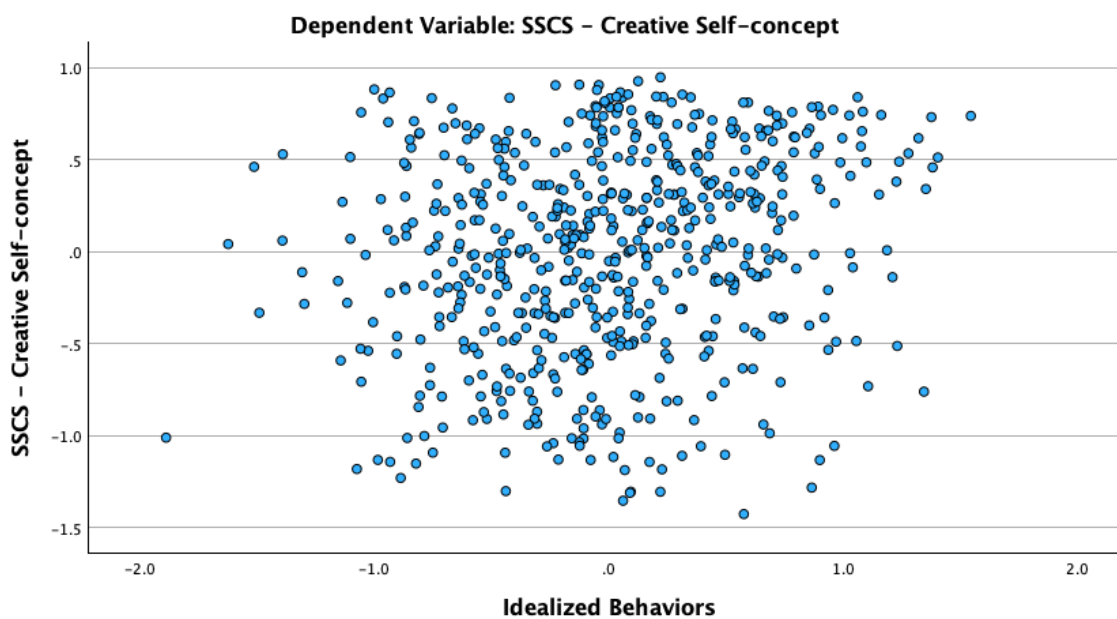


Figure 2

Partial Regression Plot for Idealized Behaviors

**Figure 3**

Partial Regression Plot for Inspirational Motivation

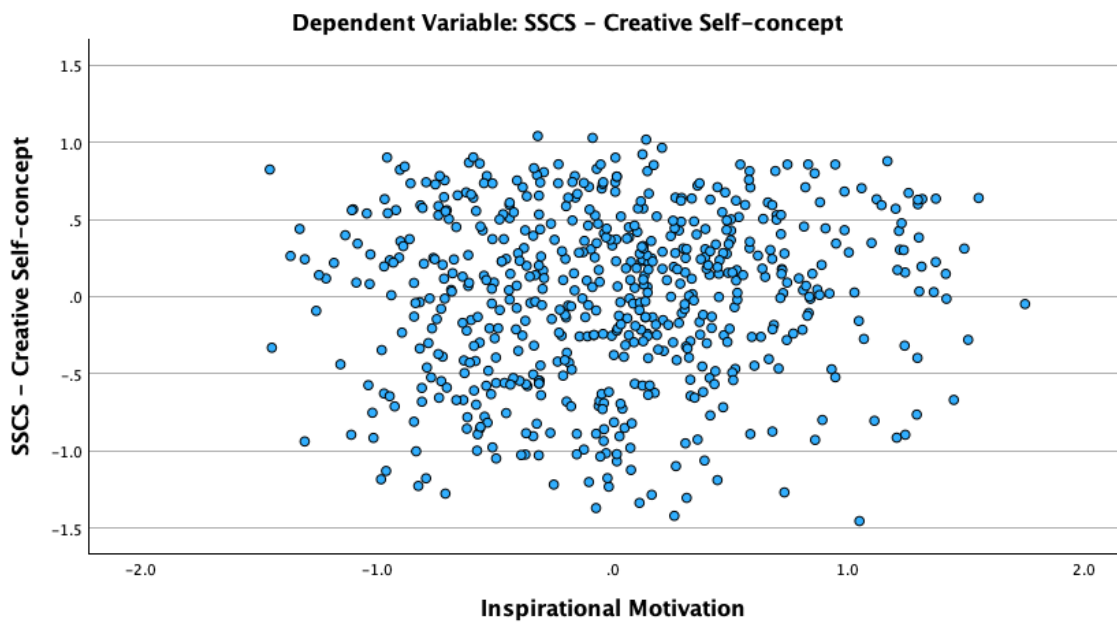
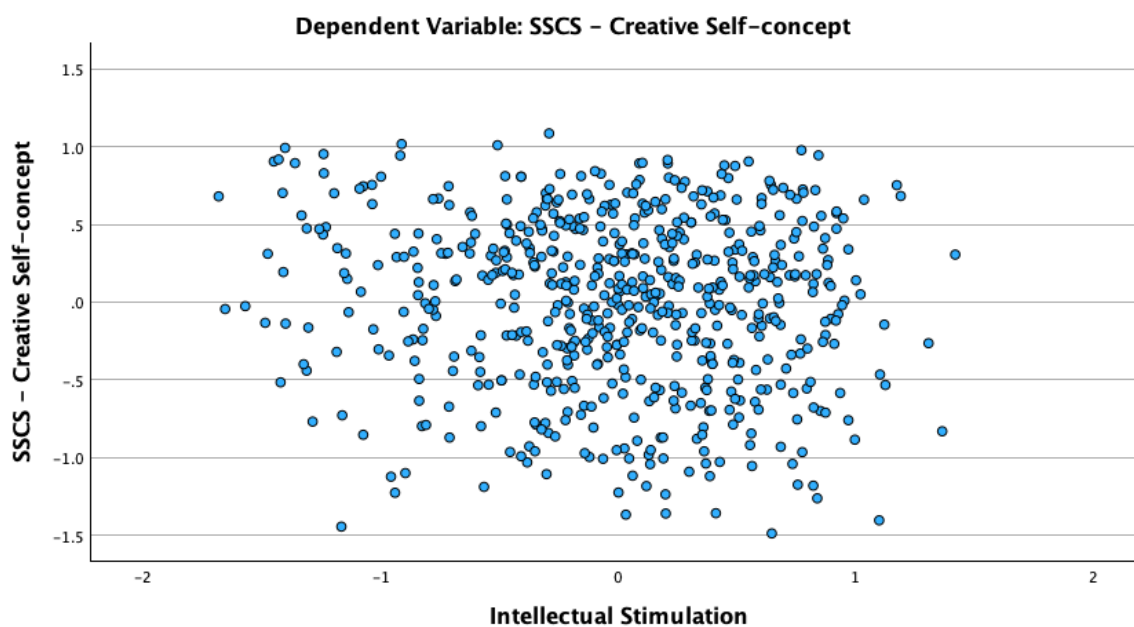
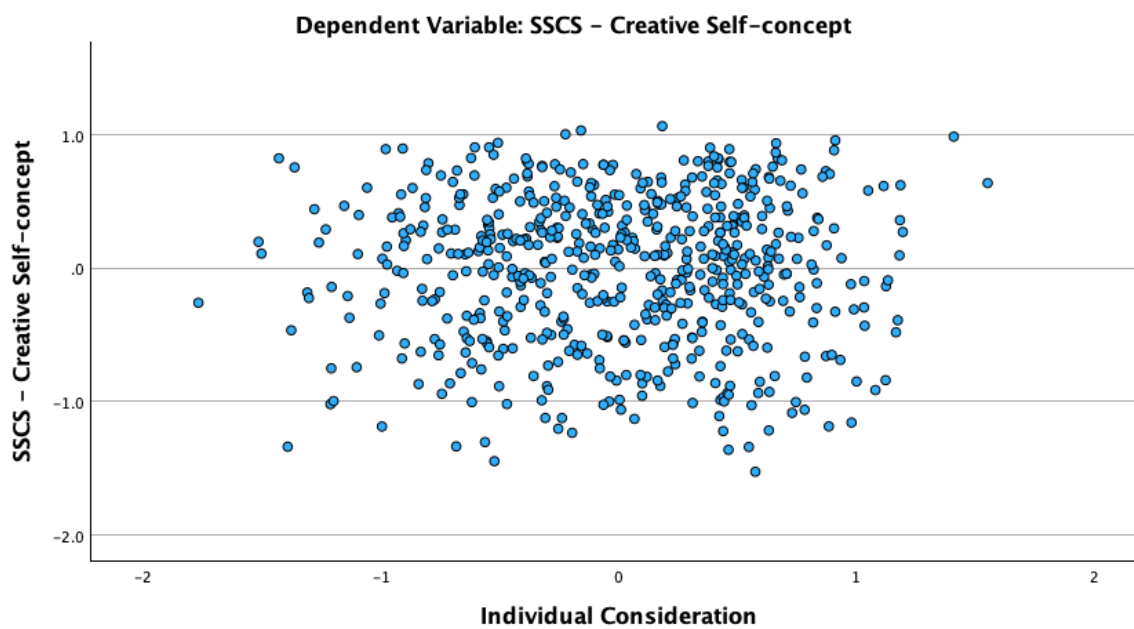


Figure 4

Partial Regression Plot for Intellectual Stimulation

**Figure 5**

Partial Regression Plot for Individual Consideration



Descriptive Statistics

Descriptive statistics were obtained on each of the variables. The sample consisted of 609 participants. The SSCS was used to score the predictive variable creative self-concept scale. Scores for the SSCS range from 0 to 44 points. A score of 0 was the lowest possible score and indicated a low creative self-concept. A score of 44 was the highest score and indicated a high creative self-concept. The TMLQ includes the subscales of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. The total score for each subscale ranges from 0 to 4 points. A score of 0 indicated that a leader did not exhibit transformational leadership behaviors while a score of 4 indicated that a leader exhibited behaviors frequently, if not always. The descriptive statistics for each of the six variables are included in Table 3.

Table 3

Descriptive Statistics

	<i>n</i>	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>
SSCS - Creative Self-concept	609	1.9	4.0	3.22	.561
Idealized Attributes	609	0.0	3.4	2.57	.770
Idealized Behaviors	609	0.6	4.0	1.14	.700
Inspirational Motivation	609	0.2	3.4	1.77	.657
Intellectual Stimulation	609	1.0	4.0	3.18	.898
Individual Consideration	609	1.0	4.0	2.90	.871

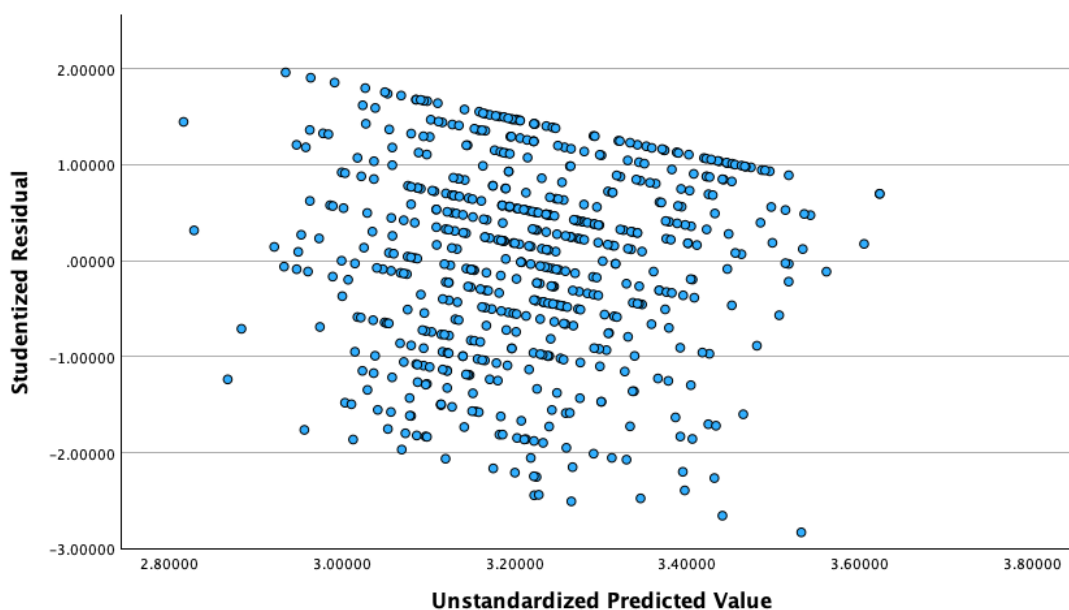
Assumption Testing

Assumption of Linearity

The multiple regression requires that the assumption of linearity be met. Linearity was examined using a scatter plot (Barthlow et al., 2022; Gall et al., 2007). The assumption of linearity was met for each predictor variable compared to the criterion variable. See Figure 6 for the matrix scatter plots.

Figure 6

Residual Scatter Plot



Assumption of Independence of Observations

Assumptions 1 of having one dependent variable and Assumption 2 of having five independent variables were met when the data were entered into SPSS (Barthlow et al., n.d.; Gall et al., 2007). The Durbin-Watson statistic was used to confirm Assumption 3 of independence of observations. Table 2 shows a Durbin-Watson statistic of 1.837, which is close to 2 and indicates no errors.

Table 4*Model Summary*

	<i>R</i>	<i>R</i> ²	Adj. <i>R</i> ²	<i>SD</i>	Durbin-Watson
1	.234 ^a	.059	.051	.5460	1.837

a. Predictors: (Constant), Idealized Attributes, Idealized Behaviors, Inspirational Motivation, Intellectual Stimulation, Individual Consideration

b. Dependent Variable: SSCS - Creative Self-concept

Assumption of Homoscedasticity

The multiple regression requires that the assumption of homoscedasticity be met.

Homoscedasticity was examined using a scatter plot (Barthlow et al., 2022; Gall et al., 2007).

There was homoscedasticity as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. See Figure 6 for the residual scatter plot.

Assumption of Multicollinearity

A variance inflation factor (VIF) and tolerance test were conducted to ensure the absence of multicollinearity (Barthlow et al., 2022; Gall et al., 2007). This test was run because if a predictor variable (x) is highly correlated with another variable (x), they essentially provide the same information about the criterion variable. If the VIF is too high (greater than 10), then multicollinearity is present. Acceptable values are between 1 and 5. The absence of multicollinearity was met between the variables in this study as the highest VIF was 2.28 and the lowest was 1.15. Table 5 provides the collinearity statistics.

The tolerance test for the five predictor variables verified that the absence of multicollinearity was met. Tolerance should be measured above .1 to be acceptable. The lowest tolerance result was .439 indicating the absence of multicollinearity.

Table 5*Collinearity Statistics*

		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Idealized Attributes	.553	1.81
	Idealized Behaviors	.704	1.42
	Inspirational Motivation	.868	1.15
	Intellectual Stimulation	.438	2.28
	Individual Consideration	.439	2.28

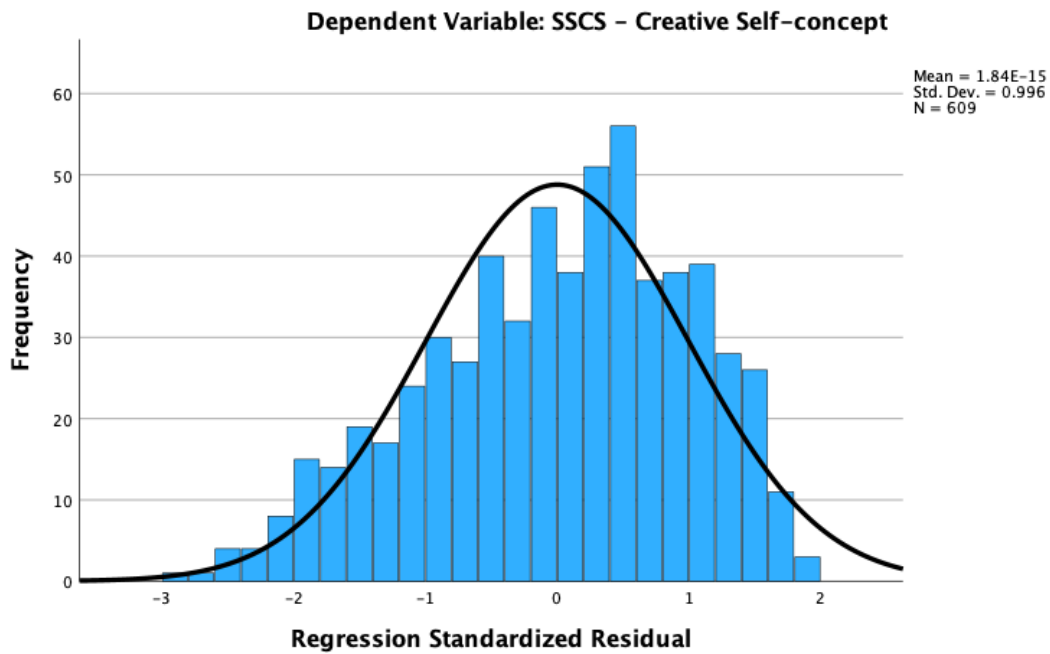
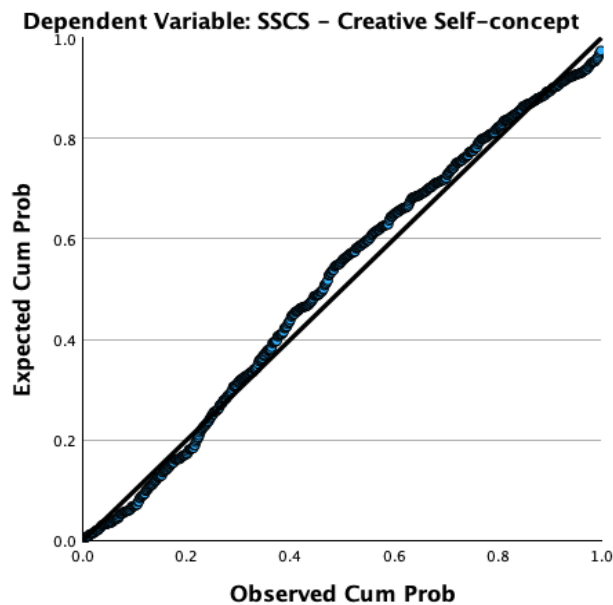
a. Dependent Variable: SSCS - Creative Self-concept

Assumption of No Significant Outliers

Multiple regression requires that the assumption of the absence of significant outliers be met (Barthlow et al., 2022; Gall et al., 2007). Within SPSS, the researcher sorted the data column labeled studentized deleted residual in descending order. The highest reported dataset was 2.0, below the maximum allowance of 3.0, indicating no outliers.

Assumption of Bivariate Normal Distribution

The multiple regression requires that the assumption of bivariate normal distribution be met (Barthlow et al., 2022; Gall et al., 2007). This assumption was observed using the histogram in Figure 7, indicating a normal curve distribution. Figure 8 shows a normal P-P plot with a diagonal line, indicating a normal distribution.

Figure 7*Histogram***Figure 8***P-P Plot*

Results

A multiple regression was conducted to see if there was a relationship between transformational leadership attributes and government employee creativity. The predictor

variables were idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. The criterion variable was creative self-concept. The researcher rejected the null hypothesis at the 95% confidence level where $F(5, 603) = 7.567, p < .001$. There was a significant relationship between the predictor variables (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration) and the criterion variable (creative self-concept). Table 6 provides the regression model results.

Table 6

Regression Model Results

Model		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
1	Regression	11,279	5	2.256	7.567	< .001 ^b
	Residual	179,749	603	.298		
	Total	191,028	608			

a. Dependent Variable: SSCS - Creative Self-concept

b. Predictors: (Constant), Idealized Attributes, Idealized Behaviors, Inspirational Motivation, Intellectual Stimulation, Individual Consideration

The model's effect size was small where $R = .234$. Furthermore, $R^2 = .059$ indicated that approximately 6% of the variance of criterion variable could be explained by the linear combination of predictor variables. Table 4 provides a summary of the model.

Because the researcher rejected the null hypothesis, analysis of the coefficients was required. Based on the coefficients, it was found that idealized attributes were the best predictor of creative self-concept where $p < .001$. Table 7 provides the coefficients.

Table 7*Coefficients*

Model		Unstandardized		Standardized	<i>t</i>	Sig.
		Coefficients		Coefficients		
		<i>B</i>	<i>SE</i>	B		
1	(Constant)	2.803	.145		19.399	< .001
	Idealized Attributes	.182	.039	.250	4.700	< .001
	Idealized Behaviors	.018	.038	.023	.483	.630
	Inspirational Motivation	.073	.036	.086	2.027	.043
	Intellectual Stimulation	-.075	.037	-.119	-2.000	.046
	Individual Consideration	.011	.038	.017	.282	.778

a. Dependent Variable: Creative self-concept

CHAPTER FIVE: CONCLUSIONS

Overview

The purpose of this chapter is to present the analysis of the findings. The chapter opens with a discussion of the findings and how the findings compare to prior research. Implications of the findings in terms of impacts on the knowledge base and government organizations and employees are then explored. A discussion of the limitations of the study follows. The chapter ends with recommendations for further research.

Discussion

The purpose of this quantitative non-experimental predictive correlational study was to evaluate the relationship between government managers' transformational leadership attributes and government service non-manager employees' self-perceived creativity. The research question was "How accurately can government non-manager employee creative self-concept be predicted from a linear combination of government service leaders' transformational leadership qualities of idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration as perceived by the employees?" Multiple linear regression was used to evaluate the null hypothesis, resulting in the researcher rejecting the null hypothesis. The analysis determined that the combination of the five predictor variables (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration) had a statistically significant predictive effect on the criteria variable (creative self-concept). Specifically, The three predictor variables that had the most statistically significant impact on creative self-concept were idealized attributes, inspirational motivation, and intellectual stimulation, with idealized attributes having the most significant impact. This

study's results add to the prior research on the correlation between transformational leadership qualities and employee creativity.

Idealized attributes, intellectual stimulation, and inspirational motivation are key aspects of transformational leadership that have been extensively studied in relation to employee creativity (Afsar & Umrani, 2019; Becker et al., 2022; Fu et al., 2022). Idealized attributes are associated to the leader's behavior and competence related to building trust and confidence in employees (Avolio & Bass, 1995). Intellectual stimulation refers to the leader's ability to challenge and stimulate employees' thinking, encouraging them to explore new ideas and approaches. Inspirational motivation, on the other hand, involves the leader inspiring and motivating employees through a compelling vision and a sense of purpose.

Previous studies explored the link between transformational leadership and employee creativity. Lee et al. (2020) found that transformational leadership and authentic, empowering, and entrepreneurial leadership positively correlated with employee creativity. Lee et al.'s findings were supported by Shafi et al. (2020) who found that transformational leadership, particularly its dimensions of idealized influence, intellectual stimulation, and inspirational motivation, positively influenced employee creativity. These findings are consistent with the meta-analysis by Peng et al. (2020), which showed a positive relationship between transformational leadership and employees' openness to change, an essential aspect of creativity. Cai et al. (2020) emphasized the importance of contextual factors, such as leadership style, in predicting employee creativity, further supporting the role of transformational leadership's influence on employee creativity. Comparatively, this study aligns with Lee et al. (2020), Peng et al. (2020), and Cai et al. (2020), finding that transformational leadership positively correlated with employee creativity. The findings of this study were similar to those of Shafi et al. (2020) in

that idealized attributes, intellectual stimulation, and inspirational motivation significantly influenced employee creativity.

Lee et al. (2020) indicated that transformational and entrepreneurial leadership styles were strongly associated with individual creativity. Transformational leaders focus on role-modeling behavior and providing opportunities for skill development and autonomy while entrepreneurial leaders enable followers to experiment and challenge the status quo. For individual innovation, transformational and servant leadership styles have the strongest correlations (Lee et al., 2020; Zainab et al., 2022). These findings suggest that employees are better able to innovate when their leaders act as facilitators and support, develop, and empower them. The findings of this study align with Lee et al. (2020) and Zainab et al. (2022), who found that transformational leadership significantly impacts employee creativity.

Additionally, Shafi et al. (2020) suggested that three transformational leadership factors (idealized influence, intellectual stimulation, and inspirational motivation) positively influenced organizational innovation. However, individual considerations had little impact on organizational innovation. Previous studies have also shown a positive relationship between transformational leadership and organizational innovation (Adelekan & Erigbe, 2021; Chaubey et al., 2019; Setiawan et al., 2021; Zainab et al., 2022). The studies highlighted that transformational leadership fosters innovation and creates a creative work environment.

Aligning with Shafi et al. (2020), the results of the current study indicated that idealized attributes had the most significant correlation with employee creativity followed by intellectual stimulation and inspirational motivation. The current study showed individual consideration did not significantly correlate with employee creativity as found in Shafi et al. (2020). This positive relationship between transformational leadership and employee creativity is consistent with

previous studies (Afsar & Umrani, 2019; Koh et al., 2019; Li & Zhang, 2016; Ninković & Knežević Florić, 2018; Yammarino & Bass, 1990). Moreover, Shafi et al. (2020) has shown a significant positive relationship between transformational and employee creativity. Additionally, Shafi et al. (2020) suggest that employees can be more creative if leaders adopt a transformational style and encourage creativity and innovation. While not specifically mentioned in the study, idealized influence is composed of two sub-variables: idealized attributes and idealized behaviors (Avolio & Bass, 1995). The study conducted by Shafi et al. (2020) aligns well with the current study. The current study has shown that transformational leadership positively impacts employee creativity, more specifically, that idealized attributes, which is one of the idealized influence variables, is the most significant predictor of employee creative self-concept. Intellectual stimulation was the second predictive variable with a significant effect.

Peng et al. (2020) posited a positive relationship between transformational leadership and organizational change. The authors found that transformational leadership was significantly associated with employees' reactions to organizational change, including openness to change while reducing resistance to change and cynicism about change. Zainab et al. (2022) concluded that openness to change was crucial to employee creativity. The current study found a positive relationship between transformational leadership and employee creativity. The variable of intellectual stimulation encompasses the attributes of openness to change (Avolio & Bass, 1995).

Cai et al. (2020) purported that research on leadership and supervisory behaviors has focused on various leadership styles and behaviors that send motivational signals to employees. These include transformational leadership, aversive leadership, and benevolent leadership. Practices such as developmental performance management, promotion, career development, and job security motivate employees and increase employees organizational respect. Mutual trust

relationships and supervisory behaviors enhance motivation and encourage individual creativity. Leadership styles and behaviors, such as transformational leadership, guide employees toward creative outcomes through encouragement and modeling (Cai et al., 2020). When organizations target employees' personal development, employees will likely reciprocate by engaging in creative endeavors. The current study found that the predictive variable with the most significant impact was idealized attributes, which aligns well with the outcome of Cai et al.'s (2020) investigation.

This study's results align with previous research conducted in the last 4 years in which researchers investigated how transformational leadership impacts employee creativity. Shafi et al. (2020) found that three predictive variables (idealized influence, intellectual stimulation, and inspirational motivation) exhibited predictive influence on employee creativity. Similarly, the current study found that the predictor variables of idealized attributes, intellectual stimulation, and inspirational motivation had a predictive effect on the criterion variable of creative self-concept. The data from this study added to the body of knowledge by finding that transformational leadership, specifically idealized attributes, intellectual stimulation, and inspirational motivation, had a higher predictive relationship on employee creativity.

Implications

Transformational leadership is a leadership style that has gained significant attention in recent years because of its potential to enhance employee creativity (Afsar & Umrani, 2019; Becker et al., 2022; Fu et al., 2022). This study has contributed to the existing body of knowledge by providing empirical evidence into the relationship between transformational leadership and employee creativity in the government sector. The study concluded that civilian service employees perceive transformational leadership attributes as an influencer in their

creative job performance (Anwar et al., 2020; Khorakian & Sharifirad, 2019). The following paragraphs provide practical implications of this study.

Leaders who exhibit idealized attributes, including being role models and setting high standards, are more likely to foster creativity in their employees; leaders should focus on developing and enhancing their idealized attributes to positively influence their employees' creative self-concept; leaders should practice intellectual stimulation encourage their followers to think critically, challenge assumptions, and explore new ideas; they create an environment that fosters innovation and creativity by promoting open dialogue, encouraging diverse perspectives, and supporting risk-taking; leaders should strive to inspire and motivate their employees by providing a clear vision, challenging them intellectually, and encouraging them to think outside the box; leaders should continuously assess and develop their leadership skills to create a conducive environment for creativity. Organizations can benefit from implementing leadership development programs that focus on transformational leadership attributes; leaders should actively seek feedback from their employees and work on improving their leadership behaviors based on their perceptions; transformational leadership attributes can be relevant and beneficial in any organizational setting.

The variables idealized attributes, intellectual stimulation, and inspirational motivation were statistically significant predictors of employee creativity. Organizations can use this knowledge to focus their leadership development programs on those key attributes, thereby improving the conditions and work environments for employees. The findings will inform the design and implementation of leadership development programs aimed at enhancing transformational leadership skills. By identifying the specific attributes that predict employee

creativity, organizations can tailor their training programs to focus on developing this attribute in their leaders.

For example, leadership development programs may include modules on coaching, mentoring, and developing subordinates. By equipping leaders with the necessary skills and knowledge, organizations can create a more conducive work environment that promotes creativity and enhances employee satisfaction. This, in turn, leads to improved overall well-being and quality of life for employees. Overall, the current study suggests that transformational leadership attributes had a significant impact on employee creativity. By understanding and applying these attributes, leaders can create an environment that fosters creativity and innovation among their employees.

Limitations

The first limitation of this study was the type of analysis for this. Quantitative analysis shows the correlation between and the movement of the variables but does not allow for an understanding of why the variables move together (Creswell & Creswell, 2018; Creswell & Guetterman, 2018). Researchers have explored the relationship between transformational leadership attributes and employee creativity using multiple linear regression analysis (Cai et al., 2020; Lee et al., 2020; Zainab et al., 2022) . While this quantitative analysis provides valuable insights, it is essential to acknowledge its limitations. Transformational leadership attributes may have a non-linear impact on employee creativity, which cannot be captured by a linear regression model (Creswell & Creswell, 2018; Creswell & Guetterman, 2018). This limitation restricts the accuracy and reliability of the predictions.

The next limitation was the study's analysis relied heavily on quantitative data such as survey responses, numerical ratings, and employee self-reporting. The methodology and design

of this study focused on the statistical aspect of the correlation between the variables, which limits the outcome to numerical correlations. While these data sources provide valuable insights, they may not capture the full complexity of transformational leadership attributes and employee creativity. Qualitative data such as interviews and observations can provide a deeper understanding of the context and nuances that quantitative data alone cannot capture.

Another limitation of this study was the design could not determine the cause of an increase or decrease in government employee creativity. The predictive correlational design allows for identifying the direction and degree of the variable movement; however, it cannot determine causality (Creswell & Creswell, 2018; Creswell & Guetterman, 2018). Creswell and Creswell (2018) posited that a correlation between variables is not the evidence needed to determine causality. The analysis may show a significant relationship between the predictor variables and the criterion variable, but it does not prove that transformational leadership attributes directly cause employee creativity. Other factors such as employee differences, innovative organizational culture, and external influences may also contribute to employee creativity. A quasi-experimental design may offer insights to other factors directly influencing causality.

The final limitation is that the analysis is based on a specific sample of participants (i.e., program management and contracting career professionals in government civilian service) and may not generalize to other populations or contexts. The relationship between transformational leadership attributes and government employee creativity may vary across different government sectors, sections, and organizational settings. A larger sample of participants or further research in varied government civilian sections may validate the findings or provide a broader

understanding of the associated link between transformational leadership attributes and employee creativity.

Recommendations for Future Research

Although the positive relationship between transformational leadership and government employee creativity has been established, there is a need to further develop the understanding of underlying mechanisms that influence employee creativity. Future research is recommended in the following areas:

1. Investigate the mediating variables linking transformational leadership and employee creativity such as motivation, combat exposure, or creative efficiency. Identifying the mediating factors to employee creativity could refine the understanding of causality for employee creativity.
2. Conducting longitudinal studies that collect data over multiple time points would enable researchers to examine how transformational leadership influences employee creativity over time.
3. Identify potential dynamic patterns or changes in the relationship between transformational leadership and employee creativity: Identify how has the COVID19 pandemic affected the potential of leadership attributes to influence creativity, or if the nature of the virtual office impacted employee creativity predictions based on virtual transformational leadership attributes.
4. Continued research in the government civilian service population will add to the body of knowledge by providing a refine view of leadership attributes within work force of approximately 2.9 million employees.

5. Additional research will assist in developing a more robust understanding of transformational leadership impact on employee creativity.

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APPENDICES

Appendix A

Team Multifactor Leadership Questionnaire

Removed to comply with copyright

Appendix B

The Short Scale of Creative Self (SSCS)

Removed to comply with copyright

Appendix C

Proposed Mind Garden Survey Consolidated Questionnaire

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Appendix D

Liberty University Institutional Review Board Approval

Date: 12-17-2023

IRB #: IRB-FY23-24-244

Title: PREDICTING GOVERNMENT NON-MANAGER EMPLOYEE CREATIVE SELF_CONCEPT FROM THEIR LEADERS' TRANSFORMATIONAL LEADERSHIP QUALITIES

Creation Date: 8-13-2023

End Date:

Status: **Approved**

Principal Investigator: Steven Palmer

Review Board: Research Ethics Office

Sponsor:

Study History

Submission Type	Initial	Review Type	Exempt	Decision	Exempt
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Key Study Contacts

Member	Role	Contact
Maryna Svirska-Otero	Co-Principal Investigator	[REDACTED]
Steven Palmer	Principal Investigator	[REDACTED]
Steven Palmer	Primary Contact	[REDACTED]

Appendix F

Government Official Communication

From: [REDACTED] <[REDACTED]@army.mil>
Sent: Friday, March 1, 2024 6:57 AM
To: USARMY [REDACTED] <usarmy.[REDACTED]@army.mil>
Subject: [REDACTED] Revised Leadership Development and Readiness Program (LDRP)

Teammates,

I hope this email message finds you and your families doing well, staying healthy, and safe. BLUF, we only have 68 respondents on this survey so far, and our goal is to reach 200 responses or more by COB on 15 Mar 24. Please support us once again with giving 5-7 minutes of your time to complete this leadership survey. See details below.

I discussed this survey at the last [REDACTED] Townhall, Division Chief luncheon, Branch Chief luncheon, and Green Platoon Roundtable with leaders and the workforce. Again, I am coming to you and asking for your support to provide feedback on “Transformational Leadership” that will help us improve our revised [REDACTED] Leadership Development and Readiness Program (LDRP). As mentioned before, the new hybrid and telework environment requires us to revisit leadership attributes to make sure our leaders have the right skills to lead in the new normal of the workplace. Below you will see an invitation to a survey aimed at improving leadership training, as well as supervisor preparation. Both [REDACTED] and I support this endeavor and ask that you consider completing the survey when you get an opportunity. Your feedback is crucial in shaping the future of [REDACTED] leadership training, and we invite you to participate by clicking the survey link and providing your **anonymous** insights. The survey aims to gather insights into the general climate of our employee perceptions of leadership and creativity. Your input is instrumental in identifying improvement mechanisms and driving positive change in supervisor preparation and leadership training. I ask that you take the time to participate so that your feedback can be considered. **The survey takes about 5-7 minutes to complete.** Again, your participation is voluntary, and your responses are anonymous.

To participate, please click here or copy/paste the link in your browser (<https://transform.mindgarden.com/survey/43235/185>) to complete the study survey. A consent document is attached to this email. The consent document contains additional information about the research. Because participation is **anonymous, you do not need to sign and/or return the consent document** unless you would prefer to do so. Again, after you have read the consent form, please [click the link provided] to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the study. Thank you in advance for your time.

Sincerely,

Mr. [REDACTED]

[REDACTED] Director

Appendix G Participant Consent Form

Title of the Project: PREDICTING GOVERNMENT NON-MANAGER EMPLOYEE SHORT SURVEY OF CREATIVE SELF FROM THEIR LEADERS' TRANSFORMATIONAL LEADERSHIP QUALITIES

Principal Investigator: Steven R Palmer, Doctoral Candidate, School of Education, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be employed by the U. S. government in the program management or contracting sections of Army Material Command. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of this study is to evaluate the relationship between government managers' transformational leadership attributes and government service non-manager employees' self-perceived creativity as the employees perceive them.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to participate in an online survey that will take no more than 30 minutes.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include contributions to the existing body of knowledge by shedding light on the relationship between transformational leadership and employee creativity within government service organizations. With the potential to revolutionize traditional bureaucratic cultures, transformational leadership practices and training may pave the way for more effective and creative governance. Ultimately, this research may help in shaping leadership strategies that can fuel creativity and innovation in government service organizations, leading to better service delivery and improved outcomes.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private.

Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses to the online survey will be anonymous.
- Data will be stored on a password-locked thumb drive in a locked file cabinet. After three years, all electronic records will be deleted.

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University or Army Material Command. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Steven R. Palmer. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at [REDACTED]. You may also contact the researcher's faculty sponsor, Dr. Maryna Svirskia-Otero, at [REDACTED].

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Printed Subject Name

Signature & Date

Appendix H

Study Description

The purpose of this quantitative non-experimental predictive correlational study is to evaluate the relationship between government managers' transformational leadership attributes and government service non-manager employees' self- perceived creativity. The researcher will collect data from 1432 personnel associated with Army Acquisition to explore the predictive link transformational leadership qualities and employee creativity. The study consists of an online survey. Employees will be asked to review a consent agreement and then proceed to the survey at their choosing.

Appendix I

Scoring Instructions for TMLQ

Removed to comply with copyright

Appendix J

Follow Up Recruitment Message

Dear Potential Participant,

As a doctoral candidate in the School of Education at Liberty University, I am conducting research to evaluate the relationship between government managers' transformational leadership attributes and government service non-manager employees' self- perceived creativity as the employees perceive them, as part of the requirements for a doctorate degree. Last week an email was sent to you inviting you to participate in a research study. This follow-up email is being sent to remind you to complete the survey, if you would like to participate and have not already done so. The deadline for participation is 15 March 2024.

Participants must be members of the Acquisition community assigned to either the program management or contracting sections. Participants will be asked to consent to and take an anonymous, online survey. It should take approximately 20 minutes to complete. Participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, please click here (www.mindgarden.com) to complete the study survey. A consent document is attached to this email. The consent document contains additional information about my research. Because participation is anonymous, you do not need to sign and return the consent document unless you would prefer to do so. After you have read the consent form, please [click the link] to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the study.

Sincerely,

Steven Palmer

Doctoral Candidate

Appendix K

Short Survey of Creative Self (SSCS) Approval

In 2103, Benedek and Silvia (2023) began publishing a document online detailing the tasks and scales free for public use that are related to creativity and the arts. The Creativity and Arts Tasks and Scales: Free for Public Use (Benedek & Silvia, 2023) was last updated in May of 2023 and contained the Short Survey of Creative Self (SSCS). The SSCS is listed under creative self-reporting scale in the online publication. Below is the disclaimer from the publication.

About This Archive

This project contains files for a wide array of tasks and self-report scales for research on creativity, aesthetics, and the arts.

Permission Free

Researchers are welcome to use these tools in their own work. You do not need to request permission to use any of these scales or tools for academic and non-commercial purposes.

Topics & Formats

The archive focuses on creativity, aesthetics, and the arts. It contains both self-report scales (for example, creative achievement, art knowledge, humor styles, personality traits) and lab tasks (for example, divergent thinking, humor production, metaphor production). Some popular personality and individual differences scales are included as well.

Most tools are available in both "hard copy" formats (Word or PDF) and in formats for importing into research software. The most common e-formats are for Qualtrics (QSF format) and MediaLab (QUE format).

Languages & Translations

Although most tools are in English, an increasing number of translations are being added. We invite researchers with non-English versions to contact us if they want to add their tool.

Have a Tool to Add?

We welcome submissions of new scales and tools, including translations of these tools and e-copy versions for popular lab and survey software systems. Contact either Paul Silvia or Mathias Benedek and include a copy. (Bendik & Sliva, 2023)