



12-1995

A Study to Determine the Relationship Between Perceived Communication Practices of Leaders and Subordinate Response to Change

Catherine L. Chevalier
Western Michigan University

Follow this and additional works at: <https://scholarworks.wmich.edu/dissertations>



Part of the Educational Assessment, Evaluation, and Research Commons, and the Educational Leadership Commons

Recommended Citation

Chevalier, Catherine L., "A Study to Determine the Relationship Between Perceived Communication Practices of Leaders and Subordinate Response to Change" (1995). *Dissertations*. 1738.
<https://scholarworks.wmich.edu/dissertations/1738>

This Dissertation-Open Access is brought to you for free and open access by the Graduate College at ScholarWorks at WMU. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks at WMU. For more information, please contact wmu-scholarworks@wmich.edu.



**A STUDY TO DETERMINE THE RELATIONSHIP BETWEEN
PERCEIVED COMMUNICATION PRACTICES OF LEADERS
AND SUBORDINATE RESPONSE TO CHANGE**

by

Catherine L. Chevalier

**A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Education
Department of Educational Leadership**

**Western Michigan University
Kalamazoo, Michigan
December 1995**

A STUDY TO DETERMINE THE RELATIONSHIP BETWEEN PERCEIVED
COMMUNICATION PRACTICES OF LEADERS
AND SUBORDINATE RESPONSE TO CHANGE

Catherine L. Chevalier, Ed.D.

Western Michigan University, 1995

Organizational change continues to challenge leaders as they are charged with transforming their followers from a present state to a future state. This research examined the relationship between perceived communication practices of leaders and employee response to change in a natural setting. Randomly selected employees from the research and development division of a mid-size Fortune 500 company located in the Midwest comprised the sample ($N = 110$). The study was executed upon completion of a large-scale change in policy which was formally communicated according to a protocol established by senior management. The participants completed three survey instruments: (1) Communication Environment Assessment, (2) Organizational Change Orientation Scale (Jones & Bearley, 1986), and (3) Professional Communication Inventory (Pfaff & Busch, 1992).

Pearson Product Moment Correlations were calculated between the leader's perceived skill on twelve communication practices and the employee's response to change score on three scales: supportive scale, neutral scale, and nonsupportive scale. Data analysis confirmed significant relationships between

11 of the 12 communication practices measured and employee nonsupport of change.

Individual scores on the three scales were used to determine change profiles. Employees were classified into one of seven profile patterns. The leader's mean PCI total score was used to test for differences across profile groups. ANOVA results indicated that employees who are indifferent toward change or are working toward embracing change perceive their leaders as having better communication practices than employees who resist change efforts.

A post-hoc test revealed that employees who completed the communication protocol as planned had a higher score on the supportive change scale than employees who did not complete the planned protocol.

Recommendations for further research are included.

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313/761-4700 800/521-0600

UMI Number: 9605761

UMI Microform 9605761

Copyright 1995, by UMI Company. All rights reserved.

**This microform edition is protected against unauthorized
copying under Title 17, United States Code.**

UMI

**300 North Zeeb Road
Ann Arbor, MI 48103**

ACKNOWLEDGEMENTS

I am first and foremost indebted to my dissertation chair, Dr. Kenneth E. Dickie, for his continual support throughout the dissertation process. Ken's leadership, guidance, inspiration, expertise in the area of organizational change, and unfailing encouragement provided the necessary ingredients to complete this research.

I gratefully acknowledge the contributions of my committee members, Dr. Robert O. Brinkerhoff and Dr. Trudy G. Verser. Bob provided a depth of perspective, many excellent suggestions, and support for the pragmatic value of the research. Trudy championed my efforts, helped clarify my thoughts, and relentlessly cheered me on from the start.

I also owe a debt of gratitude to Dr. Larry Pfaff and Dr. Michael Busch for donating the Professional Communication Inventories for use in this research. Appreciation is also extended to Dr. Eileen Russo for permission to use the Organizational Change Orientation Scale.

Writing a dissertation is a stressful process, even more so when multiple roles are played—that of wife, mother, daughter, friend and employee. Special thanks to the group of people, who far too large for me to mention individually, includes loving family, understanding friends, wonderful neighbors, supportive leaders, trusting colleagues, and empathetic fellow students. The collective

Acknowledgements—Continued

support kept both my body and soul together during the long, and sometimes painful dissertation process.

Special thanks to my father, Gerald J. Chevalier, who inculcated the restless curiosity that led to this research and who taught me the values of initiative, persistence, discipline, and integrity through personal example.

Mostly however, I am grateful to my husband, David A. Burnie and our children, Victoria and Alan. They provided the bonds that supported me and without which I could not have passed through the many transitions that led to the completion of this dissertation. We can together continue to explore new vistas and work toward new goals. David, thank you for remaining calm in the midst of our often frenetic, out-of-control schedules.

The evolution of this dissertation provided a valuable learning experience for me. I learned about the personal challenges, pressures, and pleasures of research. I learned that change will continue to permeate every aspect of our lives.

This dissertation is dedicated to my beloved mother, Eva E. Chevalier, who exited from our lives suddenly and unexpectedly. My mother's devotion to God and love for her family continue to provide a source of inspiration and encouragement.

Catherine L. Chevalier

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
LIST OF TABLES	viii
CHAPTER	1
I. INTRODUCTION	1
Statement of the Problem	2
Communication of Change	5
Significance of the Problem	7
II. REVIEW OF RELATED LITERATURE	8
Leadership Communication	9
Communication to Inform	9
Communication to Assure Understanding	11
Communication to Get Action	11
Communication to Persuade	12
Organizational Change Issues	13
Approaches to Organizational Change	13
The Change Process	15
Resistance to Change	18
Successful Change Strategies	19
Leadership Communication and Change	22

Table of Contents—Continued

CHAPTER

Summary	24
III. METHODOLOGY	26
Population and Sample	26
Procedures	27
The Change	29
Instrumentation	31
Change Environment Assessment	32
Employee Response to Change	33
Communication Skills	36
Hypotheses	40
Summary	44
IV. FINDINGS	45
The Change	45
Sample Group	46
Change Environment Assessment	50
Employee Response to Change	58
Leadership Communication	63
Hypothesis Testing	64
Hypothesis One	64

Table of Contents—Continued

CHAPTER

Hypothesis Two	67
Hypothesis Three	68
Hypothesis Four	71
Post Hoc Analysis	75
Summary of Findings	77
V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS . .	79
Summary	79
Overview of the Study	79
Sample and Data Collection	80
The Change	80
Communication Protocol	81
Environmental Influences	81
Communication Inventory	81
Level of Trust	82
Adherence to Communication Protocol	83
Perception of the Change	83
Self-reporting Measures	84
Demographics	84
Discussion of Findings	85

Table of Contents—Continued

Leadership Communication and Response to Change on Three Scales	85
Participant Change Profile & Leadership Communication Practices	86
Post Hoc Analysis	87
Conclusions	88
Limitations of This Study	89
Type of Change Studied	89
Degree of Familiarity	90
Time Lapse	91
Suggestions for Practice	92
Recommendations for Future Research	92

APPENDICES

A. Change Environment Assessment	94
B. Organizational Change Orientation Scale Order Information . . .	97
C. Professional Communication Inventory Order Information	99
D. HSIRB Approval Letter	101
E. Sample E-mail Notes	103
F. Cover Memo and Consent Form	107
G. Coefficient of Variation Between Sample Data & Norm Data . .	110

BIBLIOGRAPHY	112
------------------------	-----

LIST OF TABLES

1. Internal Reliability of the Communication Practices	39
2. Hypotheses, Measures and Analysis	42
3. Profile of Participants	48
4. Change Awareness	51
5. Communicators of the Change	52
6. Communicator Explanation of the Change	53
7. Methods of Communication	54
8. Involvement in Change Activities	55
9. Co-worker Influences	56
10. Unit Meeting Timing	57
11. Impact of Change on Job	59
12. Organizational Change Orientation Scale Group Scores	60
13. Distribution of Participants in Profile Patterns	61
14. PCI Means and Percentiles	65
15. The Relationship of Supportive Response to Change and Leadership Communication	67
16. The Relationship of Neutral Response to Change and Leadership Communication	69
17. The Relationship of Nonsupportive Response to Change and Leadership Communication	70
18. Difference Between the Leader's Mean Total PCI Score Across the OCOS Profile Groups	73
19. Differences in Employee Supportive Score Means for Unit Meeting Attendance Versus Nonattendance	77

CHAPTER I

INTRODUCTION

The Greek philosopher Heraclitus expressed "There is nothing permanent except change" (Chartier, 1985, p. 177). The frequency and complexity of change affects most organizations—profit or non-profit—from the smallest sole proprietorship, single market firm, to the largest publicly traded, multinational conglomerate. The types of changes challenging the leadership of organizations may include: mergers, divestitures, acquisitions, start-ups, spin-offs, accelerated product cycles, rightsizing, personnel, re-organizations, energy sources, technology, quality improvements, culture, new policies, new employee/customer expectations, new values, deregulations, new competitors, new markets, new products, government compliance, government regulations, and expanded organizational liability (Kanter, 1987; Scott & Jaffe, 1988).

Organizations which plan to remain competitive, enter new and/or global markets, and achieve a high return-on-investment no longer decide whether or not to implement change, but rather how soon and how much to implement (Curry, 1988).

Statement of the Problem

Organizations expecting to be competitive in the market—locally or globally—must introduce efficiencies and alternate work processes that reduce the cost of their product or service while maintaining or increasing quality. These efficiencies and alternate work processes likely will result in change. The management of change has been and continues to be a recurring problem facing leaders. Employees exhibit a strong reflex-reaction to most change announcements which has been classified by many researchers as *resistance*. A 1989 survey of 1,700 firms co-sponsored by the British Quality Association and the Institute of Personnel Management found that 91 percent of the firms cited resistance to change as the major obstacle to progress (Dodson, 1991).

Employee resistance occurs because of the diversity of change. Change can be thought of as a series of variations measured on a scale. Change can be simple or complex. It can be cheap or expensive. Change can involve one person or many. It can be implemented in an hour or over a few years. Change might require those affected to acquire basic skills or highly technical and focused skills. Change affects people, and people have unique personalities, attitudes, motivational levels, learning styles, communication skills, and technical competencies (Culpan, 1987). The various types of responses to change provide leaders with a change management challenge.

To assist leaders with the change management challenge, researchers

suggest four techniques. The first technique is to involve employees in change decisions (Fulkerson, 1988; Kirkpatrick, 1992; and Kleiman, 1989). Imposing change on employees can generate feelings of opposition to implementation, but involving employees in the change design can build support. However, if an organization is introducing large scale change, it is impossible to involve every employee in the change-decision process and this often results in mandated change which can increase the potential for employee resistance.

The second technique suggests that leaders allow appropriate time to adjust to change (Connor & Fiman, 1988). Depending on the type of change, time may be crucial. Many businesses have been adversely affected by not changing in a timely manner. This is quite evident in businesses that are considered highly dependent on technology.

The third technique recommends rewarding employees for adopting change (Bennis, 1992; Mainiero & DeMichiell, 1986). The amount of resources (both human and economic) necessary to effect most significant change efforts is high. Middle managers (leaders) are responsible for assuring that change is implemented. These leaders can creatively reward employees for adopting change but are often restricted when a monetary reward might be warranted, *i.e.*, when an employee acquires new technical competencies providing a higher level of skill for the job.

The fourth technique to manage change recommends that leaders communicate early in the change process, often during the change process, and

openly regarding the implications of the change (Fulkerson, 1988; Harrer, Weijs & Hattrup, 1988; Kanter, 1987; Kirkpatrick, 1993; McKenna 1993; and Steinburg, 1992). Communication is a skill that can be learned, practiced, and improved. Clearly, leaders can influence this technique more than any of the others.

Change research has traditionally focused on the first three techniques (employee involvement, time, and rewards) to facilitate the change process (Ellen, 1988). Research regarding the relationship between leadership communication and subordinate response to change is limited. A recent survey of Fortune 500 companies that had experienced significant change found that "59% of the managers were not at all effective or only somewhat effective in communicating to their employees the rationale for change" (Steinburg, 1992, p. 10). The survey also found that "productivity dropped by three hours a day during major corporate transition, as a result of poor handling of employees" (p. 10).

This study examined the significance of the fourth technique—communication—in relation to subordinate response to change. A recent policy change communicated to employees by leaders following a formal communication protocol afforded the researcher with the opportunity to collect data by employing survey research methodology. The following instruments facilitated the data collection: (a) Change Environment Assessment, development by the researcher; (b) Organization Change Orientation Scale developed by John

E. Jones and William L. Bearley (1986a); and (c) Professional Communication Inventory developed by Lawrence A. Pfaff and Michael C. Busch (1992).

Communication of Change

A recent survey of 705 employees from 70 member firms of the Council of Communication management reported the following conclusions about delivering the message of change: (a) 61% of the respondents did not think employees were sufficiently informed about their organizations' plans, (b) 54% thought top management did not do a good job of explaining the reasons behind important decisions, (c) 47% did not think communication about change in their organizations was timely, and (d) 64% reported that they often did not believe what management communicated (Staff, 1994). Communication is an important leadership activity. A leader can be technically brilliant and have excellent ideas, but will be ineffective if he or she is unable to communicate. Communicating change to individuals can be difficult. A communicator, introducing change to others is effective when the actions of those individuals move toward the acceptance of change. "Any factor which inhibits change through communication is just as significant in determining what a communicator can and should do as a factor which promotes change" (Lewis, 1975, p. 226). The receiver of the communication considers the importance of the situation and determines what actions are necessary to move forward.

A basic model of communication includes a sender, communication

channel, and receiver. The sender codes a message which is delivered to the receiver through a communication channel. Upon receipt of the message, the receiver decodes it. Messages can be coded in different ways—using words, numbers, or pictures. The primary communication channels are speaking (both one-on-one and in group settings) and writing. In order to be an effective communicator, an individual must employ communication skills (Pfaff & Associates, 1992). The Professional Communication Inventory measures five communication skills: (1) speaking, (2) listening, (3) writing, (4) presenting to groups, and (5) conducting meetings.

The purpose of this study is to have employees assess their leader's ability to communicate a message of change and to establish an environment for effective communication. This assessment is the employee's perception of the skills, and this perception is reality for that individual. The purpose is not to assess the effectiveness of the message content.

The flow of communication considered to be effective allows for two-way exchange between the sender and the receiver. Therefore, the communication environment is an important consideration for leaders. It is to the interest of organizations to establish a trusting climate where employees feel comfortable approaching their leader to discuss the change (Maier & Verser, 1982). The Professional Communication Inventory measures seven skills that affect the communication environment. These seven skills (labeled as relationship skills by Pfaff & Busch, 1992) are: (1) approachability/acceptance, (2) flexibility, (3)

influencing others, (4) cooperation, (5) trust, (6) support, and (7) technical expertise.

Significance of the Problem

Organizational change will continue to challenge leaders in the future (Bennis, 1992). These leaders will need to continue to develop visions that will move their organization from its current state to a future state (Wilhelm, 1992). Leaders have the ability to empower people with a commitment to change, and instill new cultures and strategies in the organization to mobilize and focus energy and resources toward transforming leadership visions into reality (Kirkpatrick, 1992; Tompkins, 1993). Change is certain—it will happen.

CHAPTER II

REVIEW OF RELATED LITERATURE

The study of organizational change provides researchers with a multitude of variables to manipulate and examine in an attempt to understand the implications of change. Organizational change is complex because it involves individuals who have unique personalities (Lewis, 1975). Change is vital for organizations to remain competitive (Schrage, 1990). Change should be implemented quickly and consideration given to costs versus benefits (London & MacDuffie, 1987). Rapid changes in organizations continue to demand a workforce that is skilled to adapt to new systems and procedures as they are introduced. Recent studies indicate that companies expect to cut approximately 15% of their workforce (Scott & Jaffe, 1989) and retrenching in this way demands retained employees to: absorb heavier workloads, and/or learn new skills, and/or adopt new technologies or techniques to compensate for the reduction in human resources. In order for organizations to move forward, Mohrman, Mohrman, Ledford, Cummings, Lawler and Associates (1989) suggest that leaders be concerned with the nature of organizational change, the causes of organizational change, the process by which change unfolds, and methods to create the change.

This study examines two variables with respect to organizational change—leadership communication practices and subordinate response to change. The review of literature will focus on (a) leadership communication, (b) organizational change, and (c) leadership communication and change.

Leadership Communication

Communication is vital to the success of any organization, especially those undergoing change (Lewis & Spiker, 1991). Communication is the process of transferring ideas or information from one person to another. The basic goals of communication are to (a) inform, (b) to assure understanding, (c) to get action, and (d) to persuade (Scannell, 1982).

Communication to Inform

When informing, the communicator wants to transmit the information necessary to achieve the objective. Communication can be carried out verbally, nonverbally, in writing, or by employing a combination of all three. Verbal communication is the most common method of communication and is simply a verbal (face-to-face or telephone) exchange of information. Verbal communication can be personal, group (*i.e.* meeting), or impersonal (*i.e.* via a public address system, or television monitor). Verbal communication can also be accurate and timely.

Nonverbal communication occurs when messages are transmitted without

the use of spoken or written words; it can take two forms—physical and body. Physical or symbolic nonverbal communication involves symbols we are exposed to regularly, such as the size or location of someone's office, parking privileges, etc. A second form of nonverbal communication is related to one's body—facial expressions, voice tones, crossing legs/arms, etc.

Written communication can take the form of a personal transfer of information (*i.e.*, e-mail notes, letters, memos, reports) or an impersonal transfer of information (*i.e.*, newsletters, posters, announcements, policies, rules, etc.). Written communications are preferred when a record is necessary or when it is impossible to communicate verbally. Written communication is typically one way and therefore does not provide the opportunity for the receiver to provide feedback (Szilagyi, 1984). The communication practices on the Professional Communication Inventory that measure the leader's ability to inform are: (a) speaking, (b) presenting to groups, (c) conducting meetings, (d) writing, and (e) technical expertise.

In a study examining the difference between a personally-delivered communication and a written communication, Burn (1991) found that the individuals exposed to the personally-delivered message changed their behavior more than those exposed to message in print form. The communication protocol established by senior management for the change studied in this research specifies personally-delivered communication.

Communication to Assure Understanding

The second goal, to assure understanding, means that the receiver has grasped what was meant by the communication. Therefore it is important to encourage feedback and use it effectively. Leaders can create an environment that supports and encourages feedback. The simplest way would be to ask basic questions such as "Do you understand?", "Do you have any questions?" or "Please tell me what you heard me say." (Megginson, Mosley & Pietri, 1986).

Another way to assure understanding is to test for comprehension. Testing is common in academic settings, but also necessary in some organizations, especially when employees require certification to perform the duties and responsibilities of the job. The communication practices on the Professional Communication Inventory that assure understanding are: (a) listening, and (b) approachability/acceptance.

Communication to Get Action

The third goal of communication is to get action. What response to the communication is required? If the purpose of the communication was to introduce change, that communication would be successful only when the receivers become involved in the steps necessary to implement the change (*i.e.*, learning new skills, physically relocating, meeting new people, etc.). This goal was not directly measured in this study.

Communication to Persuade

Persuading is the fourth goal of communication. Skilled communicators can effect change dramatically because they possess the ability to speak well and persuade effectively (Zaremba, 1988). Zaremba explains that people who attempt to persuade others have one of the following four intents: (1) influencing others to consider changing behavior or attitudes, (2) changing behavior or attitudes, (3) getting people to take action, and (4) reaffirming existing behavior or attitudes. The practices on the Professional Communication Inventory that measure the ability of the leader to persuade others, directly and indirectly, are: (a) influencing others, (b) cooperation, (c) support, and (d) flexibility.

Different persuasive effects will occur because the receiver's assessment of the position forwarded by the communication varies. Receiver reaction to a persuasive communication depends in part on the receiver's view of what is being communicated (O'Keefe, 1990). This suggests that in order to understand a receiver's reaction to a communication on a given change issue, it is important to understand how the receiver assesses the various positions on that change issue.

Organizational Change Issues

Approaches to Organizational Change

Stollery (1989) suggests five factors that force organizations to change: (1) globalization, (2) market segmentation, (3) government policy, (4) technology, and (5) values. He suggests that keeping up with all of the necessary changes is probably the most difficult part of managing a business. The scope, complexity, and potential impact of change are important factors for leaders to examine. Significant change, involving many members of the organization, or major operating functions, is more likely to have an impact on the organization than a change which affects only a few groups or activities and which involves only minor modifications of existing practice (Berman & McLaughlin, 1977). Complex change is more manageable and more likely to be successful when broken into smaller parts (Louis & Miles, 1990; and Rosenblum & Louis, 1981). Various approaches to bring about organizational change have been proposed. A brief overview of these approaches follows.

Lewin (1947) suggested that a successful change includes three phases: (1) unfreezing, (2) changing, and (3) refreezing. *Unfreezing* is the first "essential phase in the overall change process. It requires moderate uncertainty and maximum trust to fulfill the requirements for productive change and effective systems." (Friedman & Yarbrough, 1985, p. 85). The first phase stimulates people to recognize the need for change. The second phase includes the

acquisition of new information (the *change*), and the final phase is *refreezing* during which new behavior patterns are adopted and internalized. Lewin's postulate was that systems tend to operate in a given pattern or at a given level as long as there is a relative balance of forces acting on the system.

Greiner (1970) proposed that a *power distribution continuum* may be used to describe various methods of achieving change. At one end of the continuum are leaders who rely on *unilateral authority* where organizational change occurs by decree (the formal position of the person introducing the change), by replacement (of personnel), or by structure (where people behave in close agreement with the structure and technology outlined for them on the change plan). At the other end of the continuum are leaders who follow a *delegated authority* approach where employees are given complete responsibility for problem solving and change implementation. The assumption of delegated authority is that if the people who will be affected by the change plan the change, they will be more successful than if leaders introduce the plan for change. Located on the continuum between unilateral authority and delegated authority are the *sharing of power* approaches to change. The sharing of power approaches combine group problem solving and group decision making and are accomplished by having the leader work with employees to plan and implement change.

Structural approaches to change were used by classical organizational theorists to optimize individual performance by maximizing the use of the

organizational structures. Structural change is one of the most complex and costly responses to organization change. Changing the structure involves modifying and rearranging internal relationships. It requires adjusting such variables as communication systems, delegation of authority, work flow, and composition of work group (Megginson, Mosley and Pietri, 1986). An example of structural change would be the decentralization of certain aspects of the business that were traditionally managed centrally.

Technological approaches to change were first introduced by Frederick Taylor in the first decades of this century. Scientific Management grew out of a need to improve manufacturing productivity through more efficient use of physical and human resources. From Taylor's studies, a set of scientific principles evolved which contributed to making jobs and the management of the jobs more efficient and productive. (Szilagyi, 1984).

The Change Process

Scott and Jaffe (1988) propose a model that describes the change process as consisting of four phases: (1) denial, (2) resistance, (3) exploration, and (4) commitment. Once the early phases of denial and resistance have been satisfied, the individual can move toward exploration of the change and commitment or implementation of the change.

The denial phase involves individuals ignoring the announced change. The focus is on the retrospectively comfortable past and comparatively ideal

present. It is difficult for employees to view the future as involving any change. If individuals are not given the opportunity to react to the change, moving through the change process can be prolonged.

The second phase, resistance, surfaces when individuals are uncertain of their role in assuring that the change happens, or the impact the change may have on their job, work unit, or co-workers. Leaders and their designated change agents must work with individuals to alleviate frustrations and fears that naturally occur when change is introduced. McNitt (1984) recognizes that individuals are faced with three choices when confronted with change. Individuals can acquiesce, resist, or quit—most individuals resist. Resistance can be costly according to Brod (1984) involving delayed schedules, decreased performance, and reduced productivity, all of which impact profitability. Resistance to change can be represented as a cognitive response in which individuals do not understand why the change is necessary or how to make the change occur. Sometimes individuals resist change due to the speed and complexity of the change itself—it often exceeds human capacity to assimilate it (Conner, 1985). Resistance often reduces the value of the innovation (Conner, 1985). Executives responding to a survey by Wm. Schiemann & Associates, Inc. indicated that employee resistance was a derailleur of successful change (McKenna, 1993).

The third phase, exploration, allows individuals to investigate how the change can benefit themselves and the organization as a whole in achieving

goals and objectives. This phase provides the leader with an opportunity for open dialogue while individuals search for information which will clarify and justify the reasons for change. This phase involves a flexible, trusting, cooperative, and supportive environment where leaders can be approached and employee ideas considered.

The final phase in the change process includes individual commitment to the change, acceptance of the change, and adoption or integration of the change. This phase can be represented by a behavioral response from individuals who make a psychological change by practicing the behavior in real world situations. Individuals moving through this phase work toward: (a) defining new roles and expectations, and (b) developing action plans to assure that change takes place.

The phases of resistance and exploration in the change process provide leaders the greatest opportunity to interact with employees regarding the change. If leaders regularly and clearly share their visions for the future and indicate how change fits with the organization's strategies, goals, and objectives, would employees respond in a predictable manner? Jones & Bearley (1986a) theorize that individuals typically respond to change introduced in organizations in one of three ways—they embrace change, remain neutral about change, or resist change.

The individual who embraces change usually has had time to evaluate the change to determine how it would affect their job. This individual generally

views change positively. The change embracer is often described as a group leader or trend setter and thrives on innovative challenges.

The individual who is neutral about change is neither completely satisfied nor dissatisfied with the way things are. This individual realizes that change is important but would be satisfied if circumstances remained the same. Neutral individuals are generally passive about change and can usually be influenced to take the necessary steps to implement change.

The resister represents the majority response to organizational change. "Effecting organizational change is an inarguably difficult and demanding process, and even the best-designed programs will encounter resistance along the way" (Smith, 1993, p. 56).

Resistance to Change

Reasons for resisting change are as varied as individual personalities (Caruth, Middlebrook & Rachel, 1985). It is incumbent upon the leader to recognize and understand the reasons that may contribute to resistance of change (Lawrence, 1986). Fear is the primary reason individuals resist change. Individuals may be affected by one, or any combination of the following fears: (a) fear of the unknown, (b) fear of reduced job security, (c) fear of economic loss, (d) fear of reduced job status, (e) fear of change in work relationships, (f) fear of incompetence, (g) fear of helplessness, or (h) fear of failure (Bowsher, 1989; Caruth, Middlebrook & Rachel, 1985; Caulkin, 1989; Landry, 1988;

LaPlante, 1991; Lawrence, 1986; Mainiero & DeMichiell, 1986; and Stanislaw & Stanislaw, 1983). Leader can address fears, once identified, and can work toward eliminating or reducing the potential impact the fear(s) may have on the successful implementation of change.

Successful Change Strategies

Many organizations have successfully implemented change and various researchers have studied change strategies to determine the prescriptions that work best. Four successful change strategies are: (1) introduce the change slowly, (2) involve employees in the change, (3) provide training and reward the employees, and (4) communicate.

Mainiero and DeMichiell (1986) suggest that in order to be successful, change should be introduced slowly to allow employees time to adjust. In an ideal situation, time would be a welcome asset, but all firms do not have the luxury of implementing change slowly. A slow introduction allows employees time to explore the implications and consequences of the change. It allows them time to investigate ways that they can change their attitudes and modify their behaviors to move toward change.

A second strategy to increase the likelihood of change being accepted and implemented is to involve employees in the transition stage. This is especially beneficial to groups who were not involved in the initial change decision. By allowing affected employees to determine how the transition will

happen, *i.e.*, by which medium, resistance to change may be lessened.

The third change strategy involves training and rewards. Employee training programs should be established before announcing the change, especially if the change will result in displacement or required retraining of employees. Career planning and development programs should supplement the change program. Training is necessary for new skills to be acquired. Some employees can be offered educational or sabbatical leaves to allow them to restructure their career paths or personal goals. Incentive plans and reward systems clearly tied to performance can be designed to increase the success of a change program.

The last change strategy, and conceivably the most important strategy to overcome employee resistance to change, is communication. Honest, two-way communication can encourage those directly affected by the change to exchange feelings, both positive and negative, regarding the change, and allows leaders the opportunity to share realistic expectations (Stephenson, 1984).

Coch and French (1948) studied resistance to change and methods to lessen resistance. The study involved production workers who experienced necessary changes in methods and jobs. These production workers strongly resisted the changes. The resistance "expressed itself in several ways, such as grievances about the piece rates that went with the new methods, high turnover, very low efficiency, restriction of output, and marked aggression against management" (p. 512). Coch and French concluded that in order to modify or

remove completely employee resistance, the change must be accomplished by the use of "group meetings in which management effectively communicates the need for change and stimulates group participation in planning the changes" (p. 531). The communication protocol established by senior management recommended two group meetings—one large group meeting, followed by a smaller group meeting at the unit level.

Trumbo (1961) studied the correlates of supervisory and nonsupervisory attitudes toward change as a general job-related phenomenon of personnel of a medium sized midwestern insurance company involved in office automation. Trumbo's findings indicate: attitudes toward change were found to be associated with group membership; supervisors' attitudes toward change were positively related to Group Change scores; supervisors' scores on an index of human relationship attitudes were unrelated to attitudes of the group toward change; and employee readiness for change was related to employee needs for variety, status, and self-expression at work.

Gruenfeld and Foltman (1967) investigated how the integration and satisfaction of supervisors with management affected the supervisors acceptance of a technological change. Results of the study indicated that the supervisors who were relatively more integrated with the management group, more satisfied with management, and who had a relatively high level of job satisfaction were more likely to accept a management-initiated technological change. Another result, prompting the need for more research in this area was that there was a

lack of significance between satisfaction with immediate superior and attitude toward the change.

Leadership Communication and Change

Leaders must be able to manage the demands and opportunities that accompany change (Culpan, 1987). Leaders can be effective in directing change by employing excellent communication skills (Lewis, 1975). The study results of Harrer, Weijs and Hattrup (1988) indicate that information channels and the communication network have a major influence on change. Whenever there is a change, there is a need to communicate information in an open and timely manner. Organizational change is basically in the hands of the leaders who must be able to manage the demands and opportunities that accompany change to assure that the employees have the capability to move toward the change (Culpan, 1987). Therefore, competent leadership is necessary to direct change.

Kanter (1987) describes four competencies that are necessary to affect positive and lasting change. First, the leaders must be aware of their environment, and have data readily available that indicates when to change. Second, leaders must be flexible and willing to alter traditional policies and practices to determine whether or not they should be maintained, while continually challenging their own beliefs and assumptions to move to new vistas. Third, leaders must have a clear vision and be willing and able to share this vision with others. Finally, leaders should establish partnerships with all parties

affected by the change in order to sell their vision. The Professional Communication Inventory incorporates these competencies in the communication practices measured.

Communication is especially important to move individuals through the change process (denial, resistance, exploration and commitment). Wells and Spinks (1989) offer two approaches, highly dependent upon effective communication, for moving individuals through the change process phases of resistance and exploration. Resistance, predicated upon fears, (justified or not) may be eliminated or reduced through communication. During the exploration phase, individuals attempt to determine the rationale for the change and the personal impact the change may have on them. Leaders communicating change to their employees, should explain the rationale for the change, stress the benefits that will occur as a result of implementing the change, and acknowledge the risks that may transpire (Landry & Bristow, 1988). Even (1963) studied communication in the management of change. Data was gathered in a natural setting while Even was designing and installing a major system change, which allowed him the opportunity to observe, describe, classify, and report the stages of change and to examine the communication processes used in change. He concluded:

1. It is possible to rebuild the organization even if none of the needed skills exist in that organization, although costs will be higher and the elapsed time to complete the job will be longer.

2. Employee hostility, distrust, anxiety, and the like are heightened when, through the lack of adequate information, management is suspected of planning a system change which is detrimental to their interests.
3. In a major system change involving a multi-echelon organization, tentative approval of the general concepts should be given prior to the system study to permit more effective management—employee communication.
4. A communication plan should be devised after system concept approval to include: presentations to employees and various levels of management, progress reporting, publicizing the program, etc.
5. Multiple channels of communication can be helpful in preventing delay in information transmission and decision making and avoiding administrative resistance (p. 692).

Summary

Leadership communication is vital to the success of any organization, especially those undergoing changes (Lewis & Spiker, 1991) and change is necessary for organizations to remain competitive. Jones and Bearley (1986a) suggest that response to change is varied—people may accept change, resist change or be indifferent toward change. Organizational change is basically in the hands of the leaders who must be able to move an individual toward the acceptance of change (Culpan, 1987).

The following three research questions were developed to provide the basis for this investigation:

- I. *How do the perceived communication skills of leaders affect subordinate response to change?*
- II. *How does an environment supportive of two-way communication affect subordinate response to change?*
- III. *Do employees who are moving toward support of organizational change efforts work for leaders with higher communication and relationship skills than employees who are nonsupportive of organizational change?*

CHAPTER III

METHODOLOGY

The purpose of this research was to examine perceived leadership communication practices as they relate to employee response to organizational change. Study participants were asked to complete three survey questionnaires. This chapter discusses the research design and methodology in the following sections: (a) Population and Sample; (b) Procedures; (c) The Change; (d) Instrumentation; and (e) Hypotheses, Measures, and Analysis.

Population and Sample

The population for this study was full-time employees in the Research and Development Division of a Fortune 500 company located in the midwestern United States. Due to the nature of the business, continual improvements and changes are necessary in order for the organization to remain in a leadership position in its industry.

For this study, the term *leaders* refers to directors, executive directors, and vice presidents. The term "subordinates" refers to scientists, research associates, professionals, technicians, office staff, and other support personnel.

The sample group of subordinates for this study was selected from a

computer-generated, randomly sorted employee listing. This listing excluded divisional directors, executive directors and vice presidents.

Procedures

In March, 1994, the Executive Director of Administration for the division was contacted about conducting a study to examine the relationship between leadership communication and change. As a result of this discussion a proposal was submitted to the executive staff for review and approval. Formal divisional approval was granted to proceed with the study subject to a corporate review by the Vice President of Human Resources. The corporation was planning a company-wide employee survey and concerns were expressed regarding: (1) the date of study (*this study would be two months prior to company-wide survey*), (2) possible overlap of study objectives with corporate objectives (*the corporate objectives had a broader scope than the study objectives*), and (3) employee time needed to participate in the study (*the estimated participant time was thirty minutes*). Responses to the concerns expressed were satisfactory and corporate permission was granted to proceed with the study.

On June 2, 1994, management in the division received an e-mail note from the site sponsor (Appendix E) informing them of the study. The intent of the note was to alert management about the possibility that some employees in their unit might be randomly selected to participate and to assure them that the data would be held in confidence and expressed as statistical summaries. No

individual director, supervisor, unit, employee, or business function would be recognizable.

The researcher invited randomly selected employees via an e-mail note (Appendix E) which informed them of the purposes of the study and asked for their participation in the study. This first invitation note was sent on June 17, 1994 to 175 employees requesting a reply by June 22, 1994. Every 10th person on the random employee list was selected starting with the person in 7th position. By June 22, 1994, 119 employees had agreed to participate in the survey. Survey packages were mailed on Monday, June 27th to the 119 employees agreeing to participate in the study. The survey package contained an interoffice memo describing the study, a participant consent form (required by the Human Subjects Review Board), three survey instruments (described below), a pencil, and a return envelope. The Professional Communication Inventory has a preprinted number which was used by the researcher for control purposes. The researcher was the only individual with access to employee listings and control numbers. The surveys were distributed during the last two weeks of June, 1994 via inter-office mail.

Another 30 employees were randomly selected and invited to participate via an e-mail note dated June 22, 1994. Every 61st employee from the list was chosen starting with the 33rd position. This second call for participants resulted in an additional 21 employees willing to participate. Survey sets were mailed on the day the employees agreed to participate. A few employees expressed

interest in the study after all 140 survey sets had been distributed and the researcher thanked them for their interest and placed their name on a waiting list in the event someone returned their surveys without completing them.

On July 7, 1994 a follow-up e-mail note was sent to study participants who had not yet returned their surveys thanking them for volunteering to participate and requesting that the surveys be returned by July 12, 1994 (Appendix E).

Data from the Professional Communication Inventory were computer scored by Larry A. Pfaff and Associates. Data from the Change Environment Assessment and the Organizational Change Orientation Scale were entered into a data entry program prepared for the researcher by Larry A. Pfaff. This data was later exported for mainframe statistical processing at Western Michigan University using SAS, Version 6.

The Change

Five factors that force organizations to change are: (1) globalization, (2) market segmentation, (3) government policy, (4) technology, and (5) values (Stollery, 1989). The change selected for this research was an internal policy change in response to a change in government policy. The United States Sentencing Commission recently established *Guidelines for Sentencing of Organizations* that were not in compliance with the laws and regulations applicable to their specific business. These guidelines necessitated an internal review of past practices and resulted in a need to address compliance issues differently. A

revised policy was written as follows:

Employees of The...Company will conduct business ethically and in compliance with laws and regulations and our own policies and procedures. Actions contrary to this policy are prohibited and may result in disciplinary action. No one should ever be expected, encouraged or allowed to violate this policy. Company units will establish programs that conform to the Corporate Compliance Program. (Corporate Communication, 1994, p. 2)

In order to introduce the Corporate Compliance Program to employees in the Research and Development division, a three-phase communication protocol was established:

1. On April 12, 1994, the divisional management group (directors, executive directors and vice presidents) met with the Corporate Vice President of Compliance to overview the program.

2. Following the April 12th session, sub-division Vice Presidents were to arrange large group meetings to introduce the Compliance Program to employees within their span of control. Employees were to receive two handbooks—the *Corporate Compliance Program* and the *Code of Corporate Conduct* at these meetings. These meetings were to occur before mid-May.

3. The final phase in the communication protocol was a unit-level meeting to discuss the program in further detail and respond to specific inquiries from employees. The plan was to complete the unit meetings by mid June.

The Compliance Program consisted of ten elements designed to prevent and detect violations of law, regulations, policies and procedures. Briefly, these elements dealt with: (1) communicating the *Code of Corporate Conduct* to all

employees; (2) establishing specific standards and programs for employees that would enable them to work within the *Code of Corporate Conduct*; (3) reviewing known history and history of industry competitors for past compliance offenses and review of internal measures needed to prevent similar offenses; (4) considering an individual's compliance behavior, attitude and operating style when staffing compliance-sensitive positions; (5) creating a work environment in which compliance is expected, encouraged and rewarded; (6) establishing unit monitoring and auditing systems designed to prevent and detect compliance violations; (7) creating procedures whereby employees are able to report any activity or request that they believe is or might be a violation of law or policy; (8) investigating, by management or appropriate support units, suspected compliance offenses to establish facts and determine whether a compliance offence has occurred; (9) establishing response procedures when a compliance offense is confirmed to prevent recurrence of similar offenses; and (10) establishing consistent disciplinary action to enforce compliance.

Instrumentation

The choice of survey instruments had to meet the following criteria. First, from the organization's perspective, employee survey participation was to be limited to a total of thirty minutes. Second, in order to gather data related to the purpose of the research, the instruments had to provide reliable and valid measures of leadership communication practices and employee response to change.

Change Environment Assessment

The Change Environment Assessment (CEA) (Appendix A) was developed by the researcher to gather specific data regarding the change event. Significant relationships between communication and response to change may be explained by the data collected from the CEA.

The instrument was designed based on a literature review which addressed the following issues: (a) Change awareness (Mainiero & DeMichiell, 1986), (b) Communicators of change (dictated by the organization), (c) Methods used to communicate change (Mohrman et al., 1989), (d) Involvement in change activities (Kirkpatrick, 1992), (e) Co-worker influences (Buller, Saxberg & Smith, 1985), (f) Timing of communication (Connor & Fiman, 1988), and (g) Estimated impact of change on job (Stollery, 1989). Demographic data was collected regarding: (a) tenure with company, (b) length of time working with current supervisor, (c) length of time on current job, (d) age range, (e) job classification, and (f) education level.

The researcher generated customized questions and responses based on the issues outlined above and the specific change to be studied. The survey was pretested with research employees and evaluated for content, format, procedures, and comprehension. The instrument was refined several times as a result of feedback. The final revisions occurred as a result of a meeting with senior management. Completion of this instrument was expected to take

approximately five minutes.

Employee Response to Change

The Organizational Change Orientation Scale (OCOS) developed by John E. Jones, Ph.D. and William L. Bearley, Ed.D. (1986a) is designed to provide an assessment of individuals' tendencies to behave in certain ways with regard to organizational change situations. The inventory (Appendix B provides order information) contains 36 items regarding how an individual relates to organizational change. The estimated time for completion of the inventory was ten minutes.

"Responses to organizational change vary widely among people. Some embrace change, others remain neutral, while some resist it" (Jones & Bearley, 1986a, p. 5). Jones and Bearley (1986b) suggest that the ways in which people behave with regard to change can be classified into roughly three categories: (1) functional, (2) nonfunctional, and (3) dysfunctional. For the purpose of this research, these categories are referred to as: (1) supportive, (2) neutral, and (3) nonsupportive.

Supportive responses to change include behaviors that support transformational processes in organizations. The supportive behaviors that are demonstrated are proactive, positive, assertive, and productive toward change events. People who engage in these responses actively support and move toward change. These individuals immerse themselves in organizational

improvements and innovation. The supportive responses are:

Making change happen: This is the behavior that is most supportive of organizational transformation. People who behave this way take personal responsibility to initiate improvements.

Anticipating the need for change: Personnel who think futuristically also look at the possible effects of environmental change on the system. They are sensitive to the need for innovation inside the organization.

Problem solving: This response to organizational change consists of using systematic techniques to make decisions about procedural modifications. The person who is oriented to this behavior looks for ways of making change work.

Self assessment: This response is answering the question, "What's in it for me or, how will it affect me?" For people to feel committed to supporting alterations in organizational life, they must make a personal connection to them. (Jones & Bearly, 1986a, p. 6)

Neutral responses to change include behaviors that neither support nor resist organizational improvements. These responses include individual behaviors that are inactive, indifferent, submissive, and non-productive toward change events. People who display many of the following characteristics are neither supportive of organizational improvements, nor are they significantly resistive.

Agreement without commitment: People who adopt this stance "go along with" changes rather than giving their full support. Verbal endorsement is not matched by support behavior.

Fence sitting: This behavior involves not taking a stand on changes. People who are either indecisive or unwilling to commit themselves tend to avoid "going public" with their points of view about organizational alterations.

Withholding support: This response means that the person is slightly less supportive of change than "fence sitting." Here the person does not work against change but vocalizes a lack of backing for it.

Moaning and groaning: Complaining about organizational changes may be cathartic, but it does not aid the process of improvement. People who participate in gripe sessions about system reforms are behaving non-functionally. (Jones & Bearly, 1986a, p. 6-7)

Nonsupportive response to change includes behaviors that are reactive, negative, aggressive, and counter-productive. Individuals who can be described as having a nonsupportive response to change actively resist change and move against it. The following behaviors describe the dysfunctional category:

Blaming and finger pointing: Externalizing responsibility for the effects of structural and procedural changes often takes this form. People who engage in this activity are working against organizational renewal.

Passive resistance: Here the person is covert in attempting to block change. There also is the denial of responsibility for nonsupport as well as for the effects of change.

Overt Resistance: People who actively resist change in organizations are sometimes open about it. Here the person publicly protests against modifications. This behavior may include defiance.

Sabotage: The most dysfunctional response to change is to undermine it. Resistance becomes covert and destructive. People who disagree with changes sometimes want the changes to fail in order to be right (Jones & Bearly, 1986a, p. 7).

In a conversation with Dr. Eileen Russo, Director of Research with Organization Design and Development, Inc., (personal communication, August 1993) the OCOS was described as "an instrument designed to present the

important aspects of change theory". The survey results could be used "to raise individuals' consciousness about their response to change". The instrument can also be used as a basis for an educational intervention that will move the individuals to behaviors that support change.

Bernstein (1993) assessed the reliability and construct validity by distributing the instrument to organizational change experts in the greater Springfield, MA area, and requested their rating using a scale from 1 to 10 of the questionnaire's ability to measure perceived readiness for change. Results of the Bernstein study indicated a reliability coefficient of .97.

Communication Skills

The Professional Communications Inventory (PCI) designed by Lawrence A. Pfaff, Ed.D. and Michael Busch, Ph.D. (1992) was the research instrument used to measure communication practices of the leaders (Appendix C provides order information). The survey contains 70 behaviorally-based items designed to measure how well an individual performs on twelve key communication practices. The practices are divided into two skill groupings: Communication Skills and Relationship Skills. A low score indicates that the individual is not demonstrating strong skills in that area.

The communication skills measured by the PCI instrument are commonly recognized as essential to effective communication and interaction in the workplace. The following represent the five factors in the communication skills'

grouping:

Speaking: the person's ability to verbally communicate information to others.

Listening: the person's ability to hear and understand the words and ideas of others.

Writing: the person's ability to communicate written information clearly and concisely.

Presenting to Groups: the person's ability to make formal presentations to groups of people.

Conducting Meetings: indicates how well the person leads meetings. (Pfaff & Busch, 1992, p. 2)

The relationship skills measured by the PCI instrument affect how a person is perceived by others in the implementation of the above communication skills. The seven factors in the relationship skills' grouping are:

Approachability/Acceptance: shows whether the person is easy to talk to, friendly and accepting of others and their ideas.

Flexibility: reflects the level of adaptability and tolerance for the ideas of others.

Influencing Others: shows how well the person can persuade and motivate others to take action.

Cooperation: indicates whether the person promotes collaboration and harmony within the work group.

Trust: extent to which the person promotes a climate of trust in the work group.

Support: indicates whether the person recognizes individuals for their contributions, and, if so, whether it is done in a timely manner.

Technical Expertise: general level of technical competence the person demonstrates. (Pfaff & Busch, 1992, p. 2-3)

The PCI instrument was selected for this research for the following reasons. First, the instrument is flexible. The instrument can be used to measure: (a) all twelve communication practices, (b) communication skills only (five practices), (c) relationship skills only (seven practices), or (d) any combination of the twelve practices.

Second, Larry Pfaff, co-designer of the instrument, is a well-known consultant to the study organization. Another instrument he designed, the Management-Leadership Practices Inventory (MLPI), has been used throughout the organization and is recognized as a valuable inventory for assessing management and leadership skills.

Third, the instrument is recognized as being both reliable and valid. The instrument was developed by Pfaff and Busch over a two-year period using sound test design procedures.

Initial data was collected on 623 individuals. Factor analysis was used to analyze the data and revise the inventory. The norms are updated regularly and additional studies are being conducted. Content validity of the PCI was verified through a thorough search of the business communication literature. Review of the PCI by experts in the business communication field were also used to verify content validity. Face validity of the PCI has been confirmed by subjects. (Pfaff, 1991, p. 4-1)

Table 1 illustrates internal reliability of the twelve communication practices assessed by the instrument. As discussed in Chapter II, competencies needed to communicate change are measured by the PCI instrument (Kanter, 1987; and

Scannel, 1982).

Table 1

Internal Reliability of the Communication Practices

Practice	Alpha
Speaking (one-on-one)	.84
Listening	.85
Writing	.80
Presenting to Groups	.76
Conducting Meetings	.94
Approachability/Acceptance	.83
Flexibility	.91
Influencing Others	.94
Cooperation	.92
Trust	.87
Support	.91
Technical Expertise	.88

Fourth, from a researcher perspective, the instrument is cost-effective and the scoring and analysis can be completed by the researcher using a computer based spread sheet and statistical software.

Fifth, the researcher is a certified Management-Leadership Practices

Inventory (MLPI) Systems Consultant which allows the researcher to distribute and interpret the PCI instrument. The certification process required attendance at a trainer certification program.

Finally, the instrument takes less than 15 minutes for respondents to complete, a critical factor for use in a natural setting.

Hypotheses

The skill of a leader to communicate can strongly influence the response to change (Steinburg, 1992). Leaders who are perceived by their subordinates to be effective communicators should have employees who are more open and supportive of change. Leadership communication skills are measured by twelve practices on the Professional Communication Inventory (PCI). The degree of support for change is measured by the Organizational Change Orientation Scale (OCOS).

The independent variables are the perceived leadership communication practice scores as measured by the PCI. The dependent variables are the employee response to change scores as measured by the OCOS. Three research questions were developed in Chapter II. They are:

- I. *How do the perceived communication skills of leaders affect subordinate response to change?*
- II. *How does an environment supportive of two-way communication affect subordinate response to change?*

III. *Do employees who are moving toward support of organizational change efforts work for leaders with higher communication and relationship skills than employees who are nonsupportive of organizational change?*

The first three hypotheses were developed to examine research question I and II.

1. There is a positive relationship between the leader's rating for communication and relationship skills as measured by the PCI and the employee's score on the OCOS supportive scale.

2. An association does not exist between the leader's rating for communication and relationship skills as measured by the PCI and the employee's score on the OCOS neutral scale.

3. There is a negative relationship between the leader's rating for communication and relationship skills as measured by the PCI and the employee's score on the OCOS nonsupportive scale.

The fourth hypothesis examined research question III.

4. The leader's mean PCI total score of employees whose OCOS profile groups accept change will be different than the leader's mean PCI total score of employee's whose OCOS profile groups include resistance, indifference, and equally responsive to change.

The measures of the independent and dependent variables for each of the five hypothesis and the corresponding statistical tests are outlined in Table 2.

Table 2
Hypotheses, Measures and Analysis

Research Hypotheses	Measures	Analysis
1. There is a positive relationship between the leader's rating for communication and relationship skills as measured by the PCI and the employee's score on the OCOS supportive scale.	<p><i>Independent Variable:</i> Perceived leadership communication practices as measured by the PCI.</p> <p><i>Dependent Variable:</i> Employee response to change score as measured on the supportive scale of the OCOS.</p>	<p>Pearson Product Moment Correlation Coefficient to be significant at the .05 level.</p> <p>One-tail test.</p>
2. An association does not exist between the leader's rating for communication and relationship skills as measured by the PCI and the employee's score on the OCOS neutral scale.	<p><i>Independent Variable:</i> Perceived leadership communication practices as measured by the PCI.</p> <p><i>Dependent Variable:</i> Employee response to change score as measured on the neutral scale of the OCOS.</p>	<p>Pearson Product Moment Correlation Coefficient to be significant at the .05 level.</p> <p>Two-tailed test.</p>

Table 2—Continued

Research Hypotheses	Measures	Analysis
3. There is a negative relationship between the leader's rating for communication and relationship skills as measured by the PCI and the employee's score on the OCOS nonsupportive scale.	<i>Independent Variable:</i> Perceived leadership communication practices as measured by the PCI. <i>Dependent Variable:</i> Employee response to change score as measured on the non-supportive scale of the OCOS.	Pearson Product Moment Correlation Coefficient to be significant at the .05 level. One-tail test.
4. The leader's mean PCI total score of employees whose OCOS profile groups accept change will be different than the leader's mean PCI total score of employee's whose OCOS profile groups include resistance, indifference, and equally responsive to change.	<i>Independent Variable:</i> Leader's mean PCI total score from the PCI. <i>Dependent Variable:</i> Employee's response to change profile.	Analysis of Variance (ANOVA) using Tukey's Studentized Range Test controlling for type I error at the .05 level of significance.

NOTE: The problem of this study is to examine relationships between perceived communication practices of leaders and subordinate response to change in a natural setting. OCOS is the *Organizational Change Orientation Scale*. PCI is the *Professional Communication Inventory*.

Summary

The methodology selected for use in this research was intended to provide information on leadership communication practices and employee response to a change. Three survey instruments were selected to provide data to test the hypothesized relationships: (1) Change Environment Assessment, to collect information specific to the change event; (2) Organizational Change Orientation Scale, to collect data regarding employee response to the change; and (3) Professional Communication Inventory, to collect data regarding the employee's perception of the communication practices of their leader.

CHAPTER IV

FINDINGS

This chapter discusses the research outcomes. An overview of the organizational change studied is presented first followed by the profile of the participants. Group feedback for the Change Environment Assessment, the Organizational Change Orientation Scale, and the Professional Communication Inventory, are presented. Finally, the data analysis of the hypotheses are presented. A *post hoc* analysis was conducted due to an unanticipated deviation from the communication protocol.

The Change

The change studied was driven by the United States Sentencing Commission, a force external to the organization. This commission recently established *Guidelines for Sentencing of Organizations* that are not in compliance with the laws and regulations applicable to their specific business. The change required a large-scale communication to all employees. A communication protocol was established to introduce the Corporate Compliance Program to employees in the division. On April 12, 1994, divisional managers met with the Corporate Vice President of Compliance to discuss the program. Following this session, each

sub-division leader arranged meetings to introduce the Compliance Program to employees in their group. These sub-division meetings were expected to occur before mid-May. The final step in the protocol was a unit-level meeting to discuss the program in detail and to respond to employee questions. The unit meetings were expected to be completed by mid-June. The surveys were distributed during the last two weeks of June. All data was collected by mid July, 1994.

Sample Group

The sample was drawn from employees in the Research and Development division of a Fortune 500 company located in the midwestern United States. A total of $N = 205$ employees in the division were invited via an electronic note (Appendix E) to participate in the study. This approach was used at the request of the site sponsor. The employees were systematically selected from a randomly-generated employee listing. One hundred and forty employees agreed to participate in the study. The primary reasons for not participating in the study (received by the researcher via phone, e-mail and hard-copy) included: business trip conflicts, vacation conflicts, no interest in the study, no time to complete the surveys, insufficient contact with the communicator of the change to complete the communication inventory form, and lack of exposure to the change.

The 140 employees who agreed to participate in the study received a

survey package containing an interoffice memo describing the study, a participant consent form, three survey instruments, a pencil to complete the forms, and a return envelope addressed to the researcher. A follow-up e-mail note was sent by the researcher on July 7, 1994 thanking the employees for volunteering to participate in the study and requesting surveys be returned by Tuesday, July 12, 1994. One hundred and thirty-one of the surveys sets were returned by Monday, July 18, 1994. This represents a return rate of 93.6% based on the 140 sets distributed. Twenty-one of the 131 returned survey sets were excluded from the data analysis due to unusable questionnaires. The total number of participants included in the data analysis was 110, representing an adjusted return rate of 78.6%.

Table 3 presents the demographic profile of the study group. The median length of time a participant has worked for the company is between 10 and 15 years. The median length of time a participant has been with their current supervisor is less than four years. Half of the participants have been on their current job less than seven years. The median age of the participants is between 40 and 49. Approximately 66% of the participants have jobs that are in the professional job classification. These jobs include research scientists, research associates, statisticians, and various other professional support functions. Approximately half of the participants hold high school diplomas, associates degrees or bachelors degrees. The other half completed graduate school at either the masters and/or doctoral level.

Table 3
Profile of Participants

Tenure with Company			Worked for Current Supervisor			Tenure on Current Job		
Year range	η	%	Year range	η	%	Year range	η	%
≤ 5	18	16.4	≤ 4	66	60.0	≤ 4	37	33.6
$> 5 \leq 10$	23	20.9	$> 4 \leq 7$	30	27.3	$> 4 \leq 7$	24	21.8
$> 10 \leq 15$	22	20.0	$> 7 \leq 11$	13	11.8	$> 7 \leq 11$	24	21.8
$> 15 \leq 20$	20	18.2	$> 11 \leq 15$	1	.9	$> 11 \leq 15$	16	14.5
> 20	27	24.5	> 15	0	0.0	> 15	9	8.2

Table 3—Continued

Age			Job Classification			Education Level		
Year range	η	%		η	%		η	%
≤ 30	7	6.4	Office	15	13.6	High School	20	18.2
$> 30 \leq 39$	32	29.1	MMS ^a	3	2.7	Associates	12	10.9
$\geq 40 \leq 49$	59	45.5	Technician	13	11.8	Bachelors	22	20.0
$\geq 50 \leq 59$	19	17.3	Professional	72	65.5	Masters	23	20.9
≥ 60	2	1.8	Manager	7	6.4	Doctoral	33	30.0

Note. η = 110.

^aMMS represents jobs in the Manufacturing, Maintenance and Supply classifications

Change Environment Assessment

Chapter III described the Change Environment Assessment (CEA). In addition to collecting the demographic data as described above, this instrument was used to collect information specific to the change itself. This survey (Appendix A) was administered for a dual purpose—to help describe possible relationships between the employee's response to change and their leader's perceived communication skills, and to provide additional feedback for the site sponsor.

In Table 4, employee responses to the question "How did you *first* become aware of the Corporate Compliance Program" are shown. Prior to moving through the four phases of the change process—denial, resistance, exploration and commitment (Scott & Jaffe, 1988)—individuals need to become aware of the change. The intent of the first question was to solicit feedback from the employees as to how they first became aware of the change. More employees became aware of the change by reading a general announcement (36.4%) than from senior level management (25.4%), director/manager level management (31.8%), or from co-workers (6.4%). The question did not measure the "level of awareness". The general announcement was brief and did not provide specific details of the change.

Table 5 shows the responses to the question "What level of management provided the most information regarding the Corporate Compliance Program

Table 4
Change Awareness

	Frequency ^a	Percentage
Senior Level Management ^b	28	25.4
Director/Manager	35	31.8
General Announcement	40	36.4
Co-worker	7	6.4

Note. Change Environment Assessment question asked: "How did you *first* become aware of the Corporate Compliance Program?"

^a $n = 110$. ^bSenior Level Management includes: Corporate Vice President, Divisional Vice President and Executive Director positions.

(including the rationale for the program)"? The communication protocol established in April 1994 recommended that divisional senior management introduce the change to employees in their respective groups. At this meeting, a video was shown and print materials describing the change were distributed. The introductory meeting was to be followed by a unit-level meeting conducted by the employee's director. The intent of the unit meeting was to discuss the change in detail and respond to specific questions to assure a complete understanding. Seventy-one (64.5%) study participants indicated that senior level management provided the most information regarding the change, and 37 (33.6%) indicated that their director or manager provided the most information. One participant felt the video used in the presentation provided the most

information and another participant read the handbooks and felt they provided the most information. Responses to the question suggest that senior management provided the most information regarding the change.

Table 5
Communicators of the Change

	Frequency ^a	Percentage
Senior Level Management ^b	71	64.5
Director/Manager	37	33.6
Other	2	1.9

Note. Change Environment Assessment question asked: "What level of management provided the most information regarding the Corporate Compliance Program (*including the rationale for the program*)?"

^a $n = 110$. ^bSenior Level Management includes: Corporate Vice President, Divisional Vice President and Executive Director positions.

Participants were asked to refer to the answer they provided for the question "What level of management provided the most information regarding the Corporate Compliance Program", and answer the following question: "This individual provided a complete explanation of the Corporate Compliance Program (*including the rationale for the program*)?" Table 6 shows the frequency distribution for this question. On a Likert-type scale, with 1 being "strongly disagree" and 5 being "strongly agree", the mean rating was 3.9. Approximately 76% of the participants agreed or strongly agreed that their

management provided a complete explanation (including the rationale) of the change.

Table 6
Communicator Explanation of the Change

	Frequency ^a	Percentage
Strongly Disagree	1	.9
Disagree	2	1.8
Neither Disagree or Agree	23	20.9
Agree	65	59.1
Strongly Agree	19	17.3

Note. Change Environment Assessment question asked: "This individual provided a complete explanation of the Corporate Compliance Program (*including the rationale for the program*)"?

^a $n = 110$.

In order to communicate the change, the individual identified as providing the most information could have used any of a variety of methods. The participants were asked: "What method(s) of communication were used to explain the Corporate Compliance Program (*please mark all that apply*)?" Table 7 shows the answers provided for this question. It was expected that the unit or group meeting would have been the primary method of communication. Approximately seventy-nine percent of the participants received the change communication in this manner. "Other" communication methods used to

communicate the change included: video, slides, handbooks, and a speech synthesizer.

Table 7
Methods of Communication

	Frequency ^a	Percentage
E-mail/electronic communication	24	21.8
Hard copy memorandum	14	12.7
Unit or group meeting	87	79.1
Personal communication (face-to-face, telephone, etc.)	10	9.1
Used another method	14	12.7

Note. Change Environment Assessment question asked: "What method(s) of communication were used to explain the Corporate Compliance Program (*please mark all that apply*)".

^a $n = 110$.

From April through June 1994, several events were held where compliance could have been discussed. Table 8 shows participant responses to the question: "What kinds of activities did you recently participate in where the Corporate Compliance Program was discussed in depth (*please mark all that apply*)".

Sixty-one percent of the participants viewed the video. It was expected that all employees in the division would have viewed the compliance video.

It was also expected that all employees would have read the handbooks—only 70.9% of the participants read them.

Table 8
Involvement in Change Activities

Activity	Frequency ^a	Percentage
Attended a session led by senior management	65	59.1
Attended a unit meeting led by my immediate supervisor	41	37.3
Attended Employee Forum "Vision for Growth" led by the CEO	31	28.2
Viewed the Corporate Compliance Video	67	60.9
Read the Corporate Compliance Program Handbook and the Code of Corporate Conduct	78	70.9
Discussed the compliance program informally with other employees in the company	43	39.1
Did nothing	5	4.5
Other	3	2.7

Note. Change Environment Assessment question asked: "What kinds of activities did you recently participate in where the Corporate Compliance Program was discussed in depth (*please mark all answers that apply*)".

^a $n = 110$.

Individuals confronted with the decision to support change are influenced by a variety of factors. In addition to influences by management (organization level), there are peer or co-worker influences (group level) (Buller, Saxberg, & Smith, 1985). The study participants were asked if their co-workers helped them understand the reasons for the change. Table 9 shows responses to this question.

Table 9
Co-worker Influences

	Frequency ^a	Percentage
Strongly Disagree	8	7.4
Disagree	28	25.9
Neither Disagree or Agree	54	50.0
Agree	18	16.7
Strongly Agree	0	0.0

Note. Change Environment Assessment question asked: "Your co-workers helped you understand the reasons for the Corporate Compliance Program"?

^a n = 108 (two study participants left this answer blank).

Eighteen participants (16.4%) agreed that co-workers helped them understand. Fifty percent of the participants neither agreed or disagreed, 25.5% disagreed, and 7.4% strongly disagreed. There was some discussion between co-workers, but insufficient to add value to the previous discussion led by management. Perhaps the discussion regarding the change with co-workers was

limited due to the perceived minimum impact the change was expected to have.

Table 10 shows employee responses to the question "Your unit meeting to discuss the Corporate Compliance Program was held?" Seventy-six percent of the study participants attended a unit meeting to discuss the Compliance Program (52 attended a unit meeting more than four weeks prior to study participation, 23 attended a unit meeting between two and four weeks prior to study participation, and nine attended a unit meeting during the two weeks prior to study participation). Twenty-six study participants had not attended a unit meeting to discuss the change prior to participating in the study. This finding surprised the researcher as it suggests that the communication protocol was not followed. It is possible that a unit meeting was held, but the participant chose not to attend. This possibility is difficult to determine from the data collected.

Table 10
Unit Meeting Timing

	Frequency ^a	Percentage
Not scheduled yet	26	23.6
More than four weeks ago	52	47.3
Between two and four weeks ago	23	20.9
During the last two weeks	9	8.2

Note. Change Environment Assessment question asked: "Your unit meeting to discuss the Corporate Compliance Program was held"?

^a $n = 110$.

Another factor that influences an employee's response to change is the impact the change is thought to have on one's job (Louis, 1992). Table 11 shows the responses to the question "Please estimate how you feel the new Corporate Compliance Program will affect your job"? Seventy-one of the 110 study participants (64.5%) believed the change would impact their job to some degree (5 employees indicated the change would significantly impact their job, 15 employees indicated the change would affect some aspects of their job, and 51 employees indicated the change would have a minimum impact on their job). Twenty-five employees indicated the change would not affect their job at all and 14 could not estimate the impact. This question produced unexpected responses as the change impacts all jobs in the division (some more than others). Perhaps those individuals who (a) estimated the change as not affecting their job at all, and/or (b) were unable to estimate the impact of the change, did not have a complete understanding of the program.

Employee Response to Change

The Organizational Change Orientation Scale (OCOS) was the instrument used to collect data regarding employee response to organizational change. For purposes of this study, the employees were to reflect on the Corporate Compliance Program as the *organizational change* when completing the questions on the instrument. The responses ranged from *almost never* (1) to *almost always* (6) in a Likert-type format. The 36 questions were divided into three categories.

Table 11

Impact of Change on Job

Impact on Job	Frequency ^a	Percentage
It should significantly impact my job	5	4.5
It should affect some aspects of my job	15	13.6
It should have a minimum impact on my job	51	46.4
It should not affect my job at all	25	22.7
I cannot estimate the impact it will have on my job	14	12.7

Note. Change Environment Assessment question asked: "Please estimate how you feel the new Corporate Compliance Program will affect your job"?

^a $n = 110$.

Twelve questions provide the total score for behaviors that are supportive of change (score used for the *supportive scale*). Twelve questions provide the total score for behaviors that are indifferent to change (score used for the *neutral scale*). Twelve questions provide the total score for behaviors that are nonsupportive of change (score used for the *nonsupportive scale*). The means, standard deviations, minimum and maximum scores for each of the three scales—supportive, neutral, and nonsupportive for the group ($n = 110$) are shown in Table 12.

Table 12

Organizational Change Orientation Scale Group Scores

Scale	Mean	Standard Deviation	Minimum Score	Maximum Score
Supportive	48.8	9.2	24	65
Neutral	38.8	6.2	19	54
Nonsupportive	23.6	4.6	15	36

Note. $n = 110$.

As Table 12 shows, the mean score for all 110 study participants on the supportive scale is 48.8. The minimum score on the supportive scale was 24 and the maximum score was 65. The mean score for study participants on the neutral scale is 38.8. The minimum score on the neutral scale was 19 and the maximum score was 54. The mean score for the nonsupportive scale was 23.6. The minimum score for the nonsupportive scale was 15 and the maximum was 36.

Jones and Bearly (1986a) propose that individuals within a group may exhibit different behaviors, depending on the type of organizational change that is necessary to move an organization forward and propose seven profile groups. Organizations are in a continuous state of change; thus individuals move toward change, away from change or against change. An individual who is clearly proactive, positive, and productive about change will have a change profile that is Functional (this person is moving toward acceptance of the change). As

shown in Table 13, individuals in the study who have a Functional profile have a high score on the supportive scale and low scores on the neutral and nonsupportive scales. Eighteen study participants fit this profile.

Table 13

Distribution of Participants in Profile Patterns

Profile Pattern	n	%	Supportive Scale Score	Neutral Scale Score	Nonsupportive Scale Score
Functional	18	16.5	High	Low	Low
Toward-Away	10	9.1	High	Medium	Low
Toward-Against	18	16.4	High	Low	Medium
Nonfunctional	21	19.1	Low	High	Low
Away-Against	14	12.7	Low	High	High
Dysfunctional	16	14.5	Low	Low	High
Multidirectional	13	11.8	Med	Med	Med

Note. Total number of participants profiled = 110.

An individual who is inactive, neutral, or nonproductive about change will have a change profile that is Nonfunctional (this person is moving away from accepting the change). Individuals who have a Nonfunctional profile have a high score on the neutral scale and low scores on the supportive and nonsupportive scales. Twenty-one study participants fit this profile.

An individual who is reactive, negative, and counterproductive about

change is considered to have a change profile that is Dysfunctional (this person is moving against the acceptance of change). Individuals who have a Dysfunctional profile have a high score on the nonsupportive scale and low scores on the supportive and neutral scales. Sixteen participants in the study fit this profile.

Not all individuals fit the three profiles mentioned above. Some individuals exhibit behaviors that include strong scores on two scales. Individuals who respond to change with strong scores on the supportive and neutral scales are considered to be both moving toward the change and away from the change simultaneously (Toward-Away). Ten study participants fit this profile.

Individuals who respond to change with strong scores on the neutral and nonsupportive scales and a low score on the supportive scale are moving away from and against change (Away-Against). Fourteen participants fit this profile.

Individuals who respond to change with strong scores on the supportive and nonsupportive scales employ behaviors that both support and resist change simultaneously (Toward-Against). Eighteen study participants fit this profile.

Finally, there are individuals who respond to change about the same on each of the three scales. These individuals have a Multidirectional response to change. Thirteen of the study participants fit this profile. These seven profile groups are used to test the fourth hypothesis.

Leadership Communication

The communication practices of the leaders were measured by the Professional Communication Inventory (PCI). The inventory measures how well an individual performs on twelve key practices—five communication skills and seven relationship skills. Communication skills are "basic practices commonly recognized as essential to communication and interaction in the workplace" (Pfaff, 1991 p. 1-1). Relationship skills affect how the leader is perceived by their employee in the implementation of the communication skills. The inventory contains 70 statements that describe how people communicate and interact at work. The participants were asked to complete the instrument on the leader who was the primary communicator of the change.

The mean scores of all 12 PCI practices for the sample group ($n = 110$) ranged from 5.0 to 6.1 based on a Likert-type scale of one to seven (Table 14). In order to compute the total average score for communication skills and relationship skills, the average score for each related practice was added and divided by the total number of practices in the skill group (five and seven respectively). The total PCI score is based on all twelve practices. The responses of the employees in the sample group that addressed the above practices are listed next to Pfaff and Busch's norm group ($N = 623$).¹

¹A coefficient of variation test between the sample data and the norm data for each communication practice showed no significant differences between the two groups. Appendix G shows the results of this calculation.

Percentiles of the practices were computed using the norm standard deviation. Pfaff (1991, p. 2-3) describes the Percentile Range as 0 to 20 "very low", 21 to 40 "low", 41 to 60 "mid-range", 61-80 "high", and 81 to 100 "very high". The lowest percentile for this study is 45.22, and the highest is 59.87. All percentiles are in the "mid-range" for communication and relationship skills. The rank of the twelve practices for the leaders in this study (from highest rated practice to lowest rated practice) is as follows: (1) technical expertise, (2) writing, (3) trust, (4) influencing others, (5) presenting to groups, (6) approachability/acceptance, (7) cooperation, (8) speaking, (9) support, (10) flexibility, (11) listening, and (12) conducting meetings.

Hypothesis Testing

This section presents the statistical analysis and findings of each of the research hypotheses dealing with the relationship of leadership communication practices and employee response to organizational change.

Hypothesis One

The first research hypothesis examines the assertion that the higher the rating the leader receives for communication and relationship skills, the more supportive an individual is toward the change being studied.

Table 14

PCI Means and Percentiles

	Group Average ¹	Norm Average ²	Group StDev ¹	Norm StDev ²	Percentile
Communication Skills					
Speaking	5.6	5.6	0.9	1.1	49.60
Listening	5.3	5.4	1.1	1.4	46.41
Writing	5.8	5.6	0.8	1.1	57.53
Presenting to Groups	5.9	5.8	0.7	1.1	52.39
Conducting Meetings	5.4	5.5	1.0	1.2	45.22
Total Communication Skills ³	5.6	5.6	0.8	1.2	
Relationship Skills					
Approachability/Acceptance	5.4	5.4	1.3	1.3	51.60
Flexibility	5.0	5.1	1.2	1.2	46.81
Influencing Others	5.5	5.4	1.1	1.2	53.19
Cooperation	5.5	5.5	1.2	1.2	51.20
Trust	5.9	5.8	1.0	1.1	55.17
Support	5.8	5.8	1.2	1.1	49.60
Technical Expertise	6.1	5.8	1.1	1.1	59.87
Total Relationship Skills ⁴	5.6	5.5	1.0	1.2	
Total PCI ⁵	5.6	5.6	0.9	1.2	

¹ The group average and standard deviation is based on the study group ($n = 110$).

² The norm average and standard deviation is based on the $N = 623$ (Pfaff & Busch data).

³ This figure calculated as an average of the five communication skill factors.

⁴ This figure calculated as an average of the seven relationship skill factors.

⁵ This figure calculated as an average of the twelve factors on the PCI.

Hypothesis: There is a positive relationship between the leader's rating for communication and relationship skills as measured by the PCI and the employee's score on the OCOS supportive scale.

In order to test the first hypothesis, Pearson-Product Moment Correlations were calculated. Table 15 shows the results of the correlations between all twelve communication practices measured by the PCI and the employee response to change as measured on the supportive scale of the OCOS for the group ($N=110$). The first hypothesis produced low and insignificant correlations ($-.1282$ to $.0495$) between eleven of the twelve communication practices as measured by the PCI and employee support for change as measured by the OCOS. Based on the results found in this test, the leadership communication practices of speaking, listening, writing, presenting to groups, conducting meetings, approachability/acceptance, flexibility, influencing others, cooperation, trust, and support are not related to the employee's support for the organizational change measured. Hypothesis One is not accepted.

The correlation between the communication practice of technical expertise and the employee's score on the supportive scale of the OCOS is negative and significant ($r = -.2891$). The derived probability of $.0022$ provides evidence to support a relationship between the two variables. This means that for this participant group, employees who scored high on the OCOS supportive scale perceived their leader as having low technical expertise. This relationship is not in the direction hypothesized.

Table 15

The Relationship of Supportive Response to Change
and Leadership Communication

Communication Practice	^a Correlation Coefficient	r^2	^b Prob.
Speaking	-0.0749	.0056	.4366
Listening	0.0204	.0004	.8324
Writing	-0.1282	.0164	.1820
Presenting to Groups	-0.0869	.0076	.3664
Conducting Meetings	-0.0122	.0001	.8991
Approachability/Acceptance	0.0443	.0019	.6457
Flexibility	0.0495	.0026	.6076
Influencing Others	-0.0229	.0005	.8117
Cooperation	-0.0940	.0088	.3286
Trust	-0.0260	.0007	.7873
Support	-0.0377	.0014	.6955
Technical Expertise	-0.2891	.0836	.0022*

Note. $n = 110$.

^a Pearson Product-Moment Correlation. ^b One-tail test.

* Prob. < .05 Significance level = .05 ($\alpha = .05$)

Hypothesis Two

The second research hypothesis examines the assertion that there is no association between the leader's perceived scores for the communication practices and the employee's score on the neutral scale of the OCOS. In other

words, employees who do not care about change, or are indifferent toward change may work for leaders who have either high or low communication and relationship skills.

Hypothesis: An association does not exist between the leader's rating for communication and relationship skills as measured by the PCI and the employee's score on the OCOS neutral scale.

The second hypothesis was tested using Pearson-Product Moment Correlations. Results of this two-tailed test for the sample group, $N = 110$ are found in Table 16. The correlations between the perceived communication and relationship skills measured and the employee's indifference to change are low and insignificant (-.1762 to -.0047). Based on the results found in this study, Hypothesis Two is accepted. The leader's perceived communication practices are not related to an employee's neutral or indifferent response to organizational change.

Hypothesis Three

The third hypothesis examines the assertion that the lower the rating the leader received for communication and relationship skills, the more resistant an individual is toward the change being studied.

Hypothesis: There is a negative relationship between the leader's rating for communication and relationship skills as measured by the PCI and the employee's score on the OCOS nonsupportive scale.

Table 16
The Relationship of Neutral Response to Change
and Leadership Communication

Communication Practice	^a Correlation Coefficient	r^2	^b Prob.
Speaking	-0.0269	.0007	.7795
Listening	-0.1165	.0136	.2254
Writing	-0.1024	.0105	.2872
Presenting to Groups	-0.0641	.0041	.5056
Conducting Meetings	-0.1762	.0310	.0656
Approachability/Acceptance	-0.1418	.0201	.1394
Flexibility	-0.0326	.0011	.7353
Influencing Others	-0.1169	.0137	.2237
Cooperation	-0.0642	.0041	.5171
Trust	-0.0128	.0002	.8944
Support	-0.0807	.0065	.4022
Technical Expertise	-0.0047	.0000	.9614

Note. $n = 110$.

^a Pearson Product-Moment Correlation. ^b Two-tailed test.

Significance level = .05 ($\alpha = .05$)

The third hypothesis was tested using Pearson Product-Moment Correlations. Results of this one-tail test for the sample group, $N = 110$, are found in Table 17. Significant (negative) correlations (-.3859 to -.1917) were found between eleven of the twelve communication practices as measured by the

Table 17

The Relationship of Nonsupportive Response to Change
and Leadership Communication

Communication Practice	^a Correlation Coefficient	r^2	^b Prob.
Speaking	-0.2698	.0728	.0044**
Listening	-0.3774	.1424	.0001**
Writing	-0.3520	.1239	.0002**
Presenting to Groups	-0.3133	.0982	.0009**
Conducting Meetings	-0.2657	.0706	.0050**
Approachability/Acceptance	-0.3014	.0908	.0014**
Flexibility	-0.3859	.1492	.0001**
Influencing Others	-0.2284	.0522	.0164*
Cooperation	-0.1917	.0367	.0448*
Trust	-0.2583	.0667	.0064**
Support	-0.2014	.0406	.0348*
Technical Expertise	-0.1278	.0163	.1834

Note. $n = 110$.

^aPearson Product-Moment Correlation. ^bOne-tail test.

* Prob. < .05 ** Prob. < .01 Significance level = .05 ($\alpha = .05$)

PCI and the employee's nonsupport for change measured by the OCOS. Based on the results found in this test, Hypothesis Three is accepted for the leadership communication practices of: speaking, listening, writing, presenting to groups, conducting meetings, approachability/acceptance, flexibility, influencing others,

cooperation, trust, and support as they are significantly, negatively, related to the employee's nonsupport for the organizational change measured. This means that an association was found between the rating a leader received for these eleven practices and the employee's score representing resistance to change.

The correlation between the leader's perceived skill in technical expertise, and an employee's nonsupport for organizational change is low ($r = -.1278$) and not significant. This means that an association was not found between the rating a leader received for technical expertise and the employee's score representing resistance to change.

Hypothesis Four

Hypothesis four states that employees who have OCOS profiles that accept change, or are working toward the acceptance of change, perceive their leaders as having higher communication and relationship skills than employees whose OCOS profiles resist change or are indifferent to change. The OCOS profiles that include behaviors accepting of change are Functional, Toward-Away, and Toward-Against. The OCOS profiles that include behaviors that resist change or are indifferent to change are Nonfunctional, Dysfunctional and Away-Against. The Multidirectional profile represents an individual who responds to change equally on all three OCOS scales.

Hypothesis: The leader's mean PCI total score of employees whose OCOS profile groups accept change will be different than

the leader's mean PCI total score of employee's whose OCOS profile groups include resistance, indifference, and equally responsive to change.

The purpose of this hypothesis was to determine if there were differences between the leader's perceived communication practices and the employee's response to change profile. In order to test the null hypothesis, an Analysis of Variance (ANOVA) was performed on the PCI total score. Table 18 presents the ANOVA results. Significant differences were found between the Functional and Toward-Away Groups, Functional and Nonfunctional Groups, Toward Away and Toward-Against Groups, Toward-Away and Dysfunctional Groups, Toward-Away and Multidirectional Groups, and Nonfunctional and Multidirectional Groups. These differences were all significant at the .05 level. There is evidence to support the hypothesis that employees who are moving toward the acceptance of change perceive their leader as having higher communication and relationship practices. In general, the profile groups that are more resistant to change have PCI ratings that are lower than profile groups that are moving toward the acceptance of change.

The mean PCI score for leaders of employees with change profiles of Functional and Toward-Away are 5.253 and 6.028 respectively. The difference is -.775 and significant. This suggests that employees who have behaviors that are indifferent to change, but include behaviors that are moving toward the acceptance of change work for leaders whose perceived communication and

Table 18

Difference Between the Leader's Mean Total PCI Score Across the OCOS Profile Groups

OCOS Profile Group η Group PCI \bar{X}	<i>Groups Accepting of Change Efforts</i>			<i>Groups Resisting & Indifferent to Change Efforts</i>		
	Functional	Toward-Away	Toward-Against	Non-functional	Dys-functional	Away-Against
Functional $\eta = 18$ $\bar{X} = 5.253$						
Toward-Away $\eta = 10$ $\bar{X} = 6.028$	-.775*					
Toward-Against $\eta = 18$ $\bar{X} = 5.373$	-.120	.655*				
Nonfunctional $\eta = 21$ $\bar{X} = 5.785$	-.532*	.244	-.412			
Dysfunctional $\eta = 16$ $\bar{X} = 5.309$	-.056	.719*	.064	.476		
Away-Against $\eta = 14$ $\bar{X} = 5.442$	-.189	.586	-.069	.342	-.133	
Multidirectional $\eta = 13$ $\bar{X} = 5.134$.119	.894*	.239	.651*	.175	.308

Hypothesis four employed Tukey's Studentized Range Test controlling for type I error at the .05 significance level.

Note: The table is meant to be read across and down. For example, the difference between employees who have a Functional profile and employees who have a Nonfunctional profile is negative and significant which means that employees who have behaviors that are accepting of change efforts work for leaders whose perceived communication and relationship skills are lower than the leaders of employees who are indifferent to change.

relationship skills are higher than employees whose behaviors predominately accept change.

The mean PCI score for leaders of employees with change profiles of Functional and Nonfunctional are 5.253 and 5.785 respectively. The difference is -.532 and significant. This suggests that employees who have behaviors that are indifferent to change work for leaders whose perceived communication and relationship skills are higher than employees who have behaviors that predominately accept change.

The mean PCI score for leaders of employees with change profiles of Toward-Away and Toward-Against are 6.028 and 5.373 respectively. The difference is .655 and significant. This suggests that employees who have behaviors that are indifferent to change, but include behaviors that are moving toward the acceptance of change, work for leaders whose perceived communication and relationship skills are higher than employees who have behaviors that resist change, but are also moving toward the acceptance of change.

The mean PCI score for leaders of employees with change profiles of Toward-Away and Dysfunctional are 6.028 and 5.309 respectively. The difference is .719 and significant. This suggests that employees who have behaviors that are indifferent to change, but include behaviors that are moving toward the acceptance of change, work for leaders whose perceived communication and relationship skills are higher than employees who have behaviors that resist change.

The mean PCI scores for leaders of employees with change profiles of Toward-Away and Multidirectional are 6.028 and 5.134 respectively. The difference is .894 and significant. This suggests that employees who have behaviors that are indifferent to change, but include behaviors that are moving toward the acceptance of change, work for leaders whose perceived communication and relationship skills are higher than employees who have behaviors that are considered to be equally distributed on all three OCOS scales.

The mean PCI score for leaders of employees with change profiles of Nonfunctional and Multidirectional are 5.785 and 5.134 respectively. The difference is .651 and significant. This suggests that employees who have behaviors that are indifferent to change work for leaders whose perceived communication and relationship skills are higher than employees who have behaviors that are considered to be equally distributed on all three OCOS scales.

Post Hoc Analysis

Conducting studies in a natural setting presents the researcher with circumstances that are uncontrollable. The study was executed assuming that all leaders in the research and development division would follow the prescribed protocol to communicate the change to their employees. As a result of question eight on the Change Environment Assessment it became clear that approximately 24% of the participants had not discussed the Compliance

Program in any further detail than was offered in the large group session led by senior management. A *post hoc* analysis was conducted to compare the employees who attended a unit meeting to discuss the Compliance Program prior to participating in the study with those employees who had not attended a unit meeting prior to participating in the study with respect to their supportive response to change.

This analysis employed a t-test to determine if there was a difference between the means on the supportive scale score on the OCOS and attendance at a unit meeting. The Change Environment Assessment required the participants to indicate when they attended a unit meeting. The choice included "more than four weeks ago", "between two and four weeks ago", "during the last two weeks" and "unit meeting not scheduled yet". For purposes of this test, the employees were classified into two groups: (1) those who attended a unit meeting ($n = 84$), and (2) those who did not attend a unit meeting ($n = 26$).

Table 19 presents the findings of the t-test. Employees who attended a unit meeting to discuss the Corporate Compliance Program had a mean supportive scale score (49.78) that was significantly different than the mean supportive scale score (45.80) for employees who did not attend a unit meeting. The difference was significant at the .05 level. This suggests that employees who had the opportunity to discuss the change in a unit-level meeting demonstrated more support for the studied change than employees who did not

attend a unit-level meeting.

Table 19

Differences in Employee Supportive Score Means for
Unit Meeting Attendance Versus Nonattendance

	$n =$	Supp. Mean	Vari- ance	t value	p-value
Attended a meeting	84	49.78	71.58	1.96	.026*
No meeting	26	45.80	115.6		

* Prob. < .05 Significance Level = .05 ($\alpha = .05$)

Summary of Findings

Provided in this chapter are the results of the hypotheses tests on the relationships between communication and change. The following three associations were tested using Pearson Product Moment Correlation Coefficient: (a) association between employee support for change and leader communication practices, (b) association between employee indifference to change and leader communication practices, and (c) association between employee nonsupport for change and leader communication practices. All but three of the correlation coefficients were negative. Twelve of the 36 comparisons were statistically significant. Negative correlations were found between: (a) perceived technical expertise of the leader and employee support for change; and (b) perceived

leader communication practices of speaking, listening, writing, presenting to groups, conducting meetings, approachability/acceptance, flexibility, influencing others, cooperation, trust, and support and employee resistance to change. As hypothesized, an association does not exist between the leader's perceived communication practices and the employee's neutral response to change.

An Analysis of Variance (ANOVA) was performed to determine if there were differences between the perceived communication practices of leaders given the employees profiled response to change. Significant differences in the PCI means were found within the three groups that support change and between the groups that support change and are indifferent, resist change, or who respond to change equally on all three OCOS scales.

Finally, a *post-hoc* analysis examined if there was a difference between support for change of employees who attended a unit meeting to discuss the change versus those who did not attend a unit meeting. The significant differences found indicate the need for all employees to attend a follow-up unit meeting to discuss further details of the change. Employees who attended these meetings were more likely to support the change.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Organizational change continues to challenge leaders as they are charged with transforming their followers from a present state to a future state. This study examined the "leadership communication" of a mandated change that was driven by new government regulations, and "employee response" to the change. The discussion is organized into the following sections: (a) Overview of the Study, (b) Environmental Influences, (c) Discussion of Findings, (d) Conclusions, (e) Limitations of this Study, (f) Suggestions for Practice, and (g) Recommendations for Future Research.

Overview of the Study

The purpose of this research was to examine perceived leadership communication practices as they relate to employee response to organizational change. Relationships were sought between two variables: (1) leadership communication and (2) response to change. The following three research questions were developed to examine the proposed relationships.

- I. *How do the perceived communication skills of leaders affect*

subordinate response to change?

II. *How does an environment supportive of two-way communication affect subordinate response to change?*

III. *Do employees who are moving toward support of organizational change efforts work for leaders with higher communication and relationship skills than employees who are nonsupportive of organizational change?*

Sample and Data Collection

The sample was drawn from employees in the Research and Development division of a Fortune 500 company located in the midwestern United States. The total number of participants in the data analysis was 110, representing a return rate of 78.6%.

The study data was collected from employees who were asked to complete three surveys: (1) Change Environment Assessment (CEA), (2) Organizational Change Orientation Scale (OCOS) [response to change], and (3) Professional Communication Inventory (PCI) [leadership communication].

The Change

The change selected for this research was an internal policy change in response to a change in government policy. The United States Sentencing Commission recently established "Guidelines for Sentencing of Organizations" that were not in compliance with the laws and regulations applicable to their

specific business. These guidelines necessitated an internal review of past practices and resulted in a need to address compliance issues differently. A revised policy was written which resulted in the Corporate Compliance Program. The program consisted of ten elements designed to prevent and detect violations of law, regulation, policies, and procedures.

Communication Protocol

The protocol to communicate the change to employees was designed by senior management. The protocol included a large group meeting to introduce the change followed by a unit meeting to discuss specific details of the change. The large group meeting was conducted by senior management. Senior management discussed the driving forces of the change, showed a video, and distributed handbooks. The unit meeting followed the large group meeting. At this meeting, led by unit management, employees were given the opportunity to ask questions and discuss implementation details.

Environmental Influences

Several contextual features of the natural setting may have influenced the results of the study.

Communication Inventory

Sixty-five percent of the participants indicated that they received the most

information regarding the change from the senior leader. It was expected that the unit leaders would have provided the most information regarding the change because they discussed the change in depth. The communication inventory assumes that the person completing the instrument knows and has regular contact with the communicator. Many participants completed the inventory on their senior manager. Completing the instrument on the senior manager may have been difficult because the statements describe how individuals communicate and interact at work. Some of the activities listed in the statements on the PCI instrument would not regularly be observed by the participants as interaction between senior management and employees is limited.

The results of the PCI provided a narrow range in ratings. Mean scores ranged from 5.0 to 6.1 on a Likert-type scale of one to seven. This may be a drawback of using the Likert scale. The homogeneity in the ratings may suggest the difficulty in discerning effective communicators from ineffective communicators especially with regard to the change studied. The limited variability in the communication and relationship skill ratings may have been accountable for the low correlation coefficients found.

Level of Trust

Another concern is the level of trust the participant had in the confidentiality of the data. Several participants contacted the researcher to discuss the

procedures for data handling. There appeared to be apprehension among those that contacted the researcher regarding possible negative consequences for *honestly* completing the communication inventory.

Adherence to Communication Protocol

The third feature of the study involves the protocol for communicating the change. The protocol included both large group meetings with senior management and small group meetings with unit level management. Twenty-four percent of the study participants did not attend a unit meeting to discuss the change in detail. Therefore, it appears as though the protocol was not followed. Several circumstances may account for this phenomenon. First, it is possible that management held a unit meeting to discuss the details of the change and the participant did not attend. Attendance could have been influenced by schedule conflicts and prioritization of work load. Second, the participants may have received adequate information in the large group meeting and felt the unit meeting would not add value. Third, the participant may not have had any concerns regarding the change that needed to be addressed in a unit meeting. Finally, the unit leader may not have been able to schedule or hold the meeting prior to the study.

Perception of the Change

Typically, change is introduced to improve processes and simplify job

tasks resulting in a positive impact. The change in this research may have been perceived as negative. For some participants, the change required additional work in order to implement the change and remain in compliance with the policies and procedures, laws and regulations.

One out of every five study participants perceived the change as having some, or a significant job impact. The other four out of five study participants indicated the change would minimally affect their job, not affect their job at all, or they were not able to estimate the job impact. It may be possible that the participants were not listening to the communicator about the change or that their job was already so highly structured around compliance that the change was viewed as insignificant.

Self-reporting Measures

The instruments used in this study allowed for participants to self-report on what they perceived to have occurred in relation to the change. The weakness of these instruments is that they do not measure *actual* behaviors.

Demographics

The "average" participant worked for the company between 10 and 15 years, worked in their current position less than seven years, and for their current supervisor less than four years. The "average" participant was between 40 and 49 years of age, held a professional position in the division and was

college educated.

Discussion of Findings

In seeking relationships between leadership communication and response to change, four potential relationships were investigated.

Leadership Communication and Response to Change on Three Scales

The first research hypothesis examined the assertion that the higher the rating a leader received for communication and relationship skills, the more supportive the employee was toward the change. This relationship was examined by calculating Pearson-Product Moment Correlations. No relationships between the leadership communication practices (speaking, listening, writing, presenting to groups, conducting meetings, approachability/acceptance, flexibility, influencing others, cooperation, trust, and support) and response to change on the supportive scale were found. Hypothesis one was not supported. The leadership communication practice of technical expertise was found to be negatively related to support for change. This means that the lower leaders were rated for technical expertise, the more support employees demonstrated for change. The direction of the relationship was not expected.

The second research hypothesis examined the assertion that there was no association between the scores the leader received for communication practices and the employee's neutral response to change. In other words, employees

who did not care about the change, or were indifferent toward the change worked for leaders who were perceived as having either high or low communication and relationship skills. This relationship was examined by calculating Pearson-Product Moment Correlations; no relationship between leadership communication and neutral response to change was found, therefore Hypothesis Two was supported.

The third hypothesis examined the assertion that the lower the leader was rated for communication and relationship skills, the more resistant the employee was toward the change. Using the Pearson-Product Moment Correlation leadership communication practices of; speaking, listening, writing, presenting to groups, conducting meetings, approachability/acceptance, flexibility, influencing others, cooperation, trust, and support were found to be negatively related to employee resistance to change. Hypothesis three was supported for 11 of the 12 communication practices.

Participant Change Profile & Leadership Communication Practices

An Analysis of Variance was performed to test the fourth research hypothesis which compared employee change profile groups. Employees who had change profiles that included behaviors that were accepting of change efforts were expected to rate their leaders higher in communication and relationship skills than employees who had change profiles that included behaviors that resisted or were indifferent to change efforts. Change profile

groups accepting of change efforts include those with high scores on the supportive scales and medium or low scores on the neutral and nonsupportive scales. Profile groups accepting of change efforts include: (a) Functional, (b) Toward-Away, and (c) Toward-Against. Change profile groups resisting or indifferent to change efforts include those with high scores on the neutral and/or nonsupportive scales and a low score on the supportive scale. These profile groups include: (a) Nonfunctional, (b) Dysfunctional, and (c) Away-Against. Partial support for the fourth hypothesis was found. Positive differences were found between the profile groups of: (a) Toward-Away and Toward-Against, (b) Toward-Away and Dysfunctional, (c) Toward-Away and Multidirectional, and (d) Nonfunctional and Multidirectional. Negative differences were found between the profile groups of: (e) Functional and Toward-Away and (f) Functional and Nonfunctional.

Post Hoc Analysis

A *post hoc* analysis was conducted to compare the support for change of employees who attended a unit meeting to discuss the change versus employees who did not attend a unit meeting. A difference was found which suggests that employees who attended a unit meeting supported the change more than employees who did not attend a unit meeting.

Conclusions

A strong relationship was found between leadership communication and relationship skills and employee resistance to change. These results are consistent with the findings of Covin & Kilmann (1990) who in a survey of 240 participants found that management support and communication were positive-impact factors on successfully implementing change and that poor communication was a negative-impact factor. In this research, employees whose behaviors were most nonsupportive of change as measured by the Organizational Change Orientation Scale (OCOS) perceived their leaders as having low communication and relationship skills as measured by the Professional Communication Inventory (PCI). McKenna (1993) reported results of a survey conducted by Wm. Schiemann & Associates, Inc. of chief executive officers and top managers from Fortune 500 companies. Employee resistance was identified by 76% of the respondents as the main cause of unsuccessful change. Communication strategies were credited as a key determinant for successful change to occur. Young and Post (1993) point out that if communication is inadequate, employees will be more resistant to change. Caruth, Middlebrook & Rachel (1985) state that resistance surfaces because individuals face uncertainty about the future and express fears that include: fear of changes in work relationships, fear of incompetence, fear of failure (among others). Karp (1988) suggests that through improved communication, leaders can help reduce or eliminate fears

that are associated with resistance.

A second significant finding (identified during a *post-hoc* analysis) illustrated the importance of a forum (in this study a unit meeting) that provides the opportunity for two-way communication between the leader and the subordinate to gain support for change. Roberts' 1994 study found that employees had a significantly higher level of trust in the change agent when they attended an information session regarding the change than employees who did not attend an information session. Those employees who did not attend the information session did not change their attitude toward change. Lewis and Spiker (1991) suggest that, too often, management concentrates only on communicating its message to employees one-way, but both top-down and bottom-up communication are vital for providing employees with a feedback mechanism for response or input.

Limitations of This Study

Several limitations may have influenced this study. These limitations may be classified as: (a) type of change studied, (b) degree of familiarity with the communicator of the change, and (c) time lapse from communication regarding the change to survey participation.

Type of Change Studied

Organizational change occurs due to a variety of reasons. Stollery (1989)

classifies changes into five major categories that influence organizations as they move forward: (1) globalization, (2) market segmentation, (3) government policy, (4) technology, and (5) values. The type of change studied in this research involved a change in organizational policy that was necessitated as a result of changes in laws and regulations specific to the business. In order to implement the change, employees needed to have an understanding of the rationale for the change, the consequences of not being in compliance, and the functions related to their job that would be affected by the corporate code of conduct. Some employees did not view the change as a fundamental change in the way they did business. One of the subgroups involved in the study represented the regulatory function. These participants expressed to the researcher that they have traditionally been in compliance and they did not view the change as a major event. If the change was a "major event" to the majority of the participants, then perhaps stronger relationships between leadership communication and support for change may have been found.

Degree of Familiarity

Participants were asked to complete the Professional Communication Inventory (PCI) on the leader that was the main communicator of the change. Some participants reported that they did not know their leader well enough to respond to the statements contained in the PCI (the semi-completed PCI surveys sets were not included in the data analysis). It is not known to what degree

participants who completed PCI surveys were familiar with their leader. In some instances, the participant indicated that senior level management provided the most information, but they completed the PCI on their director rather than the senior leader. It is possible that the participants did not know the difference between a director title, executive director title, or vice president title. The culture of the organization promotes interaction on a first name basis, and the only exposure employees may have to job title is through General Announcements and other printed correspondence. A measure of personal familiarity of the communicator may have helped explain the lack of significant relationships between communication practices and response to change on the supportive scale.

Time Lapse

An eight to ten week time frame elapsed during the communication of the change. Study participants were exposed to the change across various dates, by more than one leader, and to different degrees of thoroughness in this period. Some participants may not have been able to distinguish "who" their main communicator of the change was—senior or unit management. Participants completed the surveys up to several weeks after being exposed to the change. The longer the time interval between attending a meeting to discuss the change and completing the surveys may have limited the participant's ability to remember all of the salient details. These variables were

not controllable by the researcher.

Suggestions for Practice

A few suggestions can be advanced to practitioners who are responsible for establishing protocols to introduce organizational change. First, managers should be aware that communication and relationship skills are important to reduce or eliminate resistance to change. In this research, participants who were most resistant to change perceived their leaders as having low communication and relationship skills. Fortunately, these skills can be acquired and developed through training and experience.

Second, leaders should develop protocols for communicating change that includes a component allowing for group discussion. This component would provide employees with the opportunity to discuss the change in detail, ask questions for clarification, and explore the impact the change would have on their job.

Recommendations for Future Research

It is recommended that further research be undertaken to expand this study by including some of the variables identified as limitations. These recommendations are:

1. Using the same methodology, examine a different type of change, *i.e.* a technological change, where the change might be considered a "major

event".

2. Design a study that ensures that the change events to be studied are communicated only by the employee's immediate leader.

3. Implement the study so that there is a fixed time difference between communication of change and the participants completion of the survey instruments.

Appendix A
Change Environment Assessment

CHANGE ENVIRONMENT ASSESSMENT

Directions: Please blacken the circle that most appropriately answers the question. The purpose of this assessment is to provide specific details regarding the introduction of the Corporate Compliance Program as well as demographic information.

1. **How did you *first* become aware of the Corporate Compliance Program?**
 - ① Corporate Vice President/Divisional Vice President
 - ② Executive Director
 - ③ Director
 - ④ A co-worker discussed the program
 - ⑤ By reading a General Announcement
 - ⑥ Other (please list) _____

2. **What level of management provided the *most* information regarding the Corporate Compliance Program (including the rationale for the program)?**
 - ① Corporate Vice President/Divisional Vice President
 - ② Executive Director
 - ③ Director
 - ④ Other (please list) _____

3. **Please refer to your answer in question 2 above. This individual provided a complete explanation of the Corporate Compliance Program (including the rationale for the program):**

①	②	③	④	⑤
Strongly	Disagree	Neither Disagree	Agree	Strongly
Disagree		or Agree		Agree

4. **What method(s) of communication did the individual identified in question 2 above use to explain the Corporate Compliance Program (please mark all that apply):**
 - ① E-mail or another form of electronic communication
 - ② Hard copy memorandum
 - ③ Unit or group meeting
 - ④ Personal communication (face-to-face, telephone, etc.)
 - ⑤ Did not communicate the compliance program using any of the above methods
 - ⑥ Used another method (please describe) _____

5. **What follow-up communication has been used to discuss the Corporate Compliance Program by your unit manager?**
 - ① Regular unit or group meeting to discuss the program
 - ② Special unit or group meeting to discuss the program
 - ③ One-on-one discussion with my unit manager
 - ④ None-of-the-above
 - ⑤ Other (please describe) _____

6. What kinds of activities did you recently participate in where the Corporate Compliance Program was discussed in depth (please mark all that apply):

- ① Attended a session led by senior management
- ② Attended a unit meeting led by my immediate supervisor
- ③ Attended an Employee Forum on a Vision for Growth
- ④ Viewed the Corporate Compliance video
- ⑤ Read the Corporate Compliance Program handbook and the Code of Corporate Conduct
- ⑥ Discussed the compliance program informally with other employees in the company
- ⑦ Did nothing
- ⑧ Other (please specify) _____

7. Your co-workers helped you understand the reasons for the Corporate Compliance Program:

- | | | | | |
|----------------------|----------|------------------------------|-------|-------------------|
| ① | ② | ③ | ④ | ⑤ |
| Strongly
Disagree | Disagree | Neither Disagree
or Agree | Agree | Strongly
Agree |

8. Your unit meeting to discuss the Corporate Compliance Program was held:

- ① More than four weeks ago
- ② Between two and four weeks ago
- ③ During the last two weeks
- ④ During the next two weeks
- ⑤ Not scheduled yet

9. Please estimate how you feel the new Corporate Compliance Program will affect your job:

- ① It should significantly impact my job
- ② It should affect some aspects of my job
- ③ It should have a minimum impact on my job
- ④ It should not affect my job at all
- ⑤ I cannot estimate the impact it will have on my job

10. Your tenure with the company is:

- ① Less than five years
- ② Between five and 10 years
- ③ Between 10 and 15 years
- ④ Between 15 and 20 years
- ⑤ More than 20 years

11. You have worked for your current supervisor:

- ① Less than four years
- ② Between 4 and 7 years
- ③ Between 8 and 11 years
- ④ Between 12 and 15 years
- ⑤ More than 16 years

12. You have been on your current job:

- ① Less than four years
- ② Between 4 and 7 years
- ③ Between 8 and 11 years
- ④ Between 12 and 15 years
- ⑤ More than 16 years

13. Your age is:

- ① Younger than 30
- ② Between 30 and 39
- ③ Between 40 and 49
- ④ Between 50 and 59
- ⑤ 60 +

14. Your classification is:

- ① Associate
- ② Management
- ③ MMS
- ④ Office
- ⑤ Professional
- ⑥ Technician

15. Your education level is:

- ① High School
- ② Associates Degree
- ③ Bachelors Degree
- ④ Masters Degree
- ⑤ Doctoral Degree
- ⑥ Other _____

Appendix B

Organizational Change Orientation Scale Order Information

***The Organizational Change Orientation Scale (OCOS)
may be ordered from:***

**The *HRD Quarterly*
Organization Design and Development, Inc.
2002 Renaissance Boulevard, Suite 100
King of Prussia, Pennsylvania 19406-2746
215-279-2002**

Appendix C

Professional Communication Inventory Order Information

***The Professional Communication Inventory
may be ordered from:***

**Dr. Lawrence A. Pfaff
Organizational and Human Resource Consulting
3506 Lovers Lane, Suite 3
Kalamazoo, MI 49001
616-344-2242**

Appendix D
HSIRB Approval Letter

Human Subjects Institutional Review Board



Kalamazoo, Michigan 49008-3899
616 387-8293

WESTERN MICHIGAN UNIVERSITY

Date: June 2, 1994

To: Catherine Chevalier

From: Kevin Hollenbeck, Chair *JK For K Hollenbeck*

Re: HSIRB Project Number 94-05-14

This letter will serve as confirmation that your research project entitled "A study to determine the relationship between perceived communication skills of leaders and subordinate support of organizational change in a natural setting" has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: June 2, 1995

xc: Dickie, Ed. Leadership

Appendix E
Sample E-mail Notes

Sample of Electronic note sent to management.

INTEROFFICE MEMO

Research & Development Division of a Fortune 500 Company

Subject: Communication & Change: A Study

Date: June 2, 1994

From: Site Sponsor

To: All Management in Division

The executive staff has approved doing an evaluation of our communication of the Corporate Compliance Program. It will be conducted by Catherine Chevalier, from Human Resources. In addition to providing senior management with valuable information regarding the introduction of large scale organizational change and leadership communication, the data collected will be used by Catherine for her dissertation. The research is entitled "A Study to Determine the Relationship Between Perceived Communication Skills of Leaders and Subordinate Support of Organizational Change in a Natural Setting".

Participants in the study will be invited to participate via an e-mail note on a random basis. This will minimize disruption to our employees by only including those who have both the time to complete the surveys and are willing to volunteer. I'm sending you this note because some of the employees in your unit may be randomly invited to participate. If they have questions that you might answer please do so or forward them to Catherine or myself. The surveys will be sent out within the next ten days.

The approximate time needed to participate is thirty minutes. The volunteer participants will be required to sign an Informed Consent Form (required by the Human Subjects Institutional Review Board). The data collected will be kept in confidence and will be expressed as statistical summaries. No individual director, supervisor, unit, employee, or business function will be recognizable.

The instruments are:

1. "Change Environment Assessment"—provides specific details regarding the change event, and demographic information such as age group, level of education, and job classification. The specific change event being studied is our communication of the Corporate Compliance Program to all employees in the division. (approximate time, three minutes)
2. "Organizational Change Orientation Scale"—developed by John E. Jones, Ph.D. and William L. Bearley, Ed.D. is a 36 item inventory relating to organizational change. Responses will provide a profile of the participant's personal orientation to change. (approximate time, five minutes)
3. "Professional Communication Inventory"—developed by Lawrence A. Pfaff, Ed.D. and Michael C. Busch, Ph.D. contains 70 statements that describe how people communicate and interact at work. This inventory will be completed on the participant's unit supervisor. Responses will provide feedback on twelve key communication practices. (approximate time, fifteen minutes)

Catherine would be happy to answer any questions you may have regarding the study. Her extension is (phone number), and E-MAIL ID is CLCHEVAL. Thank you for your support.

Sample of Electronic note sent to the randomly selected employees.**INTEROFFICE MEMO**Research & Development Division of a Fortune 500 Company

Subject: Communication & Change: A Study

Date: June 17, 1994

From: Catherine L. Chevalier

To: Randomly Selected Employees in R & D Division

The executive staff has approved completing a study to evaluate the recent communication of the Corporate Compliance Program. Individual managers have been informed that participants in the study will be selected on a random basis. Your name has been drawn as the result of a random selection procedure.

I am inviting you to participate in the study which will take approximately thirty minutes. Your participation is voluntary but I'd really appreciate your help. Your responses will be kept in confidence and will be expressed as statistical summaries. No individual director, supervisor, unit, employee or business function will be recognizable.

The data collected will provide valuable information regarding communication effectiveness of large-scale organizational change. The data will also be used by me in my dissertation which is entitled "A Study to Determine the Relationship Between Perceived Communication Skills of Leaders and Subordinate Support of Organizational Change in a Natural Setting".

Your involvement would require you to sign an Informed Consent Form and complete three surveys. The first survey will provide specific details regarding the change event and demographic information and will take approximately three minutes to complete. The second survey is Jones & Bearly's "Organizational Change Orientation Scale" and will take approximately five minutes to complete. The third survey is Pfaff & Busch's "Professional Communication Inventory" and will take approximately 15 minutes to complete.

Please reply to this note by Wednesday, June 22, 1994 to let me know whether or not you plan to participate. Please call me at (phone number) if you have any questions. I will send out the surveys via interoffice mail on Monday, June 27. Thank you for your help.

Sample of Electronic note sent to the study participants.**INTEROFFICE MEMO**Research & Development Division of a Fortune 500 Company

Subject: Follow-up to Communication & Change: A Study

Date: July 7, 1994

From: Catherine L. Chevalier

To: Participants in Study Who Had Not Returned the Surveys

Thank you for volunteering to participate in the study of Communication and Change. I neglected to indicate a return date on my letter. If possible, please return by early next week—Monday, July 11th or Tuesday, July 12th.

If you have any questions, please e-mail or call me at (phone number). I will be out of the office tomorrow (Friday, July 8th) but will return Monday morning.

Thanks again,

Catherine

Appendix F
Cover Memo and Consent Form

INTEROFFICE MEMO

The Upjohn Company

Subject: Communication & Change: A Study

Date: June 1994

From: Catherine L. Chevalier

To: ~Study Participant~

Thank you for agreeing to participate in study examining communication of change. This study will focus specifically on communication of the Corporate Compliance Program. This research, in addition to providing valuable information regarding communication effectiveness of large-scale organizational change will provide data for my dissertation. My dissertation is entitled "A Study to Determine the Relationship Between Perceived Communication Skills of Leaders and Subordinate Support of Organizational Change in a Natural Setting."

Completion of the attached instruments should take approximately 30 minutes. The Informed Consent Form is required by the Human Subjects Institutional Review Board (HSIRB), Western Michigan University. **It must be signed and returned** with the surveys in the confidential envelope provided. Using the pencil provided, please complete the instruments in the following order:

1. "Change Environment Assessment". This assessment specifically addresses the Compliance Program recently introduced in the Division. The results from this instrument will provide me with specific details regarding the change event, as well as demographic information such as age group, level of education, and job classification. (*Approximate completion time, five minutes.*)
2. "Organizational Change Orientation Scale--Inventory". Please follow the directions on the top of the form. There are no "right" or "wrong" answers to this inventory, only what is true for you. Responses to this inventory will provide me with a profile of your personal orientation to change. (*Approximate completion time, seven minutes.*)
3. "Professional Communication Inventory". This 70 item inventory should be completed on the member of management you report to (manager, supervisor, or director) who led *your unit* discussion regarding the Corporate Compliance Program. Responses to this inventory will provide the researcher with feedback regarding your manager's, supervisor's, or director's performance on twelve key communication practices. (*Approximate completion time, fifteen minutes.*)

All of your responses will be treated confidentially. The data that you supply will be expressed as statistical summaries. No individual director, supervisor, unit, employee or business function will be recognizable. Your director is aware of the objectives of the study. An executive summary will be prepared.

Thank you for your help. Please feel free to contact me at (phone number) or E-MAIL ID CLCHEVAL if you have any questions or concerns.

WESTERN MICHIGAN UNIVERSITY
 Department of Educational Leadership
 Human Resources Development
Student Investigator: Catherine L. Chevalier
Advisor: Dr. Kenneth E. Dickie
INFORMED CONSENT FORM

I have been invited to participate in a research project entitled "A Study to Determine the Relationship Between Perceived Communication Skills of Leaders and Subordinate Support of Organizational Change in a Natural Setting". I understand that this research is intended to study correlations between communication skills of leaders and employee response to change. I further understand that this project is Catherine L. Chevalier's dissertation project.

My consent to participate in this project indicates that I will be asked to complete three survey instruments.

1. The first instrument entitled "Change Environment Assessment" will provide the researcher with specific details regarding a recent change event—the Corporate Compliance Program. In this instrument I will also provide general information about myself such as age group, level of education, and employment status. My responses to this instrument will provide the researcher with information that will aid in the analysis of the data. *(Approximate completion time, five minutes.)*
2. The second instrument entitled "Organizational Change Orientation Scale" is a thirty-six item inventory relating to organizational change. I understand that there are no "right" or "wrong" answers to the items. The six-level response scale ranges from "almost never" to "almost always". My responses to this instrument will provide the researcher with a profile of my personal orientation to change. *(Approximate completion time, seven minutes.)*
3. The third instrument entitled "Professional Communication Inventory" contains seventy statements that describe how people communicate and interact at work. I will complete this inventory on the individual (my director/manager/supervisor) who led the unit discussion regarding the Compliance Program. The seven-point response scale ranges from "never" to "always". My responses to this instrument will provide the researcher with feedback regarding the performance of my director/ manager/supervisor on twelve key communication practices. *(Approximate completion time, fifteen minutes.)*

As in all research, there may be unforeseen risks to the participant. If an accidental injury occurs, appropriate emergency measures will be taken; however, no compensation or treatment will be made available to me except as otherwise stated in this consent form. I understand there are no anticipated risks associated with my participation. A potential benefit from this activity is the opportunity to provide information that might assist upper management in their organizational change planning processes. I also understand that this research is expected to contribute to the leadership communication and organizational change literature.

I understand that all the information collected from me is confidential. That means that my name will not appear on any papers on which this information is recorded. The forms will be coded, and the student investigator will keep a separate master list with the names of participants and the corresponding code numbers. Upon completion of the data analysis, the master list will be destroyed. The Professional Communication Inventory will be turned over to the instrument developers (Pfaff and Busch) for inclusion in their data base. Divisional Vice Presidents will receive a summary of the statistical analysis and study findings. No individual supervisor, employee, unit, or business function will be recognizable in the reports.

I understand that I may refuse to participate or quit at any time during the study without prejudice or penalty. If I require any further information I may contact the Student Investigator at (phone number) or the Advisor at (phone number). I may also contact the Chair, Human Subjects Institutional Review Board at (phone number) or the Vice President for Research at Western Michigan University with any concerns that I have. My signature below indicates that I understand the purpose and requirements of the study and that I agree to participate.

 Signature of Participant

 Date

Appendix G

Coefficient of Variation Between Sample Data & Norm Data

Coefficient of Variation Between Sample Data and Norm Data

Communication Practice	Sample CV ^a	Norm CV ^b	Difference ^c	Variability ^d
Speaking	16.07	19.64	-3.57	18% ↓
Listening	20.75	25.93	-5.17	20% ↓
Writing	13.79	19.64	-5.85	30% ↓
Presenting to Groups	11.86	18.97	-7.10	37% ↓
Conducting Meetings	18.52	21.82	-3.30	15% ↓
Approachability/Acceptance	24.07	24.07	0.00	0%
Flexibility	24.00	23.53	0.47	2% ↑
Influencing Others	20.00	22.22	-2.22	10% ↓
Cooperation	21.82	21.82	0.00	0%
Trust	16.95	18.97	-2.02	11% ↓
Support	20.69	18.97	1.72	9% ↑
Technical Expertise	18.03	18.97	-0.93	5% ↓

^a Coefficient of Variation for the sample data [(sample standard deviation/sample mean) x 100]

^b Coefficient of Variation for the norm data [(norm standard deviation/ norm mean) x 100]

^c Difference between Sample CV and Norm CV

^d Variability Difference as a percent of Norm CV ("↑" indicates the relative dispersion of sample CV greater than Norm CV; "↓" indicates the relative dispersion of sample CV less than Norm CV)

BIBLIOGRAPHY

- Bennis, W. G. (1992). Managing the dream: Leadership in the 21st Century. Management Decision, 30(6), 166-168.
- Berman, P., & McLaughlin, M. (1977). Federal programs supporting educational change: Factors affecting implementation and continuation. Vol. VII, Santa Monica, CA: Rand.
- Bernstein, S.L. (1993). The effects of a training program for managing change on perceived readiness for change. Unpublished master's thesis, Springfield College, Springfield, MA.
- Bowsher, J. E. (1989). Five phases for management change in education. Training and Development Journal, 43(6), 71-75.
- Brod, C. (1984, August). How to deal with 'technostress'. Office Administration and Automation, 28-30, 46-47.
- Buller, P. F., Saxberg, B. O., & Smith, H. L. (1985). Institutionalization of planned organizational change: A model and review of the literature. In L. D. Goodstein & J. W. Pfeiffer (Eds.), The 1985 annual: Developing human resources (pp. 189-199). San Diego, CA: University Associates, Inc.
- Burn, S. M. (1991). Social psychology and the stimulation of recycling behaviors: The block leader approach. Journal of Applied Social Psychology, 21(8), 611-629.
- Caruth, D., Middlebrook, B., & Rachel, F. (1985, Summer), Overcoming resistance to change. SAM Advanced Management Journal, 23-27.
- Caulkin, S. (1989). The human factor in IT: Man and machine. Multinational Business, 1, 1-9.
- Chartier, M. R. (1985). Functional roles for facilitating organizational change. In L. D. Goodstien & J. W. Pfeiffer (Eds.), The 1985 annual: Developing human resources (pp. 177-199). San Diego, CA: University Associates, Inc.

- Coch, L. & French, R. P., Jr. (1948). Overcoming resistance to change. Human Relations, 1, 512-532.
- Conner, D. R. (1985). Introducing new technology humanely. Training & Development Journal, 39(5), 33-36.
- Conner, D. R. & Fiman, B. G. (1988). Making the cultural transition to investment banking. Banker's Magazine, 171(1), 31-35.
- Corporate Communication (1994, January). Corporate Compliance Program. (Published for internal use only of the study organization.)
- Covin, T. J. & Kilmann, R. H. (1990). Participant perceptions of positive and negative influences on large-scale change. Group & Organization Studies, 15(2), 233-248.
- Culpan, R. (1987). Leadership styles and human resource management: A content analysis of popular management writings. Journal of European Industrial Training, 11(8), 11-16.
- Curry, T. (1988). Communication of change — The key to successful CIM strategy. Iron and Steel Engineer, 65, 57-59.
- Dodson, R. L. (1991). Speeding the way to total quality. Training & Development, 45(6), 35-42.
- Ellen, P. S. (1988). The impact of self-efficacy and performance satisfaction on resistance to change. Dissertation Abstracts International, 48(8), 2106-2107.
- Even, A. D. (1963). Communication in the management of technological change. Dissertation Abstracts International, 25(01), 691-692.
- Friedman, P. G. & Yarbrough, E. A. (1985). Training Strategies From Start to Finish, Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Fulkerson, E. G. (1988). Accelerate change with participation: Innovation. Never easy. Journal for Quality and Participation, 11(3), 48-50.
- Greiner, L. E. (1970). Patterns of Organizational Change. In G. W. Dalton, P. R. Lawrence, & L. E. Greiner, Organizational Change Development. Homewood, IL: Richard D. Irwin, Inc.

- Gruenfeld, L. W., & Foltman, F. F. (1967). Relationship among supervisors' integration, satisfaction, and acceptance of a technological change. Journal of Applied Psychology, 51(1), 74-77.
- Harrer, B. J., Weijo, R. O., & Hattrup, M. P. (1988). The role of change agents in new product adoption: A case study. Industrial Marketing Management, 17(2), 95-102.
- Jones, J. E., & Bearley, W. L. (1986a). Organization Change: Orientation Scale (OCOS). (Available from: The HRD Quarterly; 2002 Renaissance Boulevard, Suite 100; King of Prussia, PA)
- Jones, J. E., & Bearley, W. L. (1986b). Trainer guide: Organizational change orientation scale and Organizational change-readiness survey. King of Prussia, PA: Organizational Design & Development.
- Kanter, R. M. (1987). Quality Leadership and Change. Quality Progress, 20(2), 45-51.
- Karp, H. B. (1988). A positive approach to resistance. In J. W. Pfeiffer (Ed.), The 1988 Annual: Developing Human Resources, (pp. 143-146). San Diego, CA: University Associates.
- Kirkpatrick, D. L. (1992). The power of empowerment: How much empowerment is too much or not enough? Training & Development, 46(9), 29-31.
- Kirkpatrick, D. L. (1993). Riding the winds of change. Training & Development, 47(2), 28-32.
- Kleiman, M. (1989). Ease the stress of change. Personnel Journal, September.
- Landry, R. M., Jr., & Bristow, C. M. (1988). Winning over IS luddites. Information Strategy: The Executive's Journal, 5(1), 44-47.
- LaPlante, A. (1991). Resistance to change can obstruct computing strategy. InfoWorld, 13(23), S59-S63.
- Lawrence, P. R. (1986, March-April). How to deal with resistance to change. Harvard Business Review, 176.
- Lewin, K. (1947). Frontiers in group dynamics: Concept, method and reality in social equilibrium and social change. Human Relations, 5-41.

- Lewis, P.V. (1975). Organizational communication: The essence of effective management. Columbus, OH: Grid, Inc.
- Lewis, E., & Spiker, B. K. (1991). Tell me what you want me to do. Manufacturing Systems, 9(12), 46-49.
- London, M., & MacDuffie, J. P. (1987). Technological innovations: Case examples and guidelines. Personnel, 64(11), 26-38.
- Louis, K. S. (1992). Organizational Change. In M. C. Alkin (Ed), Encyclo-pedia of educational research (3rd ed.) (pp. 941-947). New York: Macmillan Publishing Company.
- Louis, K. S., & Miles, M. (1990). Improving the urban high school: What works and why. New York: Teachers College Press.
- Maier, N. F., & Verser, G. C. (1982). Psychology in Industrial Organizations (5th ed.). Boston: Houghton Mifflin Company.
- Mainiero, L. A., & DeMichiell, R. L. (1986). Minimizing employee resistance to technological change. Personnel, 63(7), 32-37.
- McKenna, J. F. (1993). Change must be managed. Industry Week, 242(2), 50.
- McNitt, J. (1984 March). Making computers and people compatible. Nation's Business, 50, 52.
- Megginson, L. C., Mosley, D. C., & Pietri, P. H., Jr. (1986). Management: Concepts and applications. (2nd ed.). New York: Harper & Row, Publishers.
- Mohrman, A. M., Jr., Mohrman, S. A., Ledford, G. E., Jr., Cummings, T. G., Lawler, E. E., III, & Associates, (1989). Large-scale organizational change. San Francisco: Jossey-Bass Publishers.
- O'Keefe, D.J. (1990). Persuasion: Theory and research. Newbury Park, CA: SAGE Publications, Inc.
- Pfaff, L. A. (1991). MLPI System [Consultant and trainer manual]. Kalamazoo, MI: LPA Publishing.

- Pfaff, L. A. & Associates (1992). An overview of the professional communication inventory: An inventory for assessing communication skills. Kalamazoo, MI: LPA Publishing.
- Pfaff, L. A., & Busch, M. C. (1992). Professional communication inventory (PCI). (Available from LPA Publishing; 3506 Lovers Lane, Suite 3; Kalamazoo, MI).
- Roberts, H.V. (1994). The effect of communication/information session on acceptance of administrative change. Dissertation Abstracts International, 32(3), 797.
- Rosenblum, K., & Louis, K. (1981). Stability and change: Innovation in an educational context. New York, NY: Plenum.
- Scannell, E.E. (1982). Supervisory communications. Dubuque, IA: Kendall/Hunt Publishing Company.
- Schrage, M. (1990). Meet the robo-boss. Business Month, 135(1), 50-52.
- Scott, C. D. & Jaffe, D. T. (1988). Managing organizational change: Leading a team through transition. Los Altos, CA: Crisp Publications, Inc.
- Scott, C. D. & Jaffe, D. T. (1989). Survive and thrive in times of change. Training and Development Journal, 42(4), 25-27.
- Smith, P. G. (1993). Why change is hard. Across the Board, 30(1), 55-56.
- Staff. (1994, May 23). Communication: Employers do too little. Human Resource Management News, p. 1.
- Stanislao, J. & Stanislao, B. C. (1983, July-August). Dealing with resistance to change. Business Horizons, 74-78.
- Steinburg, C. (1992). Failing transition. Training & Development, 46(12), 10.
- Stephenson, B. Y. (1984). Managing systems change hinges on the human element. Data Management, 22(9), 10, 12, 14, 16-17.
- Stollery, R. (1989). How to manage change in an age of uncertainty. Financial Executive, 5(1), 56-61.

- Szilagyi, A. D. (1984). Management and Performance. Glenview, Illinois: Scott, Foresman and Company.
- Tompkins, J. A. (1993). Team-based continuous improvement: How to make the pace of change work for you and your company. Material Handling Engineering, 48(2), 59-60.
- Trumbo, D. A., (1961). Individual and group correlates of attitudes toward work-related change. Journal of Applied Psychology, 45(5), 338-344.
- Wells, B., & Spinks, N. (1989). Organizational communication: A strategic approach (2nd ed.). Houston: Dame Publication, Inc.
- Wilhelm, W. (1992). Changing corporate culture—of corporate behavior: How to change your company. Academy of Management Executive, 6(4), 72-77.
- Young, M. & Post, J. E. (1993). Managing to communicate, communicating to manage: How leading companies communicate with employees. Organizational Dynamics, 22(1), 31-43.
- Zaremba, A. (1988). Beyond reason: Strategies for effective persuasion. Industrial Management, 30(2), 29-31.