

Abstract

The Effects of Leadership Grid Training on Transformational
Leadership in a Fortune 500 Company

by

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M.B.A., Indiana Wesleyan University, 1996
B.S., Indiana Institute of Technology, 1993

A Dissertation Submitted in Partial Fulfillment of the
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Abstract

This research addresses the problem of developing transformational leadership capabilities as part of an organization's leadership training program. It focuses on how leadership grid training affects the transformational leadership factors measured by the Multifactor Leadership Questionnaire (MLQ 5X).

A multinational manufacturing firm in the automotive parts business with annual sales of \$7.9 billion in 2003 and 59,000 employees worldwide was studied. Evaluation research, using a quasi-experimental design, was the research method. A nonprobability sample was collected from 37 class employees who took part in a certified grid theory training class as part of a corporate management development program. Participants were given the MLQ 5X pre- and post- participation in the class. The results of this survey were compared to determine the affect of the training on MLQ scores.

The results of this study indicate that leadership grid training can improve the transformational leadership characteristics of those who participate in this training. The research suggests that it is possible to improve the transformational aspects of being a role model, challenging

followers, and stimulating creativity through leadership grid theory training. The study contains an analysis of MLQ scores that supports these findings and establishes a baseline for future research on the effects of other leadership theories on transformational leadership factors.

Organizations that effect social change often look for charismatic leaders who inspire creativity. Social change often requires the type of deep structural change that is referred to as transformational change. This research indicates that leadership grid theory training can positively affect these transformational leadership characteristics.

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DEDICATION

To my parents, Mark and Anne Lockett, who got me started on the right foot, and to my wife, Maria, who has carried me the rest of the way.

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TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION

Introduction 1

Background 2

Problem Statement 5

Purpose 6

Significance of Study 6

Research Questions 8

Theoretical Foundation 8

Definitions of Terms 11

Assumptions 12

Limitations of the Study 12

Scope and Delimitations 13

Methodology 14

Summary 15

CHAPTER 2: LITERATURE REVIEW

Introduction 17

Leadership 18

Transformational Leadership 21

Developing Transformational Leadership 24

Types of Change 26

Reasons for Transformational Change. 29

The Transactional Process 31

The Transformational Process 33

Transformational Change Issues 35

Leadership Grid Theory 38

Leadership Grid Theory and Change 42

Comparison of Leadership Grid Theory and Lewin's . 46

The Full Range of Leadership Model 49

The Multifactor Leadership Questionnaire 52

Measuring the Effectiveness of Training Using MLQ. 53

Research Methodologies 55

Summary 58

CHAPTER 3: RESEARCH METHODOLOGY

Introduction 60

Description of the Research Design 60

Target Population. 63

Sample 64

Treatment	65
Data Gathering Procedure	66
Instrumentation	67
Validity and Reliability	69
Data Analysis	71
Ethical Concerns	74
CHAPTER 4: ANALYSIS OF FINDINGS	
Introduction	76
Situational Overview	76
General Observations	78
Research Question 1	79
Research Question 2	81
Research Question 3	83
Research Question 4	85
Summary	87
CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	
Introduction	89
Conclusions of the Study	89
Conclusions Related to Research Questions	91
Relationship to Past Literature	96
Possible Social Impact	97
Recommendations for Additional Research	98
Summary	100
REFERENCES	104
APPENDIXES	
Appendix A: Flowchart of Change Models	109
Appendix B: Multifactor Leadership Questionnaire	111
Appendix C: E-Mail To Class Participants	114
Appendix D: Sample Preclass Survey Cover Letter	116
Appendix E: Sample Postclass Survey Cover Letter	120
Curriculum Vitae	122

LIST OF TABLES

Table

Table 1. Grid Training Pre and Post Test Differences in
MLQ 5X Scores 78

Table 2. Ranking of MLQ 5X Pretest Posttest Deltas Listed
Highest to Lowest 85

CHAPTER 1: INTRODUCTION

Introduction

Transformational change, for the purpose of this study, is defined as the type of change that includes changes to an organization's structure, culture, and processes. Transformational leaders are those leaders that perform with a style that allows them to successfully make deep structural changes to an organization (Northouse, 2000; Lussier & Achua, 2001).

Organizations typically experience periods of smooth operation and growth. During these periods of evolution, incremental change occurs as part of the normal growth of the organization. However, external or internal changes in the environment often cause existing structures to become ineffective. When this happens, successful firms engage in transformational change projects as a response to these threats to survival. The faster an organization can get through the transformational period, the sooner it can take advantage of the changes and return to a smooth period of operation (Cummings & Worley, 2001).

Transformational leaders are often brought into an organization to manage deep structural changes. Many times the existing management does not possess the skills

necessary to implement changes successfully (Lussier & Achua, 2001).

Transformational change is driven by senior executives and line management. They are responsible for the strategic direction and actively lead all phases of the organization's change process. Existing managers often are not well suited to lead a transformational change. Because of this, they are often replaced by outsiders who are specifically recruited to lead change (Cummings & Worley, 2001).

The focus of this research was to measure the effects of grid theory training on employees who participated in a leadership grid theory training class through the corporate university of a Fortune 500 company. The specific variables studied are those measured by the Multifactor Leadership Questionnaire (MLQ 5X). The MLQ 5X is a questionnaire that measures transformational leadership characteristics. A nonprobability sample was used to measure the results of the questionnaire.

Background

Some researchers believe that organizations should develop an internal capacity to transform. In an ever-

changing business environment, the ability to lead transformational change becomes a core competency. It is not one of the business functions that can be outsourced since it will become more necessary in the future. (Anderson & Anderson, 2001).

Creating this environment for change requires leaders to have unique transformational skills. Leadership skills are developed, to a great extent, by leveraging personal abilities with training (Thaler-Carter, 2000). To accomplish this, many organizations institute leadership development programs that produce transformational leaders.

Transformational change is driven by senior executives and line management. They are responsible for the strategic direction and actively lead all phases of the organization's change process. Existing managers often are not well suited to lead a transformational change (Cummings & Worley, 2001). Anderson writes:

They will typically attempt classic problem-solving and project-management techniques, training, and improving communications, each of which has value, but is not sufficient for leading transformation. Reactive leaders attend mostly to the surface symptoms they face, seldom addressing the underlying root causes. (Anderson & Anderson 2001, p. 61)

These managers have benefited most from the status quo, and they are often unfamiliar with alternative methods. When change is needed, they often resort to project-management processes and attempt to manage scope instead of expanding it to include deep structural change. To reduce the risk of failure during times of transformational change, all managers and leaders in an organization need to be transformational.

This study is worthy of merit because it isolated a specific leadership theory and, using an accepted method of measurement, identified changes in how training recipients perceive transformational leadership characteristics. Prior research by Corrigan, Lickey, Campion, and Rashid used similar methods to assess a short generalized leadership class (Corrigan, Lickey, Campion, & Rashid, 2000). The class studied in Corrigan's research was not based on one specific theory. This study goes beyond general leadership training and focuses exclusively on training based on the leadership grid theory while using the same Multifactor Leadership Questionnaire as the instrument of measurement.

Problem Statement

The problem addressed in this research is the difficulty of developing leaders with the proper characteristics to be successful as transformational change leaders. Transformational change efforts often fail in organizations because the behavior of the leadership does not properly support deep structural change. Failure to successfully execute transformational change, when it is needed, can adversely affect an organization's survival and growth. Organizations need a way to educate and prepare their leaders for executing transformational change when it is required. It is up to the top managers in an organization to develop the norms and structures that promote the behavior that they want (Dutton, Ashford, O'Neill, & Lawrence, 2001).

In this research, the Multifactor Leadership Questionnaire is used to measure which (if any) transformational change factors are affected by leadership grid theory training. This study measures changes in trainees' perceptions of transformational leadership, as measured by the Multifactor Leadership Questionnaire.

The specific dependent variables, those that measure transformational leadership, studied in this research are;

idealized influence, inspirational motivation, intellectual stimulation, individualized consideration, contingent rewards, management-by-exception, laissez-faire management, extra effort, effectiveness and satisfaction. The independent variable is the grid theory training class. The relationship between the dependent and independent variables was determined by the pre- and post test scores.

Purpose Statement

The purpose of this study was to measure the effects of certified Leadership Grid training on transformational leadership characteristics as measured by the Multifactor Leadership Questionnaire (MLQ 5X). The results of these measurements were used to evaluate the effectiveness of grid theory training on transformational leadership characteristics. This analysis can aid in the application of Grid training in those organizational and social situations where transformational leadership characteristics must be developed.

Significance of Study

The results of this research are applicable to social situations where transformational change is necessary. Some

social changes may require a transformational approach. Charismatic leaders that can inspire followers are very effective when a transformational approach is required (Fiol, Harris, & House, 1999). The results of this study can help predict the outcomes of potential training programs developed for future societal and organizational leaders.

Transformational change affects the social structure of the society in which it occurs. It is a type of social change that requires deep structural changes. Failure to execute this type of change successfully can have a significant effect on the prosperity and survivability of the business or social organization being changed.

This study addressed the effect of Leadership Grid training on transformation thinking. It adds to the body of knowledge that researchers and organizational development practitioners can use to evaluate and design personnel development programs to prepare leaders for transformational social change.

Research Questions

1. What are the differences in transformational thinking prior to and after grid training in the company studied?
2. How does grid training affect the transformational aspects of how grid theory training participants think about leadership in the company studied?
3. How effective is grid training itself when developing transformational leaders in the company studied, as measured by pre and post Multifactor Leadership Questionnaires?
4. Which transformational leadership characteristics change the most after a leadership grid theory training class in the company studied?

Theoretical Foundation

Roepke states 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).

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 & Achua, 2001).

The leadership grid theory (Blake & Mouton, 1985) is a widely used approach to organizational development (Yaeger, Sorensen, & Mckee, 1999). Leadership grid theory training teaches a six-phase approach to organizational development and change (Blake & McCause, 1997). Along with management commitment, education is a good place to start when embarking on an organizational development project (Blake & Mouton, 1965a).

Anderson believes that organizations should develop an internal capacity to transform. Trained, internal leaders, working with organizational development consultants, are often the most effective way to address transformational change in an organization (Anderson & Anderson, 2001).

Creating this environment for change requires leaders to have unique transformational skills (Barker, 2001). Organizations must institute leadership development programs that produce transformational leaders.

A study by the University of Chicago Center for Psychiatric Rehabilitation found that participation in a one-day course on leadership skills could result in improving a person's perceptions of leadership (Corrigan et al., 2000). The study suggested that future research should be done to replicate the results.

This study is focused on Leadership grid theory training. This leadership theory includes a change theory that includes a six-phase approach to organizational change (Blake & McCanse, 1997). In the theory, organizational change is addressed as an organization-wide approach that focuses on team relationships (Blake & McCanse, 1997).

In this study, the Multifactor Leadership Questionnaire (MLQ) was used to measure transformational leadership characteristics. This questionnaire was developed by Bass and Avolio in 1985 (Northouse, 2000). The current form (Bass & Avolio, 2000) consists of 45 questions which measure seven transformational leadership factors.

Instead of studying a general leadership class, this study measures the effects of a specific class focused on leadership grid theory and its approach to organizational change. It applies the methods used in the study at the University of Chicago to training based on Blake and Mouton's grid theory.

Definitions of Terms

Leadership Grid Theory is defined as a behavior theory that focuses on analyzing an individual's concern for people and concern for production (Blake & Mouton, 1985).

The *Multifactor Leadership Questionnaire (MLQ)* is defined as the most widely used instrument for measuring the transformational leadership characteristics of individuals (Bass & Avolio, 2000).

The Transactional Process is defined as a process that focuses on the exchange of valued things between leaders and followers (Northouse, 2000).

Transformational Change is defined as a type of change that includes an organization's deep structure, culture, and processes (Northouse, 2000).

Transformational Leadership is defined as a style of leadership that includes the skills to facilitate deep

structural changes to an organization (Lussier & Achua, 2001).

Assumptions

It was assumed that transformational leadership is an effective change strategy and that grid theory training is an effective method for developing a person's capacity to lead change. Another assumption was that the survey respondents follow the instructions that they are given and complete the MLQ before starting their class prework. The researcher assumed that all training instructors are equally qualified.

For the purpose of this study, the researcher used the definitions of transformational leadership and its factors as defined and structured by the Multifactor Leadership Questionnaire.

Limitations of the Study

This study was limited to employees of one company. This singular approach limited both the results and the factors that can influence them. All participants were influenced by a single corporate culture and operating

philosophy. This limited the variables that can influence results. It also limited the breadth of the application of the results. The training studied was limited to grid theory training.

Scope and Delimitations

This study focused on employees of a Fortune 500 company who participate in a leadership grid training program at the corporation's internal university. The company is an automotive parts manufacturer that has 60,000 employees and \$11 billion in annual sales. Class attendees were selected through the company's usual and customary selection process. Department managers and supervisors identified current or perspective managers who had not attended the class. Due to the nature of the class, each of 270 company locations is only allowed two attendees in any given class. This restriction minimized bias in the selection of class participants since the participants of each class were, in all likelihood, chosen by twenty or more managers. Typically each location only sends one person to any class because of the cost associated with the class. The leadership grid training class is one of six classes required to obtain the corporation's certified

supervisor certificate. Other classes include cost accounting, employee motivation, supervision, financial analysis, and problem-solving. The classes are not administered to individuals in any particular order.

The researcher was not able to predict which instructors would be used for the study, and there was the possibility that the same instructors to be used for all classes. Because of this, the instructors were not evaluated as a variable.

The intent of the researcher was to focus on grid theory training and its effect of transformational leadership characteristics. While acknowledging that there are systems theory implications to the grid theory, the researcher has excluded them from the scope of this study.

Methodology

Evaluation research, using a quasi-experimental design, is used as the research methodology for this dissertation. A nonprobability sample was collected from class participants. Students at a corporate university were given the MLQ 5X pre and post participation in a certified grid theory training program.

Summary

In order to predict the effectiveness of leadership training programs on transformational leadership factors, researchers must measure the effects of specific programs on generally-accepted measures of specific factors. This study focused on the leadership grid theory as the training program and the Multifactor Leadership Questionnaire as the measure of transformational leadership factors.

The next chapters focus on research associated with both the grid theory and transformational leadership. Applications of the Multifactor Leadership Questionnaire are explored and the research method proposed for this study is defined.

In chapter 2, the researcher provides a review of current literature on the subjects of leadership, transformational leadership, leadership grid theory, and the Multifactor Leadership Questionnaire. Examples of organizational change and the reasons for this change are explored. A review of the unique leadership characteristics necessary to affect transformational change is presented along with options for developing these characteristics.

In chapter 3, the researcher describes the research methodology that will be used for this study. A description

and review of the research design is presented. The Multifactor Leadership Questionnaire, the survey instrument used for this study, will be described along with its validity and reliability data. Finally, the researcher describes the process that will be used to analyze the data gathered.

In chapter 4, the researcher presents an overview of the results of the study. This includes the survey scores along with the results of the statistical calculations. The results are applied to each research question. The chapter concludes with a summary.

In chapter 5, the researcher presents the conclusions of the study. Each research question is addressed. The relationship of this study to past literature is presented along with recommendations for future research. The researcher also discussed the possible social impact of this study.

CHAPTER 2: LITERATURE REVIEW

Introduction

In this section, the researcher reviews the literature related to leadership, transformational change, leadership grid theory, and the Multifactor Leadership Questionnaire. Leadership characteristics and the criteria for successful change are also explored.

A general review of leadership and its role in an organization is presented. This is followed by a presentation of literature on transformational leadership and development of leadership skills. Organizational change is then presented along with a review of transformational change. This chapter concludes with a review of the grid theory, the Multifactor Leadership Questionnaire, and research methods.

The literature chosen for this study includes articles pertaining to transformational change, leadership grid theory, and the measurements associated with leadership characteristics. Authors directly involved with the development of this subject matter are used as well as recent research in the application of specific theories.

Leadership

This study focuses on leadership development. The literature review begins with the broad subject of leadership and how it is defined.

Peter Northouse (2000) 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).

Lussier and Achua (2001) define leadership in a similar way. They do, however add the element of change (Lussier & Achua, 2001). They describe leadership as "the process of influencing leaders and followers to achieve

organizational objectives through change" (Lussier & Achua 2001, p. 6). The process of setting and influencing objectives is all about change (Lussier & Achua, 2001). Parry and Meindl (2002) write 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 & 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 accept a person's behavior (Northouse, 2000).

Lussier and Achua write:

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 & Achua 2001, p. 9)

Peter Drucker (1993) 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. (p. 121)

One aspect of leadership is that of power. Leaders exert power over followers which increases their base of power. Burns (1978) describes it this way:

Leadership over human beings is exercised when persons with certain motives and purposes mobilize, in competition or conflict with others, institutional, political, psychological, and other resources so as to

arouse, engage, and satisfy the motives of followers.
(p. 18)

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 (1990) says that "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?" (p. 101).

Transformational Leadership

Within the broad spectrum of the subject of leadership is the subset of transformational leadership. This study focuses on the development of this leadership subset. This

section of the literature review focuses on this leadership subset.

Leadership affects the culture of an organization. Top management must be able to make changes and articulate them to the rest of the organization (Bass & Avolio, 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 set high expectations for 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 their leaders. The fourth factor is individualized consideration. Leaders create an environment of support. They listen to the needs of the followers and act as coaches and advisors. Leadership that embodies these factors produces results that exceed expectations (Northouse, 2000, p. 137).

Transformational leaders possess certain attributes.

Lussier lists the following:

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

There are several strengths to the transformational approach to leadership. 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 defines leadership as a process between leaders and followers that 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 needs of the followers (Northouse, 2000).

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

(2000) writes:

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. (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). When changes are perceived as directives, they are often viewed as arbitrary. When this occurs, a relationship based on communication and trust does not exist. In these situations, morale, productivity, and quality suffer (Blake & Mouton, 1961, p.6).

Developing Transformational Leadership

The purpose of this study is to evaluate the effectiveness of a specific leadership-development program. This section of the literature review is focused on the need for developing transformational leadership skills.

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 as desirable as having this internal expertise (Anderson & Anderson, 2001, P. 191).

Creating an environment for change requires leaders to have unique transformational skills. Barker (2001) writes "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" (p. 68). Leadership skills are a combination of personal abilities and developed abilities (Atwater Leanne E., 1999). "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. Davis (2001) writes "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" (p. 29). Harrison (1999) says 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. 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" (p. 26).

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 (Sharkey 1999).

Types of Change

Transformational leadership development is the focus of this study. This type of leadership is focused on change. In this section of the literature review, the author presents a definition of change that is focused on organizational change.

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 skills base to be successful. 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 makes up 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 & Anderson, 2001, P. 17).

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 & Anderson, 2001). Technology changes alone often require transformational change in an organization (Kuruppuarachchi, 2001).

Anderson (2001) describes three types of change that occur in organizations. They are developmental change, transitional change, and transformational change. Developmental change represents the improvement of existing skills, methods, and performance standards in an organization. Transitional change is more complicated. Instead of improving the current situation, it replaces the current situation with something new and 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 & Anderson, 2001, P.34). 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 & Anderson, 2001). Followers of transformational leaders think of old problems in new ways (Jung, 2000-2001).

Reasons for Transformational Change

Organizations typically experience periods of smooth operation and growth. During these periods of evolution, incremental change occurs as part of the normal growth of the organization. However, external or internal changes in the environment often cause existing structures to become ineffective. When this happens, successful firms engage in transformational change projects as a response to these threats to survival. These rapid transformational shifts in structure, culture, and process allow the organization to return to a period of smooth operation and growth until the next period of required transformational change. The faster an organization can get through the transformational period, the sooner it can take advantage of the changes and return to a smooth period of operation (Cummings & Worley, 2001).

Organizational development and change practitioners describe first-order and second-order change. These are often referred to as transactional change and transformational change. In first-order change, also known as evolutionary, adaptive, incremental, and continuous change, the fundamental nature of the organization remains the same. In second-order change, the fundamental nature of the organization is substantially changed. Second-order change is also known as revolutionary, radical, and discontinuous change. There is an increasing emphasis in organizational development programs on second-order change (French and Bell 1999).

There are several strengths to the transformational approach. 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 needs of the followers (Northouse, 2000, P. 145).

Transformational leaders are often 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 & Achua, 2001).

Executive leadership has three key roles in transformational change. The first is envisioning. This involves articulating the new strategic direction and standards for performance. The second is energizing. Executives must demonstrate excitement for and be examples of the expected change. The third is enabling. Leaders must provide the resources necessary to accomplish the change by developing new management practices and using rewards to reinforce new behaviors (Cummings & Worley, 2001).

The Transactional Process

This study is focused on transformational change. The initial step is to define transformational change. In order to understand transformational change, one must understand the antithesis of the transformational process. This is called the transactional process. It focuses on the exchange between leaders and followers. Examples of transactions are; politicians who win votes by making promises, managers who offer promotions to employees who perform well, and teachers who give grades for completing

assignments and passing tests (Northouse, 2000, P. 132).

Burns (1978) describes transaction leadership this way:

Such leadership occurs when one person takes the initiative of making contact with others for the purpose of an exchange of valued things. The exchange could be economic or political or psychological in nature: a swap of goods or of one good for money; a trading of votes between candidate and citizen or between legislatures; hospitality to another person in exchange for willingness to listen to one's troubles. (p. 19)

There is a transitory aspect to transactional leadership. Once a transaction is complete, the relationship between the leader and the followers may be terminated or changed for the next transaction (Lussier & Achua, 2001). In stable, repetitive situations, the transactional process 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. Avolio (1999) writes:

Without a transactional base, expectations are often unclear, direction is ill-defined and the goals you are working toward are too ambiguous. It is certainly possible, however, to get people inspired in this context, but it is difficult to align them around what their focus should be and who does what when. Transactions clearly in place form the base for more mature interactions between leaders over time. (Avolio, 1999, P. 15)

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.

The Transformational Process

The transformational process 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 position of power, he considered it linked to the needs of the followers (Northouse, 2000). Burns described the schools of thought on leaders and followers as two separate things. Leaders were seen as political, social, and industrial elitists. Followers were seen as powerless masses. Burns looked at leadership as an engaging structure that involved leaders and followers (Burns, 1978).

Lussier (2001) writes:

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 & Achua 2001, p. 381)

The transformational process is focused on change. Lussier writes, "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). Burns writes, "Such leadership occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality" (Burns, 1978, p. 20).

Transformational leaders motivate behavior in their followers that supports the greater good instead of their own self interest (Northouse, 2000, p. 132).

Transformational change is a systemic and revolutionary change to an organization's culture and design. The fundamental elements that define the organization are altered. Transformational changes often occur rapidly so that they are not stalled by politics or individual resistance. In transformational change, the majority of the individuals in an organization must change

their behavior (Cummings & Worley, 2001). The quantity of change, however, does not denote transformational change. The nature of the change is what is important. Burns writes "the issue is the nature of change is not merely the degree, as when the temperature in a pot of water is gradually raised to produce a transformation, boiling" (Burns, 2003, p. 25).

Transformational Change Issues

The reactive approach to leading transformation is the most common. This is an unintentional phenomenon as leaders automatically react in habitual ways to events that happen. When this happens, managers do not adequately analyze the situation and therefore do not understand that a transformational approach is needed and that this approach is different than developmental or transitional change. The failure to recognize this limits success and contributes to most failures. Reactive leaders are slow to heed the wake-up calls. They have strong denial mechanisms. They often resist or deny the needed changes by explaining away the signals for change. This is often done unconsciously. Once marketplace conditions become so severe that the organization's survival is threatened, reactive leaders

respond quickly to regain their comfort and sense of control. Because they do not understand the differences in change strategies they often respond with the wrong approach (Anderson & Anderson, 2001). Anderson and Anderson puts it this way:

They will typically attempt classic problem-solving and project-management techniques, training, and improving communications, each of which has value, but is not sufficient for leading transformation. Reactive leaders attend mostly to the surface symptoms they face, seldom addressing the underlying root causes. (Anderson and Anderson 2001, p. 61)

These efforts often produce temporary results because they do not address systemic causes or provide real change solutions (Anderson & Anderson, 2001).

The reactive approach often leads to low morale in the employees. Front line employees often see the effects of leadership denial and inadequate change plans. They are often the first to see the inevitable failure of these plans. The employees are threatened because they feel that their personal financial success is dependent on the organization's ability to transform, and they do not expect change efforts to succeed. They feel like they are wasting their efforts as numerous, nonintegrated change initiatives are thrust upon them without adequate planning or communication. Repeated failures to implement change strain

the organization's resources and often require extra and duplicate effort on the part of the employees (Anderson & Anderson, 2001). Anderson and Anderson provide another analogy:

When change continues to be poured into a saturated sponge, the consequences are threefold:

- (a) morale deteriorates;
- (b) the initiatives that are attempted result in only short-term superficial application of the intended goals; and
- (c) people stop listening to the leaders, who continue to announce changes that never fully materialize. (Anderson & Anderson 2001, p. 64)

The popularity of the Dilbert cartoon series shows that many employees identify with the cynicism that it depicts (Feldman, 2000). The impact of this is a reduction in organizational and employee productivity, quality, morale, and customer relations (Bennett, 2001). In some cases, companies that drastically changed their business models experienced high levels of employee turnover (Baron, Hannan, & Burton, 2001).

Leaders must be aware of employee perceptions, especially if there have been a number of failed attempts to introduce change. As employees lose confidence in their leaders, organizational cynicism begins to set in. Organizational cynicism diminishes organizational commitment, which is the product of the exchange between

the employee and the organization. If employees begin to feel that their skills are not being productively used and their basic needs are not met, then making future innovations becomes more difficult (Abraham, 2000). Organizations should examine their past success rates to help predict the probability of success in future change initiatives (Maurer 2001).

Leadership Grid Theory

The treatment being studied in this research is leadership grid training. In this section of the literature review, the researcher presents an overview of this theory and its relationship to transformational change.

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 (Lussier & Achua, 2001). The grid theory has historically been a widely used approach to organizational development (Yaeger et al., 1999). The grid theory contains 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 & 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 (Blake & McCanse, 1997).

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 (Blake & McCanse, 1997). This system for maintaining cooperation between management and subordinates is called integrative goals. In this system, the employees and the company are viewed as one unit instead of the traditional manager and employee structure (Blake & Mouton, 1961).

This grid approach to leadership theory is not a refined, prescriptive theory to explain effective leadership. Instead, it provides a framework for assessing leadership. It attempts to describe the major components of leadership behavior at task and relationship levels (Northouse, 2000, p. 43).

The grid 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, p. 44).

The grid 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 writes, "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 grid approach suggest using a situational model that prescribes using the leadership style that best meets the needs of a given situation (Lussier & Achua, 2001).

Leadership Grid Theory and Change

Grid theory training addresses organizational development and change. It recognizes that the sum of individual changes is not meaningful in the context of an entire organization. Grid organization development, as it is called, aims to raise the level of achievement of the entire organization (Blake & McCause, 1997). Blake, Avis, and Mouton (1996) write:

Among the several approaches to organization development, there is one approach which uses educational methods to aid the entire membership of an organization to participate in developing itself in accord with behavioral science basis of management. This approach is called grid organization development. (p. 118)

Leadership grid training will serve as the dependent variable for this research. Grid training teaches a six-phase approach to organizational development and change. It facilitates a shift from current leadership practices and culture to more effective practices. The grid approach recognizes that organization change is more difficult than individual change. Blake says, "True organization development is a system-wide approach to change aimed at improving the whole organization" (Blake & McCause, 1997, p. 333). Blake and McCause write:

Grid organization development is a six-phase model for bringing real change to bear on organizations through a fully integrated approach. From a behavioral point of view grid OD sets in place a common framework for understanding the dynamics of interaction that take place in meshing the efforts of people with required organization purpose. This is accomplished by focusing attention on the interpersonal relationships, team relationships, and interface relationships. (Blake and McCauley 1997, P. 359)

Before implementing organization-wide grid development, an organization should engage in activities that will introduce grid concepts to the people involved. Background reading can be provided to show how it can strengthen the organization. Grid seminars can teach concepts to each employee. A pilot group can be established to let the organization measure the effectiveness of the grid approach. A steering committee should be appointed to develop a long-term strategy for grid organizational development and plan for moving forward with the six phases (Blake & Mouton, 1985). Successful organizational development plans require self-motivated commitment to the effort. Training and pilot programs help solidify organizational commitment (Blake & Mouton, 1965a). Consistent training programs can reduce the risks associated with cross-cultural deployment of organizational

development programs in global enterprises (Blake & Mouton, 1965b).

The first phase addresses projects. Grid literature states that, after training, culture-wide issues can be addressed more effectively using grid techniques to improve the success rates of projects. These techniques can be utilized to change organization-wide norms and overcome complacency. This is done by holding those who can solve problems responsible for their resolution (Blake & McCanse, 1997, p. 345).

The second phase involves team building. In team building, grid techniques can be used to identify opportunities for improvement within teams. Goals for this kind of team building include the ability to replace obsolete past practices, improve operational results, and establish objectives for achievement (Blake & McCanse, 1997, p. 345).

The third phase is called interface development. Its purpose is to improve problem-solving by helping individual groups work more closely together. The idea is to get people acting in the best interest of the entire organization, not just the individual groups to which they belong (Blake & McCanse, 1997, p. 347). This is similar to

the participatory change process that focuses on grass-roots participation (Castelloe & Watson 2000).

In the fourth phase, the strategic organization model is developed. The outdated model is replaced by a more effective one. Blake and McCanse describe it this way:

The model is based on the organization's defining its future business activity to be geared to the needs of society for products and services; to the corporation's need for profitability; to the employees' needs for security and satisfaction with work based upon involvement, participation, and commitment; and to the stockholders' needs for meaningful return on invested funds. (Blake and McCanse 1997, p. 351)

The organization defines corporate objectives, identifies future business activities, creates an integrated structure, and establishes new policies to guide future decision-making (Blake & McCanse, 1997).

In the fifth phase, the model defined in the fourth phase is implemented. Instead of rebuilding the organization, a blueprint is followed to remodel the organization. The organization identifies gaps between the current state and the desired end-state. Sound activities that can be retained or changed are identified as well as those that must be eliminated. A change plan is devised that continues to run the business while it is being changed (Blake & McCanse, 1997, p. 352).

Phase six involves stabilizing the new organizational model and preparing for the next round of changes. In this phase, the organization performs a self-assessment of the change process to identify additional change opportunities and to improve the process of change. The criticality of this phase is summed up this way:

It's important to keep in mind that the grid is not a fad that is 'in' for a few years and then phases 'out'. The program is designed so that the last step is never-ending. The company will always be monitoring what is being done, judging how far that is from ideal, and taking the necessary steps to reach the ideal. (Blake and McCauley 1997, P. 357)

Comparison of Grid Theory and Lewin's Change Model

Kurt Lewin developed one of the early models of planned change. He identified two forces at work in organizations. The first is those who are striving to maintain the status quo. The second is the group that is pushing for change. When those forces are equal, the current behavior is maintained in a state of quasi-stationary equilibrium. Lewin described a change process that consists of three steps (Cummings & Worley, 2001).

The first step is called *unfreezing*. In this step the organizational forces that maintain the status quo are

reduced. The leadership of the organization communicates the new, desired behaviors and articulates the changes necessary to achieve the new desired state. Organization members are motivated to accept and engage in change activities. The second step is called *moving*. In this step the organization develops new processes and behaviors. The organization shifts to the new desired state. This is the point where new organizational structures are introduced. The third step is called *refreezing*. In this step, the organization stabilizes in the new state. New organizational policies and structures support the new organizational state (Cummings & Worley, 2001).

Lewin's change model and the leadership grid model both have steps in which planned change occurs. Lewin's model broke the change process down into three steps. The leadership grid model breaks it down into six steps. Although the number of steps is different, there are three common phases in each of the models. The flowchart in Appendix B depicts these phases.

In the first phase, preliminary research is done to diagnose the current situation. Opportunities for improvement are identified and the new end state is identified. In Lewin's model, this is called unfreezing. In

the leadership grid model however the emphasis is on preparing the organization for change. Projects are initiated using Grid techniques, teams are formed, and pilot projects are used to prove the theory to the organization. After this preparation, the new organizational model is defined.

In the second phase, the change actually occurs. Lewin's model refers to this as moving. The grid theory refers to this as implementing the new organizational model. In Lewin's model, the leadership of the organization or the consultant can play a dominant role in making the change happen. An environment is created where the changed behavior is accepted and encouraged. In the Grid model, the organization works as a unit to identify gaps between the current state and the desired state. A plan is devised and executed.

In the third phase, the changes are solidified. In the Lewin model, this is called refreezing. The Grid model refers to this as stabilizing the organizational model. In the Lewin model, changes are solidified by making the organization's members feel comfortable with their new, changed roles. Feedback is given to help the newly defined parts of the organization work well together. In the grid

model, the organization, as a unit, performs a self-assessment to identify additional change opportunities. This allows each member to have a sense of ownership of the change and a decision in future directions.

While Lewin's model seems primarily focused on a change event and engraining the change in an organization's culture, the grid approach is a more systemic one. It engrains a leadership style into an organizational culture that facilitates continuous improvement as well as a transformational capability when it is needed.

The Full Range of Leadership Model

The full range leadership model is the basis of the Multifactor Leadership Questionnaire used to measure the effects of the treatment that will be studied in this research. In this section of the literature review, the author presents a definition of this model and its relationship to transformational leadership.

Transformational leaders evoke superior results from their followers. Their behavior employs one or more of the four components of transformational leadership (Avolio, 1999). Bruce Avolio states it this way:

Leadership is *idealized* when followers seek to identify with their leaders and to emulate them. The leadership *inspires* followers with challenge and persuasion by providing meaning and understanding regarding the actions required. At the core is *identification*, which drives people to achieve the vision. The leadership is *intellectually stimulating*, expanding the followers' use of their abilities to question not only other peoples' perspectives but also their own, even the most deeply rooted ones. Finally, the leadership is *individually considerate*, providing followers with support, mentoring, and coaching. (Avolio 1999, p. 42)

Each of these factors is measured by the Multifactor Leadership Questionnaire (MLQ). The full range of leadership focuses on transformational, transactional, and nontransactional aspects of the leadership process. A leader that is purely transactional engages followers for rewards or repercussions depending on the follower's behavior compared to expectations. By honoring transactions consistently, the leader establishes trust with followers which results in high levels of trust. This becomes transformational as the relationship moves beyond compliance (Avolio, 1999).

There are a total of seven components, or factors that measure transformational, transactional, and nonexistence of management characteristics in the full range model.

These components or factors will serve as the dependent variables that will be studied in this research.

In the full range model, there are four components of transformational leadership. The first is idealized influence. This refers to leaders being role models. Followers identify with their leaders and emulate their behavior over time. The second component is inspirational motivation. Leaders involve followers in thinking about future scenarios. They provide meaning and challenge to the work of followers. The third component is intellectual stimulation. This refers to the leader's ability to stimulate innovation and creativity. The fourth component is individualized consideration. This is the leader's ability to coach and mentor followers (Avolio, 1999).

There are two transactional components to the full range model. Transactional leadership occurs when followers are either rewarded or chastised for their behavior. The first component is contingent reward. This is when leaders reward followers for desired behaviors and outcomes. The second component is management-by-exception. This is a corrective transaction used to address behavior when it needs to be changed. This is considered less effective, in most situations, than contingent reward (Avolio, 1999).

Nontransactional/Laissez-Faire leadership is the absence of leadership. There is little interaction between leaders and followers. This is the most ineffective style of leadership (Avolio, 1999).

The Multifactor Leadership Questionnaire

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 (Northouse, 2000). The current form (Bass & Avolio, 2000) consists of forty-five 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 shows 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.

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.

Measuring the Effectiveness of Training Using MLQ

The Multifactor Leadership Questionnaire will be used in this study to measure the effectiveness of grid theory training on transformational leadership characteristics. In this section of the literature review, the researcher presents an overview of how this questionnaire is used to measure transformational leadership characteristics.

Research on training effectiveness has been done using the MLQ. A study of sixty six participants in a three-day

leadership development workshop showed improvements in idealized influence, inspirational motivation, intellectual stimulation, individualized stimulation, and contingent reward. Decreases were observed in management-by-exception and laissez-fair management. Results were better when the participants were involved in a structured personal improvement plan (Avolio & Bass, 1998).

Additional research at the University of Chicago Center for Psychiatric Rehabilitation showed that brief one-day classes can be effective in improving leadership skills. Improvements in individualized consideration and management-by-exception were measured using the MLQ. Twenty-seven participants were administered the MLQ pre and post class. Attendees were asked to rate items according to their perceptions of the ideal leader. Pre- and post MLQ scores for this study show improvement in individualized consideration and active management by exception. The researchers concluded that a brief course on leadership skills could improve an individual's perceptions of ideal leadership (Corrigan et al., 2000)

A study by Blake and Mouton showed that leadership grid training can be effective in large-scale organizational development programs. Operational data were

gathered to measure changes before and after training. The data gathered for the study included productivity, profit, meeting attendance, and management mobility (Blake, Mouton, Barnes, & Greiner, 1964).

Research Methodologies

In this section of the literature review, the author will present research on the methodologies that will be used to analyze the data gathered through this research. Alternative methods will also be presented along with a justification for the methods chosen.

Surveys are useful in social research. Babbie says that "Surveys may be used for descriptive, explanatory, and exploratory purposes. They are chiefly used in studies that have individual people as the units of analysis" (Babbie, 1998, p. 256). Self-administered surveys are those that are sent or given to subjects along with some means of returning them to the researcher. The advantages to surveys are that they are inexpensive to administer, allow for complex instruments, and are perceived as anonymous. Disadvantages to surveys are low response rates, anxiety among some respondents, and the need for a suitable

environment for completion (Cooper & Schindler, 2001, p. 313).

Other methods for collecting data for social research include personal interviews and telephone interviews. Both of these methods allow for in-depth probing of the subjects and the use of computer-aided tools to improve accuracy and reduce cost. They also are susceptible to higher costs and bias than survey methods (Cooper & Schindler, 2001). The survey approach will be used for this study because of cost concerns and the need for accurate, unbiased results.

The classic experimental design has three characteristics. First, each experiment has a treatment and a control treatment. Second, the subjects are randomly assigned to the treatment and control groups. Third, outcome must be measured before and after treatments. The quasi-experimental design has all of the same characteristics as the classic experimental design except for that of random assignment (Greeno, 2002).

Quasi-experiments are often used in evaluation research (Babbie, 1998). Babbie says that "Quasi-experiments are distinguished from *true* experiments primarily by the lack of random assignments of subjects to an experimental and a control group" (Babbie, 1998, P.

340). Quasi-experiments are often required in a natural environment where external variables cannot be controlled (Cooper & Schindler).

The quasi-experimental method will be used for this study because it is a field study. The nature of the training that will be studied requires that the study be as unobtrusive as possible so as not to influence the outcome of the training or the study.

In an experiment, pretesting and posttesting are used to determine the effect of a stimulus or treatment of the subjects of the experiment. In this design, the treatment is the independent variable and the subjects of measurement are the dependent variables (Babbie, 1998). Greeno says "Students using this type of design do not compare two different treatments, they simply compare some aspect of functioning before and after clients receive a treatment" (Greeno, 2002, P. 735).

An alternative to this approach is to add a control group to the study. Using this method, a group would be tested without receiving a treatment (Cooper & Schindler). This is unfeasible for this study because the researcher is attempting to measure the difference of the survey results before and after a treatment.

Summary

As market, financial, and regulatory conditions change, businesses are required to change to ensure their survival and growth. Incremental change is part of the normal evolution of a business. Occasionally incremental change is not enough to ensure a company's survival. In these cases, transformational change is required (Cummings & Worley, 2001; French & Bell, 1999).

Transformational change affects the entire organizational structure of a company. Systems, processes, and reporting structures are changed as people and departments learn new ways of working together. Transformational change presents a unique set of challenges. Most leaders do not possess the unique skills necessary to execute transformational change. Because of this, many organizations bring in new leadership to affect transformational change (Anderson & Anderson, 2001; Lussier & Achua, 2001).

Some researchers believe that organizations should develop transformational leadership internally. Change can be faster and more effective if it is led by an organization's existing leadership team. Having

transformational leaders within an organization prepares it for faster, more effective action when transformational change is needed (Anderson & Anderson, 2001).

The leadership grid theory is widely used in leadership training. It teaches a management methodology that systemically incorporates a change capability within an organization (Blake & McCause, 1997).

The Multifactor Leadership Questionnaire (MLQ) is the most widely used instrument for measuring transformational leadership characteristics. It has been used as a pre and post training assessment tool to measure the effect of training on students' perceptions of transformational leadership characteristics (Northouse, 2000; Bass & Avolio, 2000; Corrigan et al., 2000).

By using the MLQ before and after grid theory training, one can measure the effects of this training on the trainees. By measuring each of the MLQ factors independently, changes in those specific transformational and transactional factors will indicate which ones are affected by the training. To determine how useful grid theory training is, when developing transformational leaders, survey results from multiple training events can be analyzed (Corrigan et al., 2000).

CHAPTER 3: RESEARCH METHODOLOGY

Introduction

This section contains the methodology and design of the dissertation research. The target research population, the survey, and the data analysis procedures are described. Also presented, is the research design and a description of the data collection and analysis methods.

Description of the Research Design

Evaluation research was used for this dissertation (Babbie, 1998). Within this model, a quasi-experimental design was used to evaluate whether grid training resulted in a change in the trainees' perceptions of transformational leadership's importance. This method is often used to evaluate programs in question (Babbie, 1998, p. 340). This design facilitates the study of how an intervention affects dependent variables (Cooper & Schindler, 2001). The intervention studied as the independent variable was the leadership grid training. The dependent variables were the factors measured by the Multifactor Leadership Questionnaire. An advantage to using this design is that the independent variable can be manipulated and the resulting effects on dependent

variables can be measured. This creates a tighter link between independent and dependent variables. Another advantage is that the survey can be replicated to study multiple occurrences of the grid training class. Also, by using the class as a naturally occurring event, the researcher is not perceived by the subjects as being part of the independent variable being studied (Cooper & Schindler, 2001). Disadvantages to using this design include the ethicality of manipulating and studying people, the ability to generalize results across a broad range of subject types, and the effect of artificial study environments on the subjects being studied (Cooper & Schindler, 2001). Since this study focused on a specific population and was done in a classroom setting, the effects of these disadvantages should not have an adverse effect on the results of this study.

The research design for this dissertation was one-group pretest-posttest design (Babbie, 1998). Using this method, subjects were pretested, via self-administered MLQ 5X surveys, before they attended a leadership grid training class. The same data were collected after the participants attended the class via posttest MLQ 5X surveys. The two datasets were compared to measure the effect of the

training on the participants. Surveys are the best method for collecting data from a population too large and geographically dispersed for the researcher to engage in person (Babbie, 1998).

An advantage to this design is that it isolates the results of the testing to the intervention studied (Babbie, 1998). Pre- and post training results were paired by individual subject to measure the differences.

A disadvantage to this design is that a factor, other than the independent variable, could affect the results of the test (Babbie, 1998). To address this issue, the testing interval was 4 to 6 weeks. Another disadvantage is the possibility that the effect of testing subjects may cause an awareness in them that could influence the responses (Babbie, 1998). Again, the 6-week interval between surveys minimized the testing effect. Another disadvantage to this design is the researcher's inability to control the history to which the subjects have been exposed. Some events may influence survey results (Babbie, 1998). By using employees of the same company, an element of consistency was introduced. The assumption is that the researcher can better identify events that occur or may have occurred that could affect the study. This, however, potentially limits

the validity of the results to the environment studied. Subject maturation is another potential disadvantage to this design, especially in long-term experiments (Babbie, 1998). Since the total time between surveys was 4 to 6 weeks, it was assumed that the maturation effect was minimal, and the intervention itself was the cause of the maturation. To ensure this, the researcher compared pre and post class survey dates and eliminated any that fell within 3 weeks of each other.

Target Population

The target population was students in leadership grid training classes. All students were employees of the same Fortune 500 company in the automotive parts industry. All leadership grid training was provided by employees of the corporate university. All instructors were college graduates trained and certified to teach the class. Class attendees were selected by managers for this training. This class is part of a structured management training program designed to develop the company's future leaders.

The population represents a cross-section of the company's employees. The class participants included technical people, supervisors, managers, and clerical

people who managers believe show the potential for promotion in the organization. The majority of the students were based in the United States; however, there were some international attendees. The educational level of the subjects ranged from high school graduate to people with master's degrees.

Sample

Nonprobability sampling was used for this research. Managers within the enterprise determined who the class participants were. The nonprobability method was acceptable for this study because it met the sampling objectives. There was no need to generalize across the entire population of employees. The results of this study are only relevant to those who are selected to attend the training classes (Cooper & Schindler, 2001). All participants in two classes were surveyed for this study. Department managers selected a purposive sampling of candidates for these classes based on each individual's potential to move into a supervisory role. This purposive method was less reliable than other alternatives, but was well suited for this study because the selection of class attendees was not based upon MLQ factors (Babbie, 1998). Instead, it was based upon the

perceived potential of an individual as evaluated by his or her manager. Because of this, how a person was selected was less likely to introduce a bias to the research results. Furthermore, the managers responsible for the selection of attendees were not aware that the study was being conducted. Class participants were asked for voluntary participation in the study after they were selected to attend the class.

Treatment

The treatment being studied was a leadership training class based on the leadership grid theory. Students were selected by their managers to participate in the class as part of a management training program. All instructors were college graduates and certified by Grid International to teach the class. Each class lasted 1 week.

Four to 6 weeks prior to each class, participants were mailed a packet containing class prework. The participants were required to read a textbook and complete a workbook. The text used was *Leadership Dilemmas - Grid solutions* (Blake & McCaense, 1997). The prework required approximately 40 hours of effort to complete.

The training was delivered in a classroom setting. Classes ran between 8 and 10 hours per day for 5 consecutive days. During the classroom sessions, the students participated in exercises and discussions that helped them develop the 9,9 management style (Blake & McCauley, 1997). Part of this training included a six-phase approach to organizational development and change.

The class is an ongoing effort that is repeated several times throughout the year. The researcher studied two classes. Each class had approximately 28 participants.

Data Gathering Procedure

The researcher worked with the corporate university staff to include the MLQ 5X survey in the existing leadership grid theory training. The survey forms were color-coded and pretest and posttest forms were different colors to eliminate identification errors. Appendix C contains a copy of the survey form. An e-mail letter was sent to each participant prior to the class explaining that the survey would be sent to them and the focus of this research project. Appendix D contains a copy of the e-mail text. Each survey packet included an instruction sheet, the MLQ 5X survey form, and a return envelope. Appendix E

contains a copy of the preclass instruction sheet. The pretest survey was given to identify it as the item that was to be completed and returned as soon as it was received. Upon completion of the class, each participant was given the postclass survey pack, which included the MLQ survey form, an instruction sheet, and a return envelope. Appendix F contains a copy of the postclass instruction sheet.

Instrumentation

The measurement instrument used for this study was the Multifactor Leadership Questionnaire (MLQ) (Form 5X-Rater) from the Center for Leadership Studies (Bass & Avolio, 2000). An example of this instrument is included in Appendix C. The instrument consists of 45 items which use a 5-point Likert response scale. The scale ranges from *Frequently, if not always* to *Not at all*. Response scores range from 4 if *Frequently, if not always* is chosen to 0 if *Not at all* is chosen.

The transformational leadership scale titles are as follows:

1. Idealized Influence (Attributed) - II(A)
"Instills pride in being associated with him/her"

Internal reliability coefficient of .86.

2. Idealized Influence (Behavior) - II(B)

"Talks to us about his/her most important values and beliefs"

Internal reliability coefficient of .87.

3. Inspirational Motivation - IM

"Expresses his/her confidence that we will achieve our goals"

Internal reliability coefficient of .91.

4. Intellectual Stimulation - IS

"Emphasizes the value of questioning assumptions"

Internal reliability coefficient of .90.

5. Individualized Consideration - IC

"Treats me as an individual rather than just a member of a group"

Internal reliability coefficient of .90.

6. Contingent Rewards - CR

"Gives me what I want in exchange for my support"

Internal reliability coefficient of .87.

7. Management-by-exception (Active) - MBEA

"Focuses attention on irregularities, mistakes, exceptions, and deviations from standards"

Internal reliability coefficient of .74.

8. Management-by-exception (Passive) - MBEP

"Fails to intervene until problems become serious"

Internal reliability coefficient of .82.

9. Laissez-Faire - LF

"Avoids getting involved when important issues arise"

Internal reliability coefficient of .83.

10. Extra Effort - EE

"Getting others to do more than they expected to do"

Internal reliability coefficient of .91.

11. Effectiveness - EFF

"Meeting job-related needs and leading an effective group"

Internal reliability coefficient of .91.

12. Satisfaction - SAT

"Working with others in a satisfying way"

Internal reliability coefficient of .94.

(Bass & Avolio, 2000, pp. 13-23)

Validity and Reliability

The original studies that led to the MLQ 5X survey date back to the original six-factor model in 1985. The instrument has been critiqued and revised to its current 12-factor form (Bass & Avolio, 2000). The data used for

validity and reliability consists of a set of nine samples drawn from various groups of respondents representing 2,154 raters. The scores show that reliabilities range from .74 to .94.

The MLQ is usually used as an instrument for subordinates to rate their leaders. For this study, participants were instructed to rate each item according to their perceptions of what the ideal leader is (Corrigan et al., 2000).

Grid research shows that self-deception is a major barrier to achieving change. As part of a grid seminar, participants are given a questionnaire as a self-assessment tool. The questionnaire measures their personal managerial style. Seminar participants are measured before and after the seminar. Overall, self-assessments drop an average of 51.4%. This reduction is explained several ways. First, participants become more objective through better understanding of grid concepts. Second, as one becomes more able to separate personal intentions from personal behavior, self-deception plays less of a role in self-evaluation. Third, as part of the grid seminar, participants are able to see how others evaluate them. This

new information improves objectivity (Blake & Mouton, 1985).

To avoid issues with self-deception, and to recognize that class participants are not able to accurately evaluate their own leadership characteristics immediately after the class, it was determined that a measure of ideal leadership characteristics would be more appropriate (Corrigan et al., 2000).

Because of privacy concerns, the survey was modified to not require the subjects to include their names on the form. Instead, they were asked to use an identification number of their own choosing. They were asked to use the same number on both the pre- and postsurveys. This facilitated the matching of surveys to ensure that pre- and postsurveys were obtained from each participant. It also facilitated matching the surveys into pairs so that pre- and postdeltas could be calculated. Surveys that were not matched into pairs were omitted from the study.

Data Analysis

The researcher used Microsoft Excel and Minitab for data analysis. As each survey was returned, the data were entered into an Excel spreadsheet. Pre- and postsurveys

were matched and entered as a complete row. Formulas were used to automatically calculate each MLQ factor and the delta between the pre- and postcourse responses. These data were exported to Minitab for analysis of mean, and standard deviation for each factor and delta.

A paired-observation comparison was used to analyze the pretest and posttest survey results. By using paired-observation comparisons, the researcher was able to limit variations caused by external factors, which makes the experiment more precise (Aczel, 2002). A paired-sample *t* test was performed on each MLQ factor to calculate the variance of differences (Kanji, 1999). This method is preferred when comparing results using the same subjects. In this case, a paired comparison *t* test is more precise (Aczel, 2002). Limitations of this test include the necessity to obtain samples in pairs, make observations under identical conditions, and ensure that the populations are normally distributed (Kanji, 1999).

Research Question 1, *What are the differences in transformational thinking prior to and after grid training in the company studied*, was addressed directly by the factors labeled idealized influence, inspirational motivation, intellectual stimulation, and individualized

consideration. Pretest and posttest deltas that are higher for these factors represent a change in transformational thinking. Lower deltas in the factors labeled contingent reward, management-by-exception, and laissez-faire indicate a change in transactional thinking, which also indicates a change in transformational thinking.

Research Question 2, *How does grid training affect the transformational aspects of how grid theory training participants think about leadership in the company studied*, was addressed directly by the factors labeled idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Pretest and posttest deltas that are higher for these factors represent an increase in transformational thinking.

Research Question 3, *How effective is grid training itself when developing transformational leaders leadership in the company studied, as measured by pre and post Multifactor Leadership Questionnaires*, was addressed directly by the factors labeled idealized influence, inspirational motivation, intellectual stimulation, individualized consideration contingent reward, management-by-exception, and laissez-faire. A comparison of pretest

and posttest deltas for each factor indicate which factors are more and less affected by the treatment.

Research Question 4, *Which transformational leadership characteristics change the most after a leadership grid theory training class leadership in the company studied*, was addressed directly by the factors labeled idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Pretest and posttest deltas that are higher for these factors represent an increase in transformational thinking. Lower deltas in the factors labeled contingent reward, management-by-exception, and laissez-faire indicate a decrease in transactional thinking, which is also a positive indicator for transformational thinking.

Ethical Concerns

Since this research involved the use of human subjects, the participants' rights to privacy were considered. Participants attested to their voluntary participation in the study by indicating so on the survey form that was used. The anonymity of the subjects was protected by using a self-defined code to match pre- and postsurveys instead of their actual names. Written approval

was obtained from the company to be studied. All confidential, anonymous documents will be archived for 5 years and then destroyed.

CHAPTER 4: ANALYSIS OF FINDINGS

Introduction

This study was instituted to investigate the effect of leadership grid theory training on transformational leadership characteristics as measured by the Multifactor Leadership Questionnaire (MLQ 5X). Grid theory training was facilitated by certified grid trainers. The MLQ 5X was used as the pretest and posttest survey instrument to determine the impact of the training.

The objective of this chapter is to explain the investigation of the research questions raised in chapter one of this study. The statistical data analysis was performed with the use of the Minitab version 13.32 software package.

Situational Overview

Two grid theory classes were studied. A total of 56 students participated in the training. The classes consisted of 42 males and 14 females. One participant was from Japan, one from Brazil, one from India, one from Canada, and the rest were from the United States. A purposive sample of 37 paired pretest and posttest results were derived from the total population of 56 participants.

Nineteen participants were eliminated because the researcher was unable to match pretest and posttest surveys, class participants failed to turn in completed surveys, or the minimum 3 week interval between pre- and postsurveys was not met.

The 45 questions on the Multifactor Leadership Questionnaire were categorized into the twelve transformational leadership scale titles. Each title consisted of 2 to 4 questions. The total score for all questions in each title was divided by the number of questions for that title. The calculations were as follows:

Idealized Influence (Attributed) Total/4
Idealized Influence (Behavior) Total/4
Inspirational Motivation Total/4
Intellectual Stimulation Total/4
Individualized Consideration Total/
Contingent Rewards Total/4
Management-by-exception (Active) Total/4
Management-by-exception (Passive) Total/4
Laissez Faire Total/4
Extra Effort Total/3
Effectiveness Total/4
Satisfaction Total/2

(Bass & Avolio, 2000, p. 1)

The individual pretest and posttest results were paired. Paired observation comparisons remove extraneous variations between pretreatment and posttreatment results (Aczel, 2002). A paired-differences *t* test was performed on

the data collected. Each MLQ 5X factor was analyzed individually. The results of this analysis are summarized in Table 1.

Table 1

Grid Training Pre and Post test Differences in MultiFactor Leadership Questionnaire (MLQ) Scores

MLQ Variable	Pre Test		Post Test		Diff		P-Value
	M	SD	M	SD	M	SD	
Idealized Influence (Attributed)	3.14	.64	3.19	.54	.05	.62	.647
Idealized Influence (Behavior)	3.15	.45	3.42	.44	.27	.56	.006 P<.05
Inspirational Motivation	3.35	.45	3.62	.43	.27	.50	.002 P<.05
Intellectual Stimulation	3.08	.53	3.76	.43	.68	.50	.000 P<.05
Individual Consideration	3.4	.53	3.43	.5	.03	.60	.735
Contingent Reward	3.03	.42	2.95	.48	-.08	.59	.448
Active Manage by Except	1.62	.84	1.72	.75	.10	.92	.506
Passive Manage by Except	.77	.65	.55	.75	-.22	.81	.112
Laissez Faire	1.0	.48	.81	.44	-.19	.58	.054
Extra Effort	3.41	.48	3.79	.34	.39	.53	.000 P<.05
Effectiveness	3.41	.47	3.61	.39	.20	.56	.033 P<.05
Satisfaction	3.21	.79	3.10	.99	-.12	1.21	.569

General Observations

The Multifactor Leadership Questionnaire factors labeled idealized influence, inspirational motivation,

intellectual stimulation, and individualized consideration represent transformational thinking characteristics. Increases in these factors indicate an increase in transformational thinking. Decreases in these factors indicate a decrease in transformational thinking (Bass & Avolio, 2000). All of these factors showed a mean increase in the posttest surveys. The factors labeled idealized influence, inspirational motivation, and intellectual stimulation showed significant differences in the paired-difference *t* test. The Multifactor Leadership Questionnaire factors labeled contingent reward, management-by-exception, and laissez-faire indicate a decrease in transactional thinking, which is also a positive indicator for transformational thinking (Bass & Avolio, 2000; Northouse, 2000). These 3 factors showed a decrease in posttest surveys; however the difference was not significant enough to meet the .05 *p*-value threshold for significance. Additionally, the factors labeled extra effort and effectiveness increased significantly in posttest surveys.

Research Question 1

Research Question 1, *What are the differences in transformational thinking prior to and after grid training*

leadership in the company studied, is addressed directly by the factors labeled idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Pretest and posttest deltas that are higher for these factors represent an increase in transformational thinking. Lower deltas in the factors labeled contingent reward, management-by-exception, and laissez-faire indicate a decrease in transactional thinking, which is also a positive indicator for transformational thinking (Bass & Avolio, 2000; Northouse, 2000).

Pretest posttest deltas for the factors labeled idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration all showed mean increases. The factors labeled idealized influence, inspirational motivation, and intellectual stimulation showed significant differences in the paired-difference *t* test. The factor labeled idealized influence, inspirational motivation, and intellectual stimulation showed significant differences. Idealized influence (behavior) had a pretest mean of 3.15 and a posttest mean of 3.42 giving a mean difference of .27. Inspirational motivation had a pretest mean of 3.35 and a posttest mean of 3.62 giving a mean difference of .27. Intellectual stimulation had a pretest

mean of 3.08 and a posttest mean of 3.76 giving a mean difference of .68.

Pretest-posttest deltas for the factors labeled contingent reward, management-by-exception, and laissez-faire showed a decrease in their mean difference; however, these differences did not meet the p-value threshold of $<.05$ for significance.

This research question addresses the participants' overall thinking about transformational concepts. These concepts include, not only transformational factors, but also the antithesis of transformational factors known as transactional factors. Because of this, all of the factors measured by the Multifactor Leadership Questionnaire (MLQ 5X) are considered in the analysis (Bass & Avolio, 2000; Northouse, 2000). By observing each factor individually, it is possible to determine which factors show a difference in transformational thinking after participating in grid theory training and which factors' deltas are significant.

Research Question 2

Research Question 2, How does grid training affect the transformational aspects of how grid theory training participants think about leadership in the company studied,

is addressed directly by factors labeled idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Pretest and posttest deltas that are higher for these factors represent an increase in transformational thinking (Bass & Avolio, 2000; Northouse, 2000).

Pretest-posttest deltas for the factors labeled idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration all showed mean increases. The factors labeled idealized influence, inspirational motivation, and intellectual stimulation showed significant differences in the paired-difference *t* test. The factors labeled idealized influence, inspirational motivation, and intellectual stimulation showed significant differences. Idealized influence (behavior) had a pretest mean of 3.15 and a posttest mean of 3.42 giving a mean difference of .27. Inspirational motivation had a pretest mean of 3.35 and a posttest mean of 3.62 giving a mean difference of .27. Intellectual stimulation had a pretest mean of 3.08 and a posttest mean of 3.76 giving a mean difference of .68.

Unlike Research Question 1, this research question addresses only the participants' thinking about

transformational leadership concepts. These concepts include only transformational factors and exclude the transactional factors (Bass & Avolio, 2000; Northouse, 2000). By observing only these factors, it is possible to determine which transformational factors show a difference after participating in grid theory training.

Research Question 3

Research Question 3, *How effective is grid training itself when developing transformational leaders in the company studied, as measured by pre and post Multifactor Leadership Questionnaires*, is addressed directly by the factors labeled idealized influence, inspirational motivation, intellectual stimulation, individualized consideration, contingent reward, management-by-exception, and laissez-faire. A comparison of pretest and posttest deltas for each factor indicates which factors are more and less affected by the treatment.

Table 2 shows a list of the Multifactor Leadership Questionnaire factors sorted by pretest posttest mean delta. Idealized influence (behavior) had a pretest mean of 3.15 and a posttest mean of 3.42 giving a mean difference of .27. Inspirational motivation had a pretest mean of 3.35

and a posttest mean of 3.62 giving a mean difference of .27. Intellectual stimulation had a pretest mean of 3.08 and a posttest mean of 3.76 giving a mean difference of .68. Idealized influence (attributed) had a pretest mean of 3.14 and a posttest mean of 3.19 giving a mean difference of .05. Individual consideration had a pretest mean of 3.4 and a posttest mean of 3.43 giving a mean difference of .03. Contingent reward had a pretest mean of 3.03 and a posttest mean of 2.95 giving a mean difference of -.08. Active management-by-exception had a pretest mean of 1.62 and a posttest mean of 1.72 giving a mean difference of .10. Passive management-by-exception had a pretest mean of .77 and a posttest mean of .55 giving a mean difference of -.22. Laissez faire had a pretest mean of 1.0 and a posttest mean of .81 giving a mean difference of -.19.

Table 2

Ranking of Multifactor Leadership Questionnaire Pretest
Posttest Deltas Listed Highest To Lowest

MLQ Variable	Pretest Posttest Mean Delta
Intellectual Stimulation	.68
Idealized Influence (Behavior)	.27
Inspirational Motivation	.27
Passive Manage by Except	-.22
Laissez Faire	-.19
Active Manage by Except	.10
Contingent Reward	-.08
Idealized Influence (Attributed)	.05
Individual Consideration	.03

With this research question, the researcher established a baseline for future research on the subject of leadership training and transformational leadership characteristics. By evaluating each transformational and transactional factor, it is possible to gauge the relative level of effectiveness of the training on each factor. Unlike Research Questions 1 and 2, Question 3 looks at pretest-posttest deltas without regard for significance.

Research Question 4

Research Question 4, *Which transformational leadership characteristics change the most after a leadership grid theory training class in the company studied*, is addressed directly by factors labeled idealized influence,

inspirational motivation, intellectual stimulation, and individualized consideration. Pretest and posttest deltas that are higher for these factors represent an increase in transformational thinking. Lower deltas in the factors labeled contingent reward, management-by-exception, and laissez-faire indicate a decrease in transactional thinking, which is also a positive indicator for transformational thinking (Bass & Avolio, 2000; Northouse, 2000).

Idealized influence (behavior) had a pretest mean of 3.15 and a posttest mean of 3.42 giving a mean difference of .27. Inspirational motivation had a pretest mean of 3.35 and a posttest mean of 3.62 giving a mean difference of .27. Intellectual stimulation had a pretest mean of 3.08 and a posttest mean of 3.76 giving a mean difference of .68. Idealized influence (attributed) had a pretest mean of 3.14 and a posttest mean of 3.19 giving a mean difference of .05. Individual consideration had a pretest mean of 3.4 and a posttest mean of 3.43 giving a mean difference of .03. Contingent reward had a pretest mean of 3.03 and a posttest mean of 2.95 giving a mean difference of $-.07$. Active management-by-exception had a pretest mean of 1.62 and a posttest mean of 1.72 giving a mean difference of

.10. Passive management-by-exception had a pretest mean of .77 and a posttest mean of .55 giving a mean difference of -.22. Laissez faire had a pretest mean of 1.0 and a posttest mean of .81 giving a mean difference of -.19. Refer to Table 2 for a list of the Multifactor Leadership Questionnaire factors sorted by pretest posttest mean delta.

This research question differs from the others because it required the researcher to rank the pretest-posttest deltas in the order of their values. By doing so, it was possible to determine which factors changed the most.

Summary

This chapter concludes with a summary analysis of the research questions and analysis criteria described in chapter three. For Research Question 1, differences in transformational thinking include significant differences in idealized influence, inspirational motivation, and intellectual stimulation. For Research Question 2, grid training had a significant positive effect on the transformational factors of idealized influence, inspirational motivation, and intellectual stimulation. For Research Question 3, grid training was most effective for

the factors labeled intellectual stimulation, idealized influence (behavior), inspirational motivation, passive manage-by-exception, and laissez faire factors which indicate a high level of effectiveness when developing leaders. For Research Question 4, the factors labeled idealized influence, inspirational motivation, and intellectual stimulation factors showed the most positive change.

Each research question segments the effects of grid theory training on transformational leadership characteristics. The overall indications are that the results for each research question show positive results.

CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The research completed in this study was designed to measure the effects of leadership grid theory training on transformational leadership factors. In this chapter, the researcher will recap the reasons for this study and show how the results address the issues brought forward in chapter one. Conclusions drawn from the analysis of the data collected will be presented as well as recommendations for future research.

Conclusions of the Study

The study concludes that Multifactor Leadership Questionnaire (MLQ 5X) scores are different before and after leadership grid training.

The factors labeled idealized influence, inspirational motivation, intellectual stimulation, individualized consideration, contingent rewards, passive management-by-exception, laissez faire, and extra effort showed a change that was consistent with a movement toward transformational leadership thinking. Active manage by exception did not.

The factors labeled idealized influence, inspirational motivation, and intellectual stimulation showed significant increases in the level of transformational leadership thinking.

This positive shift toward transformational thinking suggests that the grid theory training was effective in increasing the transformational characteristics of the class participants. The three factors that showed significant increase are those that refer to a leader's ability to become a role model, challenge followers, and stimulate creativity. These characteristics are essential for leaders to affect transformational change in an organization.

Overall, this study concludes that leadership grid theory training can be an effective tool for developing transformational leaders. Through this study, the researcher adds to the body of knowledge that researchers and organizational development practitioners can use to prepare leaders for transformational change. The new knowledge presented in this study indicates that leadership grid training improves transformational thinking in two ways. It increases a person's tendency to use transformational leadership methods, and it reduces his or

her tendency to use transactional leadership methods. Organizations that wish to develop transformational leaders should consider grid theory training in their leadership development programs.

Conclusions Related to the Research Questions

The purpose of this study was to use the Multifactor Leadership Questionnaire (MLQ 5X) in a quasi-experimental, pretest-posttest research design to measure how leadership grid theory training affects transformational leadership characteristics. Three transformational leadership factors, idealized influence, inspirational motivation, and intellectual stimulation showed significant increases. Idealized influence, or charisma, 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. Inspirational motivation refers to leaders who set high expectations for followers and inspire them to become part of a shared vision. Intellectual stimulation refers to leaders who stimulate creativity in followers. They encourage followers to challenge their own beliefs as well as those of their leaders (Northouse, 2000).

Research Question 1: *What are the differences in transformational thinking prior to and after grid training in the company studied?* The researcher concludes that overall it is possible to improve an individual's transformational thinking and minimize his or her transactional thinking through leadership grid theory training. This conclusion is supported by the increase in mean scores for transformational leadership factors and the decrease in mean scores for transactional leadership factors.

Leadership grid theory training includes developing higher levels of effectiveness in leading changes aimed at improving the whole organization. This training focuses on a team approach to leveraging individuals to effect deep organizational change (Blake & McCause, 1997).

Leaders who complete leadership grid theory training will be more successful in effecting deep structural changes in organizations while introducing the minimum amount of risk. Organizations that have a need to develop transformational leaders should introduce leadership grid training programs into their leadership development programs. Individuals who complete this type of training and leverage grid theory concepts can expect to be more

effective leaders of deep, structural organizational change.

Organizations can use this research to evaluate leadership grid training by comparing it to research on other types of management training. Depending on the level and type of change needed, the appropriate training can be selected, or the training can be tailored to address the specific needs of the organization. By using this approach, training can be more effective because it can be better aligned to the level of change leadership needed.

Research Question 2: How does grid training affect the transformational aspects of how grid theory training participants think about leadership in the company studied?

The researcher concludes that it is possible to improve the transformational aspects of being a role model, challenging followers, and stimulating creativity through leadership grid theory training. This conclusion is supported by the increases in the transformational factors idealized influence, inspirational motivation, and intellectual stimulation.

Grid theory training addresses how leaders form relationships within an organization to achieve results.

These relationships develop creativity and improve organizational morale. This allows leaders to convert resources to results (Blake & McCauley, 1997).

Organizations that have a strong transactional base in place for setting expectations can use leadership grid theory training to improve the transformational characteristics of its leadership. Leadership effectiveness can be improved by leveraging the knowledge gained through this training to improve an individual's ability to align and focus subordinates. After training, leaders should be more effective in developing mature relationship with the other members of the organization.

Research Question 3: *How effective is grid training itself when developing transformational leaders in the company studied?* The researcher concludes that leadership grid theory training can be an effective part of a transformational leadership development program. This conclusion is supported by the increase in transformational factors and the decrease in transactional factors. The researcher also concludes that grid training is most effective in the areas of charisma, being a role model, challenging followers, and stimulating creativity.

Organizations that are interested in developing transformational leaders should use leadership grid theory training as part of their management training programs. Leadership effectiveness can be improved by developing a person's ability to inspire others when transformational change is necessary. Organizations with a strong transactional base should, however, be careful not to change so much as to make goal-setting too ambiguous. Organizations that need to maintain more stable environments without change should temper their leadership grid theory training to deemphasize the change methodology in the theory. This research, in conjunction with other research on leadership theory training, can be used to make tempered decisions about the type of training that is appropriate in specific situations.

Research Question 4: *Which transformational leadership characteristics change the most after a leadership grid theory training class in the company studied?* The researcher concludes that the transformational characteristic of intellectual stimulation increases the most after Leadership grid theory training. This conclusion is supported by the fact that this factor showed the

highest pretest posttest delta and the highest level of statistical significance.

This result is consistent with the grid theory of developing an R2 leader. R2 leaders are able to harness the talents of an organization to achieve results (Blake & McCauley, 1997).

Organizations that need to increase creativity and inspire employees to look for new and innovative solutions can benefit from leadership grid theory training for their managers. By developing this transformational characteristic, managers can improve their effectiveness by challenging subordinates to question the status quo and look for new ways of doing things. This, of course, is contraindicated in environments where process stability is desired.

Relationship to Past Literature

One purpose of this study was to contribute to the existing body of literature that exists on the subjects of training, transformational leadership, and the leadership grid theory. Prior research by Corrigan, Lickey, Campion, and Rashid used similar methods to assess a short generalized leadership class. The study also suggested that

future research should be done to replicate the results (Corrigan et al., 2000). This study goes beyond the prior research by focusing exclusively on training based on the grid leadership theory while using the same Multifactor Leadership Questionnaire as the instrument of measurement. This approach expands Corrigan, Lickey, Campion, and Rashid's method to the study of a specific theory while creating a base of knowledge that is focused specifically on the leadership grid theory.

Possible Social Impact

The transformational factor labeled *Idealized Influence* refers to a leader's function as a charismatic role model (Northouse, 2000). Charismatic leaders often emerge during tumultuous periods of social change (Barnes, 1978). Based on the conclusions presented here, training in the grid theory approach to leadership would help prepare an individual to assume these responsibilities as a social leader in an organization.

The transformational factor labeled *Inspirational Motivation* refers to a leader's ability to inspire followers to become part of a shared vision (Northouse, 2000). Successful leaders of social change are able to

inspire followers (Fiol, Harris, & House, 1999). Based on the significance of the mean increase in the factor labeled *inspirational motivation*, grid theory training would help potential leaders of social change develop the skills necessary to inspire followers to become part of a shared vision.

The transformational factor labeled *Intellectual Stimulation* refers to a leader's ability to stimulate creativity in followers and get them to challenge their own beliefs as well as those of their leaders (Northouse, 2000). To lead social change in an organization, leaders must break through status-quo thinking in followers and get them to challenge the justifications that support current beliefs (Jost, Pelham, Sheldon, & Sullivan, 2003). Based on the significance of the mean increase in the factor labeled *intellectual stimulation*, grid theory training would help future leaders of social change develop the ability to get followers to challenge their beliefs.

Recommendations for Additional Research

This research builds on research conducted at the University of Chicago Center for Psychiatric Rehabilitation that showed that a brief, one-day general leadership class

can be effective in improving leadership skills. Improvements in individualized consideration and management-by-exception were measured using the MLQ. The researchers concluded that a brief course on leadership skills could improve an individual's perceptions of ideal leadership (Corrigan et al., 2000).

The research presented here narrows the leadership training to include only leadership grid training. The conclusions are applicable to a corporate training program using a grid theory training program. The Multifactor Leadership Questionnaire (MLQ 5X), in this study, is used to measure perceptions of ideal leadership.

Recommendations for future research include using the same research methodology to measure training in other leadership theories. The results of this additional research could be included with the research presented here to evaluate the effectiveness of each theory's training as it relates to perceptions of ideal leadership characteristics.

Additional research should also include a follow-up of class participants using the Multifactor Leadership Questionnaire to survey subordinates of class participants. This research would go beyond the perceptions of leadership

by class participants and study how well the concepts presented in the class are put into practice.

Summary

Market and economic conditions often require organizations to change as a reaction to these new conditions. Companies must often go through periods of transformational change in order to survive. Transformational changes often require deep structural modifications to people, processes, and technology. Companies are often not well-equipped to lead themselves through transformational changes. Special leadership skills are required to execute deep structural changes. During periods of transformational change, companies are at risk due to the disruptions caused by the change. Change consultants are often brought in to help with the change. New leadership is often brought in as well (Anderson & Anderson, 2001).

Some believe that companies should develop internal capabilities to deal with transformational change. They think that this change capability is too critical to trust to leaders not familiar to the company and its micro and macro environment. Many companies have internal management

training programs. Leadership grid training is one of the most popular programs deployed in companies (Anderson & Anderson, 2001; Yaeger, Sorensen, & Mckee, 1999).

This study aimed to evaluate which, if any, transformational leadership characteristics are affected by leadership grid training. The Multifactor Leadership Questionnaire (MLQ 5X) was used as a pretest posttest instrument to measure changes in transformational change characteristics as a result of leadership grid training.

The researcher used a quasi-experimental design to study leadership grid training classes held in a corporate training facility. Class participants were surveyed before and after attending the class. This purposive sample of survey results was analyzed using a paired comparison *t* test to determine if there was a significant difference in the pretest and posttest scores.

By analyzing differences in transformational leadership characteristics, the researcher was able to measure differences in transformational thinking, which include transactional factors, after students participated in grid theory training. The researcher was also able to isolate only the transformational factors to determine the effects on those elements alone. A baseline of overall

effectiveness was established for comparison to future research on the effectiveness of other leadership theories in the development of transformational leaders. Finally, the researcher determined which transformational leadership characteristic changed the most as a result of grid theory training.

The findings show that grid theory training has an overall positive effect on transformational leadership factors. The researcher also determined that the factor labeled *intellectual stimulation* showed the most significant improvement after grid theory training.

Organizations that require transformational leadership should include grid theory training as part of their management development programs. The inclusion of this training can minimize risks to the organization during times when transformational change is required for survival. Failure to successfully execute transformational change, when it is needed, can result in the demise of the organization. grid theory training reduces these organizational risks.

The ability to inspire and challenge followers is essential for successful leaders. This study shows that grid theory training can improve these transformational

factors. Leaders of social change as well as organizational leaders can benefit from grid theory training. Current and future leaders should include grid theory training as part of their personal development programs.

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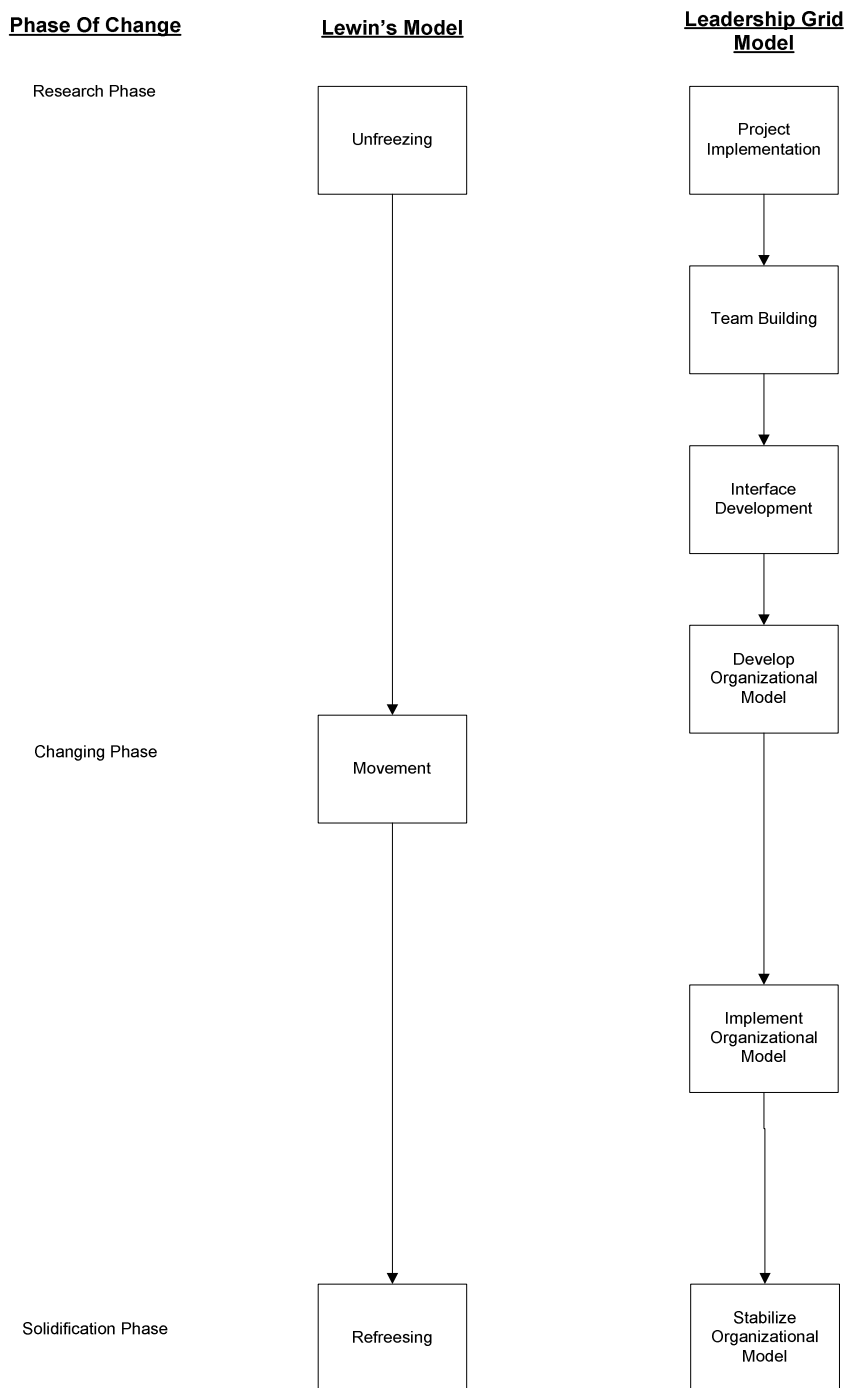
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Appendix A

Flowchart of Change Models

Appendix A



Adapted From (Cummings & Worley, 2001)

Appendix B

Sample Multifactor Leadership Questionnaire (MLQ-5x)

Appendix B

Leader Form

Identification Key: _____ Date: _____

I have read the instruction sheet accompanying this survey and voluntarily consent to participate in this study. Please circle yes or no:

Yes No

This questionnaire is to describe your perception of an Ideal Leader. Please answer all items on this answer sheet. **If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.**

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits your perception of the Ideal Leader. The word “others” may mean your peers, clients, direct reports, supervisors, and/or all these individuals.

Use the following rating scale:

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

The *Ideal* leader

1. Provides others with assistance in exchange for their efforts.....0 1 2 3 4
2. Re-examines critical assumptions to question whether they are appropriate.....
0 1 2 3 4
3. Fails to interfere until problems become serious.....0 1 2 3 4
4. Focuses attention on irregularities, mistakes, exceptions and deviations
from standards0 1 2 3 4
5. Avoids getting involved when important issues arise0 1 2 3 4

Adapted from (Bass & Avolio, 2000)

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1690 Woodside Road, Suite 202 Redwood City, CA 94061
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18473

Date: June 30, 2004

To whom it may concern,

This letter is to grant permission for Mark T Lockett

to use the following purchased copyright material;

Instrument: Multifactor Leadership Questionnaire

Author: Bernard M Bass + Bruce J Avolio

for her/his thesis research.

In addition, 5 sample items from the instrument may be reproduced for
inclusion in a proposal or thesis.

The entire measure may not at any time be included or reproduced in other published material.

Sincerely,

A handwritten signature in black ink, appearing to read "Vickie".

Vickie Jaimez
Director of Operations

Appendix C

Sample of E-Mail that was be Sent to Class Participants

Appendix C

My name is Tom Lockett. I am a Dana employee at the Global Information Technology Group in Maumee, Ohio. I am also a Doctoral Candidate at Walden University in Minnesota. I am currently conducting research through Dana University to study Transformational Leadership characteristics.

You will soon be receiving your prework for your upcoming Leadership Styles class. Included in this prework will be a GREEN packet. Before you begin your prework, please take a few minutes to complete the confidential GREEN survey included in this packet as soon as you receive it. A cover letter is included with the questionnaire to provide you with some more information.

Once you have completed the questionnaire, place it in the anonymous envelope and return it to me.

If you have any questions or comments, please feel free to reply to this E-Mail and I will be glad to answer any questions you have.

Appendix D

Sample of Preclass Survey Cover Letter

Appendix D

Hello, my name is Tom Lockett. I am a Dana employee at the Global Information Technology Group in Maumee, Ohio. I am also a Doctoral Candidate at Walden University in Minnesota. Dana Corporation presents a unique environment in which to do research in Transformational Leadership. The results of this research will be available to Dana University for future Transformational Leadership study.

I would appreciate your voluntary participation in this doctoral research project, administered through Dana University, to study Transformational Leadership Characteristics. Included in this packet is a GREEN survey form titled "Multifactor Leadership Questionnaire". This questionnaire is intended to be filled out by participants in the "Developing the 9,9 Style of Managing" class. Please complete it and mail it in the enclosed return envelope before starting your prework. At the end of this class, you will be asked to complete an additional questionnaire. Each questionnaire should take no longer than 5 to 10 minutes to complete.

The questionnaires ask that you supply an identification key. This key will allow for the comparison of Pre and post individual responses while protecting your

confidentiality. Anonymous Individual and class results will be calculated. In order to maintain confidentiality, please use a combination of The Make Of Car You Drive and Your Mother's Birth Month and Day for your personal key. An example of this could be Ford0121. You must, however use the same identification key on both this preclass questionnaire and the one you will be given after the course, so please remember the ID that you use. To ensure confidentiality, stamped, addressed envelopes are provided for the return of your questionnaire. Simply place the envelope containing the survey in the mail. Do not include your name or location on the survey or return envelope. Please send your survey in as soon as possible. You should complete and mail it prior to doing your class prework.

Your participation is voluntary and completing the questionnaire will serve as your anonymous consent to use the information you provide. The Dissertation Chair for this study is Prof. Earl Joseph. He can be reached through e-mail at ejoseph@waldenu.edu or by phone at (612)377-3591. The Research Participant Advocate for this study is Dr. Dale Good. He can be reached through e-mail at dgood@waldenu.edu or by phone at (612)312-1210.

If you are interested in seeing the results of this study, please send an e-mail request to mluckett@waldenu.edu.

Thanks again for your cooperation!!

Tom Lockett

Appendix E

Sample of Postclass Survey Cover Letter

Appendix E

Thank you for your participation in this research on Transformational Leadership. Included in this packet is a BLUE survey form titled "Multifactor Leadership Questionnaire". This questionnaire is intended to be filled out after participating in the "Developing the 9,9 Style of Managing" class. This questionnaire should take no longer than 5 to 10 minutes to complete.

The questionnaire asks that you supply an identification key. Please use the same combination of numbers and/or letters that you used on the GREEN survey that was included in your prework. This key will allow for the comparison of Pre and post individual responses while protecting your confidentiality. Anonymous Individual and class results will be calculated. To ensure confidentiality envelopes are provided for the return of your questionnaire. Do not include your name or location on the survey or return envelope.

If you are interested in seeing the results of this study, please send an e-mail request to mluckett@waldenu.edu.

Curriculum Vitae

Mark Thomas Lockett Toledo, OH

Employment

1997 - Present Dana Corporation, Toledo, OH

Director, Business Application Delivery

1986 - 1997 Dana Corporation, Fort Wayne, IN

Manager Of Information Systems

1984-1986 Cap Gemini America, Dayton, OH

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Featured in the Computerworld article on B2B software
metrics, September 10, 2001

Winner CIO Magazine "Top 100 Manufacturing", August, 1998

Speaker at the Information Week 500 Conference, September,
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Interview Participant in OMB study of IT Procurement,
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Featured in the June 19 issue of Information Week Magazine,
1995