

RUNNING HEADER: Principles of Leadership

KAM 5

Principles of Leadership

Walden University

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Ph.D. in Applied Management and Decision Science

Leadership and Organizational Change Management

Assessor: Professor Earl Joseph

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8510 Breadth Abstract

This paper explores principles of leadership. A general review of the leadership grid theory, situational leadership, path-goal leadership theory, contingency leadership theory, transactional leadership, and transformational leadership is presented. A comparison of these theories is included along with conclusions by the author.

8522 Depth Abstract

This paper explores current literature on leadership development. It focuses on transformational leadership including the development of transformational leaders and the transformational process. Also contained in this work is an annotated bibliography of recent articles on the various subjects contained in the paper. The paper ends with a summary and conclusions by the author.

8532 Application Abstract

This paper explores the relationship between training in the leadership grid theory and transformational leadership characteristics. A survey is conducted using 147 employees of a Fortune 500 company to determine how formal training in the leadership grid theory correlates to levels of transformational leadership characteristics. The results of the survey are presented as well as recommendations for future research.

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SBSF 8510 - KAM 5 Breadth

Classical and Emerging Paradigms of Leadership

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First Assessor: Prof. Earl Joseph

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Table of Contents

Introduction	3
Leadership Definitions	4
Leadership Grid Theory	7
Situational Leadership	10
Path-Goal Leadership Theory	14
Contingency Leadership Theory	18
Transactional Leadership Theory	21
Transformational Leadership Theory	23
Analysis of Leadership Theories	28
Conclusion	31
Bibliography	33

Introduction

This research paper will focus on leadership theory and practices. Works by six authors will be used. Cited works by Peter Northouse, Robert Lussier, and Ken Parry will provide the research for defining leadership theories, styles, and practices. Additional information from the writings of Stephen Covey, Peter Drucker, and Edward DeBono will be used to add theoretical application data.

In this KAM, I will define leadership using current research. I will explore the leadership grid theory, the situational leadership theory, the path-goal leadership theory, the contingency leadership theory, transactional leadership and transformational leadership. I will define each theory including the strengths and weaknesses identified by the authors cited. I will identify the characteristics of each theory that address the effectiveness of leaders. After providing research on these leadership theories, I will articulate an analysis of the theories presented. I will compare and contrast these theories. Finally, I will offer a conclusion that summarizes my findings and offers a personal perspective of what I have learned from the this KAM.

Leadership Definitions

Peter Northouse identifies four components that are central to leadership. First, he defines leadership as a process. This implies that leaders affect and are affected by followers. Because of this, leadership is an interactive event and is available to everyone, not just those who are formally defined as leaders. Second, he says that leadership involves influence and, without influence, does not exist. The third component is that leadership takes place in the context of groups of people with a common purpose. The fourth component states that leadership involves the attainment of goals (Northouse 2000). Based on these components, Northouse says that "Leadership is a process whereby an individual influences a group of individuals to achieve a common goal" (Northouse 2000, p. 3).

Robert Lussier defines leadership in a very similar way. He does, however add the element of change (Lussier and Achua 2001). He describes leadership as "the process of influencing leaders and followers to achieve organizational objectives through change" (Lussier and Achua 2001, p. 6). The process of setting and influencing objectives is all about change (Lussier and Achua 2001).

Ken Parry says that "The theme of influence by noncoercive means is central to the definition of leadership, whether in politics or in organizations" (Parry and Meindl 2002, p. 2). Most people will be willing to accept ideas if they see how they, themselves, will benefit (DeBono 1985). This "willing influence" of persuasion is the main distinction between leadership and rulership. Many leaders described in literature were really rulers such as kings, senior officers, or managers (Parry and Meindl 2002).

Sometimes leadership is described as a trait instead of a process. Looking at leadership as a trait suggests that leadership qualities only exist in certain individuals and that these individuals are the only ones with the inborn talents to be leaders. Some traits recognized as leadership traits are height, intelligence, extroversion and fluency (Northouse 2000).

Some leaders are assigned and some emerge. Leadership that is based on the position a person holds in an organization is called assigned leadership. Plant managers, department heads, and other administrators are examples of assigned leadership. Assigned leadership is acquired from persons of authority and rank in an organization. When a person is perceived by others in an organization as a leader, regardless of his or her rank or

title, he or she is exhibiting emergent leadership.

Emergent leadership is acquired through other people in the organization who support and accepts a person's behavior (Northouse 2000). Lussier says:

Effective leaders are not simply born or made, they are born with some leadership ability and develop it. Researchers indicate that many cognitive abilities and personality traits are at least partly innate. So certain natural abilities may offer certain advantages or disadvantages to a leader (Lussier and Achua 2001, p. 9).

Peter Drucker describes effective leadership this way:

The foundation of effective leadership is thinking through the organization's mission, defining it and establishing it, clearly and visibly. The leader sets the goals, sets the priorities, and sets and maintains the standards (Drucker 1993, p. 121).

There are similarities and differences between managers and leaders. Influence, working with people, and goal accomplishment are all activities that are consistent with both management and leadership. The primary difference lies in the attribute of change (Northouse 2000). Northouse describes the difference this way:

The overriding function of management is to provide order and consistency to organizations, whereas the primary function of leadership is to produce change and movement. Management is about seeking order and stability; leadership is about seeking adaptive and constructive change (Northouse 2000, p.8).

Managers are concerned with budgets, schedules, and agendas. Leaders are concerned with setting direction, building a vision, and creating organizational change (Northouse 2000). Stephen Covey says:

Management is a bottom line focus: How can I best accomplish certain things? Leadership deals with the top line: What are the things I want to accomplish? (Covey 1990, p. 101).

Leadership Grid Theory

The leadership grid theory, a behavior theory, was developed by Robert Blake and Jane Mouton in 1964. It has been updated in 1978, 1985, and 1991. This grid theory studies two dimensions of leadership. The first is the concern for production. The second is the concern for people. These concerns are measured through a questionnaire that rates each on a scale from one to nine (Lussier and Achua 2001). This theory has been used

extensively to explain how leaders help organizations reach their goals (Northouse 2000).

The concern for production measures how a leader is concerned for whatever an organization is trying to accomplish. The concern for people measures how a leader attends to the people trying to accomplish organizational goals. The leadership grid joins these two concerns in a model with two intersecting axis (Northouse 2000).

The leadership grid identifies five leadership styles. First is the impoverished leader (1,1) who has a low concern for both production and people. This type of leader does the minimum to maintain his or her position. The second is the authority-compliance leader (9,1) who has a high concern for production and a low concern for people. This style of leader focuses on accomplishing goals and treats people like machines. The third is the country-club leader (1,9) who has a high concern for people and a low concern for accomplishing goals. This kind of leader is more concerned with maintaining a friendly atmosphere without concern for production. The fourth style, the middle-of-the-road (5,5) leader, has a balanced but medium concern for both people and production. He or she strives to maintain a satisfactory level of performance and employee morale. The fifth style of leader is the team

leader (9,9). This kind of leader has a high concern for both people and production. He or she strives to maintain high levels of both performance and employee satisfaction. This style is called the high-high leader (Lussier and Achua 2001).

This style approach to leadership theory is not a refined, prescriptive theory to explain effective leadership. Instead, it provides a framework for broadly assessing leadership. It attempts to describe the major components of leadership behavior at task and relationship levels (Northouse 2000).

The style approach to leadership has four primary strengths. First it has broadened the view of leadership to include, not only personal characteristics, but their behaviors in different situations. Second, with a history of research from Ohio State University and the University of Michigan, the style approach is well substantiated and offers an approach to understanding the leadership process. Third, the style approach explores leadership, conceptually, by focusing on tasks and relationships at the behavioral level. These two aspects form the core of the leadership process. Fourth, it provides a framework to understand the complexities of leadership. Leaders can

assess their actions and identify potential changes to improve their effectiveness (Northouse 2000).

The style approach has several weaknesses. First, research on styles fails to show how a leader's style affects performance outcomes. Second, no universal style has been found to be effective in all situations. Another weakness involves the high-high style. The theory suggests that high-high managers are the most effective. Other research suggests that certain situations require different styles of leadership (Northouse 2000). Northouse says:

At this point in the development of research on the style approach, it remains unclear whether the high-high style is the most preferred style of leadership (Northouse 2000, p. 45).

Critics of the style approach suggest using a situational model that prescribes using the leadership style that best meets the needs of a given situation (Lussier and Achua 2001).

Situational Leadership

Situational leadership was developed by Paul Hersey and Ken Blanchard in 1977. Situational leadership is not called a theory by its authors because it does not try to explain why things happen. Instead, it is referred to as a

leadership model. Lussier describes the situational leadership model this way:

The situational leadership model is used to determine which of four leadership styles (telling, selling, participating, and delegating) matches the situation (followers' maturity level to complete a specific task) to maximize performance (Lussier and Achua 2001, p. 182).

This model is an adaptation of the Ohio State University Leadership Model (Lussier and Achua 2001). Situational leadership focuses on matching leadership styles with situations. This requires leaders to adapt their individual styles to the demands of individual situations.

These situations are determined, primarily, by the competence and commitment of the subordinates (Northouse 2000). Competence and commitment are categorized this way:

- Low (M1) - Followers are unwilling and unable or insecure. They cannot or will not do specific tasks without detailed instructions and close supervision.
- Low to Moderate (M2) - Followers are unable but willing or confident. They have moderate abilities, but need specific direction and support to complete tasks properly.

- Moderate to High (M3) - Followers are able but unwilling or insecure. The followers have high abilities but lack confidence. They need support and encouragement.
- High (M4) - Followers are capable of performing the task without direction (Lussier and Achua 2001).

The model identifies four leadership styles that are based on tasks and relationships. These leadership styles are categorized this way:

- Telling (S1)-high-task/low-relationship behavior (HT/LR) - This style is appropriate with followers of low maturity (M1). When using this style, detailed instructions and close supervision is provided.
- Selling (S2)-high task/high relationship behavior (HT/HR) - This style is appropriate when the maturity of the followers is low to moderate (M2). When using this style, leaders provide specific instructions and oversight while explaining the need for performing tasks and answering questions.

- Participating (S3)-low task/high relationship behavior (LT/HR) - This style is appropriate when the maturity of the followers is high-to-moderate (M3). When using this style, leaders give general directions and spend most of their time giving encouragement. Decisions are made together, or subordinates' decisions are submitted for approval by leaders.
- Delegating (S4)-low-task/low relationship behavior (LT/LR) - This style is appropriate when the maturity level of the followers is high (M4). When using this style, leaders let followers know what needs to be done, answer their questions, but provide little, if any direction (Lussier and Achua 2001).

Using this model, leaders need to change style when followers or tasks change. People perform a variety of tasks in an organization and a leader's style may need to change with the same individual depending on the task (Lussier and Achua 2001).

The situational approach has several strengths. First, it is well known and well established. It has the perception of offering a credible model for training leaders. Second, it is practical. Situational leadership

is easy to understand and apply to a variety of settings. Third, it is prescriptive. It tells a leader what he or she should and should not do in a variety of situations. Fourth, it stresses flexibility. It requires leaders to understand their subordinates and adapt their styles accordingly. Fifth, it requires that leaders understand tasks and how those tasks affect subordinates (Northouse 2000).

The situational approach also has weaknesses. First, even though it is widely accepted, there have been few research studies conducted to justify the model's assumptions. Second, the way the model assesses the level of subordinates is not clear. It does not clearly define how commitment and competence are combined. Third, studies that support the prescriptive facets of the model are somewhat ambiguous. Data gathered about immature subordinates correlate but data gathered about mature subordinates is ambiguous (Northouse 2000).

Path-Goal Leadership Theory

The path-goal leadership theory was developed by Robert House. The theory attempts to explain how a leader's behavior influences the performance and satisfaction of his or her subordinates. This model uses

contingency leadership variables as a framework (Lussier and Achua 2001).

Leaders must choose a style that best motivates his or her subordinates. This is accomplished by choosing the kinds of behavior that compliment or supplement the needs of the workplace. Leaders provide their subordinates the things they think they need to accomplish their goals (Northouse 2000). Lussier says:

Path-goal leadership model is used to select the leadership style (directive, supportive, participative, or achievement-oriented) appropriate to the situation (subordinate or environment) to maximize both performance and job satisfaction (Lussier and Achua 2001, p. 173).

The leader is responsible for increasing the motivation of his or her followers to reach their personal goals and those of the organization (Lussier and Achua 2001).

Leadership can motivate subordinates two ways. First, it can increase the payoffs received for work done. Second, it can make the path to the goal easy to follow through direction and removing obstacles and making work satisfying (Northouse 2000).

The path-goal theory concerns itself with four major components. These components are leader behaviors,

subordinate characteristics, task characteristics, and motivation. Each type of behavior by leaders impacts subordinates' motivation differently. These differences are contingent on the characteristics of the subordinate and the task (Northouse 2000).

Four leadership behaviors have been researched as part of the path-goal theory. These are directive, supportive, participative, and achievement-oriented (Northouse 2000). In directive leadership, the leader provides a high level of structure. This is appropriate when followers want authority in their leadership and the ability of the followers is low. It is also appropriate when the task is complex or ambiguous. Supportive leadership is appropriate when followers do not want autocratic leadership, have a high degree of internal control, and a high ability to follow. It is also appropriate when tasks are simple and formal authority is weak. Participative leadership includes employee input in decision making. This style of leadership is appropriate when followers want to be involved in decision making, their abilities are high, and the task is complex. Achievement-oriented leadership is when goals are difficult but achievable. Followers must perform at the highest levels and are rewarded for performance. Leaders provide high structure and support

behaviors. This style is appropriate when followers are open to autocratic leadership, follower abilities are high, and the task is simple (Lussier and Achua 2001).

The characteristics of subordinates determine how a leader's behavior will be interpreted. Path-goal researchers have focused on the subordinates' need for affiliation, structure, control as well as their self-perceived abilities. Analysis of these subordinate characteristics can help determine which style of leadership will work best in different organizational situations (Northouse 2000).

The characteristics of tasks have a bearing on how leadership behavior will affect the motivation of subordinates. These characteristics include subordinate task design, organizational authority systems, and the primary workgroup of the subordinates. When there is a structured task, strong group dynamics, and a clear authority system, then there is an apparent path to the desired goals for the subordinates to follow. In these situations, leadership can be perceived as excessive. As these characteristics change, the need for leadership changes and may require more involvement, definition, and structure (Northouse 2000).

The strengths of the path-goal theory are that it provides a framework for understanding how leadership behavior affects subordinate behavior and performance, it is situational, it addresses motivation, and it is practical in its approach to defining goals and removing the obstacles of attainment. Two primary weaknesses of the theory are that it is very complex because of the variables involved, and it assumes that leadership is a one-way event. It addresses the way that leaders affect subordinates but not the way subordinates affect leadership.

Contingency Leadership Theory

The contingency leadership theory was developed by Fred E. Fiedler. It was developed to specify how situational variables interact with the personality and behavior of leaders. It assumes that leadership style reflects personality and behavior traits and that leadership styles are basically consistent. This theory is used to match leadership styles and leadership situations to determine if they are compatible to maximize performance. This is referred to as situational favorableness (Lussier and Achua 2001). Lussier describes the relationship when he says:

Situation favorableness refers to the degree a situation enables the leader to exert influence over the followers. The more control the leader has over the followers, the more favorable the situation is for the leader (Lussier and Achua 2001, p. 167).

The theory attempts to match leaders to appropriate situations. It is described by the word contingency because it assumes that the effectiveness of a leader depends on how well his or her style fits the context of the situation (Northouse 2000).

In the contingency theory, leadership styles are either task-motivated or relationship-motivated. To measure a leader's style, Fiedler developed the Least Preferred Co-Worker (LPC) scale. Scoring high on this scale indicates relationship motivation. Low scorers are task-motivated (Northouse 2000).

The contingency theory identifies three situational variables. The first is leader-member relations. This is the strongest determinant of favorableness. Good relationships are those that are cooperative and friendly. Followers trust, respect, and have confidence in the leader. Poor relationships are antagonistic and difficult and exhibit tension. Leaders have more influence when relationships are good (Lussier and Achua 2001). The

second variable is the task structure. Situations in which employees perform routine, unambiguous, tasks that are easily understood are considered structured situations. Leaders in these situations have more influence and the situation is considered more favorable (Lussier and Achua 2001). The third variable is position power. Situations in which the leader has the authority to assign work, reward, punish, hire and fire are considered strong ones. Leaders with a position of power have more influence and have more favorable situations (Lussier and Achua 2001).

Using the contingency theory, the three situational variables are measured using the LPC to predict whether a particular leader will be effective in a given situation. A leader's style is compared to various types of situations. The contingency theory stresses that leaders will not be effective in all situations (Northouse 2000). Northouse says:

If your style is a good match for the situation in which you work, you will be good at the job; if your style does not match the situation, you will most likely fail. (Northouse 2000, p. 79).

Contingency theory has several major strengths.

First, it is well-researched and supported in popular literature. Second, it forces one to consider the impact of situations on leaders. Third, the predictive nature of the theory allows for an analysis of whether a leader will be effective in a given situation. Fourth, it recognizes that leaders will not be effective in all situations. Contingency theory is useful to organizations that are developing leadership education for their unique situations (Northouse 2000).

Weaknesses of contingency theory include the fact that it does not explain why certain leaders are effective in given situations. The LPC scale is somewhat questionable because it relies on one person making an assessment of another. This theory is cumbersome to use in real-world settings. It requires the use of questionnaires and the analysis of complex variables. It also fails to be prescriptive in mismatch situations (Northouse 2000).

Transactional Leadership Theory

Transactional leadership focuses on the exchange between leaders and their followers. Examples of transactional leadership are; politicians who win votes by promising not to increase taxes, managers who offer promotions to employees who surpass their goals, and

teachers who give grades for completing work (Northouse 2000). Lussier describes it this way:

Transactional leadership seeks to maintain stability rather than promoting change within an organization through regular economic and social exchanges that achieve specific goals for both the leaders and the followers (Lussier and Achua 2001, p. 383).

There is a transitory aspect to transactional leadership. Once a transaction is complete, the relationship between the leader and the followers may end or be redefined for the next transaction (Lussier and Achua 2001).

The Full Range of Leadership Model, developed by B. M. Bass, depicts the factors of transformational and transactional leadership as a continuum. Two of the factors are transactional. Factor one is contingent reward. This is the process of exchange leaders and followers. It refers to the situations where efforts are exchanged for rewards. The leader identifies what needs to be done and what the payoff for followers will be if objectives are met. The second factor is called management-by-exception. This type of leadership involves corrective criticism, negative feedback, and negative reinforcement. This factor actually has two forms, active and passive. Leaders who practice the active form watch

followers closely. They take corrective actions immediately whenever they see mistakes or violations of rules. Leaders who practice the passive form take action after problems arise. Both forms use negative reinforcement instead of contingent reward (Northouse 2000).

There are strengths to transactional leadership. In stable, repetitive situations, it maintains the status quo. It establishes a relationship between the leader and followers where the leader clearly defines objectives and rewards followers for obtaining those goals. Leaders and followers can accurately predict outcomes for themselves and each other.

Weaknesses associated with transactional leadership include the fact that it is difficult to introduce change in organizations where it is used. The transactional nature of this style of leadership fosters short-term relationships between leaders and followers.

Transformational Leadership Theory

Transformational leadership became popular with a work titled *Leadership* by political sociologist James MacGregor Burns in 1978. Burns linked the roles of leaders and followers. Instead of looking at leadership as a power-

wielding position, he considered it inseparable from the needs of the followers (Northouse 2000). Lussier says that:

Transformational leadership focuses on what leaders accomplish, rather than on a leader's personal characteristics and followers' reactions. As organizations continue to face global challenges, the need for leaders who can successfully craft and implement bold strategies that will transform or align the organization with the level of environmental turbulence is ever greater (Lussier and Achua 2001, p. 381).

Transformational leaders are charismatic, but transformational leadership is different from charismatic leadership (Lussier and Achua 2001).

Transformational leadership is focused on change. Lussier defines it this way:

Transformational leadership serves to change the status quo by articulating to followers the problems in the current system and a compelling vision of what a new organization could be (Lussier and Achua 2001, p. 382).

The transformational leadership process engages with others to raise the level of motivation and morality in both the

leader and the followers. Transformational leaders motivate behavior in their followers that supports the greater good instead of their own self interest. (Northouse 2000).

The Full Range of Leadership Model, developed by B. M. Bass, depicts the factors of transformational and transactional leadership as a continuum. Four of the factors are transformational. Factor one is idealized influence or charisma. This refers to the leader as a role model for followers to emulate. These leaders are highly respected and articulate a vision and mission to followers. The second factor is inspirational motivation. These leaders communicate high expectations to followers and inspire them to become part of a shared vision. Factor number three is intellectual stimulation. This type of leader stimulates creativity in followers. They encourage followers to challenge their own beliefs as well as those of the leader and the organization. The fourth factor is individualized consideration. Leaders create a supportive environment. They listen to the individual needs of the followers and act as coaches and advisors. Leadership that embodies these factors produces results that exceed expectations (Northouse 2000).

Transformational leaders possess certain attributes. Lussier lists the following:

- They see themselves as change agents.
- They are visionaries who have a high level of trust for their intuition.
- They are risk takers, but not reckless.
- They are capable of articulating a set of core values that tend to guide their own behavior.
- They possess exceptional cognitive skills and believe in careful deliberation before taking action.
- They believe in people and show sensitivity to their needs.
- They are flexible and open to learning from experience (Lussier and Achua 2001, p. 383).

There are several strengths to the transformational approach to leadership. There is a lot of research to support it. It is appealing to people because they like the idea of the leader being the lead change agent providing the vision of the future. It treats leadership as a process between leaders and followers. It includes followers in the process of leadership. The transformational approach includes not only the

transactional elements of rewards, but also the leader's attention to the growth and needs of the followers (Northouse 2000).

Transformational leaders are usually brought into an organization in trouble to affect a turnaround. They must communicate the need for change, create a new vision, manage the transition, and institutionalize the change (Lussier and Achua 2001).

There are some weaknesses associated with transformational leadership. Because it covers so much, including vision creation, motivating, and being a change agent, it is difficult to identify its parameters. Some people have trouble seeing how transformational leadership fits in with other approaches to leadership. Northouse says:

Another difficulty with transformational leadership is that it is often interpreted too simplistically as an "either-or" approach and not as a matter of degree. There is a tendency to fail to see transformational leadership as occurring along a continuum that incorporates several components of leadership (Northouse 2000, p. 147).

Some also see transformational leaders as antidemocratic because of their roles as change agents. This is

considered a negative aspect because of how this affects the perceptions of followers (Northouse 2000).

Analysis of Leadership Theories

The leadership theories described in this paper take different approaches to the practice of leadership. The Grid Theory focuses on a leader's style and the balance between his or her approach to people and production. The Situational Leadership Theory also focuses on a leader's style, but ties the leader's style to the maturity level of followers and the complexity of the task being performed. The Path-Goal Theory focuses on how a leader's behavior influences the performance and satisfaction of his or her subordinates. This is accomplished by choosing the kinds of behavior that compliment or supplement the needs of the workplace. Leaders provide their subordinates the things they think they need to accomplish their goals. The Contingency Leadership Theory focuses matching a leader's personality and behavior traits to specific leadership situations. Transactional leadership focuses on the exchange between leaders and their followers. Transactional leadership seeks to maintain stability rather than promoting change within an organization. Transformational leadership focuses on what leaders

accomplish, rather than on a leader's personal characteristics and followers' reactions. Transformational leaders focus on changing the organization.

The grid theory establishes a goal, referred to as high-high, for each manager to achieve. The assumption is that the high-high style of manager is the best in all situations. The situational theory, however assumes that the leader must be able to modify his or her style to match the needs of the environment at hand. Instead of describing a universal approach, the situational model provides a framework for analyzing the environment and identifying the situation. It also describes different leadership styles and prescribes the proper style for the situation. Both theories address leadership characteristics as styles, but the grid promotes one over the rest.

Unlike the grid and situational theories, the contingency theory assumes that a leader's style is constant. It consists of characteristics associated with achieving goals and relating to people. The grid and situational theories describe how leaders can develop the perfect style or choose the right style. The contingency theory focuses choosing the leader, not the style. Instead of choosing the leadership style for a given situation or

developing a style that fits all situations, the contingency theory focuses on leadership selection. It focuses on analyzing the variables associated with tasks and people and not leadership variables.

Transactional leadership focuses on a leader's charisma. It focuses on the exchange between leaders and subordinates. Using transactional leadership, the leader assesses what motivates followers in a given situation. It assumes that leaders can exchange rewards for performance. Goals are set and metrics are established to measure productivity. Followers are compensated or rewarded for achieving set goals. Leaders focus on helping subordinates achieve their goals instead of analyzing situations and matching styles. Transactional leadership is results oriented.

Transformational leadership is focused on meeting the needs of leaders and subordinates. It is focused on the achievements of leaders instead of the characteristics of leaders, followers, and tasks. Transformational leaders are charismatic, but unlike transactional leadership, they are focused on changing the status quo. They exhibit characteristics from other theories. From the grid, they show a high concern for followers and production. As in the path-goal and contingency theories, transformational

leaders use their influence and concern to clearly articulate issues and reasons for change. They clearly define a vision for the new organization so that followers understand their role in it.

Conclusion

The "full range of leadership" model developed by Bass and Avolio depicts a continuum within which effective leaders operate. It suggests that effective leaders operate along the full range of leadership characteristics depending on the environment (Northouse 2000).

Accomplishing objectives requires leaders and followers to understand the characteristics of the human resources available to perform the tasks at hand. Leadership theories provide tools to help analyze these characteristics and develop, choose, or adapt them to enhance performance and satisfaction. Accurately matching the skills of subordinates to tasks allows leaders to adapt their styles to situational characteristics to achieve transformational results in areas where the environment demands them. Even during periods of tumultuous change, business organizations must maintain the stability of the status quo in areas of the business that are operating well. Followers must understand what things will change

and what things will remain the same. Reward and repercussion systems must clearly reflect these goals so that the behavioral requirements of subordinates are not ambiguous. Effective leadership involves making sure that leaders, followers, and the organization all benefit from accomplishing goals.

Organizations can benefit by using leadership theories to develop their people. The overall organization can be analyzed to gauge the complexity of its tasks and the sophistication or maturity of its subordinates. Leadership styles can be developed or hired to match the proper leadership traits to the organization's requirements. Should a transformational change be required, this information can be used to match leaders, tasks, and subordinates along the full range leadership continuum to maximize performance and satisfaction.

Bibliography

Covey, S. R. (1990). The seven habits of highly effective people. New York, Fireside Books.

DeBono, E. (1985). Six thinking hats. New York, Little, Brown And Company.

Drucker, P. F. (1993). Managing for the future. New York, Truman Talley Books.

Lussier, R. N. and C. F. Achua (2001). Leadership: Theory, application, skill building. Cincinnati, South-Western College.

Northouse, P. G. (2000). Leadership: Theory and practice. Thousand Oaks, Sage.

Parry, K. W. and J. R. Meindl (2002). Grounding leadership theory and research: Issues, perspectives and methods. Greenwich, Information Age.

RUNNING HEADER: Principles of Leadership

AMDS 8522 - KAM 5 Depth

AMDS 8522: Current Research On Leadership Development

Walden University

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Table of Contents

Annotated Bibliographies	3
Background	23
Developing Transformational Leadership	25
The Transformational Leadership Process	29
Summary And Conclusion	38
Bibliography	42

Annotated Bibliography

Atwater Leanne E., S. D. Dionne, et al. (1999). "A longitudinal study of the leadership development process: Individual differences predicting leader effectiveness." Human Relations **52**(12): 1543-1562.

In this article, the authors report the results of a study of 236 cadets through their time at a military college. The study tracked increases in physical and mental capabilities over the four years of study. The authors conclude that the emergence of leadership qualities can be predicted by analyzing these factors. The authors identify the individual characteristics associated with effective leaders.

This article is relevant to my research because it examines leadership characteristics and a process for predicting the emergence of these characteristics in individuals.

Research for this article comes from data gathered and analyzed about 401 cadets. Included in the data were Scholastic Aptitude Test (SAT) scores, California Psychological Inventory (CPI) ratings, and Leader Potential Index (LPI) measures.

Barker, B. (2001). "Do leaders matter?" Educational Review **53**(1): 65-76.

This article explores how headteachers in the UK improve the effectiveness of the schools in which they work. It describes how colleagues perform when headteachers are introduced in existing academic situations.

Research of this article comes from comparing information gathered at three schools. The research appears to be more of a comparison of case studies than research using scientific methods.

This article is relevant to my research because it establishes the effectiveness of leadership positions in non-traditional roles that are not associated with upper management positions.

Bowman, R. J. (2000). "Examining Six Different Leadership Styles in Relation to Constrained Change at Winona State University." Education **120**(3): 455-561.

This article explores leadership styles in the context of disruptive change in organizations. The article compares different leadership styles and their effectiveness in different change situations.

Research for this article comes from a literary review by the author. Case studies from university settings are also used as examples.

This article is relevant to my research because it compares leadership styles. It attempts to establish the applicability of different styles to different change situations.

Cassel, R. N. and T. Standifer (2000). "Comparing the Leadership Development Between High School JROTC Cadets and Beginning College School Administrator Students." Education **120**(3): 422-427.

This article compares JROTC students and beginning school administrator students. The Leadership Ability Evaluation (LAE) test is used to compare four characteristics of leadership between the two groups.

Research for this article comes from data gathered from 100 Air Force ROTC cadets and 171 beginning students in school administration. A statistical analysis was done using the data gathered from the LAE test. The results of a multiple regression analysis, Pearson correlation, and factor

analysis are presented. The study appears to have followed good scientific research techniques.

This article is relevant to my research because it presents scientific findings comparing the leadership attributes two groups. It shows that that the two groups compared equally.

Ciulla, J. B. (2001). "Carving leaders from the warped wood of humanity." Canadian journal of administrative sciences **18**(4): 313-319.

This article explores leadership and ethical standards. The author explores the concept that studying the ethical failure of leaders is essential to the development of leadership skills. She asserts that, since leaders come from the general population, they should not be expected to fail less than others. Moral standards, ethics, and the challenges of power are examined.

This article is relevant to my research because it deals with the qualities of leaders and how they are the same and different from those people that they lead. A lot of literature on leadership tends to dwell on successes rather than failures. This article takes a different tact.

Research for this article comes from a literary review. The author includes a lot of her own opinions and presents published evidence that support them.

Danzig, A. (1999). "How might leadership be taught? The use of story and narrative to teach leadership." International Journal of Leadership in Education 2(2): 117-131.

This article looks at how leadership skills are taught. The article explores the concept of teaching leadership through the use of stories. Stories are crafted and analyzed to help students learn about leadership and administrative practice.

This article is relevant to my research because it deals with the subject of leadership education. It studies this education in an academic setting versus a business setting.

Research for this article comes from a literary review as well as information gathered from the education process. Although not a scientific study, I liked the academic approach to gathering data and analyzing it.

Davidhizar, R. and C. Cramer (2000). "Gender differences in leadership in the health professions." Health Care Manager **18**(3): 18-24.

This article explores gender differences and leadership styles in the healthcare industry. The authors look at how leadership qualities have evolved over time and include cultural and emotional aspects as well as how other employees respond to female leaders.

This article is relevant to my research because it explores leadership styles and differences attributed to gender. The authors bring in the perspective of culture which is also a factor in organizational change.

Research for this article comes from a review of literature on the subject.

Davis, N. J. (2001). "Developing leaders with follower weight." Organization Development Journal **19**(3): 27-35.

This article explores leadership development where both the person being developed is as involved in his or her own development as the person doing the development. The author looks at performance measurements needed to develop leadership

characteristics. She also looks at development processes that include goal setting, performance reviews, and reward systems.

Research for this article comes from a literary review by the author as well as her own consulting experience.

This article is relevant to my research because it looks at leadership development and the processes to accomplish it. It also includes succession planning and the importance of it in leadership development.

Evans, G. A. (2001). "World on our backs." Community College Journal of Research & Practice **25**(3): 181-192.

In this article, the author examines the role of women in making cultural and organizational changes in a community college environment. The author asserts that women are uniquely qualified to lead the changes necessary transform colleges to take advantages of new technologies and learning techniques. These changes are necessary to meet the demands of the information age economy.

This article is relevant to my research because it examines the leadership challenges associated with

rapidly changing demands in an entrenched environment. It looks at the gender-specific attributes of leadership qualities.

Research for this article comes, primarily from the author's experience in the community college environment. Data is quoted, but sources are not cited. I would have preferred that the author reveal the sources of the information given.

Foels, R., J. E. Driskell, et al. (2000). "The effects of democratic leadership on group member satisfaction." Small Group Research **31**(6): 676-701.

This article compares autocratic and democratic leadership styles. The authors measured satisfaction levels in groups with the two different leadership styles. The study also explored other group-environmental factors that can influence satisfaction.

This article is relevant to my research because it explores the effectiveness of two leadership styles. The comparison of these two specific styles, democratic and autocratic, is especially useful to me because of the clear differences between the two.

Research for this article comes from a review of several other studies using a meta-analytic technique.

This technique is very interesting because the procedure involved leverages studies done by other researchers. The results of these studies are integrated into the final study.

Gadiesh, O., R. Buchanan, et al. (2002). "The leadership testing ground." The Journal of Business Strategy **23**(2): 12-17.

This article deals with the unique leadership challenges associated with corporate mergers. The author identifies core characteristics of leadership. Several examples from industry are cited with an analysis of successful strategies.

This article is relevant to my research because it establishes leadership issues encountered in corporate mergers. It also presents ideas of the core competencies required by leadership in merger situations.

Research for this article comes from a review of public information available about recent mergers. Quotes from corporate leaders are included, but the majority of the information seems to come from the author's experience in the field of corporate mergers.

Gibbons, S. (1999). "Learning teams: Action learning for leaders." The Journal for Quality and Participation **22**(4): 26-29.

In this article, the author explores the challenges faced by organizations as they develop their future leaders. Issues discussed include communications, limited resources, and personnel development. The author addresses how leadership teams are formed, developed and utilized.

This article is relevant to my research because it establishes leadership issues faced by developing organizations. It explores the leadership challenges that are faced as organizations attempt to adopt more leading-edge styles of management.

Research for this article comes from the author's experience as an assistant human resource director. The article does not cite a literature review, but does establish a credible list of issues faced by leadership.

Gomes, R. (1999). "Marketing department leadership: An analysis of a team transformation." Journal of Marketing Education **21**(3): 164-174.

This article describes an analysis of an academic marketing department that underwent a cultural transformation that included changes in interactions with employees and customers. Changes in how employees and their families were supported as well as how the marketing department developed itself were tracked and measured for effectiveness.

This article is relevant to my research because it explores transformational leadership styles and how their effectiveness can be measured. It attempts to identify the things that worked and those that did not work.

Research for this article comes from the use of qualitative and quantitative research methods to produce results. An academic, scientific method was used to produce and present the findings. I especially liked this article because it used the methods I have learned in my doctoral studies.

Gunn, B. (2002). "Level five" leaders." Strategic Finance 83(8): 14-16.

The author of this article explores a study performed by Jim Collins in which leaders who are able to transform their companies are identified. The

author asserts that only eleven of 1,400 leaders were able to transform their companies from "above average" to "superior".

This article is relevant to my research because it deals with transformational leadership.

Research for this article comes, primarily from an article by Jim Collins. Although not a scientific study, the article helps put this research in perspective.

Hanson, D. (2000). "The Challenges of Eco-Leadership." Greener Management International(29): 95-107.

In this article, the author looks at leadership that is focused on being sensitive to the natural environment. He examines leadership styles, including transformational and transactional. The article helps define leadership styles and terms within the context of an environmentally-friendly perspective.

This article is relevant to my research because it looks at many of the same themes that other articles explore. the difference is the additional perspective of focusing on the environment.

Research for this article comes, primarily, from a review of published literature. No scientific

research is done, but the article provides additional information that adds an environmental perspective to other data I am using.

Harrison, B. (1999). "The nature of leadership: Historical perspectives & the future." Journal of California Law Enforcement **33**(1): 24-30.

This article looks at the nature of leadership. In it, the author looks back over the past forty years and describes the evolution and misconceptions of leadership. The author looks at how leaders have been perceived as heroes, and at the confusion between leadership and management.

This article is relevant to my research because it establishes some popular beliefs and perceptions about leadership.

Research for this article comes from a literary review. The article is written from a perspective of the author's opinion with research to support it. It is not a scientific study.

Jung, D. I. (2000-2001). "Transformational and Transactional Leadership and Their Effects on Creativity in Groups." Creativity Research Journal **13**(2): 185-195.

In this article, the author studies transactional and transformational leadership. The article explores how leadership and creativity are linked. The article asserts that transformational leaders generate more innovative ideas from those they lead than transactional leaders.

This article is relevant to my research because it contrasts two different leadership styles. Scientific data is presented in the form of an academic dissertation.

Research for this article comes from a literature review as well as data generated from studying two groups. One hundred ninety-four undergraduate students were studied as part of this research. I liked this article because it seemed to use scientific methods to generate and analyze data.

Karau, S. J. and A. H. Eagly (1999). "Invited reaction: Gender, social roles, and the emergence of leaders." Human Resource Development Quarterly **10**(4): 321-327.

In this article the authors examine factors associated with the emergence of leaders. It explores how conditions affect men and women differently in their tendencies to emerge as leaders. The study

shows how factors such as attitude and confidence influence a person's tendency to emerge as a leader.

This article is relevant to my research because it explores how leaders emerge. It looks at gender differences and leadership qualities. It establishes a basis to explore gender differences in organizations.

Research for this article comes from a review of literature published over the past twenty years. Much of the article references another article by Judith Kolb which is used as a framework for this article.

Roepke, R. (2000). "Aligning the IT human resource with business vision: The leadership initiative at 3M." MIS Quarterly **24**(2): 327-353.

This article describes the transformation of Information Technology Leadership at 3M corporation. It includes the realignment of the organization as well as the training and development of the leadership. The article also describes changes in the recruitment practices of the Human Resources department.

This article is relevant to my research because it focuses on transformational leadership in information technology.

Research for this article comes from a review of published literature. In addition to the literary review, surveys were conducted with 3M employees.

Sharkey, L. D. (1999). "Changing organizational culture through leadership development: A case in leadership transformation." Organization Development Journal **17**(3): 29-37.

In this article, the author explores how the development of leaders can be used to change an organization's culture. Measurements of cultural change are presented for organizations who invest in leadership training. Conclusions are drawn about how leadership training affects cultural change. The author also makes some assumptions about leadership turnover.

This article is relevant to my research because it addresses both leadership and organizational change. It establishes a foundation for exploring correlations between leadership and culture.

Research for this article comes from a review of published literature as well as data gathered through a survey. The Organizational Culture Inventory (OCI) was used as the primary survey instrument.

Silverthorne, C. and T.-H. Wang (2001). "Situational Leadership Style as a Predictor of Success and Productivity Among Taiwanese Business Organizations." The Journal of Psychology **135**(4): 399-413.

The authors of this article explore the correlation between leadership styles and worker productivity. They investigate differences between adaptive and nonadaptive leaders. The authors also consider the unique culture that exists in high-tech companies as well.

This article is relevant to my research because it compares two leadership styles. Also, this article's subjects are based in Taiwan, so it adds an international perspective to my research.

Research for this article comes from a review of published literature as well as data gathered from primary research. The Leadership Effectiveness and Adaptability Description (LEAD) instrument was used to gather and analyze data.

Thaler-Carter, R. E. (2000). "Whither global leaders."

HRMagazine **45**(5): 82-88.

This article explore the leadership needs of U.S. companies as they strive to become more global. It addresses the issues associated with the development of global leadership characteristics in business organizations.

Research for this article comes from a study of Fortune 500 companies by MIT, a literary review, as well as research by the author. Case studies of several companies are also included.

This article is relevant to my research because it deals with issues associated with leadership in a global organization. It makes an attempt to define characteristics essential for global leaders to possess and the challenges in developing those characteristics.

Van Engen, M. L., R. Van Der Leeden, et al. (2001).

"Gender, context and leadership styles: A field study."

Journal of Occupational & Organizational Psychology **74**(5):

581-598.

The authors of this article explore the leadership behavior of male and female leaders in department store environments. Employees were surveyed to measure leadership styles in male and female dominated organizations as well as male and female dominant departments in stores.

This article is relevant to my research because it provides a basis for exploring leadership differences between male and female leaders. It adds the additional, contextual element of examining settings where gender is dominant in the activities of the department. Examples include lingerie as a female-dominant department and sporting goods as male-dominant.

Research for this article comes from data gathered through instruments including the Supervisory Behavior Description Questionnaire (SBDQ) and the Multifactor Leadership Questionnaire (MLQ). Scientific methods were used to analyze the data collected.

Watson, C. A. (2001). "Innovative leadership invites the future." Nursing Management **32**(9): 14.

This article describes the efforts of the American Organization of Nurse Executives (AONE). It lists the three major goals as leadership development, promotion of research, and development of the organization.

Research for this article appears to come from the author's exposure to AONE. This article seems to have been written with a goal of making people aware of AONE.

This article is relevant to my research because it establishes the fact that organizations exist in nursing industry that are dedicated to the development and promotion of leadership.

Background

For years researchers have suggested that organizational revitalization requires transformational, not transactional leadership (Roepke 2000). Transformational leaders engage in at least three kinds of activity. These are; the creation of vision, the mobilization of commitment to the vision, and the institutionalization of change. Leadership is an enabler of organizational change (Roepke 2000).

Research indicates that participants in transformational leadership conditions outperform their counterparts in the transactional leadership conditions. A key characteristic of transformational leaders is that they build environments for creativity through intellectual stimulation. Managers who employ transformational leadership behaviors help subordinates become more motivated to create new approaches to problems (Jung 2000-2001). Transformational leaders are charismatic, but transformational leadership is different from charismatic leadership (Lussier and Achua 2001).

Transformational leadership is focused on change. Lussier defines it this way:

Transformational leadership serves to change the status quo by articulating to followers the problems in the current system and a compelling vision of what a new organization could be (Lussier and Achua 2001, p. 382).

Organizational change is motivated by some action. This motivation starts as an awareness and then action. Organizations see these motivations in the environment in which they operate. Change can be motivated by competition, new technology, changes in government regulations, or failures within the organization itself (Anderson and Anderson 2001). The introduction of technology often requires transformational change in an organization. The rapidly changing nature of technology may require an ongoing transformational culture within an organization (Kuruppuarachchi 2001).

Effecting change requires leaders to remember that, within organizations, leaders are working with webs of relationships. Margaret Wheatley uses this analogy to describe this concept:

Most of us have had the experience of touching a spider web, feeling its resiliency, noticing how slight pressure in one area jiggles the entire web. If a web breaks and needs repair, the spider doesn't

cut out a piece, terminate it, or tear the entire web apart and reorganize it. She reweaves it, using the silken relationships that are already there, creating stronger connections across the weakened spaces (Wheatley 2001, p. 145).

In order to change, an organization needs to learn more about itself from itself (Wheatley 2001).

Developing Transformational Leadership

Some researchers believe that organizations should develop an internal capacity to transform. It is not one of the business functions that can be outsourced since it will become more necessary in the future. Outside guidance and expertise should be leveraged, but relying on outside firms to transform a company is not the path to success (Anderson and Anderson 2001).

Creating this environment for change requires leaders to have unique transformational skills. Bernard Barker, of the University of Leicester says "the best managers are interested in using socialized power to benefit the organization as a whole and are not concerned to be liked by people" (Barker 2001, p. 68). Leadership skills are a combination of personal abilities and developed abilities. "Global leaders are born and then made" (Thaler-Carter

2000, p. 86). The challenge for leaders is to combine logic and objectivity in a change process that is highly emotional in most organizations (Bowman 2000). To meet this challenge, organizations must institute leadership development programs that produce transformational leaders.

Nancy J. Davis, PhD says:

We can define leadership development as the stretch of one's capacity to become aware of and build skills around the dynamic of positive leader-follower outcomes (Davis 2001, p. 29).

Based on recent articles, one can conclude that leadership skills, especially transformational leadership skills, can be learned by individuals. Leadership training programs rely heavily on exposing potential leaders to real-world situations. Bob Harrison describes the way leadership literature is written when he says:

Many contemporary leadership texts are actually anthologies of successful managers who are thought to have possessed the secret of motivating others to higher performance (Harrison 1999, p. 26).

They focus on studying cases with both positive and negative outcomes. Leadership stories teach new leaders how other leaders have succeeded and failed, Negative

outcomes often teach ethical lessons (Ciulla 2001). Arnold Danzig says:

Leadership is learning to tell one's story in a way that is understandable to others and learning that there are other stories which are equally powerful determinants of action (Danzig 1999, p. 130).

Studies indicate that several characteristics correlated with the emergence of leadership. Among those characteristics are cognitive ability, conscientiousness, self-confidence, values, and a tolerance for stress (Atwater Leanne E., Dionne et al. 1999). One of the most crucial attributes, of a high-performance leader, is humility. Only eleven out of 1,400 companies sampled in a study Jim Collins showed a 3:1 transformational improvement in market capitalization. Each of these companies had leaders with great humility and a strong will to achieve (Gunn 2002). Jim Collins describes these "Level 5" leaders this way:

Level 5 leaders channel their ego needs away from themselves and into the larger goal of building a great company. It's not that Level 5 leaders have no ego or self-interest. Indeed, they are incredibly ambitious - but their ambition is first and foremost

for the institution, not themselves (Collins 2001, p. 21).

Developing effective leaders does not, however, change the culture of an organization. A fifteen month study at Scandinavian Airline Systems revealed that changing and developing effective leaders did not result in strategic organizational change. However, the behavior of the managers did change as well as their assumptions about leadership. More enlightened and confident leaders may tend to seek out positions in other organizations where their new skills can be leveraged (Sharkey 1999)

Statistics indicate that there are fewer women than men in leadership positions (Van Engen, Van Der Leeden et al. 2001). One explanation is that women do not possess the same leadership attributes that men do. These include competitiveness, hierarchical authority, and emphasis on control. A review of current research indicates that:

- 1) Men almost always are perceived to be potentially more successful than women.
- 2) Women may be perceived as equally successful as men in some occupations, especially when those occupations tend to be associated with women.

- 3) Attribution of success by others is dependent upon the sex of the person being evaluated (Merrick 2002, p. 98).

However, current studies indicate that sex differences in leadership styles are negligible (Van Engen, Van Der Leeden et al. 2001). An article in the Journal of Occupational and Organizational Psychology says "Women managers are just as vigorous and goal-oriented, and as socially skilled and charismatic as men managers are" (Van Engen, Van Der Leeden et al. 2001, p. 594).

The Transformational Leadership Process

Change is driven by a sequence of triggers. Each trigger requires a response or change from the other triggers that it affects. Dean and Linda Anderson describe seven attributes that trigger or drive change. The first is the environment. These are the larger forces within which people and organizations operate. These forces include social, economic, political, governmental, demographic, and natural. The second trigger is the marketplace's requirements for change. These include the customers' requirements for a business to succeed in a given marketplace. The third is business imperatives. These imperatives outline the strategic moves the company

must make to be successful. The fourth trigger is the organizational imperatives. These are the changes required in the organization's structure, systems, processes, technology, and skill base to achieve its business imperatives. Cultural imperatives are the fifth trigger. These are the collective ways of working and relating in the company that must change to support the organization's new design. The sixth trigger is leader and employee behavior. This is the collective behavior that creates and expresses an organization's culture. The final imperative is leader and employee mindset which includes the mental models that cause people to behave the way they do (Anderson and Anderson 2001).

The scope of the change required determines the extent of the type of change needed. Minimal marketplace and environmental changes may only dictate content changes. Developmental or transitional changes may be called for to address organizational imperatives but not cultural ones. Transformational change is dictated when marketplace and environmental changes are so great that content, culture, and people must change and all triggers are affected (Anderson and Anderson 2001).

Three types of change occur in organizations. They are developmental change, transitional change, and

transformational change. Developmental change represents the improvement of existing skills, methods, and performance standards. Transitional change is more complex. Instead of improving the current situation, it replaces the current situation with something completely different. Transformational change is the most complex. It is a radical shift so significant that it requires a change in culture, behavior, and mindset to successfully implement and sustain (Anderson and Anderson 2001). In transformational change, leaders must initiate a change process that realigns the organization with its environment and involves all of the drivers of change (Anderson and Anderson 2001). Followers of transformational leaders think of old problems in new ways (Jung 2000-2001).

During transition, an organization's core purpose remains the same. This includes its fundamental way of serving its customers and marketplace. Anderson says:

To provide focus during the chaos, people need to remember why the organization is in business and what it stands for - its values. Organizations that lose touch with their core purpose, vision, and values have no inspiration to fuel their process of change (Anderson and Anderson 2001, p. 45).

Without this inspiration, fear and panic can take over. With it, leaders can move the organization from the past, through uncertainty, and into a tangible future (Anderson and Anderson 2001). Wheatley says:

People need to be connected to the fundamental identity of the organization or community. Who are we? Who do we aspire to become? How shall we be together? (Wheatley 2001, p. 146).

There are three elements of change strategy. The first is content. Content refers to what must change. Examples of content are structure, business processes, management systems and technology. The second element is people. This component refers to human dynamics that influence or are influenced by change. The third element is process. This component refers to how the organization will transform. Change strategy is the leaders' high-level approach to an integrated organizational change (Anderson and Anderson 2001). Anderson says that it summarizes all three elements and explicitly states:

- How you will position the transformation in the organization;
- Core activities for igniting and accomplishing the transformation;

- How management and the workforce will be involved in the effort to create a critical mass of commitment; and
- Your critical milestones and general timeline
(Anderson and Anderson 2001, p. 114).

Developing a transformational change strategy requires leaders to build the case for change and clearly communicate it to the organization.

In departmental transformation, a study in the Journal of Marketing Education (1999) lists several key actions that worked in a quantitative study. It states that leaders should possess high levels of honesty, kindness, and integrity. Transformational leaders are consistent, provide feedback, and believe in department members. They encourage high levels of achievement and performance (Gomes 1999).

When leaders are perceived as transformational, subordinates will seek more technical information about tasks. They will also require more performance and social feedback (Madzar 2001). Initial communications start with sponsors, key change leaders, and selected managers and employees from throughout the organization. From there the communications cascades down throughout the organization. Facts, perceptions, and outcomes are clearly articulated.

Feedback is solicited and questions are answered. The next wave of communications provides an update to the organization. Actions, outcomes, and best practices are communicated. Subsequent communications continue the pattern celebrating successes and explaining issues and challenges (Anderson and Anderson 2001).

Transformational leaders develop and communicate a vision to the organization. There are three parts to transformational visioning. First, leaders must agree on the content of the vision. This includes the direction and outcomes of the transformation. Second, leaders must craft a vision statement that captures the possibilities for what the transformation will produce. Third, transformational leaders ensure that the entire organization understands and commits to the vision creating a collective intention for the success of the transformation (Anderson and Anderson 2001).

There are nine phases to the change process. The first is preparing to lead the change. During this phase, leaders initiate the transformation, clarify change leadership roles, create the case for change, and building the strategy. In phase two, leaders create the organizational vision, commitment, and capacity. Phase three involves assessing the current situation to determine

the requirements of the new design. In phase four, the desired state, including processes and structure, is defined. During phase five, the system-wide impact of the desired state is assessed to analyze its impact on the organization. In the sixth phase, leaders plan and organize for the implementation of the desired state. In phase seven, the change is implemented and the desired state is corrected as the change process is monitored. Phase eight is where the new state is celebrated and integrated as it is mastered by the organization. In phase nine, a process is implemented to refine and continuously improve the new state. In this phase, any temporary change support structures and management systems are dismantled (Anderson and Anderson 2001).

In order to support transformation, leaders must promote changes to the mindset and behavior of the organization. This is an area that does not always receive the attention required for success. A critical mass of the organization must be involved in initiating a breakthrough process of self-awareness and transformation. This is done by leveraging the case for change and sustaining it throughout the transformation process. It is important to make sure that the organization understands that the old

way of operating no longer exists (Anderson and Anderson 2001). Anderson says:

People must recognize that the future promised by this transformation is better and more essential than the past or the present. Otherwise, they will not be willing to change (Anderson and Anderson 2001, p. 141).

People must abandon the realities of the present before they can embrace something new no matter how much selling or coercion they are subjected to (Anderson and Anderson 2001).

It is important for transformational leaders to understand their role in organization-wide transformation. Everyone that has influence over the transformation must be supported. This includes executives, employees, and consultants that are contributing to the effort. Top leaders can squelch transformation if they resist the requirements of transformation. Leaders operating in the traditional command and control fashion often do not understand or support the requirements of transformation (Anderson and Anderson 2001). Anderson says:

It has been our experience 100 percent of the time that, when the entire system must transform, even if the change ignites in the middle or bottom of the

organization and then spreads out, if the senior executives do not eventually get on board with the shift in consciousness and behavior required for the transformation to succeed, the transformation eventually dies on the vine or goes underground. It is put aside until the top leaders get a painful enough wake-up call that they finally recognize the need to change (Anderson and Anderson 2001, p. 245).

Transformational leaders should understand the punctuated equilibrium model described in a study in the Journal of Management Information Systems (1999). This article references the model which describes organizational change as consisting of long periods of stable infrastructure interrupted by brief periods of revolutionary change. Three distinct features of the punctuated equilibrium are:

1. Deep structure; the set of fundamental choices an organization is made up of. These are the basic parts into which an organization is segmented and the activity patterns within these segmentations.
2. Equilibrium periods; the stability in the organization's structure and activity patterns. Equilibrium consists of maintaining the deep

structure. Equilibrium periods are maintained by awareness, motivation, and obligation. As long as an organization's deep structure is intact, it is difficult to change.

3. Revolutionary periods; the major upheaval and reformation of deep structure. For significant change to occur, the deep structure must be dismantled, leaving the organization temporarily disorganized. This period includes a reconfiguration of the organization with a new set of rules (Lassila 1999).

These three periods are consistent with the nine phases of the change process.

Summary And Conclusion

Changes in an environment often require drastic changes in organizations that exist in that environment. Economic, governmental, technical, and customer expectation changes often require transformational leadership to cope with them. Transformational leadership is sometimes required for survival.

A transformational leader must be able to assess a situation and create a vision for the future. He or she must be able to clearly communicate this vision clearly to

followers. This communication must also include a clear explanation of what is wrong with the current state and why transformation is necessary.

Transformation leadership skills can be developed. These skills are a combination of personal and developed abilities. Some organizations have implemented leadership development programs that produce transformational leaders. The key to the success of these programs is getting potential leaders with the right personal characteristics into them. Developing leaders, alone, does not change an organization's culture. Leaders trained with new skills may leave organizations if these skills are not utilized. Newly trained leaders may have the confidence to leave for organizations where their new skills can be leveraged.

Studies indicate that there are more men than women in leadership positions. One popular explanation is that women do not possess the same leadership attitudes that men do. Current studies however indicate that this is not the case. One would expect that, as society evolves these misconceptions will give way to facts and the sexual demographics of leadership positions will begin to reflect the demographics of the general workforce population.

Transformational leadership is all about change. Change is driven by environmental, business,

organizational, and cultural imperatives, to name a few. Change that is dictated by a few drivers may only require content changes. Change that is driven by multiple drivers requires transformational change. Transformational change is the most complex type of change. It requires a shift in culture, behavior, and mindset to implement and be successfully sustained.

The transformational leadership process requires leaders to motivate followers to change. This is done through clear and frequent communication at all levels of the organization. This communication must make the case for change, describe the activities for accomplishing the transformation, explain how the workforce will be involved in the change, and report the status of the transformation at critical milestones. For credibility, transformational leaders must possess high levels of honesty, kindness, and integrity. People must recognize that the future state promised by the transformation is better and more necessary than the past or current state.

Transformational leaders must be aware of the organizational upheaval that will likely occur during the transitional period. As core processes are revamped, organizations are often moved from a state of equilibrium to a state of revolution. The deep, internal structure of

an organization must be changed for transformation to take place. As this structure is dismantled, the organization is temporary disorganized. As the new structures take hold and become institutionalized, a new period of equilibrium evolves making the organization stronger than it was in the past.

Bibliography

Anderson, D. and L. A. Anderson (2001). Beyond change management: Advanced strategies for today's transformational leaders. San Francisco, Jossey-Bass.

Anderson, D. and L. A. Anderson (2001). The change leader's roadmap: How to navigate your organization's transformation. San Francisco, Jossey-Bass.

Atwater Leanne E., S. D. Dionne, et al. (1999). "A longitudinal study of the leadership development process: Individual differences predicting leader effectiveness." Human Relations **52**(12): 1543-1562.

Barker, B. (2001). "Do leaders matter?" Educational Review **53**(1): 65-76.

Bowman, R. J. (2000). "Examining Six Different Leadership Styles in Relation to Constrained Change at Winona State University." Education **120**(3): 455-561.

Ciulla, J. B. (2001). "Carving leaders from the warped wood of humanity." Canadian journal of administrative sciences **18**(4): 313-319.

Collins, J. (2001). Good To Great. New York, HarperCollins.

Danzig, A. (1999). "How might leadership be taught? The use of story and narrative to teach leadership." International Journal of Leadership in Education **2**(2): 117-131.

Davis, N. J. (2001). "Developing leaders with follower weight." Organization Development Journal **19**(3): 27-35.

Gomes, R. (1999). "Marketing department leadership: An analysis of a team transformation." Journal of Marketing Education **21**(3): 164-174.

Gunn, B. (2002). "'Level five' leaders." Strategic Finance **83**(8): 14-16.

Harrison, B. (1999). "The nature of leadership: Historical perspectives & the future." Journal of California Law Enforcement **33**(1): 24-30.

Jung, D. I. (2000-2001). "Transformational and Transactional Leadership and Their Effects on Creativity in Groups." Creativity Research Journal **13**(2): 185-195.

Kuruppuarachchi, P. R. (2001). "How IT project managers are leading change." Management Services **45**(12): 8-11.

Lassila, K. S. (1999). "Adoption and utilization of commercial software packages: Exploring utilization equilibria, transitions, triggers, and tracks." Journal of Management Information Systems **16**(2): 63-90.

Lussier, R. N. and C. F. Achua (2001). Leadership: Theory, application, skill building. Cincinnati, South-Western College.

Madzar, S. (2001). "Subordinates' information inquiry: Exploring the effect of perceived leadership style and individual differences." Journal of Occupational and Organizational Psychology **74**: 221-232.

Merrick, B. G. (2002). "The ethics of hiring in the new workplace: Men and women managers face changing stereotypes discover correlative patterns for success." Competitiveness Review **12**(1): 94-114.

Roepke, R. (2000). "Aligning the IT human resource with business vision: The leadership initiative at 3M." MIS Quarterly **24**(2): 327-353.

Sharkey, L. D. (1999). "Changing organizational culture through leadership development: A case in leadership transformation." Organization Development Journal **17**(3): 29-37.

Thaler-Carter, R. E. (2000). "Whither global leaders." HRMagazine **45**(5): 82-88.

Van Engen, M. L., R. Van Der Leeden, et al. (2001). "Gender, context and leadership styles: A field study." Journal of Occupational & Organizational Psychology **74**(5): 581-598.

Wheatley, M. J. (2001). Leadership and the new science:
Discovering order in a chaotic world Revised. San
Francisco, Berrett-Koehler.

RUNNING HEADER: Principles of Leadership

AMDS 8532 - KAM 5 Application

**Professional Practice: Application of a Theory of
Leadership Development**

Walden University

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Ph.D. in Applied Management and Decision Science

Leadership and Organizational Change Management

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Table of Contents

Introduction 3

Purpose 4

Methods 8

Results 10

Discussion and Conclusions 12

Appendix & Tables 14

Bibliography 40

Introduction

A Fortune 500 company in the automotive industry is going through a transformational period. This transformation includes divesting non-core aspects of the business, reorganizing its business units to gain synergies, realigning its business drivers and goals to meet the changing, global environment of the automotive industry.

As part of this transformation, the company is reorganizing its information technology organizations to better utilize them to gain a competitive advantage. This corresponding transformation in the IT community will require transformational leaders to be identified and utilized.

The company believes in and educates its employees in the Leadership Grid theory (Blake & McCauley). Coursework provided by Grid International, Inc. is presented in a week-long class as part of a structured management training program presented at the corporation's own university. All instructors are trained and certified by Grid International. The managers of the information technology groups are interested in knowing if the employees trained

in grid theory possess higher levels of transformational characteristics than those not trained in the Grid theory.

Purpose

Many organizations subscribe to the leadership grid theory as a way of developing leaders. The rapidly changing business environment and advances in technology have caused some of these organizations to see the need to transform to maintain a competitive advantage.

The Leadership Grid theory studies two dimensions of leadership. The first is the concern for production. The second is the concern for people. These concerns are measured through a questionnaire that rates each on a scale from one to nine (Lussier and Achua 2001). This theory has been used extensively to explain how leaders help organizations reach their goals (Northouse 2000). The concern for production measures how a leader is concerned for whatever an organization is trying to accomplish. The concern for people measures how a leader attends to the people trying to accomplish organizational goals. The leadership grid joins these two concerns in a model with two intersecting axes (Northouse 2000). The leadership grid identifies five leadership styles. First is the impoverished leader (1,1) who has a low concern for both

production and people. This type of leader does the minimum to maintain his or her position. The second is the authority-compliance leader (9,1) who has a high concern for production and a low concern for people. This style of leader focuses on accomplishing goals and treats people like machines. The third is the country-club leader (1,9) who has a high concern for people and a low concern for accomplishing goals. This kind of leader is more concerned with maintaining a friendly atmosphere without concern for production. The fourth style, the middle-of-the-road (5,5) leader, has a balanced but medium concern for both people and production. He or she strives to maintain a satisfactory level of performance and employee morale. The fifth style of leader is the team leader (9,9). This kind of leader has a high concern for both people and production. He or she strives to maintain high levels of both performance and employee satisfaction. This style is called the high-high leader (Lussier and Achua 2001).

Transformational leadership links the roles of leaders and followers. Instead of looking at leadership as a power-wielding position, it considers it inseparable from the needs of the followers (Northouse 2000). Lussier says that:

Transformational leadership focuses on what leaders accomplish, rather than on a leader's personal characteristics and followers' reactions. As organizations continue to face global challenges, the needs for leaders who can successfully craft and implement bold strategies that will transform or align the organization with the level of environmental turbulence is ever greater (Lussier and Achua 2001, p. 381).

Transformational leadership is focused on change. Lussier defines it this way:

Transformational leadership serves to change the status quo by articulating to followers the problems in the current system and a compelling vision of what a new organization could be (Lussier and Achua 2001, p. 382).

The transformational leadership process engages with others to raise the level of motivation and morality in both the leader and the followers. Transformational leaders motivate behavior in their followers that supports the greater good instead of their own self interest. (Northouse 2000).

Transformational leaders possess certain attributes. Lussier lists the following:

- They see themselves as change agents.

- They are visionaries who have a high level of trust for their intuition.
- They are risk takers, but not reckless.
- They are capable of articulating a set of core values that tend to guide their own behavior.
- They possess exceptional cognitive skills and believe in careful deliberation before taking action.
- They believe in people and show sensitivity to their needs.
- They are flexible and open to learning from experience (Lussier and Achua 2001, p. 383).

Transformational leaders are usually brought into an organization in trouble to affect a turnaround. They must communicate the need for change, create a new vision, manage the transition, and institutionalize the change (Lussier and Achua 2001).

The purpose of this study is to analyze the transformational leadership characteristics of people who have attended structured training on the Leadership Grid Theory.

The question being researched is:

Do people who attend structured Leadership Grid training have different transformational leadership characteristics than those who do not?

Hypothesis:

H0: Leadership Grid training has no significance when predicting a person's level of transformational leadership characteristics.

H1: Leadership Grid training is significant when predicting a person's level of transformational leadership characteristics.

Method

The Multifactor Leadership Questionnaire (MLQ) is the most widely used measure of transformational leadership (Northouse 2000). This questionnaire was developed by M. Bass and J. Avolio in 1985. It consists of twenty one questions which measure the following seven transformational leadership factors:

Factor 1: Idealized influence indicates how well a leader holds the trust of their subordinates and show dedication to them.

Factor 2: Inspirational motivation measures how well a leader provides a vision and makes subordinates feel their work is significant.

Factor 3: Intellectual stimulation measures the degree to which leaders encourage subordinates to think creatively about old problems.

Factor 4: Individualized consideration measures how well a leader shows interest in the well-being of subordinates and pays attention to those who are less involved in the group.

Factor 5: Contingent reward measures the degree to which leaders tell subordinates what they need to do to be rewarded.

Factor 6: Management-by-exception assesses how well leaders communicate job requirements to subordinates and if they are content with standard performance.

Factor 7: Laissez-faire measures the degree to which leaders require little of subordinates and are content to let them manage themselves (Northouse 2000).

Northouse says, "High scores on individualized consideration and motivation factors are most indicative of strong transformational leadership" (Northouse 2000, p. 158).

This research identifies employees who have attended a Leadership Grid training class and those who have not. A customized version of the MLQ is used to capture information about the employees' leadership characteristics as well as some information specific to the company's training programs. Transformational Leadership characteristics will be compared between the two groups.

One hundred forty seven individual Information Technology workers at a US based Fortune 500 company were surveyed. A web-based survey tool called 2-Way was used to administer the survey electronically. This software package allows the user to conduct an anonymous survey over the internet. The results are recorded in a secured central database. The survey link was sent out via e-mail to IT professionals with e-mail accounts. This represents 100% of the IT workers at the corporate data center. Of the 147 individuals surveyed, 51 responded for a response rate of 34.69%. Appendix 1 contains the survey.

Results

Table 1 contains a sample listing of the individual results for the survey. Microsoft Excel templates, included with the textbook Complete Business Statistics, were used to perform statistical tests (Aczel 2002). The

first test analysis was done to compare the mean ratings of the two groups surveyed. Tables 2 through 15 contain the basic statistics for each group's results for each of the seven MLQ factors. Each of the factors was compared. For factor 1, idealized influence, Grid students had a mean score of 11 compared to 10.18 for non-Grid students. For factor 2, inspirational motivation, Grid students had a mean score of 10.52 compared to 9.4 for non-Grid students. For factor 3, intellectual stimulation, Grid students had a mean score of 10.22 compared to 9.5 for non-Grid students. For factor 4, individualized consideration, Grid students had a mean score of 10.78 compared to 9.46 for non-Grid students. For factor 5, contingent reward, Grid students had a mean score of 8.8 compared to 8.07 for non-Grid students. For factor 6, management-by-exception, Grid students had a mean score of 10.52 compared to 9.39 for non-Grid students. For factor 7, laissez-faire, Grid students had a mean score of 7.7 compared to 7.86 for non-Grid students.

A secondary analysis was performed on all seven factors. A t-test for difference in population means was performed to compare each one. The results of this test appear in table 16. For factor 1, with a confidence level of 95%, the null hypothesis is rejected. For factor 2,

with a confidence level of 95%, the null hypothesis is rejected. For factor 3, with a confidence level of 95%, the null hypothesis is not rejected. For factor 4, with a confidence level of 95%, the null hypothesis is rejected. For factor 5, with a confidence level of 95%, the null hypothesis is not rejected. For factor 6, with a confidence level of 95%, the null hypothesis is rejected. For factor 7, with a confidence level of 95%, the null hypothesis is not rejected.

Discussion And Conclusion

This paper focuses on the effect that training in the leadership grid theory has on transformational leadership factors in individuals.

The survey results indicate a correlation between grid theory training and transformational leadership factors. The null hypothesis is rejected for three of the seven factors measured by the MFL questionnaire. It should be noted, however, by comparing the mean score for each factor, that grid training did not always have a positive correlation to an overall score that would suggest a strong tendency toward transformational leadership characteristics. For almost all factors, the grid students scored higher than the non-grid students. One would expect

higher scores for factors 1 through 4 and lower scores for factors 5 through 7 in a model subject representing strong transformational leadership tendencies.

Most of the subjects in this study were not management or supervisory workers. Most would be considered subordinates instead of leaders. This may have skewed the results of the study since most of the survey participants have a subordinate view.

Future research is indicated. A similar study involving grid-trained and non-grid-trained subjects is in order. All subjects should have positions of leadership to help ensure a consistent perspective. Many of the questions in the survey are only relevant to people who hold positions of leadership or authority in an organization.

Table 1

Attended to	make oth	express	enable ot	help othe	tell others	am satisf	am conte	Others hav	provide a	provide ot	let others	provide re	As long as	Whatever	Others are	help othe	get others	give pers	call atten	tell others
1	5	4	5	5	3	4	3	4	4	4	4	4	3	2	4	4	4	3	3	4
1	4	3	4	4	1	5	2	5	4	4	3	3	1	1	3	2	3	3	1	2
1	5	4	4	4	4	5	3	4	4	5	5	4	3	2	5	4	5	5	4	4
1	3	5	3	3	4	5	2	5	5	3	4	2	1	4	5	2	2	3	3	5
1	4	4	4	4	2	3	2	4	4	4	4	3	2	2	5	4	4	4	2	4
1	4	3	3	3	3	5	3	4	4	3	3	4	2	2	4	2	3	4	3	4
1	4	4	5	5	4	5	3	5	5	4	4	5	3	3	4	3	4	4	3	4
1	5	3	2	3	3	4	3	4	3	2	5	4	4	2	4	4	3	4	4	4
1	4	4	4	3	3	5	2	4	4	3	3	3	2	3	4	3	4	3	3	4
1	3	4	3	3	1	2	3	3	4	4	4	3	3	2	3	3	3	3	2	3
1	4	3	4	4	1	4	2	5	3	3	4	4	2	2	4	3	3	3	1	2
1	5	4	4	5	3	5	5	5	5	4	5	5	5	2	5	5	4	5	4	5
1	4	3	3	3	1	4	4	3	3	3	3	2	4	4	3	3	2	2	2	3
1	5	4	4	4	3	5	3	4	4	4	4	5	3	4	4	4	4	4	3	3
1	5	4	4	4	1	4	3	5	3	4	2	4	2	2	4	3	3	2	2	3
1	5	2	4	4	4	5	3	4	3	3	3	3	3	3	4	4	3	3	3	4
1	4	3	3	4	4	5	3	3	3	3	4	3	3	3	3	4	3	3	3	4
1	4	3	3	4	2	4	2	3	4	4	4	4	2	2	3	3	3	3	2	3
1	5	3	3	5	3	3	2	4	3	3	3	4	4	3	3	4	3	4	4	3
1	4	3	3	3	4	4	3	3	2	4	3	1	2	3	3	2	3	3	3	5
1	5	4	3	3	2	4	3	4	4	3	3	4	2	2	4	3	3	3	2	3
1	5	4	3	4	3	3	1	4	4	3	3	2	3	3	4	3	2	3	3	3
1	4	3	3	4	2	5	4	4	3	3	3	4	3	3	4	4	3	3	2	3
2	3	3	1	2	1	4	4	3	2	2	2	2	4	4	3	2	2	3	3	2
2	4	3	4	4	3	3	2	4	3	4	3	2	4	2	4	4	4	3	3	3
2	4	3	3	3	2	4	3	3	3	2	2	4	4	3	3	2	2	3	2	2
2	4	3	3	3	1	4	1	5	5	5	5	4	2	4	4	4	4	5	4	4
2	4	4	4	3	2	3	2	4	2	4	2	2	2	3	4	2	3	3	2	3
2	5	4	3	4	4	5	2	5	3	4	5	2	2	3	5	3	4	4	3	5
2	4	4	2	2	1	2	4	5	2	3	1	2	4	4	4	4	2	2	2	2
2	2	2	2	1	2	4	3	4	2	1	2	1	2	2	3	2	2	1	2	2
2	5	3	3	2	3	5	3	4	3	3	3	4	4	3	3	2	2	3	3	2
2	5	3	3	4	3	5	2	5	4	3	3	3	3	3	4	4	3	2	3	3
2	5	5	4	4	4	5	4	5	4	3	4	4	4	3	4	5	4	4	3	4
2	5	3	3	1	1	4	4	4	2	2	3	1	3	4	4	3	2	4	2	1
2	4	3	4	4	4	4	3	3	3	3	4	3	1	2	3	3	3	4	3	2
2	4	4	4	4	3	5	3	3	4	4	2	1	4	3	3	3	3	4	3	3
2	4	4	3	3	4	5	3	4	4	4	4	4	3	2	3	3	4	4	2	2
2	4	4	4	3	3	4	1	4	4	4	3	2	1	1	4	3	4	3	3	3
2	3	3	3	3	1	5	1	5	3	4	3	3	2	3	5	3	2	2	1	4
2	3	3	3	2	2	4	3	4	2	3	2	2	2	2	3	2	2	2	2	3
2	3	3	3	3	4	4	2	4	3	3	3	2	2	2	3	2	3	2	2	3
2	4	3	4	3	3	5	3	4	4	4	3	3	2	3	4	3	4	3	3	2
2	5	4	4	4	4	4	3	4	4	4	4	3	3	2	4	4	4	4	3	3
2	3	3	5	5	3	4	3	4	3	3	4	4	3	3	4	3	3	3	3	3
2	4	3	2	3	3	4	1	5	2	3	3	4	2	1	4	2	3	4	4	3
2	3	4	4	3	2	4	3	3	3	3	3	2	3	2	3	3	4	2	3	2
2	3	3	4	4	3	4	3	3	3	3	4	3	3	3	4	3	4	3	3	4

Table 2

Basic Statistics from Raw Data		Grid = Yes Factor1	
Measures of Central tendency			
Mean	11	Median	11
		Mode	12
Measures of Dispersion			
	If the data is of a		
	Sample	Population	
Variance	2.0909091	2	Range 6
St. Dev.	1.4459976	1.4142136	IQR 2
Higher Moments			
	If the data is of a		
	Sample	Population	
Skewness	0.7903589	0.7378506	
(Relative) Kurtosis	1.1068323	0.6304348	
Percentile and Percentile Rank Calculations			
	x	x-th Percentile	
	50	11	
	80	12	
	90	12	
			y
			11.0
			12
			12
			Percentile rank of y
			45
			63
			63
Quartiles			
1st Quartile	10		
Median	11		
3rd Quartile	12	IQR	2
Other Statistics			
Sum	253		
Size	23		
Maximum	15		
Minimum	9		
Chebyshev's Theorem observation			
Data points within	1.5	Std. Devns from mean	22
		out of	23
		which is	95.65%
Minimum predicted by Chebyshev's Theorem			55.56%
Minimum predicted by Empirical Rule			86.64%
			Data
			1 12
			2 9
			3 13
			4 10
			5 11
			6 11
			7 11
			8 12
			9 10
			10 9
			11 10
			12 15
			13 11
			14 12
			15 12
			16 12
			17 10
			18 9
			19 10
			20 10
			21 12
			22 10
			23 12

Table 3

Basic Statistics from Raw Data		Grid = Yes Factor2	
Measures of Central tendency			
Mean	10.52174	Median	10
		Mode	12
Measures of Dispersion			
	If the data is of a		
	Sample	Population	
Variance	2.3517787	2.2495274	Range 7
St. Dev.	1.533551	1.4998425	IQR 2.5
Higher Moments			
	If the data is of a		
	Sample	Population	
Skewness	-0.003444	-0.003216	
(Relative) Kurtosis	0.3914791	0.0614039	
Percentile and Percentile Rank Calculations			
	x-th		Percentile
x	Percentile	y	rank of y
50	10	10.0	27
80	12	12	72
90	12	12	72
Quartiles			
1st Quartile	9.5		
Median	10	IQR	2.5
3rd Quartile	12		
Other Statistics			
Sum	242		
Size	23		
Maximum	14		
Minimum	7		
Chebyshev's Theorem observation			
Data points within	1.5	Std. Devns from mean	21
		out of	23
		which is	91.30%
Minimum predicted by Chebyshev's Theorem			55.56%
Minimum predicted by Empirical Rule			86.64%
Data			
1	12		
2	9		
3	12		
4	12		
5	12		
6	9		
7	12		
8	10		
9	11		
10	11		
11	9		
12	14		
13	9		
14	12		
15	10		
16	9		
17	10		
18	10		
19	10		
20	7		
21	11		
22	11		
23	10		

Table 6

Basic Statistics from Raw Data		Grid = Yes Factor5	
Measures of Central tendency			
Mean	8.826087	Median	9
Mode	8		
Measures of Dispersion			
	If the data is of a		
	Sample	Population	
Variance	4.7865613	4.5784499	Range 7
St. Dev.	2.1878211	2.1397313	IQR 3
Higher Moments			
	If the data is of a		
	Sample	Population	
Skewness	-0.185106	-0.172808	
(Relative) Kurtosis	-0.954537	-1.009291	
Percentile and Percentile Rank Calculations			
	x-th		Percentile
x	Percentile	y	rank of y
50	9	9.0	50
80	11	11	77
90	11.8	11.8	90
Quartiles			
1st Quartile	7.5		
Median	9	IQR	3
3rd Quartile	10.5		
Other Statistics			
Sum	203		
Size	23		
Maximum	12		
Minimum	5		
Chebyshev's Theorem observation			
Data points within	1.5	Std. Devns from mean	21
		out of	23
		which is	91.30%
Minimum predicted by Chebyshev's Theorem			55.56%
Minimum predicted by Empirical Rule			86.64%

	Data
1	10
2	5
3	12
4	9
5	7
6	10
7	12
8	11
9	9
10	6
11	6
12	12
13	5
14	11
15	7
16	10
17	10
18	8
19	11
20	8
21	8
22	8
23	8

Table 7

Basic Statistics from Raw Data		Grid = Yes Factor6	
Measures of Central tendency			
Mean	10.52174	Median	11
		Mode	11
Measures of Dispersion			
	If the data is of a		
	Sample	Population	
Variance	2.8972332	2.7712665	Range 7
St. Dev.	1.7021261	1.6647121	IQR 2.5
Higher Moments			
	If the data is of a		
	Sample	Population	
Skewness	0.4135747	0.3860984	
(Relative) Kurtosis	0.6329872	0.2535125	
Percentile and Percentile Rank Calculations			
	x-th		Percentile
x	Percentile	y	rank of y
50	11	11.0	40
80	12	12	77
90	12	12	77
Quartiles			
1st Quartile	9		
Median	11	IQR	2.5
3rd Quartile	11.5		
Other Statistics			
Sum	242		
Size	23		
Maximum	15		
Minimum	8		
Chebyshev's Theorem observation			
Data points within	1.5	Std. Devns from mean	19
		out of	23
		which is	82.61%
Minimum predicted by Chebyshev's Theorem			55.56%
Minimum predicted by Empirical Rule			86.64%
Data			
1	11		
2	8		
3	12		
4	11		
5	9		
6	11		
7	12		
8	12		
9	11		
10	8		
11	8		
12	15		
13	11		
14	11		
15	9		
16	12		
17	12		
18	9		
19	10		
20	11		
21	9		
22	9		
23	11		

Table 8

Basic Statistics from Raw Data		Grid = Yes Factor7	
Measures of Central tendency			
Mean	7.695652	Median	7
		Mode	6
Measures of Dispersion			
	If the data is of a		
	Sample	Population	
Variance	3.8577075	3.6899811	Range 7
St. Dev.	1.9641048	1.9209324	IQR 3
Higher Moments			
	If the data is of a		
	Sample	Population	
Skewness	0.6645173	0.6203693	
(Relative) Kurtosis	-0.347035	-0.52605	
Percentile and Percentile Rank Calculations			
	x-th		Percentile
x	Percentile	y	rank of y
50	7	7.0	36
80	9	9	72
90	10.8	10.8	90
Quartiles			
1st Quartile	6		
Median	7	IQR	3
3rd Quartile	9		
Other Statistics			
Sum	177		
Size	23		
Maximum	12		
Minimum	5		
Chebyshev's Theorem observation			
Data points within	1.5	Std. Devns from mean	20
		out of	23
		which is	86.96%
Minimum predicted by Chebyshev's Theorem			55.56%
Minimum predicted by Empirical Rule			86.64%

Data	
1	6
2	5
3	7
4	10
5	6
6	8
7	8
8	8
9	7
10	7
11	6
12	12
13	11
14	11
15	7
16	9
17	9
18	5
19	6
20	8
21	6
22	6
23	9

Table 9

Basic Statistics from Raw Data		Grid = No Factor1	
Measures of Central tendency			
Mean	10.17857	Median	10
		Mode	10
Measures of Dispersion			
	If the data is of a		
	Sample	Population	
Variance	2.2261905	2.1466837	Range
St. Dev.	1.4920424	1.4651565	IQR
			5
			2
Higher Moments			
	If the data is of a		
	Sample	Population	
Skewness	0.5360491	0.5068939	
(Relative) Kurtosis	-0.511712	-0.63169	
Percentile and Percentile Rank Calculations			
	x	x-th Percentile	y
	50	10	10.0
	80	11.6	11.6
	90	12.3	12.3
			Percentile rank of y
			37
			80
			90
Quartiles			
1st Quartile	9		
Median	10	IQR	2
3rd Quartile	11		
Other Statistics			
Sum	285		
Size	28		
Maximum	13		
Minimum	8		
Chebyshev's Theorem observation			
Data points within	1.5	Std. Devns from mean	25
		out of	28
		which is	89.29%
Minimum predicted by Chebyshev's Theorem			55.56%
Minimum predicted by Empirical Rule			86.64%
Data			
1	10		
2	10		
3	10		
4	9		
5	9		
6	10		
7	12		
8	12		
9	8		
10	11		
11	8		
12	11		
13	13		
14	13		
15	10		
16	10		
17	10		
18	9		
19	9		
20	9		
21	8		
22	11		
23	12		
24	10		
25	9		
26	9		
27	10		
28	13		

Table 10

Basic Statistics from Raw Data		Grid = No Factor2	
Measures of Central tendency			
Mean	9.428571	Median	9
		Mode	8
Measures of Dispersion			
	If the data is of a		
	Sample	Population	
Variance	4.8465608	4.6734694	Range 9
St. Dev.	2.2014906	2.1618209	IQR 3
Higher Moments			
	If the data is of a		
	Sample	Population	
Skewness	0.6637333	0.6276334	
(Relative) Kurtosis	0.4142994	0.1370302	
Percentile and Percentile Rank Calculations			
	x-th		Percentile
x	Percentile	y	rank of y
50	9	9.0	40
80	11	11	74
90	12	12	88
Quartiles			
1st Quartile	8		
Median	9	IQR	3
3rd Quartile	11		
Other Statistics			
Sum	264		
Size	28		
Maximum	15		
Minimum	6		
Chebyshev's Theorem observation			
Data points within	1.5	Std. Devns from mean	24
		out of	28
		which is	85.71%
Minimum predicted by Chebyshev's Theorem			55.56%
Minimum predicted by Empirical Rule			86.64%
Data			
1	7		
2	10		
3	8		
4	12		
5	6		
6	8		
7	10		
8	10		
9	6		
10	8		
11	8		
12	11		
13	14		
14	8		
15	9		
16	11		
17	11		
18	11		
19	9		
20	7		
21	8		
22	10		
23	12		
24	9		
25	7		
26	10		
27	9		
28	15		

Table 12

Basic Statistics from Raw Data				Grid = No Factor4	
Measures of Central tendency					
Mean	9.464286	Median	9.5	Mode	8
Measures of Dispersion					
		If the data is of a			
		Sample	Population		
Variance	5.739418	5.5344388		Range	9
St. Dev.	2.3957082	2.3525388		IQR	3.25
Higher Moments					
		If the data is of a			
		Sample	Population		
Skewness	-0.35287	-0.333678			
(Relative) Kurtosis	-0.340316	-0.489407			
Percentile and Percentile Rank Calculations					
	x	x-th Percentile		y	Percentile rank of y
	50	9.5		9.5	50
	80	12		12	77
	90	12.3		12.3	90
Quartiles					
1st Quartile	8			IQR	3.25
Median	9.5				
3rd Quartile	11.25				
Other Statistics					
Sum	265				
Size	28				
Maximum	13				
Minimum	4				
Chebyshev's Theorem observation					
Data points within	1.5	Std. Devns from mean	23		
		out of	28		
		which is	82.14%		
Minimum predicted by Chebyshev's Theorem			55.56%		
Minimum predicted by Empirical Rule			86.64%		
Data					
1	7				
2	10				
3	8				
4	13				
5	10				
6	8				
7	13				
8	5				
9	4				
10	8				
11	11				
12	9				
13	12				
14	8				
15	12				
16	10				
17	11				
18	9				
19	8				
20	6				
21	8				
22	9				
23	12				
24	12				
25	10				
26	8				
27	11				
28	13				

Table 14

Basic Statistics from Raw Data		Grid = No Factor6	
Measures of Central tendency			
Mean	9.392857	Median	10
		Mode	10
Measures of Dispersion			
	If the data is of a		
	Sample	Population	
Variance	4.5436508	4.3813776	Range 10
St. Dev.	2.1315841	2.093174	IQR 3
Higher Moments			
	If the data is of a		
	Sample	Population	
Skewness	-1.051322	-0.994141	
(Relative) Kurtosis	2.0811074	1.520715	
Percentile and Percentile Rank Calculations			
	x-th		Percentile
x	Percentile	y	rank of y
50	10	10.0	48
80	11	11	74
90	12	12	88
Quartiles			
1st Quartile	8		
Median	10	IQR	3
3rd Quartile	11		
Other Statistics			
Sum	263		
Size	28		
Maximum	13		
Minimum	3		
Chebyshev's Theorem observation			
Data points within	1.5	Std. Devns from mean	25
		out of	28
		which is	89.29%
Minimum predicted by Chebyshev's Theorem			55.56%
Minimum predicted by Empirical Rule			86.64%
Data			
1	10		
2	10		
3	10		
4	10		
5	3		
6	8		
7	12		
8	8		
9	8		
10	11		
11	5		
12	11		
13	13		
14	8		
15	7		
16	12		
17	10		
18	8		
19	11		
20	9		
21	9		
22	9		
23	10		
24	10		
25	9		
26	9		
27	11		
28	12		

Table 16

r - Test for Difference in Population Means			Factor 1	
Data				
	Grid	No Grid		
	Sample1	Sample2		
1	12	10		
2	9	10		
3	13	10		
4	10	9		
5	11	9		
6	11	10		
7	11	12		
8	12	12		
9	10	8		
10	9	11		
11	10	8		
12	15	11		
13	11	13		
14	12	13		
15	12	10		
16	12	10		
17	10	10		
18	9	9		
19	10	9		
20	10	9		
21	12	8		
22	10	11		
23	12	12		
	10	9		
	9	9		
	10	10		
	13	13		

Evidence			Assumptions	
	Sample1	Sample2		
	Size	23	28	<i>n</i>
	Mean	11	10.1786	<i>x-bar</i>
	Std. Deviation	1.446	1.49204	<i>s</i>
			Populations Normal	
			H ₀ : Population Variances Equal	
			F ratio	1.0647
			p-value	0.8897

Assuming Population Variances are Equal				
Pooled Variance	2.16545	<i>s_p²</i>		
Test Statistic	1.9836	<i>t</i>		
df	49			
			At an α of	Confidence Interval for difference in Population Means
Null Hypothesis	p-value	5%	1 - α	Confidence Interval
H ₀ : μ ₁ - μ ₂ = 0	0.0529		95%	0.82143 ± 0.83219 = [-0.0108 , 1.65361]
H ₀ : μ ₁ - μ ₂ ≥ 0	0.9735			
H ₀ : μ ₁ - μ ₂ ≤ 0	0.0265	Reject		

Assuming Population Variances are Unequal				
Test Statistic	1.98982	<i>t</i>		
df	47			
			At an α of	Confidence Interval for difference in Population Means
Null Hypothesis	p-value	5%	1 - α	Confidence Interval
H ₀ : μ ₁ - μ ₂ = 0	0.0524		95%	0.82143 ± 0.83048 = [-0.009 , 1.6519]
H ₀ : μ ₁ - μ ₂ ≥ 0	0.9738			
H ₀ : μ ₁ - μ ₂ ≤ 0	0.0262	Reject		

Table 17

Data		Factor 2	
Grid	No Grid	Sample1	Sample2
1	12	7	
2	9	10	
3	12	8	
4	12	12	
5	12	6	
6	9	8	
7	12	10	
8	10	10	
9	11	6	
10	11	8	
11	9	8	
12	14	11	
13	9	14	
14	12	8	
15	10	9	
16	9	11	
17	10	11	
18	10	11	
19	10	9	
20	7	7	
21	11	8	
22	11	10	
23	10	12	
		9	
		7	
		10	
		9	
		15	

Evidence		Sample1		Sample2		Assumptions	
Size	Mean	Std. Deviation	23	28	<i>n</i>	<i>x-bar</i>	<i>s</i>
	10.5217	1.53355		9.42857			
				2.20149			
						Populations Normal H ₀ : Population Variances Equal F ratio 2.06081 p-value 0.0874	

Assuming Population Variances are Equal			
Pooled Variance	3.72645	<i>s</i> ² _p	
Test Statistic	2.0123	<i>t</i>	
df	49		
Warning: Equal variance assumption is questionable.			
		At an α of	
Null Hypothesis		p-value	5%
H ₀ : $\mu_1 - \mu_2 = 0$		0.0497	Reject
H ₀ : $\mu_1 - \mu_2 \geq 0$		0.9751	
H ₀ : $\mu_1 - \mu_2 \leq 0$		0.0249	Reject
		Confidence Interval for difference in Population Means	
		1 - α	Confidence Interval
		95%	1.09317 \pm 1.09168 = [0.00149 , 2.18484]

Assuming Population Variances are Unequal			
Test Statistic	2.08329	<i>t</i>	
df	47		
		At an α of	
Null Hypothesis		p-value	5%
H ₀ : $\mu_1 - \mu_2 = 0$		0.0427	Reject
H ₀ : $\mu_1 - \mu_2 \geq 0$		0.9787	
H ₀ : $\mu_1 - \mu_2 \leq 0$		0.0213	Reject
		Confidence Interval for difference in Population Means	
		1 - α	Confidence Interval
		95%	1.09317 \pm 1.05562 = [0.03755 , 2.14879]

Table 19

Data		Evidence		Assumptions	
Grid	No Grid	Sample1	Sample2	Populations Normal	
Sample1	Sample2	Size	Size	H_0 : Population Variances Equal	
1	12	23	28	F ratio	1.80606
2	10	Mean	10.7826	p-value	0.1607
3	14	Std. Deviation	1.78266		
4	10		2.39571		
5	12				
6	10				
7	13				
8	12				
9	9				
10	10				
11	11				
12	15				
13	8				
14	12				
15	8				
16	10				
17	11				
18	11				
19	12				
20	9				
21	9				
22	10				
23	10				
	12				
	10				
	8				
	11				
	13				

Assuming Population Variances are Equal			Confidence Interval for difference in Population Means	
Pooled Variance	4.58933	s_p^2		
Test Statistic	2.1868	t		
df	49			
At an α of			1 - α	Confidence Interval
Null Hypothesis	p-value	5%	95%	1.31832 ± 1.21149 = [0.10683 , 2.52982]
$H_0: \mu_1 - \mu_2 = 0$	0.0336	Reject		
$H_0: \mu_1 - \mu_2 \geq 0$	0.9832			
$H_0: \mu_1 - \mu_2 \leq 0$	0.0168	Reject		

Assuming Population Variances are Unequal			Confidence Interval for difference in Population Means	
Test Statistic	2.25051	t		
df	48			
At an α of			1 - α	Confidence Interval
Null Hypothesis	p-value	5%	95%	1.31832 ± 1.1778 = [0.14052 , 2.49613]
$H_0: \mu_1 - \mu_2 = 0$	0.0290	Reject		
$H_0: \mu_1 - \mu_2 \geq 0$	0.9855			
$H_0: \mu_1 - \mu_2 \leq 0$	0.0145	Reject		

Table 20

Data		Evidence		Assumptions	
Grid	No Grid	Sample1	Sample2		
Sample1	Sample2				
1	10	6			
2	5	8			
3	12	8			
4	9	9			
5	7	1			
6	10	6			
7	12	9			
8	11	5			
9	9	5			
10	6	10			
11	6	12			
12	12	9			
13	5	11			
14	11	4			
15	7	10			
16	10	7			
17	10	10			
18	8	8			
19	11	5			
20	8	6			
21	8	8			
22	8	9			
23	8	10			
		10			
		11			
		7			
		9			
		13			

Evidence		Assumptions	
Sample1	Sample2		
Size	23	28	<i>n</i>
Mean	8.82609	8.07143	<i>x-bar</i>
Std. Deviation	2.18782	2.65174	<i>s</i>
		<i>F</i> ratio	1.46906
		<i>p</i> -value	0.3604
Populations Normal			
H_0 : Population Variances Equal			

Assuming Population Variances are Equal			
Pooled Variance	6.0237	s_p^2	
Test Statistic	1.0926	<i>t</i>	
df	49		
		At an α of	Confidence Interval for difference in Population Means
Null Hypothesis	<i>p</i>-value	5%	1 - α Confidence Interval
$H_0: \mu_1 - \mu_2 = 0$	0.2799		95% 0.75466 \pm 1.38796 = [-0.6333 , 2.14262]
$H_0: \mu_1 - \mu_2 \geq 0$	0.8601		
$H_0: \mu_1 - \mu_2 \leq 0$	0.1399		

Assuming Population Variances are Unequal			
Test Statistic	1.1136	<i>t</i>	
df	48		
		At an α of	Confidence Interval for difference in Population Means
Null Hypothesis	<i>p</i>-value	5%	1 - α Confidence Interval
$H_0: \mu_1 - \mu_2 = 0$	0.2710		95% 0.75466 \pm 1.36256 = [-0.6079 , 2.11722]
$H_0: \mu_1 - \mu_2 \geq 0$	0.8645		
$H_0: \mu_1 - \mu_2 \leq 0$	0.1355		

Table 21

Data		Evidence		Assumptions	
Grid	No Grid	Sample1	Sample2		
Sample1	Sample2				
1	11	10			
2	8	10			
3	12	10			
4	11	10			
5	9	3			
6	11	8			
7	12	12			
8	12	8			
9	11	8			
10	8	11			
11	8	5			
12	15	11			
13	11	13			
14	11	8			
15	9	7			
16	12	12			
17	12	10			
18	9	8			
19	10	11			
20	11	9			
21	9	9			
22	9	9			
23	11	10			
		10			
		9			
		9			
		11			
		12			

Evidence		Assumptions	
Sample1	Sample2		
Size	23	28	<i>n</i>
Mean	10.5217	9.39286	<i>x-bar</i>
Std. Deviation	1.70213	2.13158	<i>s</i>
		H_0 : Population Variances Equal	
		F ratio	1.56827
		ρ -value	0.2846

Assuming Population Variances are Equal			
Pooled Variance	3.80444	s_p^2	
Test Statistic	2.0567	<i>t</i>	
df	49		
		At an α of	Confidence Interval for difference in Population Means
Null Hypothesis	ρ-value	5%	1 - α Confidence Interval
$H_0: \mu_1 - \mu_2 = 0$	0.0451	Reject	95% 1.12888 \pm 1.10304 = [0.02584 , 2.23192]
$H_0: \mu_1 - \mu_2 \geq 0$	0.9775		
$H_0: \mu_1 - \mu_2 \leq 0$	0.0225	Reject	

Assuming Population Variances are Unequal			
Test Statistic	2.10267	<i>t</i>	
df	48		
		At an α of	Confidence Interval for difference in Population Means
Null Hypothesis	ρ-value	5%	1 - α Confidence Interval
$H_0: \mu_1 - \mu_2 = 0$	0.0408	Reject	95% 1.12888 \pm 1.07947 = [0.04941 , 2.20835]
$H_0: \mu_1 - \mu_2 \geq 0$	0.9796		
$H_0: \mu_1 - \mu_2 \leq 0$	0.0204	Reject	

Table 22

Data		Evidence		Assumptions	
Grid	No Grid	Sample1	Sample2	Populations Normal	
Sample1	Sample2	Size	n	H ₀ : Population Variances Equal	
1	6	23	28	F ratio	1.24262
2	5	7.69565	7.85714	p-value	0.6080
3	7	1.9641	2.18944		
4	10				
5	6				
6	8				
7	8				
8	8				
9	7				
10	7				
11	6				
12	12				
13	11				
14	11				
15	7				
16	9				
17	9				
18	5				
19	6				
20	8				
21	6				
22	6				
23	9				
	8				
	5				
	8				
	8				
	8				
	6				

Assuming Population Variances are Equal			
Pooled Variance	4.37343	s_p^2	
Test Statistic	-0.2744	t	
df	49		
At an α of			
Null Hypothesis	p-value	5%	1 - α Confidence Interval
H ₀ : $\mu_1 - \mu_2 = 0$	0.7849		95% -0.1615 ± 1.18265 = [-1.3441 , 1.02116]
H ₀ : $\mu_1 - \mu_2 \geq 0$	0.3925		
H ₀ : $\mu_1 - \mu_2 \leq 0$	0.6075		

Assuming Population Variances are Unequal			
Test Statistic	-0.2774	t	
df	48		
At an α of			
Null Hypothesis	p-value	5%	1 - α Confidence Interval
H ₀ : $\mu_1 - \mu_2 = 0$	0.7827		95% -0.1615 ± 1.17054 = [-1.332 , 1.00905]
H ₀ : $\mu_1 - \mu_2 \geq 0$	0.3913		
H ₀ : $\mu_1 - \mu_2 \leq 0$	0.6087		

Appendix 1Survey

I am doing a research project to study Transformational Leadership Characteristics. The link below will present you with an anonymous survey. This survey is intended to be filled out by employees of an organization that is involved in organizational transformation. If you would like the results of this survey, please send a e-mail request to mluckett@waldenu.edu.

Please enter your years of service

Have you taken the "Styles" Class where you study the Managerial Grid?

Y N

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

1. I make others feel good to be around me.

0 1 2 3 4

2. I express with a few simple words what we could and should not do

0 1 2 3 4

3. I enable others to think about old problems in new ways

0 1 2 3 4

4. I help others develop themselves

0 1 2 3 4

5. I tell others what to do if they want to be rewarded for their work

0 1 2 3 4

6. I am satisfied when others meet agreed-upon standards

0 1 2 3 4

7. I am content to let others continue working in the same way as always.

0 1 2 3 4

8. Others have complete faith in me.

0 1 2 3 4

9. I provide appealing images about what we can do.

0 1 2 3 4

10. I provide others with new ways of looking at puzzling things.

0 1 2 3 4

11. I let others know how I think they are doing.

0 1 2 3 4

12. I provide recognition/rewards when others reach their goals.

0 1 2 3 4

13. As long as things are working, I do not try to change anything.

0 1 2 3 4

14. Whatever others want to do is OK with me.

0 1 2 3 4

15. Others are proud to be associated with me.

0 1 2 3 4

16. I help others find meaning in their work.

0 1 2 3 4

17. I get others to rethink ideas that they had never questioned before.

0 1 2 3 4

18. I give personal attention to others who seem rejected.

0 1 2 3 4

19. I call attention to what others can get for what they accomplish

0 1 2 3 4

20. I tell others the standards they have to know to carry out their work.

0 1 2 3 4

21. I ask no more of others than what is absolutely essential.

0 1 2 3 4

Bibliography

Aczel, A. D. (2002). Complete Business Statistics. New York, McGraw-Hill/Irwin.

Lussier, R. N. and C. F. Achua (2001). Leadership: Theory, application, skill building. Cincinnati, South-Western College.

Northouse, P. G. (2000). Leadership: Theory and practice. Thousand Oaks, Sage.