

## **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**



**COLORADO TECHNICAL UNIVERSITY**

**MANAGEMENT OF STRATEGIC CHANGE:  
AN ETHNOGRAPHIC STUDY OF SENIOR LEADERSHIP AND  
IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT  
IN A PUBLIC SECTOR ORGANIZATION**

**A DISSERTATION SUBMITTED TO  
THE GRADUATE COUNCIL  
IN PARTIAL FULFILLMENT OF  
THE REQUIREMENT FOR THE DEGREE OF  
DOCTOR OF MANAGEMENT**

**DEPARTMENT OF MANAGEMENT**

**BY**

**MICHAEL KENNETH BEASOCK**

**M.M.A.S., US ARMY CGSC, FORT LEAVENWORTH, 1989  
M.A., WEBSTER UNIVERSITY, ST. LOUIS, 1984  
B.S., CAMPBELL UNIVERSITY, BUIES CREEK, 1976**

**COLORADO SPRINGS, COLORADO  
MARCH 1998**

**UMI Number: 9826124**

**Copyright 1998 by  
Beasock, Michael Kenneth**

**All rights reserved.**

---

**UMI Microform 9826124  
Copyright 1998, 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**

© Copyright by

**Michael Kenneth Beasock**

**1998**

**All rights reserved**

MANAGEMENT OF STRATEGIC CHANGE:  
AN ETHNOGRAPHIC STUDY OF SENIOR LEADERSHIP AND  
IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT  
IN A PUBLIC SECTOR ORGANIZATION

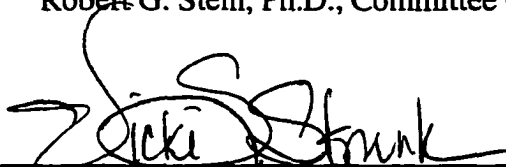
BY

MICHAEL KENNETH BEASOCK

THE DISSERTATION IS APPROVED



Robert G. Stein, Ph.D., Committee Chair



Vicki L. Strunk, Ph.D., Committee Member



Kevin M. Forbush, J.D., Committee Member

13 March '98

Date Approved

## **ABSTRACT**

**Management of Strategic Change:  
an Ethnographic Study of Senior Leadership and  
Implementation of Total Quality Management  
in a Public Sector Organization**

**Michael K. Beasock**

**Doctor of Management  
Colorado Technical University, Colorado Springs, 1998  
Robert Stein, Ph.D., Chair**

**This ethnographic study blends qualitative and quantitative methods to describe and interpret the efforts of a large, mature, public sector organization as it attempted to fundamentally change its culture in keeping with a TQM model. The study focused on a key aspect of organizational culture, the perceptions and behaviors of senior leaders, to determine: how the senior “executive culture” affected the implementation of TQM, to what extent there was a shared culture, to what extent there were differences between the organization's formal beliefs and those of its senior leaders, and how organizational culture might be best measured. Data was collected over a five-month period through in-depth interviews, participant-observation, and analysis of documentary evidence and archival records. Survey instruments were completed, both individually and in groups, with the results analyzed for statistical significance (ANOVA and Tukey’s HSD).**

**The findings indicate that the organization’s culture, as measured by the beliefs, perceptions, and values of its senior leader population, is not in general conflict with those characteristic of a TQM culture. The data also indicates that despite overall success, the**

implementation of TQM has been marked by a series of personal struggles, organizational barriers, some differing cultural subgroup perceptions, and that specific elements of TQM were resisted by the senior leadership because they were incomprehensible and opposed to the organization's current identity. The conclusion is that fundamental change is largely dependent on senior management's capacity to comprehend (the activities of sensemaking) and to frame and reframe (the activities of sensegiving) the "ideal TQM identity" over time.



## **ACKNOWLEDGMENTS**

This study could not have been developed without the cooperation and invaluable input of the many senior officials interviewed. These Army officers and civilians willingly shared their experience, insights, and professional wisdom on all aspects of managing a large military installation and the challenges and personal struggles they faced as they implemented Total Army Quality. They are too numerous to identify individually, but include over 60 of the organization's most senior leaders.

Of particular value to the research were several senior leader off-site conferences. All of the senior leaders were made available to complete, both individually and in small groups, survey instruments that were used to assess the "senior executive culture" of Fort Carson. The insight provided by these senior Army officers and civilians greatly increased my depth of knowledge and understanding of the organization and facilitated the assessment this aspect of the organization's culture.

I would like to acknowledge the sacrifices made by my family, my wife Kay and daughter Jennifer, as I have been preoccupied with this undertaking over the previous several years.

I dedicate this work in memory of my brother, Richard T. Beasock.

## TABLE OF CONTENTS

ABSTRACT .....	ii
ACKNOWLEDGMENTS.....	iv
LIST OF ILLUSTRATIONS.....	ix
LIST OF TABLES .....	viii
Chapter:	
I. INTRODUCTION.....	1
Statement of the Problem .....	5
Overview of the Study.....	5
II. SEARCH OF THE LITERATURE .....	17
Overview .....	17
Organizational Theory.....	19
Organizational Culture .....	37
The Total Quality Paradigm .....	67
Summary .....	87
III. ANALYSIS.....	89
Organizational Change Theory.....	90
Change in Public Sector Organizations.....	99
Role of Senior Leadership with Organizational Change .....	102
Cognitive Change .....	110
Summary .....	116

<b>IV. SYNTHESIS .....</b>	<b>118</b>
<b>Basic Assumptions of the Model.....</b>	<b>120</b>
<b>Theoretical Framework of the Model.....</b>	<b>120</b>
<b>Dynamic Reframing Model.....</b>	<b>125</b>
<b>Summary .....</b>	<b>133</b>
<b>V. VALIDATION .....</b>	<b>135</b>
<b>Nature of the Study - Fit Between Purpose, Approach and Theory .....</b>	<b>136</b>
<b>Study Design .....</b>	<b>139</b>
<b>Qualitative Procedures .....</b>	<b>149</b>
<b>Quantitative Procedures .....</b>	<b>162</b>
<b>Summary .....</b>	<b>178</b>
<b>VI. RESULTS .....</b>	<b>181</b>
<b>Case History: TQM and Government.....</b>	<b>183</b>
<b>Case History: Fort Carson and Total Army Quality.....</b>	<b>190</b>
<b>Struggles in Leading Change: Senior Leader Challenges .....</b>	<b>200</b>
<b>Findings and Interpretations of Research Questions .....</b>	<b>220</b>
<b>Summary .....</b>	<b>250</b>
<b>VII. CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>252</b>
<b>What Was Done? – A Summary of the Study’s Approach .....</b>	<b>252</b>
<b>What Was Found? – Interpretations Drawn From the Results .....</b>	<b>256</b>
<b>What Can Be Concluded? – The Practical Implications of the Study.....</b>	<b>272</b>
<b>Where Do We Go From Here? – Suggestions for Further Research.....</b>	<b>276</b>
<b>Concluding Remarks .....</b>	<b>277</b>

## Appendix

A. LIST OF DOCUMENTS .....	279
B. LETTER TO PARTICIPANTS .....	281
C. DEMOGRAPHIC SURVEY QUESTIONS .....	282
D. DoD GUIDE - INDIVIDUAL QUESTIONNAIRE .....	283
E. DoD GUIDE - GROUP INTERVIEW .....	291
F. INDIVIDUAL INTERVIEW QUESTIONNAIRE.....	292
G. DATA COLLECTION FORMAT FOR CODING DOCUMENTS .....	293
H. NUMERICAL RESULTS OF DOCUMENT ANALYSIS .....	294
I. INTER-RATER RELIABILITY FORMULA FOR DOCUMENTS .....	296
J. PARTICIPANT CONSENT FORM.....	297
SELECTED BIBLIOGRAPHY .....	298

## LIST OF ILLUSTRATIONS

1.1 Research Question Interrelationships .....	9
2.1 Venn Diagram Guide to the Literature Review.....	18
2.2 Venn Diagram Guide to the Variables Used in Study.....	19
2.3 Schein's Three Levels of Organizational Culture.....	46
2.4 How Culture Impacts Change .....	59
2.5 Degrees of Commitment to New Thinking Embodied in TQM .....	74
3.1 Determinants of Senior Leader Commitment to Status Quo.....	107
4.1 Dynamic Reframing Process .....	126
4.2 TQM Implementation.....	128
4.3 Probability of Change Acceptance .....	132
5.1 Research Question Interrelationships .....	140
5.2 Data Sources for the Study .....	145
5.3 Functional Organizational Chart Illustrating Senior Leader Positions.....	147
5.4 Process of Formulating an Overall Senior Leadership Belief Score .....	176
6.1 DoD Posture on Quality .....	186
6.2 Fort Carson's Continuous Improvement Structure .....	196
6.3 Fort Carson's Cross-Functional Organizational Chart.....	198
6.4 Force-Field Analysis .....	202
6.5 Framework for Strategic Direction.....	208
7.1 TAQ Implementation Paths – A Conceptual Model .....	269

## LIST OF TABLES

2.1 Bolman and Deal's Four Organizational "Frames" .....	22
2.2 Assumptions of Schein's "Executive Culture" .....	66
2.3 Total Quality Management Major Components .....	69
3.1 Families of Ideal-Type Theories of Change .....	92
5.1 Research Questions and Data Collection Methods .....	144
5.2 Research Design Overview .....	164
5.3 DoD Quality and Productivity Self-Assessment Constructs of Questions.....	168
6.1 Fort Carson's Total Army Quality Chronology .....	199
6.2 Organizational Barriers and Personal Struggles Related to Purpose.....	203
6.3 Organizational Barriers and Personal Struggles Related to Coordination .....	210
6.4 Organizational Barriers and Personal Struggles Related to Communication.....	213
6.5 Organizational Barriers and Personal Struggles Related to Empowerment.....	215
6.6 DoD Guide Perception Scores for Major Categories, Individuals, Groups, and Overall Senior Leader Score.....	221
6.7 DoD Guide Perception Scores for Major Categories, Subgroups, and Senior Leader Individual Scores .....	225
6.8 Senior Leader Demographics by Functional Group .....	226
6.9 ANOVA Summary Table .....	229
6.10 Multivariate ANOVA Summary Table .....	231
6.11 Tukey's Honestly Significant Different (HSD) Cellwise Comparison .....	232
6.12 Senior Leader Perceptions Scores and Organizational Beliefs Scores.....	235
6.13 Means, Standard Deviations, and <i>F</i> Ratios for Perception Scores by category and Demographics .....	240

# CHAPTER I

## INTRODUCTION

*There is nothing more difficult to carry out, nor more difficult of success, nor more dangerous to handle, than to initiate a new order of things.*  
(Machiavelli 1520)

This study explores the relationship of organizational culture with the implementation of Total Quality Management (TQM) in a large, mature, bureaucratic, public-sector organization – the Department of Defense (DoD). An organization within DoD, a large Army installation and specifically, its senior leadership, was selected as being representative of the larger DoD organization. A key aspect of organizational culture, the perceptions and artifacts of the senior leader population, are the focus of this study.

Most experts agree that the key to successful implementation of TQM and organizational transformation is to begin at the top. This study explores what it means, in practice, to "begin at the top" and the significance of the need for senior leaders to personally change the way they think and perform their work. This ethnographic study blends qualitative and quantitative methods to interpret and describe the challenges of the Fort Carson US Army Installation as it attempted to change its organizational culture in keeping with a TQM model.

### *Trying to get Another Frog to Fly?*

*Once upon a time, there lived a man named Clarence who had a pet frog named Felix. Clarence lived a modestly comfortable existence on what he earned working at a local department store, but he always dreamed of being rich.*

*"Felix!" he exclaimed one day, "We 're going to be rich! I'm going to teach you how to fly!"*

*Felix, of course, was terrified at the prospect, "I can't fly, you idiot. I'm a frog, not a canary!" he exclaimed.*

*Disappointed with the frog's reaction, Clarence told Felix, "That negative attitude of yours could be a real problem. I'm sending you to class." So Felix went to a three-day class and learned about problem-solving, time management, and effective communication . . . but nothing about flying.*

*On the first day of flying lessons, Clarence could barely control his excitement. He explained that their apartment had 15 floors, and each day Felix would jump out a window starting with the first floor, eventually getting to the top floor. After each jump, Felix would analyze how well he flew, isolate the most effective flying techniques, and implement the improved process for the next flight. By the time he reached the top floor, Felix would surely be able to fly.*

*Felix pleaded for his life, but his arguments fell on deaf ears. "He just doesn't understand how important this is," thought Clarence, "but I won't let naysayers get in my way." With that, Clarence opened the window and threw Felix out. The frog landed with a thud. The next day, Felix again begged not to be thrown out the window. Clarence opened his pocket guide to managing more effectively and showed Felix the part about how one must always expect resistance when implementing new programs. And with that, he threw Felix out the window. Thud.*

*On the third day, Felix tried a different ploy: He asked for a delay in the project until better weather would make flying conditions more favorable. But Clarence was ready for him: He produced a timeline and pointed to the third milestone and asked, "You don't want to slip the schedule do you?"*

*From his training, Felix knew that not jumping today would mean that he would have to jump twice tomorrow, so he just said, "Okay, let's go." And out the window he went.*

*On the fifth day, Felix flapped his feet madly in a vain attempt to fly. On the sixth day he tied a small red cape around his neck and tried to think "Superman" thoughts. But try as he may, he couldn't fly.*

*By the seventh day, Felix no longer begged for mercy. He simply looked at Clarence and said, "You know you're killing me, don't you?"*

*Clarence pointed out that Felix's performance so far had been less than exemplary, failing to meet any of the milestone goals he had set for him. To that, Felix quietly replied, "Shut up and open the window." He leaped out, taking careful aim on the large jagged rock by the corner of the building. Felix went to that great lily pad in the sky.*

*Clarence was extremely upset, for his project had failed to meet a single goal. Felix had not only failed to fly, he didn't even learn how to steer his flight as he fell like a sack of cement, nor had he improved his productivity when Clarence told him to "Fall smarter, not harder."*

*The only thing left for Clarence to do was to analyze the process and try to determine where it had gone wrong. After much thought, Clarence smiled and said, "Next time, I'm getting a smarter frog." (Halachmi 1996, 9)*



This amusing fable surfaced at about the same time many governmental agencies tried to improve their performance by adopting a TQM intervention. Can TQM be successfully implemented in large, mature, public-sector organizations? Is TQM the right “fit” for government organizations? Or are such efforts doomed to fail as was Clarence's attempts to teach Felix to fly? (Halachmi 1996)

A review of the literature suggests that many organizations do not adapt effectively to changes in their environments. Although strategic maladaptation can occur for various reasons, theorists particularly have focused on organizational inertia as an underlying phenomenon. That is, many organizations have difficulty changing at the same rate as their environments (Hambrick 1993). Inertial pressures come from many quarters such as sunk costs in specialized assets, bureaucratic control, and internal and cultural constraints (Hannan and Freeman 1977).

Much of the normative literature on strategy implementation focuses on overcoming employee resistance to change (Kimberly and Quinn 1984). Evidence also exists that top executives themselves are not uniformly open-minded about change (Hambrick 1993). In their study of organizations in crisis, Starbuck, Greve, and Hedberg argue that some senior managers have great difficulty formulating or executing change even when their organizations are collapsing around them. In short, senior managers appear to figure prominently in an organization's propensity for either change or inertia.

The characteristics of an organization's culture are important to the adoption of TQM. Organizational culture is the set of shared assumptions and values that members use to confront external challenges and to establish internal integration in meeting organizational goals (Babione 1995). When members of the organization, especially the senior

leadership team, do not share assumptions and values, the culture becomes fragmented, making it difficult for members to agree on approaches for organizational success (Schein 1996).

Until recently, the term "organizational culture" has often been mistakenly equated with "climate" as the collective assessment of organizational practices and behavior, or has not been taken seriously as a suitable topic of study. Today, however, in an environment of intense competition and unpredictability, organizational survival is a concern shared by both private and public organizations, including the military services (Barcelo 1993). The quest for quality and continuous improvement has taken researchers and managers into what Pernick (1990) describes as "that most exotic of theoretical territories -- the collective human spirit." It is only recently, then, that the study of organizational culture has emerged as a construct in its own right for explaining some of the variance in organizational behavior.

Despite myriad theoretical, methodological, and operational challenges, many view a deliberately crafted culture as the 'high octane fuel' of the superior organization. Of course, a great deal of research and development needs to take place before extravagant claims such as these can be substantiated. (Pernick 1990, ii)

This is, in essence, the territory of this study. It is an ethnographic narrative of a large public institution, a U.S. Army military installation, that endeavors to determine if the "executive culture" (Schein 1996) acts as a barrier or facilitator of planned change based on a TQM model.

In this study, "culture" is operationalized primarily through the perceptions and beliefs of the organization's most senior members. The study specifically explores the nature and extent of homogeneity in beliefs concerning Total Army Quality (TAQ)

among the installation's senior leadership. The beliefs of this "executive culture" are studied and analyzed both as a distinctive group and also among the group's three distinctive subcultures. These beliefs are then compared and contrasted with the formal organization's beliefs, as embodied in documents, archival records, and artifacts.

### **Statement of the Problem**

Quality initiatives presented as radical departures from an organization's culture fail because the cognitive structures of senior leaders constrain their understanding and support of the new initiatives. Many organizations fail to consider how their own "executive culture" can prevent or facilitate the implementation of change.

### **Overview of the Study**

#### **Purpose of the Study**

The purpose of this study is fourfold:

1. To investigate the relationship of organizational culture with the implementation of TQM in a large, mature, public sector organization -- a military installation.
2. To assess an hypothesis of organizational behavior theory that the senior leadership of a large, mature, public sector organization possesses a shared culture.
3. To develop and employ a practical, but methodologically and theoretically sound way to study organizational culture.
4. To present a conceptual model for implementing TQM in a large, mature, public organization.

#### **Significance**

TQM is very much alive in government. The promises of TQM have in recent years attracted the attention of many government leaders concerned with "reinventing government," budget constraints, increased competition, and the increasing demands of

customers for better service, quality, and value. Only a few public organizations, however, have achieved significant and enduring improvements in performance after implementing TQM (Halachmi 1996).

Total Army Quality is a major emphasis in the Department of the Army and significant amounts of resources have been and apparently, will continue to be invested in "institutionalizing" quality and continuous improvement. The Army's implementation of TAQ will require fundamental changes in the way the service manages people, resources, processes, and in the way people perform daily tasks, as well as an alteration of cultural attitudes.

However, very little is known about the extent of TQM implementation in both the government and specifically, within the military services. This is because "many existing accounts are largely based on anecdotal evidence and have an advocacy orientation" (Berman and West 1995, 57). In contrast, this study attempts to provide an objective and systematic assessment of senior leaders perceptions of TQM implementation at a military installation.

How should large, mature, bureaucratic, governmental organizations implement TQM? What is the impact of deeply entrenched organizational culture on change interventions? How do senior leaders change the way they conceptualize and approach their work? Exploring questions such as these are essential for any organization, public or private, contemplating a TQM intervention. This study offers a useful framework for understanding organizational culture and its impact on strategic change. It sheds new light on the role of the "senior executive culture" in facilitating or resisting organizational change.

In general terms, change involves an attempt to alter the current way of thinking and acting by members of the organization. More specifically, strategic change involves an attempt to change current modes of cognition and action to enable the organization to take advantage of opportunities or to cope with environmental changes (Gioia and Chittipeddi 1991). While organizational change has received significant study over the years, the distinctive character of strategic change remains significantly understudied (Dutton and Duncan 1996). In particular, the role of the "senior executive culture" in the critical initial stages of the strategic change process has not been adequately described.

Typically, the senior leaders of an organization are portrayed as people who have a "shared culture" and have the primary responsibility for setting strategic direction as well as responsibility for guiding actions that will realize those plans. A key question is "How do the senior leaders of an organization set the stage and actually launch a strategic change process such as TQM? At a basic level, any substantive change requires the alteration of the existing value and meaning systems (Gloria 1986). Given that strategies often reflect the values of top managers, an initial focus ought to be on the perceptions and meaning systems of the senior leaders themselves.

Senior leaders need to understand any intended change in a way that makes sense or fits into some revised interpretive scheme or system of meaning. The senior leadership team must develop a sense of the organization's internal and external environment and define a revised conception of the organization. Following this interpretive work by the senior leadership team, some abstract vision of the changed organization evolves and is disseminated throughout the organization.

In light of this conceptual overview, the launching of an initiative requiring fundamental change, such as TQM, represents a critical time for a "shared senior leader culture." What this study offers to the body of knowledge are new insights into what Schein describes as the "executive culture" and an alternative methodology for assessing the homogeneity of beliefs within this culture. Thus, the study will shed some light on the accuracy of the commonly held assumption that the senior leadership of an organization with a substantial history possesses a common set of beliefs as an important element of its culture.

### Research Questions and Hypotheses

Because culture is so complex, subjective, and therefore elusive in its measurement, many organizational behaviorists (e.g. Schein 1996, Nord 1985, Fitzgerald 1988) have argued that researchers should refrain from creating positivistic research designs. Until much more is known about the cause and effect relationship between culture and organizational functioning, it seems imprudent to test formal hypotheses, especially hypotheses that rely solely on quantitative data (Pernick 1990, 85). Anthropologists, in particular, urge researchers to instead become immersed in the culture and take away a qualitatively rich or "thick description" (Clifford and Marcus 1986) of what happened, including an explanation of what meaning the actors ascribe to events in their lives. The ethnographic methodology employed in this study fulfills these requirements.

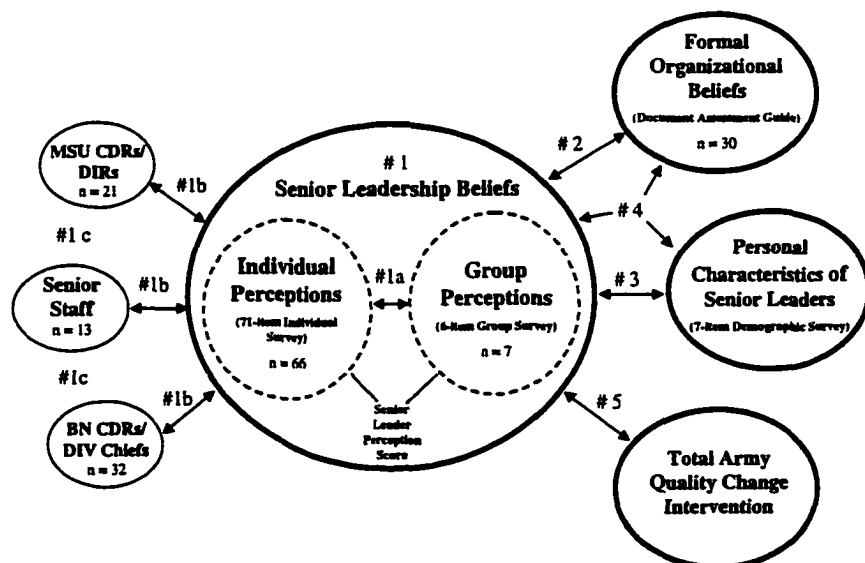
While the study is guided by five research questions, it stops short of stating and testing formal research hypotheses of a specific cause and effect nature. Instead, the research seeks to determine the nature and consequences of this complex cultural phenomena. The overarching research question driving this study is: "How does

organizational culture affect the implementation of a quality intervention" -- In this case, the implementation of Total Army Quality at the Fort Carson US Army Installation.

The five research questions that guided this study are:

1. Is there a shared culture among the senior leadership of the organization? Is there any significant difference:
  - 1a. between individual and group perceptions?
  - 1b. between senior leader and functional subgroup perceptions?
  - 1c. among the three senior leader cultural subgroups?
2. Is there a difference between the organization's formal beliefs and those of the senior leadership?
3. Do the senior leaders' personal characteristics affect perceptions concerning the implementation of TQM?
4. How is organizational culture best measured?
5. How might TQM be best implemented in a large, mature organization?

Figure 1.1, below, depicts the interrelationships among the five research questions as well as the variables, populations, and instruments included in this study.



**Figure 1.1 INTERRELATIONSHIP OF THE RESEARCH QUESTIONS**

## Research Methodology Overview

This study employs the ethnographic research methodology, but blends qualitative and quantitative methods to interpret and describe Fort Carson's "senior leader culture" as it changes in keeping with a TQM model. The ethnographic methodology was used to obtain, from an "insiders view," a holistic understanding of the dynamics of human behavior within its naturalistic context. Because changes in organizational culture are typically a subtle and evolving process, traditional research survey methods, and even in-depth interviews, cannot adequately reveal the nature, implications, and sequence of changes taking place (Gioia and Chittipeddi 1991). The researcher for this study adopted the simultaneous role of active participator in the organization's activities and observer of those activities (Spradley 1980).

The researcher was guided by five research questions, but attempted to avoid implicit hypothesis testing and instead allowed inductive reasoning to prevail. The primary data sources for this study are interview transcripts, survey responses, the ethnographer's journal, personal observations and experiences, and documents. Secondary sources include archival records and artifacts relating to TAQ and the resulting strategic change process. Both first- and second-order analyses were appropriate to the ethnographic methodology used for this study. The first-order analysis was conducted using standard ethnographic analytical techniques to discover themes and patterns in events and informants' accounts. It employed descriptive, observational data that was meaningful to, and used by the informants in the study. In addition, survey instruments were employed for quantitative analysis. These surveys assessed senior leader perceptions as individuals, as groups, and within senior leader subcultures. The first-order reporting is



in the form of an ethnographic narrative that integrates the perceptions and experiences of the senior leader informants. A second-order analysis is presented on a more theoretical level. The data and first-order findings are reviewed for underlying explanatory dimensions with the intent of discerning deeper patterns of understanding.

### Theoretical Framework

Chapter II, Review of Literature, builds a broad theoretical framework for the study.

It clarifies the relationship between this study and previous research conducted in this area. This study incorporates the thoughtful arguments of others along with original source material. A good analogy is that of a jigsaw puzzle, in which some of the pieces have been designed by the researcher while others are borrowed in their prefabricated form from the contributions of scholars in management theory (Rudestam and Newton).

Chapter III, Analysis, discusses specific theoretical frameworks that relate directly to the research objectives. Underpinning this study, then, are several conceptual frameworks:

1. **Organizational Theory:** Birnbaum; Bolman and Deal; Davis and Newstrom; Downs; Hertzberg; Maslow; Mintzberg; Schein; Simon and March.
2. **Organizational Culture:** Conner; Durkheim; Peters and Waterman; Schein.
3. **Total Quality Management:** Berman and West; Deming; Eskildson; Grant, Shani, and Krishnan; Ishikawa; Juran; Spencer.
4. **Bureaucracies:** Bennis; Gullet; March and Simon; Mintzberg; Weber.
5. **Cognitive Framing Theory:** Weick; Reger, Gustafson, DeMarie and Mullane; Kelly.
6. **Organizational Change Theory:** Newman and Nadler; Albert and Whetton.
7. **Organizational Identity Theory:** Albert and Whetton; Fiol and Huff
8. **Personal Construct Theory:** Kelly; Argyris and Schoen.

While Chapters II and III build and refine the theoretical framework of this research, Chapter VI, Results, examines the data and first-order findings that emerge in the study for underlying explanatory dimensions. The reporting of the ethnographic account is framed around the dominant themes expressed by the informants and represents a "first-order analysis." The researcher only later attempts to derive an explanatory framework to put the story into a more theoretical framework by means of a second-order analysis (Van Maanen 1979, 539). It is for this reason that ethnographic, interpretive research often appears "inverted" when compared to the more traditional style of research; rather than theory driving the data gathering, the theoretical perspective is grounded in, and emerges primarily from the first-hand data (Glaser and Strauss 1967).

### Definition of Terms

The following definitions were used throughout this study and should guide the reader in understanding the context and parameters of the research:

- **Army Installation.** An aggregation of contiguous or near contiguous, common mission-supporting real property holdings under the jurisdiction of the Department of Defense controlled by and at which an Army unit or activity is permanently assigned. The Army organizes installations using tables of organization and equipment, tables of distribution and allowance, and personnel resource documents. An installation can be compared to a civilian community or a city where people work, train, live and play (Army Manual 100-22 1994).
- **Army Performance Improvement Criteria (APIC).** An Army program based on slightly modified Baldrige Criteria that provide a format for installations to conduct formal quality self-assessments on an annual basis (Army Regulation 5-1 1992).
- **Baldrige Quality Award.** A national quality award competition by the US Government named after Malcolm Baldrige, a former Secretary of Commerce. The evaluation is based on a 1,000-point scoring system and seven measurement categories (Leadership, Information and Analysis, Strategic Planning, Human Resource Development, Process Management, and Operational Results). The US Army has adapted the Baldrige Criteria into a formal quality assessment program called the Army Performance Improvement Criteria (APIC) (Army Regulation 5-1 1992).

- **Culture.** A group's shared design for living. The accumulated total of a social group's knowledge, skills, beliefs, traditions, and artifacts (Schein 1996).
- **Cultural Change.** A fundamental change in a group's, organization's or people's shared design for living (Schein 1996).
- **Leadership.** The process of influencing others to perform a task through providing purpose, direction, and motivation. Leadership includes setting and defining goals and giving purpose to the organization (Army Regulation 5-1 1992).
- **Management.** The process of acquiring, assigning priorities, allocating, and using resources (people, money, material, facilities, information and time) in an effective and efficient manner (Army Regulation 5-1 1992).
- **Organizational Change.** A move from the present state to the desired or future state. The planned or unplanned response of an organization to the pressures brought about by individuals, teams, coalitions, and special interest groups both inside and outside the organization (Dalziel and Schoonover 1993).
- **Organizational Culture.** A system of values, beliefs, and behaviors inherent in an organization. To optimize performance, leaders must define and create the necessary culture (Leadership for Total Army Quality 1992).
- **Reengineering.** Government business process reengineering is a radical improvement approach that critically examines, rethinks, and redesigns mission-delivery processes and sub-processes. It is a key part of a process management approach that continually evaluates, adjusts or removes processes or subprocesses for optimal performance (Leadership for Total Army Quality 1992).
- **Theory.** A set of interrelated constructs (concepts), definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena (Kerlinger 1965, 30).
- **Total Army Quality (TAQ).** A leadership philosophy and management approach. It is a leadership philosophy which empowers all individuals to build on the aggregate capabilities of a quality Army. As a management approach, TAQ focuses on continuous process improvement to meet or exceed the expectations of internal and external customers (Army Regulation 5-1 1992).
- **Strategic Plan.** A formal plan containing the vision, mission, key business processes, goals, and objectives for an organization. It is the primary driver of cultural change to a philosophy of quality and continuous improvement (Strategic Plan 1996).

### Limitations of the Study

One of the inherent limitations in using the ethnographic research methodology is that the researcher is both an “indigenous participant” and risks adopting the interpretive views of organization members as well as a “detached investigator” who objectively analyzes data. While precautions against “going native” were taken in this study, there remains a potential for bias in reporting that could impact on the objectivity of the study.

A second limitation was time. While the author was a member of the organization for three years and experienced first-hand the cultural changes, the period of active interviews of senior level informants was only over a five-month period. Therefore, in ethnographic methodology terms, the data collection period was relatively short.

A third limitation was that this study focused entirely on the perceptions of only one level of the organization -- the senior leader culture. A broader study of culture that is statistically representative of the population of the entire organization is necessary to study the impact of culture on organizational change and the implementation of TQM.

A fourth limitation concerns defining more precisely what constitutes organizational culture. Is culture values, beliefs, perceptions, norms, myths, rituals, or symbols? All or some mix of these? The essence of this question is, “At what point can one conclude that enough groups of people, share enough elements, to be categorized as possessing an overarching and identifiable culture?” (Pernick 1990). This study focused primarily on individual and group perceptions, and that could have done a disservice to the concept of culture, which is often considered to be more complex and multi-dimensional.

## Organization of the Study

Chapter I, Introduction, establishes the framework for the research in which the statement of the problem and an overview of the study is provided. Chapter II, Search of the Literature, provides a review of relevant literature that begins to establish a theoretical framework for the study in terms of organizational theory, organizational culture, and the quality paradigm. The purpose of Chapter III, Analysis, is to identify the individual ideas, components, pieces, concepts, and characteristics which more directly relate to the research questions. While the previous chapter is more broad and general, this chapter is more detailed and specific and focuses on organizational change theory. Once the theoretical framework is established, Chapter IV, Synthesis, relates the separate concepts into a theoretical model for implementing TQM in a large, mature, public sector organization. The model presented, the Dynamic Reframing Model, brings into focus the underlying theories and relates directly to the purpose of the study -- to ascertain the impact of organizational culture in facilitating or resisting change. Chapter V, Validation, provides a comprehensive description of the methodology that was used to respond to the research questions guiding this study. It examines, in detail, the appropriateness of using a combined research design methodology (qualitative and quantitative) in studying organizational culture. Chapter VI, Results, describes in ethnographic narrative form the perceptions, interpretations, and experiences of the informants. It uses descriptive, observational data that was meaningful to and used by the informants in the study. It also presents the quantitative analysis results obtained from data generated by the survey instruments and brings them into context. The purpose of Chapter VII, Conclusions, is to

summarize the research. It offers a broad and more theoretical interpretation of the results and suggests possible future logical extensions of the research.

### Research Site Rationale

A large military organization was selected as the site of the study for two primary reasons. First, the sheer size of the senior leadership and managerial population of a large military facility provides a socially rich and multi-dimensional organizational environment in which to study. Second, although TQM is very much alive in government, empirical studies of the impact of TQM on the senior management culture of a large public organization have been limited.

## **CHAPTER II**

### **SEARCH OF THE LITERATURE**

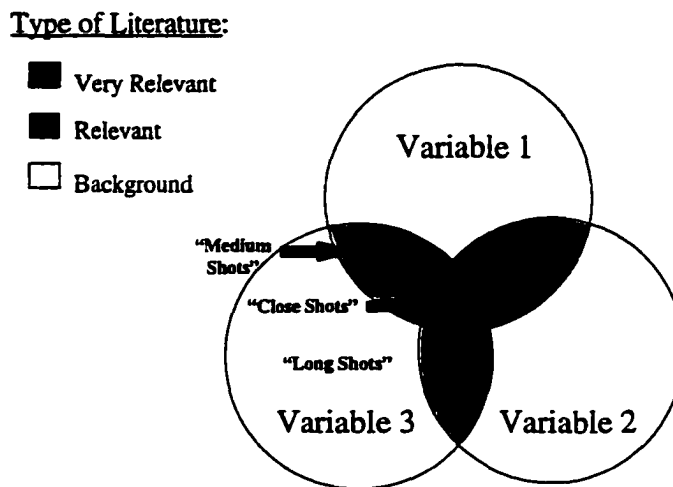
#### **Overview**

Chapter I, Introduction, established the framework for the research in which the statement of the problem, an overview of the study, and relevant research site background information were provided. The purpose of this chapter is to provide a review of literature in order to establish a theoretical framework for the study. It broadly examines three areas of relevance to the research: organizational theory, organizational culture, and the quality paradigm. A second purpose of this chapter is to clarify the relationship between this study and previous research conducted in this area. This review provides an understanding of the context, nature, and parameters of this study. The literature review specifically addresses the following:

- Organizational theories related to structure, characteristics, and bureaucratic frameworks.
- Organizational culture from a sociological and organizational behavior perspective.
- Total quality concepts concerning the philosophy, public sector perspectives, role of senior leadership, and relationship with culture.

An analogy can be drawn between the structure of this study and filmmaking (Rudestam 1992, 51). In filmmaking there are “long shots,” “medium shots,” and “close-ups,” which refer to the relative distance between the camera and the subject matter. As a

metaphor, a “long shot” provides background material for a particular topic. “Background material needs to be acknowledged but not treated with the same detail as foreground. In this way, considerable literature can be referenced without attending to details or critical evaluations of each study” (Rudestam). The “medium shot” requires more descriptive material and should be summarized sufficiently to provide a clear indication of relevance to the topic of study. The “close-up shot” is a critical examination of the literature that has the most direct relevance to the research questions of the study.

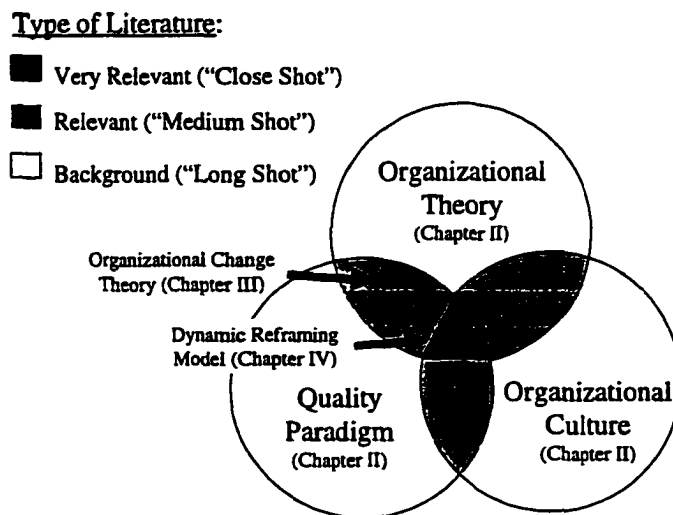


**Figure 2.1 VENN DIAGRAM GUIDE TO THE LITERATURE REVIEW**

The three intersecting circles in the Venn diagram at Figure 2.1 illustrate the analogy of filmmaking and the theoretical framework of the study. The “long shots” are represented by the large areas covered by the three primary variables -- the broad theoretical framework of the study. The “medium shots” are illustrated by the intersections of any two variables and are examined in more detail in Chapter III - Analysis. The “close-up shot” is that narrow area illustrated by the joint intersection of all three variables and is presented as a conceptual model in Chapter IV - Synthesis. “. . . any studies in the



existing literature that incorporate all of the major variables that are present in the proposed study will require very careful scrutiny because they are particularly relevant. Studies that relate some of the variables (e.g. two) also deserve a short description. Studies that deal with only one of the selected variables, perhaps in conjunction with other, less relevant variables, are merely background” (Rudestam). The Venn diagram at Figure 2.2 illustrates the major variables used in this study and their relevance.



**Figure 2.2 VENN DIAGRAM GUIDE TO THE LITERATURE REVIEW**

### **Organizational Theory**

This section of the review of literature is presented in four parts and focuses on the more important components of organizational theory that are relevant to this study. The first part, a review of basic definitions, and the second part, the “roots” of organizational theory, provide a framework for exploring theoretical underpinnings. The third part is a review of relevant theories focusing on Bolman and Deal's “four frames.” The fourth part examines organizational structure in general and addresses, in particular, the nature of bureaucracies.

## Definitions

The concept of *organization* is a basic concept of this study and a focal point from which other concepts are logically derived. An organization is defined as:

The planned coordination of the activities of a number of people for the achievement of some common explicit purpose or goal through division of labor and function, and through a hierarchy of authority and responsibility. (Schein 1984, 32)

A more contemporary viewpoint is that an *organization* is an “open, organic, socio-technical system” (Bertalanffy 1968). A system is an integrated collection of interrelated functions, or subsystems, that collectively contribute to the achievement of a central purpose. “The organization is organic because it has the capacity to change and grow from within” (Barcello 1993, 70). *Organizational theory* is defined as:

A set of interrelated constructs (concepts), definitions, and propositions that present a systematic view of organizations and organizational phenomena by specifying relations among variables, elements, or components, with the purpose of explaining and predicting the phenomena. (Kerlinger 1973, 84)

Without organizational theory, the relations among variables are unknown.

“Research that is theory-guided is more precise, definitive, and efficient; it arms researchers with some directions as to where and what to look for in their research efforts” (Barcello 1993, 78). Research either confirms or does not confirm theory. If the theory is not confirmed, it is modified and new options for research are explored. The first major step in theory building is the identification and specification of the independent and dependent variables of the phenomena. *Organizational behavior* is the phenomena within organizational theory that makes the organization alive, operational, growing, and developing (Barcello 1993, 78). Bowditch and Buono (1990) offer a particularly useful definition of organizational behavior:

Organization behavior is the management and organizational processes in organizations, such as: motivation, perceptions, attitudes, interpersonal and organizational communication, group dynamics, leadership and management, organizational planning and strategizing, organizational design and structure, staffing, organizational effectiveness, organizational development and quality of work life, participative management and other work innovations.

(Bowditch and Buono 1990, 92)

### The Roots of Organizational Theory

Adam Smith's Wealth of Nations (1776) and his theories of laissez-faire capitalism have been referred to as the “roots of organizational theory.” He asserted that mass production was best accomplished in a factory. Frederick Taylor's Principles of Scientific Management (1916) built upon Smith's theories with time-and-motion studies and methods of finding the one best way of doing a task. A significant aspect of Taylor's theories was that workers were viewed as merely a piece of a machine and controlled by managers and rules. Hence, our modern management practices were largely built upon an environment of rigid, autocratic organizations with little response to workers or customers.

### Organizational Theories

Organizations are highly complex constructs that exist to serve an endless variety of purposes. Numerous approaches have been developed for studying organizations. Of particular value to this study is the work by Bolman and Deal (1984) in which they grouped major organizational theories into four categories or “frames.” This has proven to be a very useful model for observing, describing, and interpreting organizational life. Table 2.1 defines each of Bolman and Deal's organizational frames. The significance of their work in this study is that: 1) it includes an analysis of organizations from a symbolic

(cultural) perspective, and 2) it has been applied to the study of bureaucratic, public-sector organizations (Baldrige 1971; Bensimon, Neumann, and Birnbaum 1989; Birnbaum 1992). Following are the four frames are:

1. **Structural Frame.** Addresses traditional, rational theories of organization and emphasizes the importance of goals, roles, and formal relationships.
2. **Human Resource Frame.** Addresses the interdependence between people and organizations. The emphasis of this theory rests upon the interrelationship between the needs of individuals and the needs of organizations.
3. **Political Frame.** Addresses organizations as coalitions of individuals and groups competing for scarce resources. This frame includes power-oriented theories of organization.
4. **Symbolic Frame.** Addresses organizations as cultures with shared values and focuses on the non-traditional aspects of the organization including rituals, ceremonies, stories, heroes, and myths. (Bolman and Deal 1984, 5)

**Table 2.1 BOLMAN AND DEAL'S FOUR ORGANIZATIONAL "FRAMES"**  
**Source: Bolman and Deal 1984**

<p style="text-align: center;"><b>STRUCTURAL FRAME</b></p> <ul style="list-style-type: none"> <li>• Information processing</li> <li>• Organizational structure</li> <li>• Technology and environment</li> <li>• Common foundation:             <ul style="list-style-type: none"> <li>- Organization created to achieve goals</li> <li>- Organization's structure and processes determined by goals, technology, and environment</li> </ul> </li> </ul>	<p style="text-align: center;"><b>HUMAN RESOURCES FRAME</b></p> <ul style="list-style-type: none"> <li>• Focus on relationship between people and organization</li> <li>• Social psychology (individuals and group focus)</li> <li>• Organizational development focus on improving human and technical processes</li> <li>• Organizational power relations</li> <li>• Common foundation:             <ul style="list-style-type: none"> <li>- Organization exists to serve human needs</li> <li>- Humans and organization needs require synchronization</li> </ul> </li> </ul>
<p style="text-align: center;"><b>POLITICAL FRAME</b></p> <ul style="list-style-type: none"> <li>• Research with focus</li> <li>• Neo-Marxian view of class stratification and power</li> <li>• Common foundation:             <ul style="list-style-type: none"> <li>- Decisions involve allocation of resources</li> <li>- Organizations are coalitions of individuals and groups</li> <li>- Individuals and groups differ in values, beliefs, preferences, and perceptions of reality</li> </ul> </li> </ul>	<p style="text-align: center;"><b>SYMBOLIC FRAME</b></p> <ul style="list-style-type: none"> <li>• Symbols of the organization</li> <li>• Common foundation:             <ul style="list-style-type: none"> <li>- What happens versus meaning of what happens</li> <li>- Events and meaning loosely coupled</li> <li>- The more ambiguous -- the more symbolic elaboration, valuation, and prophesy</li> </ul> </li> </ul>

Birnbaum (1992) expanded on Bolman and Deal's four frames and labeled them "cognitive frames" to describe how leaders, and those influenced by leaders, think and act. Birnbaum's assertion is that leaders use some combination of the four cognitive frames to interpret their world: "Frames focus the attention of individuals on one or another aspect of the organization and can also serve as cognitive blinders which leave what is 'out of frame' unseen" (Birnbaum 1992, 63). The significance of Birnbaum's work is that it provides a useful conceptual framework that offers insights into how members of organizations communicate, relate, make decisions, and solve problems.

Birnbaum's modification of Bolman and Deal's four frames follows:

1. **Bureaucratic Frame.** Focuses on setting priorities, making orderly decisions, and communicating through established lines of authority.
2. **Collegial Frame.** Focuses on building consensus, problem solving through a team approach, instilling loyalty and commitment to the institution, and leading by example.
3. **Political Frame.** Focuses on using established relationships with important constituencies, developing coalitions of support, constructing compromises, and keeping lines of communication open.
4. **Symbolic Frame.** Focuses on giving the institution meaning by interpreting the history, maintaining its culture, and reinforcing its values through the use of language, myths, stories, and rituals which foster shared perceptions and beliefs.

(Birnbaum 1992, 63)

According to Birnbaum, leaders use these frames to focus on, interpret, and influence the organization. "Using these four frames, it is possible for leaders to establish a highly diverse, interactive process of interpreting organizations and responding to organizational problems" (Babione 1995, 20). While each frame contributes to an understanding of the complex nature of organizations, the fourth frame ("Symbolic") of both Birnbaum and Bolman and Deal, is particularly relevant and serves as a major conceptual construct for

this study. The four frames of both models are joined and reviewed in-detail in the following sections.

**Structural / Bureaucratic Frame.** This frame is based on the assumption that an organization is created and maintained to achieve a goal, the organizational structure and processes are determined by that goal, organizational behavior is governed by norms of rationality, and the primary determinants of the organization are its goals, tasks, technologies, and structures. “This frame assumes that there is an appropriate structure for any organization, with clear lines of centralized authority, division of labor, and coordination and control” (Babione 1995, 20). A basic premise of the structural approach to management suggests that employees, especially those at the lower levels in the organization, are not motivated to work and must be given a minimum of responsibility (Bolman and Deal 1984).

Social scientists have disputed the validity of this frame and have identified limitations with a rigidly mechanistic structural frame through their work on motivation (Herzberg 1966, Maslow 1954, and McGregor 1960). Burns and Stalker (1961) showed that classical, mechanistic forms are effective when the task is stable, well defined and when there are few changes in technology, markets, and other parts of the environment. On the other hand, when the environment is dynamic, the task is not well defined, and innovation is important, then a more open, organic organizational structure is better (Babione 1995, 21).

Structural research is an outgrowth of Weber's (1947) studies on the structure of bureaucracies. He described a bureaucracy as having a specific purpose to achieve,

thereby evolving into rules, regulations, task specific positions and controlled authority for decision making. From Weber's findings many researchers began to review the degree that organizations follow the ideal "Weberian" organization (Quirin 1993, 19).

Research by Herbert Simon and James March (1958) addresses three major issues of organizational structure. They include how organizational structure and processes impact individual decision making, the difference between routine and non-routine decisions, and the need for an organizational hierarchy. March and Simon's research examined the anticipated and unanticipated consequences in an organization which occur when implementing different means of demanding control. "When demanding control from the top of the hierarchy, a need for accountability and predictability of behavior is required which can result in a reduction of personalized relationships, an increase in internalization of the rules, and an increase in categorization for decision-making" (Quirin 1993, 19). The use of delegation of authority as a control technique results in an increase of training in specialized competencies and, in response, an increase in departmentalization, which creates subgoals by participants. While the structural/bureaucratic frame provides insights into the relationship between organizational goals, tasks, technologies, and structures, it does not provide insight into the relationship of the people with the organization.

**Human Resource / Collegial Frame.** The human resource frame focuses on the importance of human needs within the organizational context and the interrelationship between the needs of individuals and the needs of organizations. Five major categories that have evolved from this concern are as follows:

- A focus on the relationship between people and the organization
- Social psychology dealing with motivation and attitudes
- Organizational design in improving human processes
- Socio-technical theories
- Careers and career pathing

The common beliefs holding these theories together are that: 1) organizations exist to serve human needs, 2) humans have a critical impact on organization processes and out-comes, 3) humans are dependent on the organization for individual satisfaction, and 4) when both needs are met, then both benefit -- when not, then one or both suffer (Quirin 1993).

According to Bolman and Deal (1984), social scientists are frequently cited for theories that have emerged from the human resource frame. Maslow, for example, developed a hierarchy of needs model that ranged from lower order needs such as physical and security needs to higher order needs such as social needs, esteem needs, and self-actualization needs. The essence of this needs hierarchy is that when lower order needs are met, people will then seek ways to meet higher order needs. Maslow's theory has been widely accepted as a basis for explaining human behavior in organizations (Davis and Newstrom 1985).

Herzberg (1966) developed a motivational model based on his belief that man responds in an environment that stimulates the fulfillment of achievement needs. His model classified needs into two groups -- *maintenance factors* and *motivational factors*. Herzberg's *maintenance factors* are the external motivations such as pay and job security.



*Motivational factors* refer to job content and to the rewards a person experiences for satisfactory job performance such as achievement, recognition, responsibility, and potential for growth (Davis and Newstrom 1985, Babione 1995). Other human resource theorists have built upon these theories of motivation and include McGregor's (1960) research of the impact of employer attitudes on employees, Likert's (1961) studies of the importance of employee participation in decision making, and Lewin's (1982) work-group dynamics.

**Political Frame.** The premise of the political frame is that organizations comprise coalitions of individuals and interest groups competing for scarce resources. As a starting point, it may be useful to elaborate on the nature of political power in relation to other types of power that exist in organizations. Davis and Newstrom (1985) define "power" as the ability to influence other people and events. "Politics relates to the ways that leaders gain and use power, essential skills for leaders for personal success, mending fences, negotiating compromises, saving face, and smoothing the path for employees" (Salancik and Pfeffer 1977).

Within the context of organizations, "power" is classified into four groups:

1. **Personal Power.** Also known as referent power, this is reflected in the power of the individual to attract and hold the loyalty and support of follows.
2. **Legitimate Power.** Also known as position power, it is the inherent authority in the position, an accepted part of the social culture.
3. **Expert Power.** Also known as authority of knowledge, it is derived from education, training, and experience.
4. **Political Power.** This is derived from the support of a group, arising from a leader's ability to work with people and social systems to gain their allegiance and support.

(Davis and Newstrom 1985, 165)

In practice, all four types of power are interrelated and the literature indicates that the use of a particular power base must fit the organizational context to be effective.

Inherent within the political frame are five properties:

1. Most of the important decisions in organizations involve the allocation of scarce resources.
2. Organizations are coalitions composed of a number of individuals and interest groups (e.g. hierarchical levels, departments, professional groups, ethnic groups).
3. Individuals and interest groups differ in their values, preferences, beliefs, information, and perceptions of reality. Such differences are usually enduring and change slowly, if at all.
4. Organizational goals and decisions emerge from organizational processes of bargaining, negotiation, and jockeying for position among individuals and groups.
5. Because of scarce resources and enduring differences, power and conflict are essential features of organizational life. (Bolman and Deal 1984, 109)

While the preceding paragraphs have briefly summarized three of the four organizational “frames” and have laid a foundation for understanding organizational theories, it is the “symbolic” frame that provides the greatest insight into organizational culture.

**Symbolic Frame.** The symbolic frame defines the organization as being or having a culture. This frame is built upon the following premises:

- Behind every event is what happened and the meaning of what happened.
- One event can have many different meanings.
- The three major functions of symbols include the economy in information processing (economy), provide meaning to events (elaboration), and a means to evaluate events (valuation and prophesy).
- Symbols can add logic and predictability to what might appear dysfunctional.
- The major functions of elaboration, valuation, and prophecy will increase when there is a greater amount of uncertainty. (Bolman and Deal 1984)

In contrast with the other organizational frames, little research has been conducted within the symbolic frame. In addition, Quirin (1993) suggests that traditional research methods characterized by statistical and quantitative approaches, may not necessarily be the best way to evaluate this “ambiguous frame.”

Throughout the 1950s and 1960s, organizational theorists conducted only limited research in the area of organizational culture. Early studies include Roy's (1953, 1960) research using participant observation to study small work group culture; Dalton's (1959) research of the development of subcultures in two companies; Selznick's (1957) study of the Tennessee Valley Authority in terms of how institutions respond to changing circumstances; and Richardson's (1955) research of stress and conflicts generated by the structuring of work relationships affected by social interactions, employees' feelings, and productivity (Babione 1995, 28). In the 1970s, Pettigrew conducted participant observation studies using multiple methods of data collection and helped establish the concept of organizational culture for management research (Trice and Beyer 1993).

The literature review indicates that it was not until the 1980s that the study of organizational culture emerged as a major avenue of research (Babione 1995). The study of culture was primarily stimulated by Ouchi's Theory Z (1981) and Peters and Waterman's In Search of Excellence (1982). Books by Pascale and Athos (1981) and Deal and Kennedy (1982) also examined organizational culture and received widespread attention. “Many business and trade magazines featured articles on the topic; major conferences on corporate culture and organizational folklore and symbolism were held; and three academic journals published special issues on the topic” (Babione).

Pondy and Mitroff assert that there were two primary developments that generated interest in organizational culture: 1) the turbulence and difficulties that U.S. firms were experiencing in competing with organizations from countries with very different cultures (e.g. Japan) and 2) a growing realization by some organizational scholars that structural-rational approaches to understanding organizations missed crucial aspects of how organizations functioned and how they affected the lives of their members (Trice and Beyer 1993, 30).

The next section of this chapter addresses organizational culture theories from a sociological and organizational perspective. The following paragraphs are appropriate at this point to close out this section on organizational theories by examining the structure of bureaucracies.

### Organizational Structure and Bureaucracies

*Organizational structure* is defined as “those patterns of work and hierarchical arrangements that serve to control or distinguish an organization's component parts, and is generally conceptualized in terms of the division and specialization of work (*differentiation*) and the ways in which it is coordinated and controlled (*integration*)” (Bowditch and Buono 1990, 67). *Differentiation* is concerned with the amount of work segmentation and may occur horizontally (by division, department or section), vertically (by levels), spatially (by geographical locations), and professionally (personal specialty). *Integration* is the use of organizational mechanisms, such as systems, policies, rules, goals, standard operating procedures, roles, matrix structures, committees, management information systems, automation networks, planning, and conferences (Barcelo 1993, 86).

Organizational design follows two general structures: the *organic* and the *mechanistic* (Gullet 1975). Organic organizational structures have emerged more recently as the nineties' response to a rapidly changing environment (Mintzberg 1979). They are "adaptive" in that they are not bound by strict rules, boundaries, and parameters. Waterman (1990) refers to organic structures as *adhocracies* and characterizes them as having:

- wide participation of everyone in the organization in problem solving and decision-making
- teamwork versus specialization
- wide and deep information sharing
- permeable boundaries -- focus on horizontal relationships
- collegial relationships
- high respect for the individual versus the position
- fluidity and changeability of the formal structure

The *mechanistic* structure is much like Weber's description of a bureaucracy and is characterized by:

- clarity of job definition
- a deliberate attempt at making managers and supervisors more knowledgeable about problems of the organization than those at lower levels
- the presence of standardized policies and procedures to guide decision-making
- the determination of rewards by adherence to instructions from managers and supervisors. (Gullet 1975, Barcello 1993)

The *machine bureaucracy*, typical of governmental organizations, appears to suit large institutions and thrives in stable environments. However, ". . . in chaotic and

turbulent environments, bureaucracies suffer from the failure to compete, innovate, and respond” (Barcello 1993, 57). Further, bureaucracies are not generally perceived to be attentive to the human side of the organization (Weber 1946). Since the nature of bureaucracies is central to this study, this form of organizational design is given greater attention in the remaining paragraphs of this section.

Weber lists seven major assumptions about bureaucratic organizations. These are: 1) specialization of tasks, 2) standardization of role performance, 3) unity of command and centralization of decision making, 4) uniformity of practices, 5) no duplication of function, 6) rewards for merit, and 7) depersonalization of the office. “The effect of these assumptions is that the organization is governed by rules, not individuals, and lacks the flexibility to deal with organizational variables” (Quirin 1993, 24).

The bureaucratic structure's demand for control results in a reduction of interpersonal relationships, an increase in the internalization of rules, a decrease in making behavior predictions (Merton 1940), and increased difficulty in meeting client needs (March and Simon 1958). Control is gained through the use of impersonal rules that regulate work procedures. An unanticipated consequence of this action is the increase of disparity between organizational goals and achievement. Unacceptable behavior leads to closer supervision and an increase in the visibility of power relations. This raises the tension level of the group and upsets the equilibrium originally defined by the organization (March and Simon 1958).

Compliance in a bureaucratic structure is produced in three general ways -- coercive force, economic control over material resources and rewards, and normative control

through the manipulation of symbols (Etzioni 1961). While an organization may use all three, it has a tendency to rely heavily on one that is appropriate to the nature of the organization (Katz and Kahn 1966, Quirin 1993).

While there are several unanticipated dysfunctional consequences of the demand for control within bureaucracies, the structure and behavior of bureaucratic organizations does not support the notion that a bureaucracy is inefficient (Nachmias and Rosenbloom 1980). Nor does the word bureaucracy “equate to poor performance and/or ineffective administration” (Quirin 1993, 25). There are six characteristics that must exist for an organization to be considered a true bureaucracy. Certain behaviors are predictable in organizations where each of these characteristics exist:

- **Hierarchy.** Typically pyramidal with one person at the top of the pyramid. Control flows in a downward direction and one's position carries certain benefits and privileges.
- **Specialization.** Tasks are assigned to certain offices, enabling a high level of expertise in narrow areas. Detailed position descriptions and the development of specialists often create conflict between the authority of the specialist's knowledge and the superior's position.
- **Formalization.** Written communications and files maintenance are vital in a bureaucratic organization. Formalization of behavior causes red tape and at the same time assures uniformity of treatment.
- **Merit and Seniority.** Selection and promotion systems are based on one's ability to perform well. Seniority has a strong influence in promotion systems.
- **Size.** Typically large with several layers of supervision.
- **Nonmarketable Output.** Generally do not produce a product that is available to the open market for purchase.

(Nachmias and Rosenbloom 1980)

Since bureaucracies provide both regulatory and service functions, they should be evaluated in terms of both dimensions. There is, however, a "dehumanizing or impersonal" quality found with either of these two functions (Quirin 1993). Following are three positive aspects of this "impersonality":

1. It increases administrative effectiveness in accomplishing regulatory tasks
2. It increases efficiency by removing emotions from administrative decisions
3. It provides for uniformity of application of rules

(Nachmias and Rosenbloom 1980)

A negative aspect, and especially relevant for bureaucratic organizations embracing the tenets of TQM, is that this "impersonality" is directed toward the treatment of customers. Following are typical complaints among customers of bureaucracies:

- Claims are not taken at face value and often require investigation
- A general feeling of mistrust and a lessening of individual worth
- Asking of irrelevant questions
- The individual is dependent on the organization
- A "no one cares" attitude exists (Gouldner 1952)

Employees of bureaucracies are appropriately referred to as *bureaucrats*. As with their organizations, bureaucrats generally have distinctive characteristics and can be classified into one of the following groups:



- *Climbers and upwardly mobiles* who seek to maximize position, income, power, and prestige
- *Conservers and indifferents* who avoid change and desire to seek their own security
- *Ambivalents* who seek advancement without accepting the organization's values
- *Zealots* who disregard competing programs and values and promote things under their control
- *Advocates* who are similar to zealots only open to influence
- *Statesmen* who desire to serve society as a whole
- *Politicos* who use office politics for personal advancement  
(Nachmias and Rosenbloom 1980)

Research of the behavior of bureaucratic organizations has produced several interesting insights. One aspect is that of goal displacement. Since there is no product to sell, efficiency or output of a bureaucracy becomes difficult to measure and is therefore measured by some arbitrary numerical measurements instead of identifiable quality measurements (Quirin 1993). Another aspect lies in the lack of a market in which an individual's work can be evaluated. The behavior of bureaucracies is further revealed in the following theoretical set of bureaucratic laws:

- **Increasing Conservatism.** As the organization ages, conservatism increases. The importance of the routine prevents the acceptance of new approaches. Typically, the bureaucrat knows why something new cannot be done.
- **Increasing Conserverism.** Officials are pressured to become conservers. Like conservatism, they develop a resistance to change, especially after learning the ways of the organization.
- **Imperfect Control.** The behavior in a large organization cannot be fully controlled. Distortion of decisions, information, and communication occur as they travel down from the top.

- **Countercontrol.** The greater the effort for the top to control, the greater the effort for subordinates to counteract such control. Bureaucrats do not wish to relinquish control after gaining it.
- **Control Duplication.** Control of one organization generates another organization. (Downs 1967)

Will the current bureaucratic structure survive the 21st century? Integration, distribution of power, collaboration, adaptation and revitalization are the major human problems facing organizations in the next 25 years. The environment, population characteristics, work values, tasks and goals, organizational social structures, and motivation will direct organizational life for the next two or three decades (Bennis 1966). Can any structure that is characterized by a well-defined chain-of-command, a system of procedures and rules, divisions of specialized labor, a promotion system and selection process based on longevity, and impersonal human relations survive? Bennis argues that just as the conditions of the Victorian era brought about the birth of bureaucracy, the modern industrialized world and information age will bring about its death. "The pyramid of bureaucracy cannot survive the hurried growth, rapid change, and increase in specialization" (Bennis 1966, 11).

What will organizations look like in the future? The increased level of education and mobility of the workforce will have a significant impact. "People will demand more involvement, participation, and autonomy and traditions will give way to norms and values of the environment. Job tasks will require a collaboration of specialists which will require team structured organizations" (Quirin 1993, 28). Teams will be formed to respond to specific problems, and then dissolved. Organizational charts will be temporary in nature and consist of project groups.

This future, “organic-adaptive” structure will be characterized as adaptive, problem-solving, learning, and as a temporary system of diverse specialists, linked together by coordinating and task-evaluating executive specialists (Bennis 1966). “There will be a need to prepare the work force to cope with rapid change and temporary work systems and teach workers how to use their fantasy, imagination, and creativity as a legitimate way of doing business” (Quirin 1993, 30). In short, the future promises tremendous change in how we will design organizations -- and bureaucrats will likely experience a “cultural transformation.”

### Summary

The four “frames” developed by Bolman and Deal and refined by Birnbaum summarize organizational theory. Of interest to this study, due to the selected research site, is the structural/bureaucratic frame that provides insights into the traditional organizational form emphasizing goals, roles, and formal relationships. The symbolic frame is also of particular interest to this study in that it underscores the importance of organizational culture, focusing on non-rational aspects such as artifacts, values, and underlying basic assumptions. The next section examines these phenomena of organizational culture.

### Organizational Culture

This section of the review of literature is presented in five parts and focuses on the most important components of organizational culture that are important to this study. This section is particularly relevant in that it addresses the overarching research question driving this study – “How does organizational culture affect the implementation of a

quality intervention.” It relates directly to research questions 1, 2, 3, and 4 (page 9). The first part examines the “roots” of organizational culture and provides a framework for defining culture as well as the various theories that have emerged. The intent of the second part is to identify a working definition of organizational culture that is appropriate for this study. The third part is a review of the theoretical underpinnings of organizational culture focusing on Schein's Cultural Hierarchy Model. The fourth part examines cultural change. The fifth part provides insights into the influence of senior leaders on organizational culture.

### The Roots of Organizational Culture

The concept of harnessing *culture* to improve organizational performance was grounded largely in the societal conditions of the 1960s. A primary concern with many organizations was on the human relations aspect of the organization. They began to deal more with organizational effectiveness and addressed areas such as how to manage effectively, motivate employees, develop work groups, and enhance employee performance. The *organizational culture* perspective is an outgrowth of the human relations era (Quirin 1993, 34). Interest in organizational culture is coincident with an increasing awareness of declining productivity, intense foreign competition, employee dissatisfaction, and the seeming inability of many major industries to anticipate and adjust to the demands and opportunities of a turbulent and complex environment (Pernick 1990, 1). A lesson which caught the attention of many American managers, consultants, business schools, and authors was Japan's economic revitalization miracle. The overwhelming evidence of Japan's “culturally driven” success story spurred many cultural change efforts

throughout U.S. companies and a great deal of literature (Peters and Waterman 1982; Deal and Kennedy 1982; Ouchi 1981; Davis 1984; Kilman 1985; Blank 1986).

Organizational culture was seen by many as a critical component in a “near frantic search” for ways to make U.S. companies more competitive in an increasingly competitive world marketplace (Pernick 1995, 12). Pascale and Athos (1981), for example, studied Japanese companies and determined that culture, as embodied in shared values and meanings, was “the glue that held the most successful organizations together.” The authors concluded that a consciously crafted organizational culture not only stimulated productivity, but also provided a sense of psychological well being for the employee.

Ouchi (1981) compared and contrasted Japanese and American companies and found that relatively few American firms possessed a strong, widely shared set of values about the organization's mission and treatment of human resources characteristic of the Japanese companies. They found that one of the basic control mechanisms in Japanese companies was that of culture operationalized through the widespread internalization of society's and management's philosophy about diligence, quality, and productivity (Pernick 1995, 13).

Lee and Schwendiman (1982) characterized the Japanese approach to management as ideologically driven, placing a central emphasis on creating and communicating super-ordinate values, philosophy, strategy, and commitment to the organization. This ideology minimized formal controls and promoted creativity and efficiency. While the authors concluded that more U.S. firms should adopt a cultural approach to management, they

doubted their ability to succeed given the broader U.S. cultural base and emphasis on individualism (Pernick 1995, 13).

Halberstam (1986) stated that while culture has played some part in Japan's success story, that the cultural dimension has been overstated. He cites their success to more objective factors such as a very high percentage of engineers in the work force, coordinated effort within industrial organizations, and very low relative expenditures of resources on national defense.

Peters and Waterman's (1982) In Search of Excellence was an extraordinarily successful book that champions the value of a well-defined corporate culture. While their research has methodological problems such as limited sample size, reliance on anecdotal evidence, and crude measures of organizational effectiveness, they conclude that a corporate-wide culture exists in excellent companies and enhances their performance by reducing the need for policies, organizational charts, procedures, and other cumbersome control devices that waste resources and stifle innovation (Pernick 1995, 17).

The concept of organizational culture is grounded in two distinct and broader areas of study: anthropology where scientists study the patterns of discrete and frequently remote societies; and second, in sociology, where scientists study the various dimensions of groups within groups in contemporary industrialized societies (Babione 1995, Van Maanen and Barley 1985).

**Anthropology.** The concept of culture has been described and documented by anthropologists for the past century. They tend to conceive of culture as human-made systems of ideas, values, and codes characterized as follows:

- shared among members of the group
- learned and transmitted from generation to generation through symbols, especially language
- having an internalized control function while also permitting a degree of individual freedom
- reducing anxiety by helping the individual to make sense of the world
- suggesting appropriate behavior and therefore allow prediction in interpersonal relations
- saving time by providing categories for individuals to place discrete behavior
- integrating society by providing role prescriptions (Pernick 1990, Haviland 1982)

One definition of culture used by anthropologists is that it is “an integrated set of value preferences that a *society* develops to solve the fundamental problems of living, that is, environmental adaptation and internal integration of human and technical resources” (Kluckhohn and Strodtbeck 1961, 41). Clifford Geertz's (1973) definition is at a somewhat higher level of abstraction and offers that the definition of culture lies in “interpreting the meaning that individual's attach to their behavior.” This interpretation necessitates that one must look beyond the mere accumulation of facts to arrive at the essence of an event. “However, the analysis of culture must not neglect the collective intersection of the subjective interpretations and objective structures within which one lives. At the organizational level, this means looking at the technical and stratification systems, as well as the structure, policies, rules and divisions of labor, and noting how actors shape, react and interpret concrete reality” (Pernick 1995, 4). For Geertz, a complete definitional rendering of the collective's objective and subjective reality is a “thick description” of culture.

**Sociology.** As with anthropologists, sociologists have spent considerable effort studying and defining culture. Sociological definitions of culture that emphasize the native's point of view are similar to those from anthropology (Pernick 1995). A significant difference, however, is that in addition to studying culture at the societal level, sociologists explore *subcultures* such as the family, small groups, and formal organizations. These subcultures typically have values, beliefs, norms, and behaviors that are distinctive from their host society. Anthropology is different from sociology in that it tends to “ferret out and emphasize evidence of cultural homogeneity within a society, often in a remote setting” (Van Maanen and Barley 1985, 31). Conversely, sociologists are typically more interested in cultural heterogeneity within a collective. “Consequently, sociology may be better prepared to discover and make theoretical sense of subcultural differences within and between organizations” (Pernick 1995, 9).

The sociologist's perspective of culture suggests that it is a potent, ever present force, analogous to Emile Durkheim's conception of a “social current.” Culture creates:

... ways of acting, thinking, and feeling which possess the remarkable property of existing outside the consciousness of the individual. Not only are these types of behavior and thinking external to the individual, but they are endowed with a compelling and coercive power by virtue of which, whether he wishes it or not, they impose themselves upon him. (Durkheim 1938, 51)

Because of Durkheim's assumptions that humans are inherently aggressive and self-interested by nature, he views the coercive power of culture as the key solution to the enduring problem of maintaining social order. He offers that the goal of any society or collective should be to strengthen social bonds (culture) as a way of minimizing conflict resulting from one's biological urges, passions, and irrational instincts. Without a strong



culture the possibility of collective effort vanishes, and hence the society itself is in grave danger (Durkheim 1938). Further, he suggests that society becomes less cohesive and sociologically secure as our collective consciousness, morality, and belief systems dissipate, and therefore, we need alternate forms such as occupational associations and formal organizations to integrate society (Durkheim 1947).

### Defining Organizational Culture

*Organizational culture* is a concept roughly analogous to individual personality. An organization's self-image, like its human counterpart, develops over a long period of time. "A company's culture is actually an aggregate of subcultures that have developed in response to unique challenges faced by different groups within the organization. This is why corporate culture is inherently so multifaceted and complex" (Conner 1993, 163).

The concept of organizational culture has spawned many experts who offer a wide array of definitions and approaches to the phenomenon. Kroeber and Kluckhohn (1952) identified 164 differing definitions of culture in one of the early reviews of the literature. More recently, Ott (1989) found 73 words or phases used to define organizational culture in 58 published sources when he constructed a typology (Babione 1995, 31). Deal and Kennedy (1982, 49) view corporate culture as "a cohesion of values, norms, myths, heroes, symbols, and artifacts that produce and explain the behavior of most, if not all people in an organization, as they strive to attain goals." Louis (1985, 68) offers that culture is "the most fundamental shared understandings of a collective that direct goal oriented behavior, but do so at an unconscious level." Davis (1985, 163) proposes that culture is a "pattern of shared values and beliefs that shapes the meaning of an

organization for its members and provides rules for behavior.” Ceolig and Wilcox (1988, 5) define organizational culture as “a shared set of values and norms, at least at the departmental level, that prescribe the correct behavior.” Denison and Mishra (1989, 32) concluded that organizational culture is defined as “a system of shared values that form the basis for integrative effort as well as provide meaning and direction for the members.”

Scholars who study organizational culture frequently reference the seminal works of Edgar H. Schein (1983, 1984, 1985, 1986). Schein has written extensively on organizational and management theory and more recently, on organizational culture. His basic assumption is that culture develops in a group as the group solves problems of external adaptation and internal integration (1985). With the caveat that not all organizations have a well-defined culture, Schein defines organizational culture as follows:

The pattern of basic assumptions that a group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid, and therefore, to be taught to new organizational members as the correct way to perceive, think, and feel in relation to those problems. (Schein 1984, 3)

Schein's definition is most appropriate and will be used in this study because it spans the theoretical underpinnings of the disciplines of anthropology, sociology, and organizational behavior, and it contains the following essential characteristics:

- Culture is defined as basic assumptions, which in this study are interpreted and operationalized as key work beliefs.
- Culture is shared, providing cohesiveness among people throughout an organization.
- Culture is transmitted by learning and change will occur when the existing culture ceases to effectively solve problems. The importance of this premise to the study is in determining whether culture facilitates or inhibits a specific intervention (e.g. TQM).

- Culture is composed of three components that serve as a guide to what are considered appropriate or inappropriate actions to engage in for individuals and groups.
- Culture is developed over time and is the product of beliefs, behaviors, and assumptions that have in the past contributed to success. (Pernick, 1995)

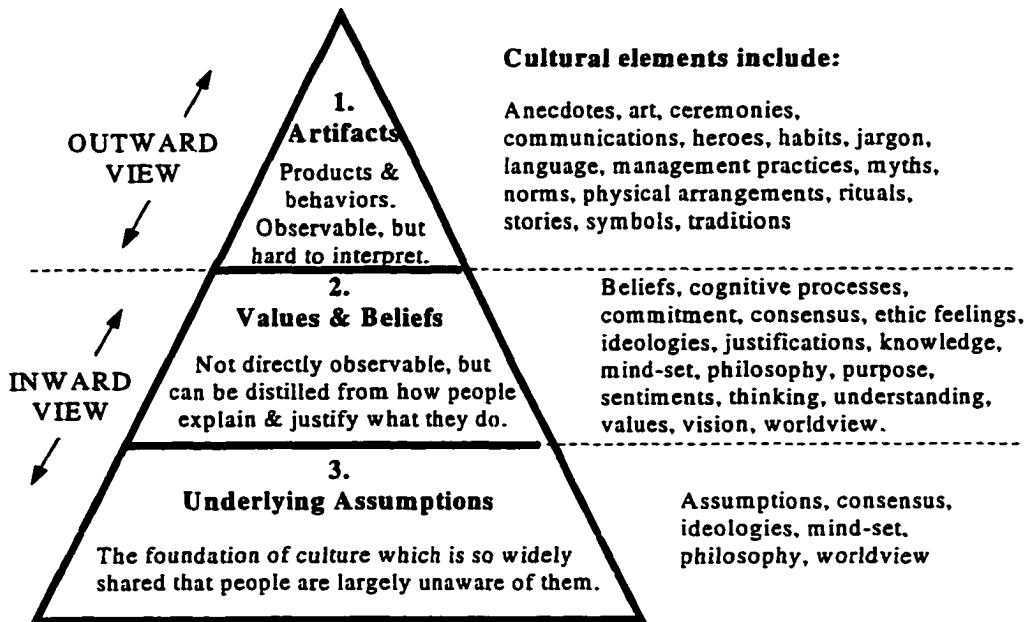
### Organizational Culture Theory

Definitions of culture generally distinguish between two broad categories of cultural variables. In the first category are the *underlying beliefs, values, and assumptions* that form the conceptual base of the groups' culture. The second category is characterized by the *overt symbols* used by group members to express and communicate culture (Babione 1995, 32). The distinction between these two major categories is perhaps best summarized with the following:

. . . cultures are collective phenomena that embody people's responses to the uncertainties and the chaos that are inevitable in human experience. These responses fall into two major categories. The first is the *substance* of a culture -- shared, emotionally charged belief systems that we call ideologies. The second is *cultural forms* -- observable entities, including actions, through which members of a culture express, affirm, and communicate the substance of their culture to one another. Clearly, people in organizations develop both cultural substance and cultural forms. Out of these processes, cultures grow. Cultures are a natural outgrowth of the social interactions that make up what we call organizations. (Trice and Beyer 1993, 2)

Cultural variables can be arranged into a three-tier hierarchy consisting of artifacts, values, and basic assumptions (Figure 2.3, Schein's Hierarchy 1985). Artifacts and most values are explicit. As values become internalized and embedded in the organization, they become invisible, and taken for granted, and are then viewed as basic assumptions (Babione 1995, 31). Basic assumptions are the essence of culture. "They are the beliefs that are shared by members of an organization, that operate unconsciously, and that

define in a basic 'taken for granted' fashion an organization's view of itself and its environment" (Schein 1985, 16).



**Figure 2.3 SCHEIN'S THREE LEVELS OF ORGANIZATIONAL CULTURE**  
Source: Schein 1985

**Artifacts.** Artifacts comprise the first level of the hierarchy and are described as “material and nonmaterial objects and patterns that intentionally or unintentionally communicate information about the organization's technology, beliefs, values, assumptions, and ways of doing things” (Ott 1989, 24). Artifacts can be materials such as documents, physical layouts, and furnishings or can be nonmaterial such as organizational language, patterns of behavior, and symbolic representations (Ott 1989, Babione 1995). Trice and Beyer (1993, 78) offer that *cultural forms* consist of four categories of concrete manifestations of culture:

1. **Symbols.** Objects, settings, performers, and functionaries
2. **Language.** Jargon, gestures, signals, signs, songs, humor, metaphors, and slogans.
3. **Narratives.** Stories, sagas, and myths.
4. **Practices.** Rituals, rites, and ceremonies.

Symbols typically express the underlying substance of an organization's culture (Ortner 1973) and are frequently used as concrete representations of abstract values (Firth 1973). America's "Bald Eagle" and Prudential's "Rock of Gibraltar" are examples of symbols, which convey specific meanings. "Summarizing symbols," such as organizational settings, help members sort out and categorize their experiences so they are comprehensible and translatable into orderly action (Ortner 1973, Babione 1995). An example of summarizing symbols are the exterior and interior settings of McDonald's restaurants which convey a central ideology characterized by efficiency, speed, courtesy, and cleanliness (Trice and Beyer, Babione 1995). The narrative category typically involves stories or sagas about heroic exploits performed in the face of adversity. They are ideological parables that express, enhance, and codify beliefs (Meyer 1982, Babione 1995). "Sagas help perpetuate ideologies by anchoring the present in the past and lending meaning to the future" (Meyer and Starbuck 1991, 4).

**Values.** Values comprise the second level of the hierarchy and are divided into two groups: *in-use values* and *espoused values* (Schein 1985). In-use values can be defined as the repeated, proven methods for solving problems. "They are accepted beliefs and have become a part of the organization's way of doing things. When a recommended solution to an organizational problem works and the group has a shared perception of that

success, the value gradually starts a process of cognitive transformation into a belief and ultimately an assumption” (Babione 1995, 37).

Espoused values are those that serve the normative or moral function. They remain conscious and are explicitly articulated. If, for example, a company states explicitly in its charter and other public documents that it strongly values people, it may be doing so because it wants everyone to operate by that value, even without any historical experience that such a value actually improves its performance in its environment (Schein 1985, 16). “Values that have become embodied in an ideology can serve as a guide for dealing with ambiguous and difficult events” (Babione 1995, 38).

**Basic Assumptions.** Basic assumptions comprise the third level of the hierarchy and are those cultural aspects that are invisible, deeply hidden, and already established by past practice (Trice and Beyer 1993). Assumptions are the unconscious rationale we use for continuing to apply certain beliefs or specific behaviors. When people develop belief and behavior patterns that are successful, they rely on those patterns when similar circumstances arise. If such situations occur repeatedly, these patterns eventually become routine and are applied with less conscious thought (Conner 1993). “Taken-for-granted assumptions are powerful because they are less debatable and confrontable than espoused values, brought back to awareness only through a focused inquiry” (Schein 1985, 4).

Taken together, an organization's collective artifacts, values, and basic assumptions affect daily business operations on two levels: the *overt level* representing observable, intentional, and direct influences on operations (e.g. goals, policy and procedure manuals, and corporate philosophy statements), and the *covert level*, characterized by obscure,

unintentional, and indirect influences on operations (e.g. informal ground rules, unofficial guidelines, or “the way things are done around here”) (Conner 1993).

“On the overt level, an organization operates along the lines of its beliefs and observable behaviors. At the covert level, the organization is influenced by people's collective assumptions” (Conner 1993, 166). The covert influences are difficult to change because they typically lie below the surface of our awareness, and/or we may be reluctant to discuss them openly. Whether the combination of these influences are blatant or subtle, culture is a significant part of organizational life and can be conveyed by number of practices, including the following:

- oral and written communications
- organizational structure as reflected by line and staff relationships
- the way power and status are defined both formally and informally
- what is measured and controlled, such as cycle time and quality
- formal policies and procedures found in employee manuals and official communication
- reward systems, such as compensation plans and supervisory techniques
- stories, legends, myths, rituals, and symbols, such as company heroes, award banquets, and corporate logos
- the design and use of physical facilities, including how space is allocated and furnished (Conner 1993)

Whether influences are covert or overt in nature, an organization's cultural artifacts, values, and assumptions serve as powerful means for defining, justifying, and reinforcing daily business operations.

**The Functions of Culture.** For the purposes of this study, organizational culture is defined, in part, as “the pattern of basic assumptions that a group has invented, discovered, or developed in learning to cope with its problems of *external adaptation* and *internal integration* . . .” (Schein 1984, 4). Schein's model states that cultural functions consist of two primary groups of activities: 1) problems of external adaptation and survival, and 2) problems of internal integration.

Babione (1995) offers that organizational culture is an interactive process. “It works as a filter, interpreting and responding to the organization's external environment and internal situations. The organization, through its members, responds to conditions in the external system, thereby establishing activities and interactions which become the norms of the internal systems. The internal system then begins to influence reciprocally the external system by also determining activities and interactions (40).” Once the culture is formed, it affects how the environment is perceived and dealt with (Homans 1950).

Schein (1985, 65) identified the following five challenges of external adaptation that most organizations confront:

1. Obtaining a shared understanding of core mission and primary task(s).
2. Developing consensus on goals, as derived from the core mission.
3. Developing consensus on the means to be used to attain the goals, such as organizational structure, division of labor, reward system, and authority system.
4. Developing consensus on the criteria to be used in measuring how well the group is doing in fulfilling its goals, such as the information and control system.
5. Developing a consensus on the appropriate remedial or repair strategies to be used if goals are not being met. (Schein 1985, 52)



The core mission of an organization depends on an assessment of its ability to provide the product or service needed. This assessment is based on both the needs of the external environment and on whether or not the organization's culture is in congruence with the identified mission. "When goals and the means to meet goals are repeated successfully over a period of time, they become part of the core culture" (Babione 1995, 41).

As the members of an organization develop a shared concept of their core mission, and as this concept enables the group to survive in its environment, it becomes a central element of that group's culture and serves as the underlying context in which goals and the means for achieving them can be specified. (Schein 1985, 55)

The means for achieving goals include the combinations of knowledge, skills, technology, structure, and strategy that an organization uses repeatedly.

As there were external adaptation challenges, Schein also identified six internal integration challenges confronting organizations:

1. **Common language and conceptual categories.** If members cannot communicate with and understand each other, a group is impossible by definition.
2. **Group boundaries and criteria for inclusion and exclusion.** One of the most important areas of culture is the shared consensus on *who is in* and *who is out* and *why*, and by what criteria one determines membership.
3. **Power and status.** Every organization must work out its pecking order, its criteria and rules for how one gets, maintains, and loses power.
4. **Intimacy, friendship, and love.** Every organization must work out its rules of the game for peer relationships and for the manner in which openness and intimacy are to be handled in the context of managing the organization's tasks.
5. **Rewards and punishments.** Every group must know what its heroic and sinful behaviors are; what gets rewarded with property, status, and power; and what gets punished in the form of withdrawal of the rewards, and ultimately, excommunication.
6. **Ideology and "religion."** Every organization, like every society, faces unexplainable and inexplicable events, which must be given meaning so that members can respond to them and avoid the anxiety of dealing with the unexplainable and uncontrollable.

It is necessary to discuss several of these concepts in order to gain a better understanding of the relationship between internal integration and organizational culture. Typically, creators of the organization establish the common concepts which serve as the basic assumptions at the deepest level of the culture. At this basic level, a common language and common conceptual categories are established as a means of identification and differentiation from "outside" groups (Babione 1995, Schein 1985, Van Maanen and Barley 1984). At a somewhat higher level, issues of organizational membership, power and status, and interpersonal relationships are established as individuals endeavor to meet their primary needs within the social context of the organization. As an organization matures and becomes more complex, differentiation among these issues become less clear. How deeply these areas are internalized within an organization will determine the strength and unity of the organizational culture and the number and strength of sub-cultures.

**Basic Underlying Assumptions.** This section discusses Schein's theories concerning what is referred to as the "hidden" component of organizational culture -- *basic underlying assumptions*. The basic premise is that organizations have a deep level of assumptions that are more general, but provide the foundation which prescribes the more superficial assumptions (Babione 1995). "... culture cannot be really understood if we lack insight into the deeper levels" (Schein 1985, 85). He conceptualized five basic underlying assumptions around which the cultural paradigm of an organization develops:

1) Humanity's relationship to nature, 2) Nature of reality and truth, 3) Nature of human nature, 4) Nature of human activity, and 5) Nature of human relations. It is relevant to

this study to gain insights into these basic assumptions to better understand the phenomena of how organizations develop their own unique “personality.”

**Humanity's Relationship to Nature.** This basic underlying assumption is based upon how the organization's members view the relationship of the organization to its environment and how that view is focused. This relationship can be one of dominance, harmony, or subjugation (Duncan 1972) and will be focused on some combination of the technological, political, economic, or sociocultural environment (Schein 1985). If, for example, “the organization views its relationship as one of dominance, it will develop strategies which attempt to control environmental factors and will look for ways to take action to influence environmental factors” (Babione 1995, 47). An organization's view of its relationship to its environment will be reflected in such key areas as its mission, tasks, and basic functions.

Schein argues that the *accuracy* of an organization's basic underlying assumptions is important for the success of the overall organization. An accurate assumption can lead to organizational survival while an inaccurate assumption can lead to difficulties and failure. An organization “. . . must develop the ability to: 1) obtain valid information, 2) import it to the right places in the organization, 3) make the necessary transformations in strategy, goals, and means, and 4) measure outcomes so that it is adaptive to environmental changes” (Schein 1985, 88).

**Nature of Reality and Truth.** This basic underlying assumption addresses physical, social, and individual reality issues and whether or not the group can reach consensus on issues of reality. The way that members of an organization determine what is relevant

information for the organization and how they use it to make decisions comprise the reality and truth of the organization (Babione 1995). A scientifically based, pragmatic society, for example, tends to seek an open marketplace of ideas and look for objective criteria. In a collectivist, group-oriented society, however, “something is regarded as true or valid only if it survives a consensus process that provides an opportunity for everyone to examine its implications for the group as a whole, to ensure that the action will not be harmful to the group” (Schein, 1985, 91).

**Nature of Human Nature.** This basic underlying assumption is based upon how human nature is viewed within the organization and is concerned with views of man as being good, bad, or neutral, and capable or not of being perfect (Kluckhohn and Strodtbeck 1961). In American organizations, people are typically viewed as neither intrinsically good or bad and are assumed to be perfectible (Schein 1985).

There are a wide variety of theoretical perspectives concerning human nature.

Maslow (1954), for example, classified individuals as being motivated by a hierarchy of needs from basic physical needs to self-actualization needs. McGregor (1960) classified humanity in terms of Theory X and Theory Y. His Theory X held the assumption that man is lazy, unmotivated, and needs to be directed and controlled. In contrast, his Theory Y held that man is basically self-motivated and needs to be challenged, but not controlled (Babione 1995).

Organizations seldom make overt statements about an area as complex and variable as human nature. It is this variability in human nature, however, that makes it essential for organizations to come to some consensus about what their assumptions are because

management strategies reflect those assumptions. “Both the incentive and the control systems in most organizations are built on assumptions about human nature, and if those assumptions are not shared by members of the organization, it becomes difficult to plan any coherent system” (Schein 1985, 100).

**Nature of Human Activity.** This basic underlying assumption is based upon what is the right or wrong thing for human beings to do on the basis of the organization's relationship with its environment, reality, and human nature. This assumption is characterized by its two extremes – *being* and *doing*. The *being orientation* is based on the assumption that nature is powerful and humanity is subservient to it (Schein 1985). At the other extreme is a *doing orientation* which is based on the assumption that the environment can be controlled and a belief in human perfectibility (Kluckhohn and Strodtbeck 1961).

Assumptions about human activity orientations underlie managerial styles of decision making. “. . . a high degree of consensus is needed among managers about the correct way to think about problems and to act on them” (Schein 1985, 140).

**Nature of Human Relationships.** This basic underlying assumption is based upon how people within the organization relate to one another in terms of power, influence, hierarchy, intimacy, and peer relationships (Schein 1985). Obvious differences appear in assumptions about how people relate to each other and the basic relational units. Some are highly individualistic and competitive while others are collators and group cooperative. At the organizational level, assumptions about relationships reflect the assumptions of the wider culture but become elaborated and differentiated (Babione 1995, 52).

## Changing Culture

While the previous section provided a theoretical framework for understanding the core components of organizational culture, the intent of this section is to gain insights into the relationship between culture and change. The body of relevant literature clearly indicates that culture is a significant explanatory variable to organizational performance and effectiveness. It is often discussed in terms of being a new paradigm for understanding organizations and as “. . . a breakthrough in the quest for finding ways to create and sustain high performing systems” (Pernick 1990, 23).

Culture is so potent because its taken-for-granted quality acts as an often impenetrable barrier to change. Culture unconsciously shapes our perceptions, decision premises, and assumptions about reality. As Pernick cites, “. . . many long-established sailing ship manufacturers went bankrupt in the nineteenth century by trying to improve their product, rather than make the paradigm shift to pursue the emerging steamship technology” (1990, 21). Albrecht (1987) hypothesizes that creative organizations have cultures that value, promote, and reward creative behavior. He offers that conversely, an organization is “sick” if its culture reflects employee alienation from the organization, high conflict across strata, despair or sense of discouragement when workers give up hope that they can affect their own destiny, and mediocre performance as workers “just go through the motions.”

Popular works such as Peters and Waterman's In Search of Excellence (1982) espouse that understanding and shaping corporate culture is a critical component to organizational performance. What much of the literature depicts is a common view of

culture as an independent variable that, like climate or other structural factors, could simply be altered to bring about improved productivity, quality, and worker satisfaction (Hardcastle 1994). What has evolved from this cause-and-effect perspective, however, are models of organizational culture that are based on overly rational, surface-level notions of culture that assume an organization's culture can ultimately be controlled and determined (Marshall and McLean 1985). In contrast, other scholars offer that culture can be used in conjunction with formal control mechanisms to influence organizational behavior -- a type of "unobtrusive organizational control" (Maslar.d 1985). Still other scholars argue that the culture construct is so broadly defined that treated as a unitary concept, it "lacks analytical bite" and should more aptly be regarded as the source of a family of concepts such as symbols, languages, and beliefs and rituals (Pettigrew 1979, Hardcastle 1990). Pascale and Athos (1981) offer that culture is simply defined as the "glue" that holds an organization together and reflects what management really cares about.

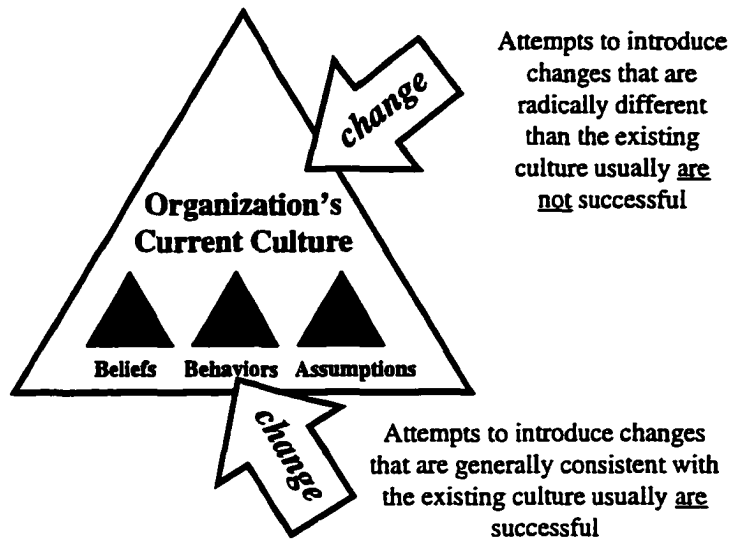
The "invisible" quality of culture is an important concept since it implies that people create, and are influenced by, cultural assumptions and beliefs in ways that they cannot see themselves. It is this invisible quality that makes it difficult, if not impossible, for members of an organization to describe their surrounding culture, let alone begin to change it (Schein 1985). "To understand an organization's culture, one must examine the underlying pattern of assumptions that lie beneath the visible artifacts, beliefs, and values. . . . this makes the process of surfacing and changing cultural assumptions extremely difficult" (Schein 1984, 30).

Most contemporary management literature agree in the premise that cultural change does not come easily. A differing perspective, however, is that because organizations seldom develop cultures with the depth of socially shared understanding like those studied by sociologists and anthropologists, they may be easier to change than many organizational theorists assume (Wilkins and Ouchi 1983). Organizational cultures may also be more easily influenced and shaped than whole societies since they are formal and unique to specific work environments. Since culture comprises artifacts, beliefs, and underlying values (Schein 1985), culture can be changed by intervening at any of these levels (Wilkins and Ouchi 1983). Behavior could be changed, for example, by changing the organization's structure or introducing some form of participatory management practice. As Hardcastle warns, however, "attempting to simply change behavior is not necessarily tantamount to changing deeply-held assumptions or beliefs. This is one reason why employees often resist the introduction of organizational changes or eventually revert to familiar patterns of behavior that fail to support long-term cultural change" (1990, 15).

If an organization's culture and desired changes have little in common, the chances of successfully achieving those changes are slim. As Figure 2.4 illustrates, the odds of implementing change grows as the similarity grows between the existing culture and the beliefs, behaviors, and assumptions required by the new initiative. "Whenever a discrepancy exists between the current culture and the objectives of your change, the culture always wins . . . because it is durable and resistant to major change, corporate



culture requires the investment of a great deal of time and resources before it can be modified” (Conner 1993, 176).



**Figure 2.4 HOW CULTURE IMPACTS CHANGE**

**Source: Conner 1993**

Implementing cultural change may also be difficult because organizations often try to change only surface-level behaviors with the intent that these changes will bring about deeper changes in individual's beliefs and attitudes. “Often the underlying assumptions and beliefs that drive behavior are left untouched, and in some cases are perpetuated or even strengthened in the process” (Argyris and Schon 1978, 42). This perspective may help explain why many of the more popular approaches used to change culture and improve performance are often viewed as ineffective or “just another program” by both managers and employees (Hardcastle 1990).

The “strength” of an organization's culture may also be a determinant of its effectiveness. “A strong culture tells employees what is expected of them and how to behave under a given set of circumstances . . . a strong culture facilitates a coherence of

thought and action that enhances organizational performance” (Deal and Kennedy 1982, 132). An organization with a “weak” culture, may conversely, not have a sense of purpose or direction.

The function and strength of an organization's culture may depend to a large extent upon its stage of evolution. Culture provides the “glue” that gives meaning and direction for members of relatively young organizations. As organizations mature, expand, and evolve over time they become a composite of subcultures that inevitably develop (Hardcastle 1990). Schein concluded that “Whether or not one can or should change parts of cultures or whole cultures appears to depend very much on the age of the organization, the situation it finds itself in its environment, its size and complexity, and its present managers' view of the situation” (1985, 269). The kind of change that is possible depends on the development stage of the organization and the degree to which the organization is “unfrozen” and ready to change either because of an externally induced crisis or because of internal forces toward change (Schein 1980).

Organizational development stages may best be described as: 1) birth and early growth, 2) organizational mid-life, and 3) organizational maturity (Schein 1985). There are three sets of variables that are important and common at each organizational development stage: 1) the functions served by the organizational culture, 2) the cultural issues, and 3) change mechanisms for that stage (Hardcastle 1990). An organization at its mid-life stage is characterized by a well-established culture that is generally taken for granted. The only components of the culture that are likely to be at the conscious level are slogans, credos, charters, mission statements, dominant values, and the espoused values and

theories (Argyris and Schon 1978, Deal and Kennedy 1982, Ouchi 1981). “At this point, a variety of issues may be in question such as new product development, opening up new markets, and geographical expansion. Such changes require a careful self-assessment to determine whether the cultures to be integrated or merged are, in fact, compatible” (Babione 1995, 63).

The challenge of organizations in the mature stage is typically the need to change parts of their culture since internal stability and complacency can prevent innovation and reduce flexibility (Schein 1985). Changing a mature organization's culture presents several predictable obstacles. The inertia of old ways of thinking and doing things creates roadblocks to change in any one area of the mature organization. Changing all or most aspects of the culture may be impossible due to powerful stakeholders such as unions, management, and customers who often work together to reinforce traditional patterns of behavior (Beer and Walton 1990). Because of the restructuring of power and status usually associated with significant cultural changes, employees, and especially managers, who feel a loss of control or perceive that their job security is threatened may resist or thwart change (Hardcastle 1990, Klein 1984, Pasmore 1982). Cultural diffusion due to powerful subcultures may also be an issue to mature organizations (Van Maanen and Barley 1985). “Managing change at this stage could be complicated because members frequently are not aware of the total culture, much of it deeply embedded in the hidden assumptions which have been taken for granted for years” (Babione 1995, 63). Planned changes require a “knitting together” of diverse subcultures through insight into the

deeply held assumptions of all groups involved. "Cultural change is not usually a goal, but cultural change is usually inevitable" (Babione 1995, 64).

### Managing Culture

The coming decade is fraught with so many volatile human and structural issues and concerns that the workplace has to be managed by a new breed of leaders, those with a sense of vision and mission, those with the manifested and compelling ability to influence others to achieve group objectives willingly. Workplace 2000 needs a team-builder, a person with the ability to empower and lead change efforts with charisma, a path-finder, a transformational leader, a social architect. Gone are the days when the requirement to manage is simply to plan, lead, organize, and control. (Barcelo 1993, 64)

While the term *corporate culture* is much a part of contemporary management vocabulary, few managers comprehend the impact of culture on their organizations and use culture to their full strategic advantage. If the senior leaders of an organization are not managing their cultural environment, then people will feel that changes are coming at a greater volume, momentum, and complexity than they can adequately assimilate. These same feelings, then, will hinder the process of absorbing change (Conner 1993). Five key requirements of *managing culture* that have emerged are:

1. The leader must understand the fundamentals of analyzing tasks and processes, and must create the conditions to enable and motivate those who will produce the product or service.
2. The leader must create the environment in which all levels of management can accomplish linkage between vision and practice.
3. The leader must create conditions in which trust prevails and in which conflicts are confronted and resolved fairly and expeditiously.
4. The leader must ensure that the measurement, rewards, and information systems are congruent not only with each other but also with the organization's goals.

5. The leader must take primary responsibility for assuring that the technical, political, and cultural dynamics [emphasis added] of the organization are properly aligned with systems, processes, tasks, structures, and individual development. (Schein 1985)

Many organizations fail because they are still managed under leadership frameworks that are based on formalized power, authority, and controls (Manz and Sims 1989). The failure of senior leaders to manage their corporate culture has been catastrophic for some companies. “The combined effect of a quantum leap in business changes and the inability of management to understand and orchestrate the cultural infrastructure to support these changes has generated problems of crisis proportions in many organizations” (Conner 1993, 173).

You can't change a culture without strong resolve from top management . . . Developing a plan to implement a new definition of customer relations, for example, must include clear statements of vision (why the organization exists), mission (what it is going to accomplish), and strategy (how it is going to work toward its objectives). Assessing the degree of consistency between the existing culture and the kind of culture needed to implement change is critical to the success of any new organizational focus. (Conner 1993, 174)

Leaders exert considerable influence on the cultures of their organizations. They generate movement of their organizations and their employees by establishing vision and strategies and aligning people by communicating the desired direction and influencing teams to work toward the organizational mission (Conger 1992). “The effectiveness of a leader lies in his or her ability to make activity meaningful; not to change behaviors but to give others a sense of understanding what they are doing, especially to articulate it so they can communicate about the meanings of their behavior” (Pondy 1978, 94).

Schein makes an especially strong assertion that: "In fact, there is a possibility, underemphasized in leadership research, that the only thing of real importance that leaders do is to create and manage culture . . ." (1985, 26). He offers that leaders use five mechanisms to embed, transmit, and reinforce culture:

1. What leaders pay attention to, measure, and control.
  2. Leader reactions to critical incidents and organizational crises.
  3. Deliberate role modeling.
  4. Criteria for allocation of rewards and status.
  5. Criteria for recruitment, selection, promotion, retirement, and excommunication.
- (Schein 1985, 224)

The areas where leaders pay particular attention to and how they react to critical incidents is indicative of what they consider important and accordingly, what they expect from the organization. It is important that employees are able to decipher the expectations of the senior leadership. Senior leaders must be consistent in their behavior so as not to send mixed messages to members of the organization. "What leaders do not respond to may also be critical. The combinations of what leaders do and do not pay attention to can create problems" (Babione 1995, 58).

Siehl offers an alternative view concerning the influence of leaders on organizational culture. While she supports that leaders might be able to change a culture during times of transition or crisis, she qualified her findings in stating ". . . we are left with an ambiguous response to the question of whether culture can be managed . . . perhaps culture management is really this: articulating a possible culture, coming to agree that it is desirable, and then attaining it through the sharing of desired values" (1985, 139).

While it appears that leaders have considerable influence on the culture of an organization, there is not a consensus as to whether they can change or effectively manage culture (Babione 1995). Schein concludes that leaders must possess perception and insight into the culture, motivation and skill to intervene in the cultural process to unfreeze the organization, emotional strength to create psychological safety, ability to induce cognitive redefinition, be involved and participative, and possess a depth of vision to work at the level of the group's deepest assumptions about the nature of reality and its own identity in relationship to its environment (Schein 1985, Babione 1995).

Three of the four research questions guiding this study address the senior leaders of a particular organization. Especially relevant to this study, then, is the organizational subculture Schein (1996) describes as the "executive culture." He offers some unique insights into the characteristics of this influential group of people.

The *executive culture* consists primarily of managers that have risen through the ranks and have been promoted to their senior-level jobs. As these managers rise in the hierarchy and their level of responsibility and accountability grows, they tend to find that it becomes harder to observe and influence the basic work of the organization (note Table 2.2). "They discover that they have to manage from afar, and that discovery inevitably forces them to think in terms of control systems and routines that become increasingly impersonal" (Schein 1996, 15). Because accountability is always centralized and flows to the top of organizations, executives feel an increasing need to know what is going on while recognizing that it is harder to get reliable information. "That need for information and control drives them to develop elaborate information systems alongside control

systems and to feel increasingly alone in their position atop the hierarchy . . . it is not an accident that senior executives tend to band together and form their own culture because they come to believe that no one except another senior executive really understands the lonely warrior role” (Schein 1996, 15 and 18).

**Table 2.2 ASSUMPTIONS OF SCHEIN'S "EXECUTIVE CULTURE"**

Source: Schein 1996

<b>The Executive Culture's Task and Control Focus</b>
<ul style="list-style-type: none"> <li>• Because the organization is very large, it becomes depersonalized and abstract and therefore, has to be run by rules, routines (systems), and rituals (“machine bureaucracy”).</li> </ul>
<ul style="list-style-type: none"> <li>• The inherent value of relationships and community is lost as an executive rises in the hierarchy.</li> </ul>
<ul style="list-style-type: none"> <li>• The attraction of the job is the challenge, the high level of responsibility, and the sense of accomplishment (not the relationships).</li> </ul>
<ul style="list-style-type: none"> <li>• The ideal world is one in which the organization performs like a well-oiled machine, needing only occasional maintenance and repair.</li> </ul>
<ul style="list-style-type: none"> <li>• The organization must be a team, but accountability has to be individual.</li> </ul>
<ul style="list-style-type: none"> <li>• Senior executives focus on financial survival and growth to ensure returns to shareholders and to society.</li> </ul>
<ul style="list-style-type: none"> <li>• The hierarchy is the measure of status and success and the primary means of maintaining control.</li> </ul>
<ul style="list-style-type: none"> <li>• Senior executives cannot get reliable data from subordinates so they must trust their own judgment.</li> </ul>
<ul style="list-style-type: none"> <li>• People are a necessary evil, not an intrinsic value.</li> </ul>
<ul style="list-style-type: none"> <li>• The willingness to experiment and take risks extends only to those things that permit the executive to stay in control.</li> </ul>

### Summary

Organizational culture is a self-concept that is roughly analogous to individual personality. And much like its human counterpart, an organization's “personality” develops over a long period of time. The central theory of organizational culture evolves around the concept of a pattern of basic assumptions that a given group has developed to



respond to the organization's relationship with its external environment and with activities concerning internal integration. Culture is formed, embedded, and changed through the assumptions, values, and behaviors of the group as well as through the influence of organizational leaders.

### **The Total Quality Paradigm**

The two previous sections have provided insights into organizational theory and the phenomena of organizational culture. The intent of this section is to provide a composite of the philosophy of Total Quality Management (TQM) -- the change intervention used by the organization of this study. This section establishes a framework for addressing research question 5: "How might TQM be best implemented in a large, mature, public-sector organization?" It is presented in four parts. The first part, using the film making analogy, is a "long shot" and provides relevant background material concerning the TQM philosophy. The second, third, and fourth parts provide "close-up shots" that are especially relevant to this study and address the role of senior leaders, the relationship of quality and culture, and quality issues in the public sector.

### **The Total Quality Management Philosophy**

Total Quality Management is more than a fad or a buzzword . . . It is even more than a technique for controlling and motivating employees. TQM is a challenge to conventional management techniques and to the theories that underlie them. Therefore it cannot be simply grafted onto existing management structures and systems. If its benefits are to be fully realized, then companies need to prepare themselves for organization-wide change . . .

(Grant, Shani and Krishnan 1994, 25)

**History of TQM.** Although the emergence of Total Quality Management can be attributed to work done at Western Electric in the 1920s, the real catalyst for growth in the quality movement was the U.S. Department of Defense, which, early in the Second World War decided to accept (reject) the delivery of munitions on the basis of a quality sampling procedure (Garvin 1988). Over the next 20 years, Philip Crosby, W. Edward Deming, Armand Fiegenbaum, Kaoru Ishikawa, Joseph Juran, Genichi Taguchi, and others expanded the concept of quality beyond statistical control to the broader realm of reliability engineering and quality assurance (Garvin 1988, Hunt 1993). Many Western corporations allowed quality-management related skills to deteriorate during the 1970s, but, by the mid 1980s, firms were rediscovering the importance of paying attention to quality (Reed and Lemak 1996). In Search of Excellence (1982) by Tom Peters and Robert Waterman was one of TQM's "igniting sparks," particularly for service companies (Berry 1995). With this "quality awakening" came a consequent preoccupation with how to implement TQM as is reflected in much of the academic literature.

In recent years, managers have been inundated with articles, books, and seminars describing the "quality revolution" (Spencer 1994). TQM has been described as a new way of thinking about the management of organizations (Chorn 1991), a comprehensive way to improve total organization performance and quality (Hunt 1993), an alternative to "management by control" (Price 1989), and ultimately as a "paradigm shift" (Broedling 1990). Proponents of TQM depict customer-oriented organizations that are organized around processes, run by teams, and conducted "more like ballets than hockey games" (Slater 1991). They advocate a humanistic, systems approach to management (Brocka

and Brocka 1992) while espousing the need for fundamental changes at all levels of organization (Broedling 1990). "To date, many corporate managers have invested heavily in total quality efforts, whereas others have waited for 'hard' evidence that it works" (Spencer 1994, 446).

There is no consensus on a single definition of TQM (Gehani 1993). Although the various quality experts emphasize different aspects of TQM, its major components can be summarized in Table 2.3.

**Table 2.3 TOTAL QUALITY MANAGEMENT'S MAJOR COMPONENTS**

Source: Spencer 1994

**Definition of Quality:** Quality is satisfying or delighting the customer. Quality improvement initiatives must begin with an understanding of customer perceptions and needs.

**Goal:** TQM establishes quality enhancement as a dominant priority and one that is vital for long-term effectiveness and survival. It claims that quality can decrease costs rather than increase costs.

**Role/Nature of Environment:** TQM blurs the boundaries between the organization and the environment. Entities previously regarded as outsiders (e.g. suppliers, customers) are now considered part of organizational processes.

**Role of Management:** Management's role is to create constancy of purpose for improvement of product and service (Deming 1982) and to create a system that can produce quality outcomes. Managers and the system, not the workers, are held responsible for poor quality (Juran 1991).

**Role of Employees:** Employees are empowered to make decisions, build relationships, and take steps needed to improve quality within the system designed by management. Training and educational opportunities provide necessary skills for this broader role.

**Structural Rationality.** The organization is reconfigured as a set of horizontal processes that begin with the suppliers and end with the customers. Teams are organized around processes to facilitate task accomplishment.

**Philosophy Toward Change:** Change, continuous improvement, and learning are encouraged. Ideally, all organizational members are motivated to improve the status quo.

While there is no commonly accepted definition of TQM, Eskildson (1995) offers the following “core of characteristics” that can be used to fashion a working definition:

1. A priority emphasis on improving quality and customer satisfaction, primarily through preventing problems.
2. Widespread and extensive involvement supported by considerable staff training in basic quality management and process improvement techniques and ongoing, detailed communication about the organization and its mission, vision, goals, and performance.
3. Numerous (continuous) incremental process improvements, predominantly attained through ideas generated and supported by extensive employee involvement and data-driven decision making.
4. Considerable ongoing top management involvement and support.
5. Long-term thinking, that is, being willing to wait three to five years for an organizational culture change and substantively improved overall outcomes.

(Eskildson 1995)

**Theoretical Origins of TQM.** “TQM’s origins and pattern of diffusion are quite different from those of other management and organizational innovations that have swept through the business world during the postwar period . . .”(Grant, Shani, and Krishnan 1994, 26). Because its origins lie outside the academic world, TQM’s connections to management theory have yet to be made explicit (Spencer 1994). Much of the contributions to contemporary management theory have originated in the social sciences. In contrast, statistics provides the theoretical basis of TQM. Statistical process control (SPC) forms the core of TQM and is based on sampling and variance analysis. The following passage summarizes TQM’s relationship with management theories:

. . . TQM carries implications for the principles and theories of management. The conflicts we have observed between TQM and top-management directed plans for strategic change and organizational restructuring are more than a clash of incompatible management practices -- they also reflect deep-seated incompatibility between the theoretical principles implicit within these practices . . . Conflict within management theory is no new phenomenon. For much of the past half-century, management theory has coalesced around two broad schools: a 'rationalist' school based on the principles of scientific management and the theory of bureaucracy and a 'human relations' school based on the role of the organization as a social system, emphasizing psychological and social needs. . . Some writers have argued that TQM can bridge these schools. TQM's scientific approach is consistent with the theories of the rationalistic school and its work design, and structural components are consistent with the human relations approach.

(Grant, Shani, and Krishnan 1994, 29)

**Implementation Strategies.** TQM implementation involves many challenges. Berman and West (1995) describe these challenges in terms of transformational, transactional, and representational strategies. *Transformational* strategies are defined as those change efforts through which new visions, goals, objectives, and processes are introduced in the organization. For example, mission statements may be reformulated and internal performance monitored to promote high quality, customer-friendly services. Benchmarking may be used to measure performance against best-in-class units, objective data collected to promote rational decision making, and pilot projects implemented to fine-tune the initial application of TQM (Berman and West 1995).

*Transactional* strategies aim to ensure that TQM methods, approaches, and principles are accepted by employees. These approaches stress the importance of accommodation and consultation and involve employees in decision making about implementation. Other examples of transactional strategies include monitoring worker satisfaction, recognizing achievement, promoting employee development, and using rewards for superior group performance.

*Representational* strategies help to ensure that TQM efforts are acceptable to external stakeholders, such as political and community groups. In the absence of broad-based support, innovations such as TQM may not have longevity (Cohen 1988). Representational strategies seek to obtain backing from influential players in the external environment who can affect the fate of quality initiatives.

**Organizational Factors.** The literature suggests that TQM is more likely to be implemented or sustained in those organizations whose policies are consistent with those of TQM (Durant and Wilson 1993). Departments that already encourage cooperation and open communication between units may find these units to be more receptive to TQM or, at least, less threatened by it (Berman and West 1995). Encouraging communication between units, discouraging information secrecy, encouraging employee participation, emphasizing change, focusing on systems improvement, coordinating linkages among units, and using long-term planning may be associated with increased commitment to TQM (Cohen 1993).

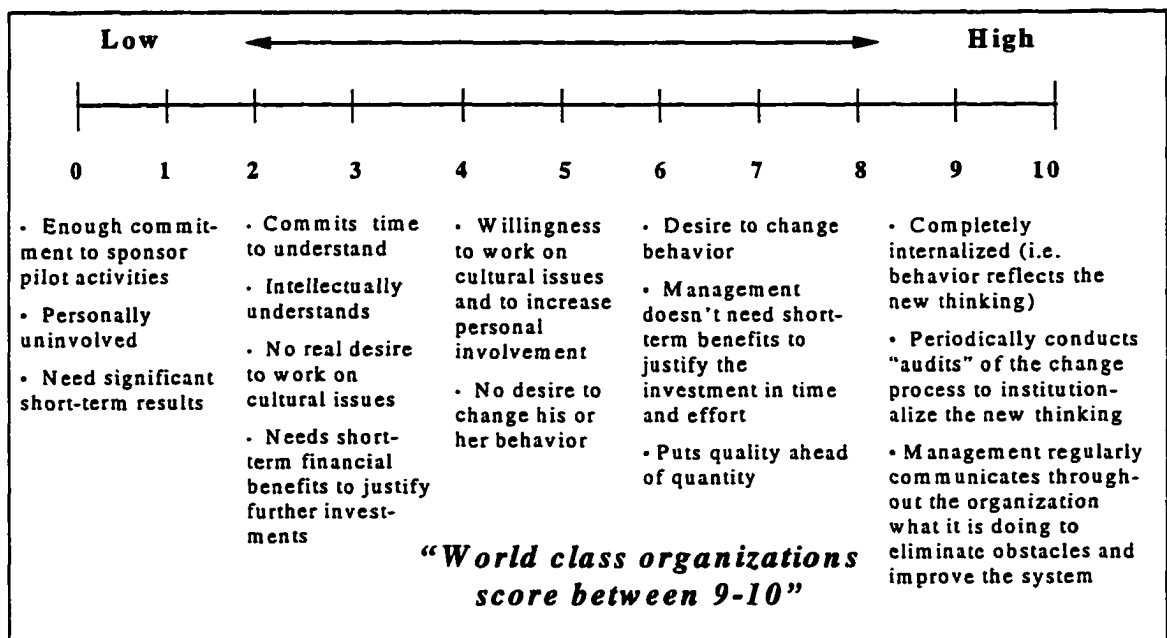
**Implementation and Level of Commitment.** TQM is an encompassing management approach whose principle tenets are to satisfy (internal and external) customer needs through strategies of employee empowerment and performance measurement (Berman and West 1995, Garrity 1993, Barzelay 1992). Customer needs are addressed through the multi-faceted concept of "quality," which includes such elements as performance, conformance, accuracy, reliability, and timeliness (Rosen 1993). In many instances, these elements are quantifiable and hence, subject to evaluation, assessment, and continuous improvement. "Employee empowerment is used because it allows employees to address

customer problems in a timely and often tailored way” (Berman and West 1995, 58). A common problem with a TQM change intervention is that many organizations implement it at a token level rather than fully committing themselves (Miller 1993). “Token implementation, or paying lip service, occurs because organizations and individuals receive recognition and other benefits from being, or appearing to be, in line with current thinking, while avoiding the risks or actual innovation (Berman and West 1995, 58).” Token implementation also occurs as the result of a flawed implementation plan, inadequate commitment and follow-through by those mandating the implementation of TQM, a lack of training in applying it, incongruent organizational policies, and other factors (Radin and Coffee 1993). It is important to distinguish token from substantial implementation. The scholarly literature suggests that TQM requires considerable commitment to training and appropriate rewards, and that without such commitment, TQM implementation cannot succeed (Bowen and Greiner 1991, Halachmi 1993).

### Role of Senior Leadership

Classical management theorists define the role of senior leaders according to the principles of planning, organizing, directing, and controlling (Spencer 1994). TQM theorists suggest that managers *lead* rather than plan, *empower* rather than direct, *partner* rather than organize, and *assess* rather than control (Ginnodo 1992). TQM advocates prescribe that senior leaders' first task is to create a vision that incorporates TQM as an integral part of the business. Its second task is to establish organizational policies, structures, and practices consistent with that vision (Spencer 1994, Ginnodo 1992). Employees may have a hand in designing these parameters, but most quality advocates

suggest that management should be responsible for synthesizing all of the different processes and people into a cohesive system (Shores 1992). The priorities of senior leaders are reordered under TQM: their decision-making and control functions decrease while their roles as *consultants* and *coaches* grow. “. . . jobs become less specialized not only horizontally, but also vertically. The distinction between ‘those who think’ and ‘those who do’ is blurred” (Grant, Shani, and Krishnan 1994, 28). Compared to traditional management practices, the TQM philosophy requires a very different leadership approach. Successful implementation to the degree achieved by world-class firms requires an enormous change in the organization's culture. This cultural change can only be accomplished by highly committed senior leadership (Hugh 1992). Like most anything, there are various degrees of commitment to implementing TQM as illustrated in Figure 2.5.



**Figure 2.5 DEGREES OF COMMITMENT TO NEW THINKING EMBODIED IN TQM**  
 Source: Hugh 1992, 27



Many U.S. managers are committed enough to try some projects, but are not nearly so committed enough to lead cultural change in their organizations. “Unfortunately, many, in effect, turn the implementation process over to an appointed facilitator and are not involved personally. Some understand the philosophies intellectually and verbally espouse them, but continue to behave in the same old way” (Huge 1992, 26). According to Dr. Joseph Juran, “. . . no quality improvement effort has ever been successful without top management's involvement” (1991). A critical role of senior leadership is shaping the corporate team around a strong value system -- providing value-driven leadership. TQM is, in fact, a value-driven culture, and top managers must be actively involved in constructing it (Berry 1995). If TQM doesn't win its bid for top management's attention, the process of building the winning, value-centered team will be painfully slow and eventually ineffective.

To become committed enough to lead cultural change, senior leaders must believe, both intellectually and emotionally, that using TQM philosophies and concepts is the only way to run a company – “in short, they must get religion!” (Hugh 1992, 28). When a leader is committed sufficiently, the values and principles of quality and continuous improvement are internalized so that his or her behavior reflects these values. He or she is actively involved in the cultural changes that must be made. Such a manager has invested considerable time and energy becoming educated about TQM philosophies and techniques, and leads and audits the process by which the company's thinking is transformed (Ernst and Young 1992). “. . . developing leaders at all levels who work at creating an environment where all people can be utilized as problem solvers and solution

implementers is the critical foundation for making the cultural transformation . . . nothing less than a leader who believes this intellectually and feels this emotionally will get the job done” (Hugh 1992, 29).

Senior leaders set the “quality” tone for the organization. If managers are not involved enough, then the senior leadership must provide the structure to ensure they are. Top management must expect consistent, sustained involvement. Methods that managers at all levels use to demonstrate involvement include the following:

1. Developing an understanding of the quality philosophy.
2. Visiting other organizations that are successfully implementing quality concepts.
3. Problem solving in a new way such as using quality improvement tools to eliminate process variation.
4. Acting as a positive reinforcer by attending team training sessions or asking employees how they feel about the change process.
5. Leading or participating in quality-related activities such as customer needs assessments, competitive benchmarking, performance metrics, and overcoming cultural barriers.

If managers perceive themselves as incompetent for a role, they will avoid it (Bandura 1977). It is the senior leadership of an organization that is responsible for putting in place systems that ensure people are trained and competent for quality and continuous improvement responsibilities. Even when systems for developing individual competencies are in place, other forces such as the organization's culture and social system of interrelated roles prevent a competent manager from fulfilling quality and continuous improvement responsibilities. A starting point for transforming an organization's culture can be with redefining managerial roles:

Role perceptions give people a vision of what they are supposed to do. The various levels of culture are dynamically interrelated. Values, beliefs, and assumptions lead people to think in certain ways. Thus, the culture sustains itself. The relationship between core thought and behavior creates a loop: thought causes behavior, which causes thought. This loop presents an enigma for managers who must change the culture to shift to the emerging paradigm. It is so difficult to break into or overcome this cycle that managers attempting the shift have often failed because of it. (Bounds et al. 1994, 134)

“The nature of systems is such that all parts are interrelated. Managers cannot change one part in isolation. The behavior of any one person relates to, affects, results from, or coordinates with the behavior of others” (Katz and Kahn 1978, 189). If senior leaders expect to create an atmosphere that facilitates change, then they must inspire everyone in the organization with a vision of what they should be accomplishing to improve customer value. If the senior leaders do not ensure that their roles are consistent with the quality philosophy, then it is difficult to develop a culture supportive of it (Bounds et al. 1994).

. . . traditional management approaches frequently fail to achieve a purposeful balance between change and stability. In traditional organizations, the over-control that is intended to maintain stability often precludes healthy strategic change. Cultural forces for stability include the social system of roles, structures, and controls. In the emerging paradigm, however, managers must be willing to change all of these forces when necessary. To provide the best customer value, managers must engage in a mix of role activities to achieve two seemingly contradictory objectives: change and stability. Traditional managerial roles are inadequate for this agenda. (Bounds et al. 1994, 136)

Implementing TQM, then, requires fundamental change in each senior leader's role responsibilities. It is only through changing traditional managerial roles that senior leaders will ever accomplish a culture that supports quality and continuous improvement. Senior leader role perceptions and behaviors, thought, and action must change. As these

change, the very culture will be transformed as a natural result of continuous improvement in every domain of the organization (Bounds et al. 1994).

### Relationship of Quality and Culture

To make the “paradigm shift” to quality and continuous improvement, managers must change the thoughts and practices of people throughout the organization. The concept of culture provides managers with a powerful means of understanding behavior in organizations. Understanding culture can provide valuable insights for managers as to how to change behaviors to implement a quality philosophy (Bounds et al. 1994).

Many scholars suggest that the success of TQM requires a “cultural transformation” within the organization (Atkinson 1994, Greene 1993, Seymour 1993, Spanbauer 1994). The key to successful implementation, then, is to create a “quality culture.” Organizational activities which demonstrate low interest in quality should be changed (Atkinson 1994). Implementing a quality philosophy cannot be done without a systematic approach; slogans and enthusiasm on the part of a few managers or employees will not create a quality culture:

Organizations must provide the resources, the workshops, the training and counseling for staff who find it difficult to make the transition. Encouraging and adopting the right leadership behavior . . . is imperative to building a cohesive group of managers [emphasis added] who are willing to tackle uncertainty.

(Atkinson 1994, 77)

Organizations should do two assessments before implementing a quality program. First, a “reason assessment” to determine why the organization ought to adopt a quality philosophy and what it means for the initial implementation effort. Secondly, a culture

assessment should assess the strengths and weaknesses of the organization's culture, the culture expectations of the quality initiatives, and consequently, what can be expected in terms of culture as a result of instituting quality (Greene 1993).

Culture and quality are interactive and implementing quality depends upon behaviors, values, and basic assumptions that address the issues of quality. "A culture of quality is one in which members develop, share, and continually reinforce a common understanding of what quality is and how to pursue it" (Seymour 1993, 148). Leaders must pay attention to how they might influence culture through the use of such cultural forms as symbolic actions, various rites -- such as passage, enhancement, and integration -- and the use of behaviors that function as deliverers of change (Seymour 1993).

Even though change mechanisms can be implemented to unfreeze the current cultural paradigms, the existing culture can both facilitate and inhibit cultural change (Babione 1995). The deepest level of an organization's culture -- the basic assumptions -- reflect the strength of the culture. How the members interpret the environment, reality, human nature, human activity, and human relationships provides the basis for formulating the beliefs and values which are demonstrated in the behaviors used by members in dealing with issues of external adaptation and internal integration (Schein 1985). "As the assumptions become more deeply embedded, culture arises and gains strength, it becomes pervasive and influences everything the manager does . . ." (Schein 1985, 314).

One should not assume that there is a 'correct' or 'better' culture or that 'strong' cultures are better than weak cultures. What is correct or whether strength is good or bad depends on the match between cultural assumptions and environmental realities. A strong culture can be effective at one point and ineffective at another point because external realities have changed. (Schein 1985, 315)

Strong cultures tend to impose conformity. Since deviation from the status quo or “nonconformity” is what leads to change, a strong organizational culture can be a liability, particularly when it has become dysfunctional or misfocused (Bounds et al. 1994). A strong culture makes it difficult for leaders to implement a fundamentally new way of doing business, such as TQM, even when the organization's survival depends on making such a change. A weak, fragmented culture is not necessarily desirable however. “. . . a strong culture that values new ideas, challenges the status quo, and continually looks for ways to increase customer value is likely to be the most successful. Managers must strike a balance between strong culture and nonconformity to have a culture supportive of the emerging paradigm” (Bounds, et al. 1994, 124).

Hubiak and O'Donnell (1996) argue that there is a prevalent “American mind-set” that seriously constrains implementation of TQM. How Americans perceive and understand TQM determines how they attempt to implement and accomplish it. Dominant patterns of thinking and behaving (i.e. “mental models”) that characterize American organizations and impact on TQM implementation are as follows:

1. **Individualism.** It is often difficult for Americans to understand the need to develop long-term relationships. Americans are generally reluctant to undertake any deep obligations to their business associates, as is common in other cultures. Thus, when an American espouses commitment to a team, supplier, or customer, the built-in cognitive limitations of this commitment may fall far short of what is advocated by TQM.
2. **Competitiveness.** Americans religiously adhere to the tenet that competition brings out the best in any individual. Competition is the primary method among Americans for motivating members of groups. This win-lose mentality results in a defensive frame of reference that discourages individual or group reflection, practical experimentation, open testing, and inquiry into the underlying causes of behavior, all of which are essential in a TQM environment.

**3. Problem-solving Orientation.** Americans have a reputation for being extremely realistic, practical, and efficient. Consequently, the predominant management style can be described as a “problem-solution” model. It is not surprising that good management is equated with problem solving. This is reactionary and facilitates an “If it ain't broken, don't fix it” mentality, a mental model that prevents the steady improvement of products, processes, and people.

**4. Linear Thinking.** Americans tend to be linear thinkers and associate actions and results as being closely and clearly related. This is why TQM is often implemented for the sole purpose of obtaining immediate feedback. When surface events in organizations are treated as simple cause-and-effect phenomena, the deeper patterns and rhythms that occur in longer time cycles are harder to perceive. The analytic approach to complex problems is to break them down into components or symptoms, study each component in isolation, draw conclusions separately about the components or subsystems, treat the symptoms, then synthesize the components back into a whole. Inquiry into the deeper causes of problems is rarely required. At this deeper, dynamic level, there are complex interactions between forces and individuals, in which actions are influenced by the consequences of previous actions -- no direct cause-and-effect relationship exists.

**5. Control Orientation.** TQM requires a very different mental image of management than is traditionally held in U.S. organizations where management is more commonly defined in terms of control functions. American management styles are most often characterized by autocratic management in which organizational members are over-managed and under-led. “It is abundantly clear that authoritarian hierarchies thwart learning, failing both to harness the spirit, enthusiasm, and knowledge of people throughout the organization and to be responsive to shifting business conditions” (Senge 1990). Managers' commitment to TQM is often confounded by their concern regarding whether they will personally gain or lose by ceding control. This typically leads to organizational gridlock and inhibits the exchange of ideas across functional boundaries.

(Hubiak and O'Donnell 1996, 19)

The literature on TQM largely agrees that the success of a TQM intervention depends upon the nature and level of an organization's culture and the interaction of that culture and TQM. As previously discussed, even at a national level, there may be cultural mind-sets that impose psychological constraints to establishing an effective TQM environment. The literature provides ample evidence that culture, in terms of assumptions, values, behaviors, and strategies, are meaningful and relevant to the success of TQM. Likewise,

once a quality and continuous improvement intervention has been initiated, over time it will affect an organization's culture by redefining values, behaviors, and the basic assumptions which influence how the organization's members define and work toward mission and goals, make decisions, solve problems, and interact. The challenge for management is one of recognizing and changing "mental models of quality."

### Quality Issues in the Public Sector

The quality movement has been relatively strong in the US private sector. "Companies all over America are developing TQM strategies and large numbers of them have become first-rate practitioners. . . for many companies, quality has risen to world-class levels. Much of this success is directly attributable to the widespread and effective implementation of TQM" (Anschutz 1996, 1). TQM in the public sector, in contrast, has been less successful. While TQM efforts are underway in many governmental organizations, it is, with some notable exceptions, often "little more than a buzzword." It has been deemed by many in the federal sector to be "more trouble than it's worth" (Kidder 1996).

Anschutz (1996) argues that the difference in successfully embracing TQM is that public sector agencies are sheltered from the threat of competition. "Private sector companies must succeed or die. Individuals at every level in the company understand the link between competitiveness and job security. They are energized by that link to seek improvement" (1). Job security in public sector organizations is very different and often linked more to the whims of public budget and to political forces than to individual or corporate productivity. The absence of competition in many, but not all, government agencies is part of the reason for TQM's relative lack of success (Anschutz 1996).



Kidder and Ryan (1996) argue that while many believe that government resists change because it does not have to compete, that logic is simply not true today. The goal at the federal level in 1997 was to reduce the workforce by 272,000 employees and to move many functions from the federal level to state or to contractors. “In many respects, the private and public sectors are beginning to share many of the same motivations to do things differently” (Kidder and Ryan 1996, 56).

Some endorsements of TQM suggest that it can be transferred from the private sector to the public sector with very little modification. Because TQM was first applied to manufacturing, its tenets sometimes refers to products. However, TQM proponents maintain that a delivered service can be viewed as a product, and therefore, TQM principles need only minor modifications when applied to business or government services (Kennedy and Young 1989, Deming 1986). Others argue that TQM can play a very useful role in government, but only if it is substantially modified to fit the public sectors unique characteristics. “TQM is strikingly ill suited to the government environment, requiring modification if it is to be useful in its environment (Swiss 1992, 358).” In advancing his argument, Swiss (1992) identifies four major problems with Deming's “industrial-sector-developed” TQM that is the basis of this incompatibility:

1. **Defining the Government Customer.** TQMs most important principle is to delight the customer. Government agencies often have difficulty answering the question: ‘Who is the customer?’ Competing clients, with directly contradictory demands, can be found in most government services. Moreover, governmental organizations have obligations to more than their immediate clients. Sometimes the agency’s most important customers -- the general public -- are not only absent but totally inattentive, and yet the agency must risk offending its immediate customers in order to serve the general public. Because government agencies must serve a wide variety of customers who have widely divergent and even contradictory demands and because the general public remains a ‘hidden customer’ with yet additional, often incompatible demands, government agencies often have to deliver a service or product that reflects an uneasy compromise.

**2. Services versus Products.** A major focus of TQM is on the improvement of work processes such as those found in manufacturing. The application of TQM is problematic because services are more labor intensive and can lack a uniformity of output, which means that the consumer will evaluate the service not only on the result, but also on the behavior and even the appearance of the person delivering it. Accordingly, quality measures for governmental services are extremely complex.

**3. Focusing on Inputs and Processes.** The government organization manages its inputs and processes to the relative neglect of outcome. Government has traditionally paid relatively little attention to outputs for many reasons: Outputs are politically controversial and difficult to measure; legislators are primarily concerned with inputs such as budgets; bureaucratic prestige often accrues from control of inputs; and legal requirements often demand constant attention to strict procedural rules.

**4. Government Culture.** It is widely accepted that TQM must begin at the top of the organization and have top management's full support and participation. One of the principle reasons for emphasizing top management's commitment is the need to gain and maintain constancy of purpose through the organization. A major attribute of government, however, is the relatively high turnover in top management making its culture 'weaker' than most businesses and therefore, less likely to maintain the constancy of purpose required by TQM. Government fails to adopt a single model of TQM. Rather, an 'eclectic' approach arises that lacks uniformity. Senior leaders who initiate TQM activities are likely to 'do their own thing.' Under such circumstance, it is difficult to obtain consistency across the system. (Swiss 1992, 356)

Further, many companies in the industrial sector undertake TQM to improve their bottom lines by increasing market share by improving quality. Increased market share means new customers and new revenues. Generally, increased revenue enables companies to hire employees and purchase equipment as necessary to ensure that supply keeps up with demand. Government agencies typically operate just the opposite. The more customers the government organization has, the less money is available to provide the service. "As the government service organization gains efficiency in the delivery of services as a result of TQM, it expands the customer base by providing services to those citizens who needed services but who were too far down the line on the waiting list to

obtain them. Typically, this expansion occurs without a correlated expansion in revenue” (Rago 1994, 63).

The central question, then, is “Can TQM be ‘picked-up’ from its industrial-based origin and ‘put-down’ in a government sector organization and continue to function as if nothing has changed?” (Rago 1994, 64). Despite some major problems, Swiss (1992) states that a great deal is worth saving in TQM. If introduced without overselling and with sensitivity to government's unique circumstances, TQM can make a useful contribution to contemporary public management (Swiss 1992). Viewing the government organization from a different point of view, Rago (1994) argues that the problems of translating TQM into the government sector have less to do with the applicability of the central concepts of TQM, than the unique environment of government. The most significant challenger of applying TQM in government is its political culture and the unmet needs of an unlimited supply of customers. “Yet, even in the presence of these problems, it would be a mistake to believe that TQM cannot be successfully integrated into the government organization” (Rago 1994, 64).

Despite these concerns, it is obvious to many practitioners that TQM is very much alive in government (Berman and West 1995, Rago 1994, Swiss 1992). The Clinton administration strongly supports implementation of TQM in the federal government. More formally known as the National Performance Review, TQM initiatives have been implemented in virtually every agency of the federal government. With a consistent push from the top, each of the services within the Department of Defense have attempted to institutionalize TQM. The Army, for example, requires that every one of its installations

to conduct an annual organizational self assessment based on the comprehensive Baldrige-based criteria. At the municipal government level, a recent study reported that 68.5% of randomly selected cities in the U.S. claim to be using TQM in at least one function in their jurisdiction (Berman and West 1995).

The literature also suggests, however, that we know very little about the extent of TQM implementation in government. Berman and West (1995) suggest that this is because many existing accounts are largely based on anecdotal evidence and have an advocacy orientation. In contrast, an important aspect of this study is to provide a systematic and balanced assessment of TQM through the perceptions, values, and beliefs of an organization's senior leaders.

#### Total Quality Summary

Fundamental organizational change cannot take place unless the senior leadership of that organization deeply feels that there is a need to make a change. Then they must convey this "sense of urgency" to everyone else in the organization, which is hard to do at any time, and even harder to do if things appear to be going well. Government organizations are reported by many scholars to be less sensitive to a need for change than private sector organizations because of the monopolies they enjoy and because the sponsors of their work and users of their products and services are not always the same. The concept of "customer" is a difficult one for many government agencies to embrace because they do not have customers in the same sense that businesses do (Kidder and Ryan 1996). Nonetheless, TQM is very much alive in government today.

## Chapter Summary

The intent of this chapter was to provide a review of the relevant literature in order to establish the broad theoretical framework for the study. The review addressed three major areas: organizational theory, organizational culture, and the quality paradigm.

Organizational theories relevant to this study focus on structure, characteristics, and bureaucratic frameworks. Organizations are highly complex constructs that exist to serve an endless variety of purposes. Bolman and Deal's (1984) and Birnbaum's (1992) models grouped major organizational theories into four categories or "frames" and is useful for gaining insights into how members of organizations communicate, relate, make decisions, and solve problems. The symbolic frame is of particular interest to this study in that it underscores the importance of organizational culture, focusing on the non-rational aspects such as artifacts, values, and underlying basic assumptions.

Organizational culture was examined from a sociological and organizational behavior perspective. It is a concept roughly analogous to individual personality and similarly, develops over a long period of time. The central theory of organizational culture evolves around the concept of a pattern of basic assumptions that a given group have developed to respond to the organization's relationship with its external environment and with activities concerning internal integration. Schein's definition of culture is most appropriate for use in this study as it spans the theoretical underpinnings of the disciplines of anthropology, sociology, and organizational behavior. Schein's cultural hierarchy offers that cultural variables can be arranged into a tiered hierarchy consisting of artifacts, values and beliefs, and underlying assumptions. Popular works that emerged in the 1980s

such as Peters and Waterman's In Search of Excellence espouse that understanding and shaping corporate culture is a critical component to organizational performance. In short, culture is formed, embedded, and changed through the assumptions, values, and behaviors of the groups as well as through the influence of organizational leaders.

Total quality management concepts central to this study include the underlying philosophy, public sector perspectives, role of senior leadership, and relationship with culture. TQM is very much alive in both the private and public sectors. It has been touted as a challenge to conventional management techniques and to the theories that underlie them. TQM cannot simply be "grafted" onto existing management structures and systems. If its benefits are to be fully realized, then organizations need to prepare themselves for organizational-wide change. Some endorsements of TQM suggest that it can be transferred from the private sector to the public sector with very little modification. Others, in contrast, assert that TQM is ill-suited for government agencies primarily due to the absence of competition and lack of a clear identification of organizational customers.

Chapter III, Analysis, builds upon the theoretical foundation established in the review of scholarly literature provided in this chapter. It identifies the conceptual framework which relates more directly to the research questions of this study. While this chapter is rather broad and general, Chapter III, in contrast, is relatively more detailed and specific, focusing on organizational change concepts.

## **CHAPTER III**

### **ANALYSIS**

#### **Overview**

Chapter I established the framework for the study in which the statement of the problem and an overview of the study were provided. Chapter II provided a review of relevant literature to establish a broad theoretical framework in terms of organizational theory, organizational culture, and the quality paradigm. The purpose of this chapter is to provide insights into the theoretical underpinnings of organizational change. The importance of this section is that it establishes a useful framework for addressing each of the research questions. The very essence of this study is the impact of organizational culture in facilitating or resisting organizational change. In general terms, *organizational change* involves an attempt to alter the current way of thinking and acting by members of the organization. More specifically, *strategic change* involves an attempt to change current modes of cognition and action to enable the organization to take advantage of opportunities or to cope with environmental changes. While organization change has received significant study over the years, the distinctive character of strategic change remains significantly understudied. In particular, the role of "senior leaders" in leading change has not been adequately addressed. The framework provided in this section, then, is particularly relevant to this study. It is beyond the scope of this chapter to attempt to summarize the extensive literature concerning organization change. Instead, four

perspectives of particular concern to this study are examined. The first perspective, continuing with the film making analogy, is a "long shot" and provides relevant background material concerning organizational change theory. The second perspective provides a "medium shot" and discusses change in the public sector. The third and fourth perspectives provide "close-up shots" that are especially relevant to this study and address the role of senior leaders in implementing strategic change.

### **Organizational Change Theory**

Change is the one constant in organizational life today. How organizations manage change is of primary interest to senior business executives striving to make their organizations more competitive in an increasingly tough global marketplace. Conventional business thinking suggests that implementing organizational change is an inexact science, requiring unique and charismatic CEO leadership to be successful. Others argue that it can be undertaken only in organizations where risk taking and high levels of employee initiative and ownership are already embedded deep in the culture (Trahant and Burke 1996). The complexity of political, regulatory, and technological changes confronting most organizations has made organizational change and adaptation a central issue of the 1990s (Greenwood 1996). The ability to cope with often dramatically altering contextual forces has become a key determinant of competitive advantage and organizational survival (D'Aveni 1994).

Explaining how and why organizations change has emerged as a central and enduring quest of scholars in management and many other disciplines. "The processes or sequences of events that unfold in these changes -- such as transitions in individuals' jobs and careers, group formation and development, and organizational innovation, growth,



reorganization, and decline -- have been very difficult to explain, let alone manage" (Van de Ven and Poole 1995, 510). Management scholars have gained insights into how organizations change by borrowing from many theories, concepts, and metaphors from other disciplines ranging from sociology to human development and evolutionary biology. Some of the more contemporary theories include the concepts of punctuated equilibrium, organizational life cycles (stages of growth and processes of decay), functional models of change and development, and chaos theory. This variation among emerging concepts has created a "theoretical pluralism" that has offered new ways to understand and explain organizational change and development processes (Van de Ven and Poole 1995). This same diversity of theories, however, often encourages compartmentalization of perspectives among the various disciplines that do not enrich each other and tend to produce isolated lines of research (Gioia and Pitre 1990).

It is the interplay between different perspectives that helps one gain a more comprehensive understanding of organizational life, because any one theoretical perspective invariably offers only a partial account of a complex phenomenon. Moreover, the juxtaposition of different theoretical perspectives brings into focus contrasting worldviews of social change and development. Working out the relationships between such seemingly divergent views provides opportunities to develop new theory that has stronger and broader explanatory power than the initial perspectives. (Van de Ven and Poole 1995, 511)

On the basis of an extensive interdisciplinary review of literature, Van de Ven and Poole offer four "families" of basic type theories that explain how and why change occurs in organizations: 1) life-cycle, 2) teleological, 3) dialectical, and 4) evolutionary theories (Table 3.1). They contend that all specific theories of organizational change can be built from one or more of the four basic types. Although some theories can be reduced to one

or more of these families, most are predicated on the interplay of two or more of them. Van de Ven and Poole's framework is useful in several ways. It is a step toward more parsimonious explanations of organizational change. It uncovers similarities in seemingly different theories of change. The framework also supports inductive research by identifying characteristics of the four families and the conditions under which they operate. Rather than working from preconceived change theories, we can test the existence of the primitive motors (families) in order to see which fits the complex phenomenon being examined. "This testing helps to prevent the self-fulfilling prophecies that may occur

**Table 3.1 FAMILIES OF IDEAL-TYPE THEORIES OF CHANGE**

Source: Van de Ven and Poole 1995

Family	Life Cycle	Evolution	Dialectic	Teleology
Members	Developmentalism Metamorphosis Stage & cyclical models	Darwinian evolution Mendelian genetics Punctuated equilibrium	Conflict theory Pluralism Collective action	Goal setting Functionalism Symbolic interaction
Pioneers	Comte, Spencer, Piget	Darwin, Mendel, Gould & Eldridge	Hegel, Marx, Freud	Mead, Weber, Simon
Key Metaphor	Organic growth	Competitive survival	Opposition, conflict	Purposeful cooperation
Logic	Imminent program Prefigured sequence Compliant adaptation	Natural selection among competitors in a population	Contradictory forces Thesis, antithesis, synthesis	Envisioned end state Social construction Equifinality
Event Progression	Linear & irreversible sequence of prescribed stages in unfolding	Recurrent, cumulative, & probabilistic sequence of variation, selection, & retention events	Recurrent, discontinuous sequence of confrontation, conflict, & synthesis between contradictory values or events	Recurrent, discontinuous sequence of goal setting, implementation, & adaptation of means to reach desired end state
Generating Force	Prefigured program/ rule regulated by nature, logic, or institutions	Population scarcity Competition Commensalism	Conflict & confrontation between opposing forces, interests, or classes	Goal enactment consensus on means cooperation/ symbiosis

when a researcher expects a certain number of stages of development or a certain process, it is too easy to find evidence in complex processes for whatever one expects and therefore to ignore other motors" (Poole 1981). The next few paragraphs describe the four families in their pure ideal-type forms. As previously mentioned, scholars often combine elements of these ideal types to explain observed processes of change in specific areas or contexts. In such cases, it is very easy for the conceptual basis of specific theories to become obscure (Van de Ven and Poole 1995).

### Life-Cycle Theory

Many organizational change theorists and management scholars have adopted the metaphor of organic growth as a heuristic device to explain development in an organizational entity from its initiation to its termination (Van de Ven and Poole 1995). Examples include the often-used references to the life-cycle of organizations and products as well as stages in the development of individual careers: startup births, adolescent growth, maturity, and decline or death. Life-cycle theories include developmentalism (Nisbet 1970), human development (Levinson 1978) organizational development (Kimberly and Miles 1980), and group decision making stages (Bales and Strodtbeck 1951). According to Van de Ven and Poole, next to teleology, the life-cycle theory "family" is the most common explanation of organizational change in the management literature.

The assumption of the Life-Cycle Theory "family" is that change is imminent -- the developing entity has within it an underlying form, logic, program or code that regulates the process of change and moves the entity from a given point of departure toward a

subsequent end that is prefigured in the present state. That underlying form over time becomes progressively more realized, mature, and differentiated. External environmental events and processes can influence how the entity expresses itself, but they are always mediated by the immanent logic, rules, or programs that govern the entity's development (Van de Ven and Poole 1988). The typical life-cycle model's progression is a unitary sequence (it follows a single sequence of stages or phases), which is cumulative (characteristics acquired in earlier stages are retained in later stages) and conjunctive (the stages are related such that they derive from a common underlying process) (Van de Ven and Poole 1995).

### Teleological Theory

This family of change theories relies on the philosophical doctrine that purpose or goal is the final cause for guiding movement of an entity. This approach is the basis for many organizational change theories, including functionalism (Merton 1968), decision making (March and Simon 1958), social construction (Berger and Luckmann 1966), adaptive learning (March and Olsen 1976), and most models of strategic planning and goal setting (Chakravarthy and Lorange 1991).

The essence of the teleology family is that the development of an organization is toward a goal or an end state. The assumption is that the organization is purposeful and adaptive -- by itself or in interaction with others, the organization constructs an envisioned end state, takes action to reach it, and monitors the progress. "Thus, proponents of this theory view development as a repetitive sequence of goal formulation, implementation, evaluation, and modification of goals based on what was learned or intended by the

organization" (Van de Ven and Polle 1995, 516). Even though the organization reaches its goal, it does not mean it stays in equilibrium. Goals are socially reconstructed and enacted based on past actions (Weick 1979). Instabilities may be created from influences in the external environment or within the organization itself that push it toward a new development path. The myriad theories that rely on a teleological process cannot specify what trajectory the development of the organization will follow (Van de Ven and Polle 1995).

### Dialectical Theory

The basis for dialectical theory is the assumption that the organization exists in a pluralistic world of colliding events, forces or contradictory values that compete with each other for domination and control. These oppositions may be external as it pursues directions that collide with the direction of other organizations or internal to the organization because it may have several conflicting goals or interest groups competing for priority. ". . . a dialectical theory requires two or more distinct entities that embody these oppositions to confront and engage one another" (Van de Ven and Poole 1995, 517). Stability and change are explained by reference to the balance of power between opposing entities. Organizational stability occurs when struggles and accommodations maintain status quo between oppositions. In contrast, change occurs when these opposing values, forces, or events gain sufficient power to confront and engage the status quo.

## Evolution Theory

The evolution family of theories focuses on cumulative changes in structural forms of populations of organizational entities across communities, industries or society at large. Just as in biological evolution, evolution theory change evolves through a continuous cycle of variation, selection, and retention. Variations are defined as creations of novel forms of organizations that emerge by blind or random chance -- they just happen (Aldrich 1979). Selection occurs through the competition for scarce resources and the environment selects entities that best fit the resource base of an environmental niche (Hannan and Freeman 1977). "Retention involves forces (including inertia and persistence) that perpetuate and maintain certain organizational forms. Retention serves to counteract the self-reinforcing loop between variations and selection" (Van de Ven and Poole 1995, 518). Variations stimulate the selection of new organizational forms while retention maintains previous forms (Weick 1979).

Some scholars argue that there is a basic distinction between Darwinian evolution and punctuated equilibrium theory. Darwinian theorists emphasize fundamental change occurring through a continuous and gradual process of evolution. In his The Origin of Species (1936), Darwin writes "as natural selection acts solely by accumulating slight, successive, favorable variations, it can produce no great or sudden modifications; it can act only by short and slow steps." Other evolutionists, such as Gould and Eldridge (1977) and Tushman and Romanelli (1985), argue a saltation theory of evolution such as punctuated equilibrium. "Whether change proceeds at gradual versus saltation rates is an empirical matter . . . the rate of change does not fundamentally alter the theory of

evolution (as it has been adopted by organization and management scholars)" (Van de Ven and Poole 1995, 519).

### The Interaction of Motors of Change

Each of the ideal-type family of theories describes a generative mechanism or *motor of change*. "Hybrid change theories" are formed, in effect, from a combination of these motors. "The simplest form of combination is to determine which of the generating mechanisms underlying the four ideal types are evident or in operation in a given applied theory of organizational change in the literature. By specifying the presence or absence of the four motors in a given situation, an array of possible explanations of organizational change becomes apparent" (Van de Ven and Poole 1995, 527). For example, Tushman and Romanelli's (1985) punctuated equilibrium model of organizational change involves two generating mechanisms -- the interaction of teleological and evolutionary motors. Their model can be viewed as a product of alternating cycles in the operation of an evolutionary motor of change at the population level for relatively long convergent periods, punctuated by relatively short and infrequent operations of a teleological motor of change by top managers at the organizational level. During the long convergence period, an evolutionary process of competitive selection works to elaborate the structures, systems, controls, and resources of organizations toward increased environmental co-alignment. The reorientations represent periods of discontinuous change where an organization's strategies, power, structure, and systems are fundamentally transformed by realignment toward the purposeful actions of executive leaders (Tushman and Romanelli 1985). In their model, Tushman and Romanelli use time as the avenue for incorporating

both evolutionary and teleological motors to explain organizational change. "Purposeful enactment by top managers is used to explain the creative process of occasional organizational reorientations, whereas prescribed evolutionary processes explain long periods of organizational convergence with its environment . . . in no instance should one expect to find both motors of change operating at the same time in a given organization because they are mutually exclusive" (Van de Ven and Poole 1995, 531). Their model, however, does not specify the interaction between the two motors in much detail and it is unclear what sparks the transition from the transformational period to the convergence period and vice versa.

#### Usefulness of the Four Families of Ideal-Type Theories of Change Model

Van de Ven and Poole's change model contributes to this study in several respects. It offers a comprehensive framework for understanding and offering a coherent explanation of the wide variety of organizational change theories. The complexities of organizational change can be analyzed as the interplay among the four families of ideal-type theories. "This interplay makes it possible to discern commonalities among a broad range of specific theories that might be otherwise be overlooked" (Van de Ven and Poole 1995, 533). Secondly, their model provides a foundation for empirical research. ". . . it is not always clear from the outset what forces are influencing a complex change process . . . if it is true that the interplay of multiple forces often drives change, then conducting research with a simple a priori theory in mind actually may impede adequate explanation. The researcher may look only for indicators of that particular theory, ignoring other possible explanations" (Van de Ven and Poole 1995, 533).



### **Change in Public Sector Organizations**

This section is especially relevant since the research site for this study is a large, public sector institution. The focus of this discussion concerns an important question: "Can planned organizational change efforts in public sector organizations be as successful as those in private sector organizations?" A review of the literature reflects some ambiguity regarding this question. Much of this ambiguity is based on the question of whether or not they differ from private organizations in ways that would limit the effectiveness of change interventions such as TQM. Traditionally, the perspective has been that key differences between the two sectors have important implications for the likelihood of successfully implementing a program of planned change (Robertson and Seneviratne 1995). The characteristics of public sector organizations most often noted in the literature include the absence of market incentives, the existence of multiple, conflicting goals, and a political context with a broader range of constituent groups, higher levels of accountability, and more rules, regulations, and bureaucratic constraints (Meyer 1982).

Private sector organizations are primarily driven by market or consumer preferences. As such, change interventions are more readily measured in terms of efficiency and profitability. Change initiatives can be implemented and assessed using these narrow criteria as the primary basis for evaluating their success, possibly making it easier for these efforts to be successful. In the public sector, in contrast, there are more different and more varied criteria by which to assess organizational effectiveness. ". . . public sector organizations may find it more difficult to use planned change interventions effectively, because the primary goal of these efforts will not be as straightforward or as

consensually supported" (Robertson and Seneviratne 1995, 548). The difficulty of successfully implementing change may also be increased by the presence of a variety of important constituent groups, all of whom want to influence organizational activity (Golembiewski 1985). "More time is spent lobbying for an intervention in the public sector than in private organizations, where more effort is expended actually implementing the changes. Furthermore, the divergence of personalities and institutional cultures tied to the multiple constituents make it more difficult to achieve unity of purpose for which TQM strives" (Robertson and Seneviratne 1995, 548). Many public organizations are also subject to a greater range of rules, regulations, and procedures fixed by the authority of a superior body (Rainey 1983).

Designed to hold organizations accountable for a broad range of objectives, they frequently lead to rigid bureaucratic structures that can inhibit effective organizational change. Such elements as civil service systems, inflexible reward systems, specialized and invariant job designs, highly formalized processes and procedures, and strict reporting requirements yield centralized, bureaucratic hierarchies that are much different from many organizations in the private sector. Furthermore, the values and assumptions underlying the design of these mechanistic organizations may be fundamentally incongruent with those on which organizational development is based. (Cummings and Huse 1989)

Getting whole-hearted leadership support for the change process may also be difficult given the highly political nature of the public arena. For example, "public organizations are often characterized by complex command linkages that involve competing identifications and affiliations, as well as by weak linkages between political and career level leaders" (Golembiewski 1985). The impact of these factors is that consensus among the organizational leadership is impeded concerning the necessity or relative importance of the change initiatives. In addition, there is often little commitment to long-term change

interventions such as TQM when senior public officials change positions every four to six years (Appleby 1978). The viability of long-term interventions in public sector organizations is reduced without consistent, dedicated leadership support. The result, typically, is the more frequent use of short-term change efforts that may not have as much impact as long-term designs (Robertson and Seneviratne 1995).

The arguments thus far have been based largely on the assumption that there are distinctive and consistent differences between public and private sector organizations. Robertson and Seneviratne (1995) offer that these generalizations simply do not hold true for all public organizations and that there is, undoubtedly, a broad range of variation in terms of these characteristics.

. . . many public organizations are adopting decentralized structures, network and team-based arrangements, and customer-oriented approaches. . . recent analyses of the distinctions between public and private organizations indicate that the two sectors are not as dichotomous as is often suggested. . . the boundaries between the sectors are blurring with implication that nay claims regarding a distinctive set of features of public organization are not justified. (Robertson and Seneviratne 1995, 548)

Three studies have specially addressed the issue of whether planned organizational change could be equally successful in both private and public section organizations. Golembiewski, Proehl, and Sink (1981) examined 547 change interventions implemented between 1945 and 1981. Their findings indicated that public sector interventions, which constituted 47 percent of the programs reviewed, displayed a pattern of results very similar to the private sector programs. Park (1991) studied the relative success of a single category of intervention, Quality Circles, in 154 organizations. He concluded that overall success rates were substantial in both sectors, but the highest

level of success was found more frequently in private sector cases and that private sector cases more frequently exhibited no positive change. A more recent study by Robertson and Seneviratne (1995) evaluated the impact of planned change interventions on seven categories of organization variables. Their findings suggest that, by and large, organizational change interventions are just as successful in both sectors. Their findings could be interpreted as suggesting that not all public organizations have significant bureaucratic barriers to improvement. "This would be consistent with the notion that there are important variations among public organizations, with some no longer reflecting all the bureaucratic characteristics that historically have been ascribed to them. While planned change applications should always be tailored for the specific organization and its unique features, it could be that some types of interventions may be more or less effective in public settings" (Robertson and Seneviratne 1995, 555).

### **Role of Senior Leadership with Organizational Change**

This section is relevant to the study in that it provides a "close-up" shot -- the interaction of senior leadership and organizational change. It develops a framework for understanding the primary role senior leaders play in bringing about strategic change from the perspectives of *sensemaking* and *sensegiving*. It also examines why some senior leaders might be open-minded about change while others are more committed to the status quo.

Management literature indicates that many organizations do not adapt effectively to changes in their environments. While this strategic "maladaptation" can occur for a variety of reasons, theorists tend to focus on organizational inertia as an underlying

phenomenon. Inertial forces include bureaucratic control, internal political and cultural constraints, external restrictions, and even sunk costs in specific ways of conducting business (Hannan and Freeman 1977). Much of the literature also focuses on overcoming employee resistance to change (Kimberly and Quinn 1984). Evidence also exists that senior leaders themselves are not uniformly open-minded about change (Hambrick et al. 1993). In their study of organizations in crisis, Starbuck, Greve, and Hedberg (1978) argue that some top managers have great difficulty formulating or executing change even when their organizations are collapsing around them. ". . . top executives seem to figure prominently in an organization's propensity for either inertia or change" (Hambrick et al. 1993, 402). While organizational change has received significant study, the role of senior leadership in implementing change has not been adequately described.

*Organizational change* is defined, in general terms, as an attempt to alter the current way of thinking and acting by members of an organization. *Strategic change*, more specifically, involves an attempt to change current modes of cognition and action to enable the organization to take advantage of important opportunities or to cope with consequential environmental threats (Hambrick et al. 1993).

### Sensemaking and Sensegiving

What is the role of an organization's senior leadership in setting the stage and actually launching strategic change? At a basic level, any substantive change leads to the alteration of existing value and meaning systems (Gioia 1986). "Given that strategies often reflect the values of top managers, an initial focus is on the values or meaning system of the CEO him- or herself" (Quinn 1980, 86). The senior leadership, as well as

everyone in the organization, needs to understand any intended change in a way that "makes sense" or fits into some revised interpretive scheme or system of meaning. The senior leaders must first develop a sense of the organization's internal and external environment and define a revised conception of the organization through a process that is labeled as *sensemaking*. An abstract "vision" of the changed organization emerges from this interpretive activity and is disseminated by the senior leadership to stakeholders through a process labeled as *sensegiving*.

The sensegiving activities of senior leaders suggests that instability is created in members' ways of understanding the organization and necessitates that they make some new sense of it (Poole et al. 1989). When existing interpretative schemes are disconfirmed, some sort of revised schemes take their place. As senior leaders articulate and advocate their preferred interpretive scheme for the stakeholders of the organization, the stakeholders, in turn, begin a process of their own sensemaking. "Given that change efforts seldom happen by decree, but often hinge on consensus-building, a round of negotiated social construction is likely" (Berger and Luckman 1966, 98). Stakeholders try to negotiate revisions to the proposed change intervention and attempt to influence either the need for change or the shape of it. This process becomes another sensegiving activity, but this time from the stakeholders to the senior leadership.

As a result of the sensemaking and sensegiving efforts, the original abstract vision is likely to become more well-defined and undergo some modification -- at least concerning the processes used to achieve it. . . the launching of a strategic change effort represents a critical time when several important processes that guide the entire change venture begin to coalesce. . . strategic change can be viewed as a process whereby the CEO makes sense of an altered vision of the organization and engages in cycles of negotiated social construction activities to influence stakeholders and constituents to accept that vision. (Gioia and Chittipeddi 1991, 434)

In sum, the role of senior leaders in leading change might best be seen as one that involves calling into question an obsolete interpretive scheme, framing a new interpretive scheme in understandable terms, and providing guidance for action and exerting influence to accomplish the desired change. The role of senior leaders can, therefore, be seen as architects, assimilators, and facilitators of strategic change (Gioia and Chittipeddi 1991). The interpretation of a change intervention and the acts of sensemaking and sensegiving constitute key aspects of senior leadership's role in leading change.

### Senior Leader Commitment to the Status Quo

Executive commitment to the status quo is significant to the field of organizational change and provides a "close-up shot" in this study. "If top executives are often obstacles to change, then an understanding of what causes such resistance, or commitment to the status quo is of paramount importance for strategy and organization researchers" (Hambrick et al. 1993, 415). Commitment to the status quo is defined as a belief in the enduring correctness of current organization strategies and profiles. The essence of what this section focuses on is in gaining insights into the question: "What causes some executives to be more open-minded about change and others to be more committed to the status quo?"

Hambrick and Mason (1984) argue in their "upper echelons theory" that senior leaders act on the basis of their psychological orientations -- values, cognitions, and beliefs. This logic contends that complex decisions are largely the outcomes of behavioral factors rather than attempts to achieve economic optimization (March and Simon 1958). Relatively unexplored, however, is the idea that senior executives may

differ in their commitment to the status quo. Some senior leaders seem to become “psychologically hamstrung” by *what is*; others are more able to incorporate divergent or untested ideas about *what might be*. Senior leaders may not only differ on this continuum, but a given executive may change his or her commitment to the status quo, depending on industry, organizational or personal factors (Hambrick et al. 1993).

At Figure 3.1 is Hambrick, Geletkanycz, and Fredrickson’s framework for examining determinants of senior leader commitment to the status quo. They offer four propositions in this regard:

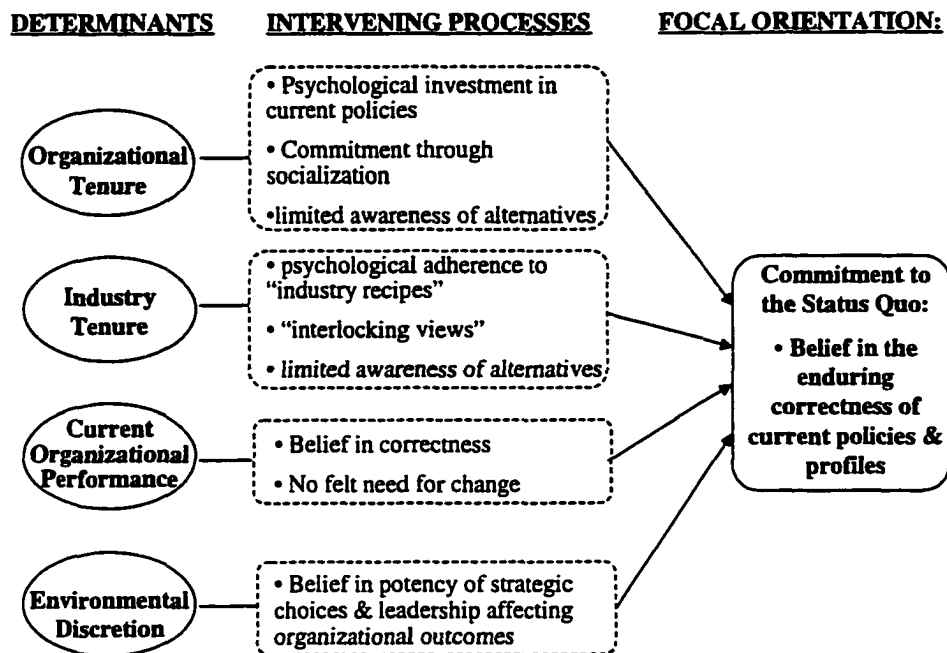
1. The longer a senior executive’s tenure in the organization, the greater his or her commitment to the status quo.
2. The longer a senior executive’s tenure in the industry, the greater his or her commitment to the status quo.
3. The greater the organization’s current performance, the greater the executive’s commitment to the status quo.
4. The positive association between current performance and the executive's commitment to the status quo will be greater in high-discretion than in low-discretion industries.

**Effect of Tenure in the Organization.** As individuals spend time, succeed, and move up in an organization, they become convinced of the correctness of the organization’s ways (Wanous 1980). “Senior executives with long tenures, in particular, have a great deal invested, psychologically and tangibly, in the status quo” (Hambrick et al. 1993, 404). Individuals such as these have generally struggled for years to achieve their senior positions, their abilities have proven to be appropriate for the organization’s *current* form, and they typically are deeply established in their social communities (Vancil 1987).



Not only may long-tenured executives prefer the status quo, but they also may come to know little beyond it. Long-term acculturation creates a common, internally-shared perspective, making it difficult to consider alternative views. As tenure mounts, an executive develops habits, establishes routine information sources, and tends to develop a refined repertoire of responses to external and internal stimuli. (Hambrick et al. 1993, 404)

In short, senior leaders with long-term tenures in organizations may have difficulty envisioning anything but the status quo.



**Figure 3.1 DETERMINANTS OF SENIOR LEADER COMMITMENT TO THE STATUS QUO**  
Source: Hambrick, Geletkanycz and Fredrickson 1993

**Effect of Tenure in the Industry.** Long-term tenure in industry is a broader version of the same phenomenon as organizational tenure. The literature suggests that norms exist and that executives tend to adhere to them (Hambrick et al. 1993). Goodman's (1988) study of three industries concluded that a well developed "industry knowledge" had been developed which long-tenured executives had great difficulty setting aside. Likewise,

Hambrick (1982) concluded in a similar study that a common body of knowledge appears to exist within an industry that is disseminated through media equally available to and used by executives within the industry. The result of long-term industry tenure is a social setting in which events, trends, and concepts are interpreted and shared to produce a “social construction of reality” (Burrell and Morgan 1979). “Individuals that have participated in its construction for the longest time and are most convinced of its correctness” (304).

**Effect of Organizational Performance.** It is generally accepted in organizational change literature that people will not be receptive to change unless they are dissatisfied with the current situation (Kimberly and Quinn 1984). Hambrick (1993) argues that the same can be expected of senior leaders as well. “As long as the organization is performing well, the senior executive will tend to be committed to the status quo. As performance shortfalls occur, he or she engages in ‘problemistic search’ seeking a satisfactory solution to the deficiency at hand” (405). Acceptable performance induces a confidence in the status quo, while poor performance erodes such confidence (Starbuck and Milliken 1988). A study by Pettigrew (1985) found that awareness among senior leaders of environmental change existed long before any corresponding organizational changes were considered, much less taken. “Only after performance was severely affected, did top managers change their strategy” (40).

**Effect of Discretion.** Senior leaders differ significantly in how much discretion or latitude of action, they possess. Hambrick and Finkelstein (1987) offer that, depending on the environmental, organizational, and managerial factors, an organization's future

may lie totally outside the control of its senior leaders, lie completely within their control, or, more typically, somewhere in between. "Accordingly, an executive's discretion can be expected to moderate the association between organizational performance and his or her commitment to the status quo" (Hambrick and Finkelstein 1987, 406).

Senior leader discretion is typically defined by the organization's environment. The nature of environments or industries is that some simply allow more variety and change than others. For senior leaders in low-discretion situations, there is not a strong connection between current performance and a belief in the correctness of current organizational strategy and leadership profiles. In such a situation, organizational performance, be it high or low, is the result of "uncontrollables" such as the environment or the organization's confining history (Hambrick et al. 1993). "Conversely, for the executive in a high-discretion situation, a close relationship is perceived between organizational performance and managerial actions. In this situation, poor performance sends a relatively clear signal to the executive that the organization needs to change, while high performance is a sign of correctness of current approaches" (Hambrick et al. 1993, 406).

### Summary

Examining the perspective of senior leadership's commitment to status quo provides important insights into organizational change and offers an explanation as to how resistance to change at the senior leader level may occur. Hambrick suggests that future studies should attempt additional means, such as scaled psychometric and qualitative approaches, for gauging senior leaders commitment to the status quo. Further, he states that asking senior leaders to rate their degree of satisfaction as well as other con-

structs, may provide insights beyond those contained in the body of knowledge. This study attempts to do just that.

### **Cognitive Change**

An important component of senior leader behavior in rapidly changing environments is problem sensing -- the cognitive processes of noticing and constructing meaning about environmental change so that organizations can take action (Kiesler and Sproull 1982). Environmental changes can prompt changes in interpretative schemes or "cognitive models of the world." The cognitive processes of noticing and constructing meaning offer important insights into the phenomenon of organizational change. The "mental models" of senior leaders both facilitate and limit attention the salient information about changes in organizational environments. "Mental models help individuals cope with an overabundance of available stimuli, but strongly held mental models may lead managers to over look important environmental changes so that appropriate action at the organizational level is not taken" (Hall 1984, 905).

### **Roles Played by Mental Models**

Simon (1955) noted that "individuals have limited data processing capabilities, yet these limited capabilities must be used to process vast amounts of ambiguous data" (99). Senior leaders rely on simplified representations or "mental models" to make sense of the world (Kiesler and Sproull 1982). Defined as an "aggregate of interrelated information" (O'Keefe and Nadel 1978), mental models consist of concepts and relationships an individual uses to understand various situations and environments (Weick & Bougon 1986).

Given human frailties as information processors, mental models allow individuals and organizations to make sense of their environment and act within. The problem, of course, is that mental models may be or become, inaccurate. Given cognitive limitations, mental maps will always be incomplete, inaccuracy may increase, however, as environments change. (Barr et al. 1992, 16)

Barr, Stimpert, and Huff (1992) note that mental models can exacerbate a mismatch between data availability and information processing in three important ways:

1. **Mental models determine what information will receive attention.** Senior leaders may recall only the elements or features of a stimulus situation that is most prominent in their mental models. It can be expected then, that they tend to focus their attention on environmental changes that are most salient to or offer support for, their current mental models, while other important changes in the environment may not be recognized.
2. **Stimuli gaining attention tend to be interpreted in relation to the individual's current mental model rather than seen as a signal of needed change.** Even if events growing out of a changing environment are noticed, then managers may not perceive a need for strategic renewal.
3. **Mental maps direct action.** Just as mental models selectively limit information attended to and similarly slant how this information is interpreted, existing mental maps will also limit the range of alternative solutions to the issues that have been identified. (Barr et al. 1992, 17)

Many researchers suggest that mental models often fail to change in a timely manner in response to a changing environment and that inaccurate models are associated with deteriorating performance (Barr et al. 1992, Weick and Bougan 1986, Kiesler and Sproull 1982). Research shows, for example, that organizational decline is the result of significant changes in the environment that either go unnoticed, are improperly interpreted, or are addressed through inappropriate actions by senior leaders (Whetten 1988, Barr et al. 1992). The literature suggests that strategic organizational change requires that the senior management team not only notice changes, but that noticing must lead to new

understandings and the adoption of appropriate responses. A study by Barr, Stimpert, and Huff (1992) further suggests that *mental models* of senior leaders are a better predictor than *managerial characteristics* for assessing an organization's propensity for strategic change.

In sum, senior leaders' mental models must keep pace with changing environments. Even in situations where the environment is comparatively stable, organizations whose senior leaders' mental models fail to acquire important new concepts may severely handicap the organization over time. Conversely, leaders who learn to make timely adjustments in their mental models, may succeed in the challenge of strategic organizational change.

### Cognitive Framing

The cognitive theories discussed in this section offer insights into why fundamental organizational change such as TQM is often resisted and misunderstood by organizational members and, as a result, fails to be implemented. Pondy and Huff (1988) suggest that change interventions typically flounder because they are improperly framed by top managers. Reger et al. (1994) offers that initiatives such as TQM fail because they are presented as radical departures from the organization's past.

The cognitive structures of members, whose cooperation is necessary for successful implementation, constrain their understanding and support of the new initiatives . . . Our position is that thinking about total quality and organizational identity should drive how TQM is framed and reframed throughout the implementation process . . . It (change) should not be so radical that organizational members either fail to comprehend the change or perceive it to be unacceptable. (Reger et al. 1994, 566)

The cognitive perspective then, offers useful insights into sources of resistance to change. Further, self-concept theories shed light on the impact of change on an individual's *core identity constructs*. These constructs are central to a person's understanding of himself or herself and are the most difficult to change (Kelly 1955). Terms such as schemas, frames, and belief systems are used interchangeably to denote cognitive structures; they provide a construction of reality through which new information is interpreted and acted upon (Fiske and Taylor 1991). As discussed in Gioia and Chittipeddi's (1991) studies, managers use framing, a cognitive *sensemaking* of events, when they make decisions and *sensegiving*, in explaining decisions to organizational members. "Likewise, organizational members are active 'framers' as they attempt to make sense of change using cognitive frameworks that may or may not match those of upper managers" (Reger et al. 1994, 568).

Bartunek (1984) offers that it is difficult to change a schema once it becomes entrenched and results in "cognitive inertia." According to Huff, Huff, and Thomas (1992), inertia is "the tendency to remain with the status quo and the resistance to strategic renewal outside the frame" (56). "Cognitive inertia then, is the resistance to changes that deviate from existing schemas or frames" (Reger, et al. 1994, 568).

**Organizational Identity.** Analogous to the concept of core identity constructs, *organizational identity* is the set of constructs individuals use to describe what is central, distinctive, and enduring about their organization (Albert and Whetten 1985). According to Fiol and Huff (1992), these constructs are generally embedded in deeply ingrained and hidden assumptions. They conclude that organizational identity constructs were key to

understanding and managing processes in organizations and are likely to provide an inertial barrier to organizational change. Change interventions that are fundamentally different from those of an organization's members will be difficult for them to interpret and accept. Johnson (1988) argues that radical attempts to replace an old organizational identity with a new, fully formed one are much more likely to be met with resistance. "Organizational identity theory provides a compelling explanation for why total quality programs that attempt fundamentally to transform organizational identity often fail. According to this theory, fundamental paradigm shifts challenge the previously taken-for-granted assumptions about the core, distinctive, and enduring attributes that members admire about the organization" (Reger et al. 1994, 569).

**Personal Construct Theory.** Personal construct theory is particularly relevant for understanding how cognitive framing may impede fundamental change in organizations. According to this theory, people organize, simplify, and interpret the myriad data that confront them through finite sets of bipolar constructs and that these constructs are organized into systems of meaning that are used to develop theories or schemas about their environment (Reger et al 1994, Kelly 1955, Fransella and Bannister 1977). It is these schemas that guide individual action. Kelly (1955) offers that an individual's bipolar constructs not only organizes, but also restrict perceptions and thoughts. Personal construct theorists propose two general cognitive barriers that tend to resist fundamental change: a failure to comprehend and cognitive opposition.



TQM may introduce concepts that have little meaning to organizational members because the concepts are not part of their existing organizational identity schemas. After completing traditional TQM training, individuals may be able to provide an intellectualized report on TQM concepts. However, unless the training specifically established cognitive links between TQM concepts and the organization's core identity constructs, their level of understanding is likely to be superficial rather than deep understanding that is necessary for action. (Reger et al. 1994, 570)

Since schemas are composed of a finite set of constructs, individuals may be unable to comprehend fully the meaning of change. Cognitive opposition results from changes that are framed in concepts opposed to positively valued elements of organizational identity. Because constructs are bipolar, it is difficult for individuals to conceive of a concept fully embodying both characteristics that comprise a construct (Reger et al. 1994). Change interventions, such as TQM, are typically interpreted based on their similarities and differences with other management concepts.

Many of the concepts employed by management as justification for TQM programs may be in opposition to the positive pole of core constructs that make up the organization's identity. These opposing concepts are likely to trigger negative affective response such as anger, threat or even fear. Because opposing concepts directly challenge esteemed aspects of the core identity, the negative effect associated with cognitive opposition may be stronger and more hostile than the effect aroused by a failure to comprehend. (Reger et al. 1994, 572)

In summary, the concepts of cognitive framing provide a useful framework for understanding some of the barriers that may be encountered in implementing strategic change. If personal construct and organizational identity beliefs are ignored, they can act as significant barriers to the implementation of planned change. Conversely, if basic, underlying assumptions are surfaced and affiliated with change efforts, they can be powerful sources of leverage. Because there may be inconsistencies between TQM

fundamentals and an organization's core values, the need to consider cognitive framing theories is especially relevant.

### **Chapter Summary**

How organizations manage change is of primary interest to senior business executives striving to make their organizations more competitive in an increasingly tough global marketplace. The complexity of political, regulatory, and technological changes confronting most organizations has made organizational change and adaptation a central issue of the 1990s. The ability to cope with often dramatically altering contextual forces has become a key determinant of competitive advantage and organizational survival. Van de Ven and Poole's families of ideal-type theories of change provide a particularly useful theoretical framework for understanding the various change theories. Scholars often combine elements of these "ideal-types" to explain observed change processes in specific areas or contexts.

Change in the private sector is typically driven by market forces and more readily measured in terms of efficiency and profitability. The public sector, in contrast, may find it more difficult to implement change interventions due to rigid bureaucratic structures, highly formalized processes, and the values and assumptions underlying the design of mechanistic organizations.

The impact of senior leaders' commitment to the status quo is of particular importance to this study. If senior executives are themselves possible barriers to change, then an understanding of what causes such resistance or commitment to the status quo is of paramount importance. An important component of senior leader behavior in rapidly

changing environments is that of problem sensing -- the cognitive processes of noticing and constructing meaning about environmental change so that organizations can take action. Environmental changes can prompt changes in interpretative schemes or "cognitive models of the world." The cognitive processes of noticing and constructing meaning offer important insights into the phenomenon of organizational change.

Organizational theory, organizational culture, and the quality paradigm formed the broad theoretical framework of this study. Using the filming making analogy, an understanding of the theoretical underpinnings of the concepts of *organizational* and *strategic* change provide "a medium shot," that is, material that was more relevant and descriptive. Organizational change is the attempt to alter the current way of thinking and acting by members of an organization. Strategic change involves an attempt to change current modes of cognition and action to enable an organization to take advantage of opportunities or to cope with environmental changes. The next logical step in this study is for a "close-up shot." Having established a theoretical framework, what is now necessary to address the research questions of this study is to relate the separate pieces into a coherent model.

## **CHAPTER IV**

### **SYNTHESIS**

#### **Overview**

Chapter II provided a review of relevant literature to establish a broad theoretical framework in terms of organizational theory, organizational culture, and the quality paradigm. Chapter III subsequently built upon this theoretical framework and sought to identify important concepts that directly relate to the research. As such, insights into the theoretical underpinnings of organizational change were provided establishing a useful framework for addressing the research questions. Having examined the separate pieces of the problem in the preceding two chapters, the next logical step and the focus of this chapter is to relate the separate pieces into a model.

The model presented here, the Dynamic Reframing Model (Reger et al., 1994) brings focus to the theories presented thus far and relates directly to the purpose of the study -- to ascertain the impact of organizational culture in facilitating or resisting organizational change. Organizational change theories underlying the model suggest that people resist total quality initiatives because their beliefs about the organization's identity constrain understanding and create cognitive opposition to radical change. The basic premise of the Dynamic Reframing Model is that implementation of fundamental organizational change is largely dependent on management's ability to *reframe* the change over time. The model is particularly useful to this study in that it provides insights into

organizational culture and forms of resistance to change. The conclusion is that implementation of TQM may best be accomplished through a series of "middle-range" changes that are large enough to overcome cognitive inertia, but not so large that members believe the proposed change is unobtainable or undesirable (Reger et al. 1994, 565). Chapter V, Validation, follows this chapter providing a comprehensive description of the research methodology that was appropriate in responding to the research questions guiding this study. The intent of Chapter VI is to report the findings from data generated by the survey instruments to assess the organization's culture -- that is, the perceptions and beliefs of the "executive culture."

Management scholars and practitioners alike have sought a conceptual framework or model that incorporates the issues of human behavior, the concerns for improved functional performances within organizations, the need to improve quality and productivity in the workplace, and the very real need and desire to manage change within our institutions and organizations (Sparks and Dorris 1990). Reger, Gustafson, DeMarie and Mullane (1994) developed the model presented in this chapter which offers a conceptual basis for insights into the dynamics of organizational change. The goal of implementing total quality is at the heart of this model which is derived from the synthesis of several theories. Continuous quality improvement (Chapter II, pp. 67-82) is the model's focus as well as its underlying philosophy. Change theories (Chapter III), particularly *cognitive change* (pp. 110-112) and *cognitive framing* including *organizational identity* and *personal construct theories* (pp. 112-116), are essential conceptual components for realizing the focus and putting the philosophy into action.

### **Basic Assumptions of the Model**

The basic assumption of the Dynamic Reframing Model is that the implementation of total quality typically fails because it is improperly framed by the organization's senior leadership. TQM initiatives implemented as radical departures from the organization's identity fail because the cognitive structures of members, whose cooperation is necessary for successful implementation, constrain their understanding and support of the new initiatives. ". . . the current state of thinking about total quality and organizational identity should drive how TQM is framed and reframed throughout the implementation process . . . one of the key features that distinguishes TQM from other types of organizational changes is that successful implementation of TQM frequently results not only in redistribution of resources and power, but also in a paradigm shift that may bring into question members' most basic assumptions about the nature of the organization" (Reger et al. 1994, 566). For simplicity and clarity, the model assumes a shared culture - a strongly held view of organizational identity across members. This important assumption is analyzed in-detail using research site data in Chapters V and VI. Members of large organizations, to include its senior most leaders, may very well have distinct suborganizational identity beliefs that are internalized with varying degrees of conviction.

### **Theoretical Framework of the Model**

The basic theories relating to cognitive change are all predicated on the basic assumption that individuals actively construe their environments. It is through these theories that researchers try to make sense of perceptions based on existing beliefs and

knowledge structures (Reger et al. 1994). As referenced previously in Chapter III, managers use framing, a cognitive *sensemaking* of events, when they make decisions and *sensegiving*, in explaining decisions to organizational members (Gioia and Chittipeddi 1991). Organizational members are similarly *framers* as they make sense of changes in their environments using cognitive frameworks that may or may not fit those of their senior leadership. Accordingly, this framing occurs at all levels in an organization. People's construction of reality or *schema*, provide the frame through which they interpret new information. This schema integrates a person's prior knowledge as well as current information. "Schemas influence how new information is encoded, how old information is remembered, and how inferences are drawn in the event of missing information. Schemas focus the perceiver on current information that is consistent with prior knowledge" (Reger et al. 1994, 568). As might be expected, it is difficult to change a schema once it becomes entrenched. *Inertia* is "the tendency to remain with the status quo and the resistance to strategic renewal outside the frame" (Huff et al. 1992, 56) and "resistance to changes that run counter to a fundamental existing orientation" (Miller 1993, 117). "*Cognitive inertia* [italics added], then, is resistance to changes that deviate from existing schemas or frames" (Reger et al. 1994, 568). The significance of this theoretical framework is that a total quality initiative can only be understood by organizational members via interpretation through existing schemas and these are inherently difficult to change.

In developing the Dynamic Reframing Model, two key concepts are drawn upon and are related to cognitive framing theory: *organizational identity* and *personal construct theory*. As defined previously (p.113), *organizational identity* is the set of constructs individuals used to describe what is central, distinctive, and enduring about their organizations (Albert and Whetten 1985). These constructs are typically embedded in deeply ingrained and hidden assumptions and are used to interpret action. Actions in an organization that are inconsistent with a member's organizational identity constructs will be difficult to interpret and act upon. The introduction new initiatives, such as TQM, into an organization's identity requires its members to change their cognitive interpretations of the nature of the organization. However, ". . . top management can guide the evolution of organizational identity by carefully controlling new actions to create new identities that are then incorporated into the existing identity belief structure" (Reger et al. 1994, 569). Another cognitive framing theory, *personal construct theory*, provides further insights into the mechanisms underlying cognitive inertia. "The essence of personal construct theory is that individuals organize, simplify, and interpret the myriad data that confront them through finite sets of bipolar constructs" (Reger et al. 1994, 569). Constructs are developed into systems of meaning and further into theories that guide action. While these personal constructs and theories are subject to continuous evaluation and validation, individuals typically have a much greater difficulty confronting fundamental changes in their environments not included in their existing construct system.



Personal construct theorists surface two specific cognitive barriers to organizational change: 1) *failure to comprehend*, and 2) *cognitive opposition*. These barriers tend to undermine the acceptance of new ideas and programs, especially initiatives that are inconsistent with the current organizational identity schema (Reger et al. 1994).

### Failure to Comprehend

Since schemas are composed of a finite set of constructs, people may simply not be able to comprehend fully the meaning of a change initiative. An initiative, such as TQM, may present concepts so fundamentally different from existing organizational identity schemas that they lack meaning to the organization's members -- to include its senior leaders. For example, studies by Polanyi (1962) suggest that unless TQM training establishes specific links between TQM concepts and those of an organization's core identity constructs, the level of understanding among employees is likely to be superficial rather than the deep understanding that is necessary to fully implement the initiative.

A particularly strong organizational identity schema may present significant challenges to new initiatives. Members of such an organization typically believe that their organization is unique and, even if the new initiative is successful in similar organizations, they may not readily perceive that it will "fit" into their organization. "To comprehend fully a fundamentally new program, the constructs that compose the program must be accepted by those charged with implementing it" (Reger et al. 1994, 571). It appears then, from a cognitive perspective, that acceptance of a new initiative occurs

only when constructs are incorporated into an individual's schema (Barr et al. 1992).

When the senior leadership of an organization exhorts employees to embrace a TQM initiative without providing the necessary cognitive connections to organizational identity necessary for their deep comprehension, then a negative affect is likely to occur.

Depending on employees' levels of motivation and comprehension, the initiative is likely to be met with apathy or anxiety. Reger, Gustafson, DeMarie, and Mullane (1994, 571)

formalize the concepts presented in this section with the following proposition:

***Establishing cognitive connections between core organizational identity constructs and new initiatives will increase the probability of members' acceptance of fundamental change.***

### Cognitive Opposition

The second cognitive barrier to organizational change surfaced by personal construct theorists is that of *cognitive opposition*. As with a failure to comprehend, cognitive opposition tends to undermine the acceptance of new ideas and initiatives in an organization. Cognitive opposition occurs when a change initiative is framed in concepts opposed to positively valued elements of organizational identity. Individuals interpret new concepts, such as TQM, based on similarities and differences within their existing constructs. Since cognitive constructs are bipolar, one of the poles of a given construct is typically positive (an attractive attribute) and its contrasting pole carries a negative connotation (an undesirable attribute). The interpretation of new initiatives, therefore, is subject to these judgments. New initiatives may be in opposition to the positive pole of core constructs that make up an organization's identity. Because opposing concepts

directly challenge esteemed aspects of the core identity of the organization, they are likely to generate negative responses from employees such as anger, threat, or even fear (Reger et al. 1994). For example, a “low-cost” versus “differentiation” construct may be perceived very differently, depending upon which one is viewed as more desirable. If “low-cost” is highly valued and central to the employees’ understanding of a particular organization’s identity, then implementing a “differentiation” initiative would likely be viewed as threatening and the change resisted. Further, employees might view differentiation in direct opposition to low cost -- an inherent trade-off. Consistent with personal construct theory, employees in this case might find it very difficult to conceive of the possibility of pursuing both low-cost and differentiation strategies at the same time. Management may require several years of “reframing” efforts that develop new meanings of differentiation that support, rather than oppose low-cost. Reger, Gustafson, DeMarie, and Mullane (1994, 573) formalize the concept of cognitive opposition with the following proposition:

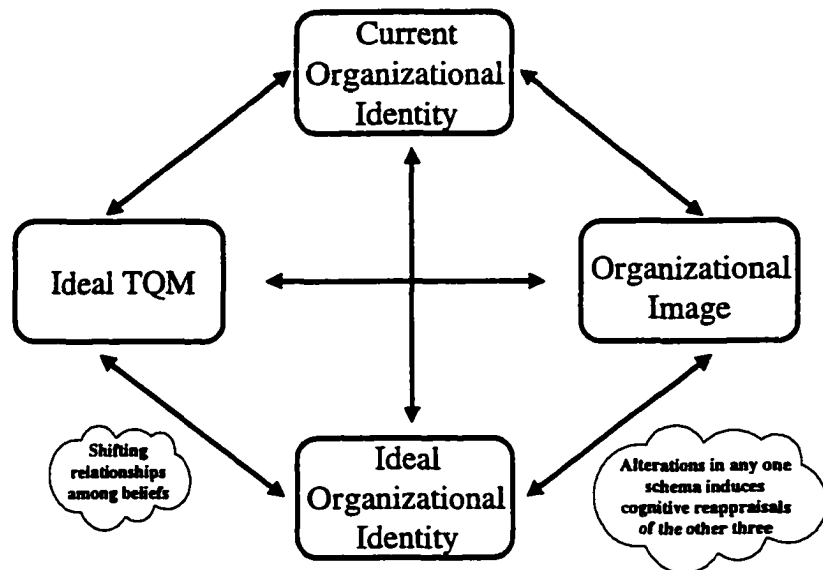
*Change efforts framed in cognitive opposition to core organizational identity constructs will decrease the probability of members’ acceptance of fundamental change.*

### **Dynamic Reframing Model**

#### **Dynamic Reframing Process**

While the theoretical framework provided thus far is useful in understanding how organizational identity constructs may impede the acceptance of fundamental change, these concepts have been presented from a static perspective. The focus of the remainder of this chapter and, indeed, the essence of the model, concerns how these concepts can be

incorporated into a dynamic process model of schematic changes. Figure 4.1 illustrates the dynamic reframing process -- the shifting relationships among beliefs about an organization's image, its current and ideal identities, and ideal TQM. As depicted, the relationships among beliefs about an organization's image, its current and ideal identities, and ideal TQM will be modified as changes in one of these schemas induce cognitive re-appraisals of the other three. "The TQM implementation process, therefore, is dynamic, because all of these schemas are subject to reinterpretation in light of changes in any of the other three" (Reger et al. 1994, 573).

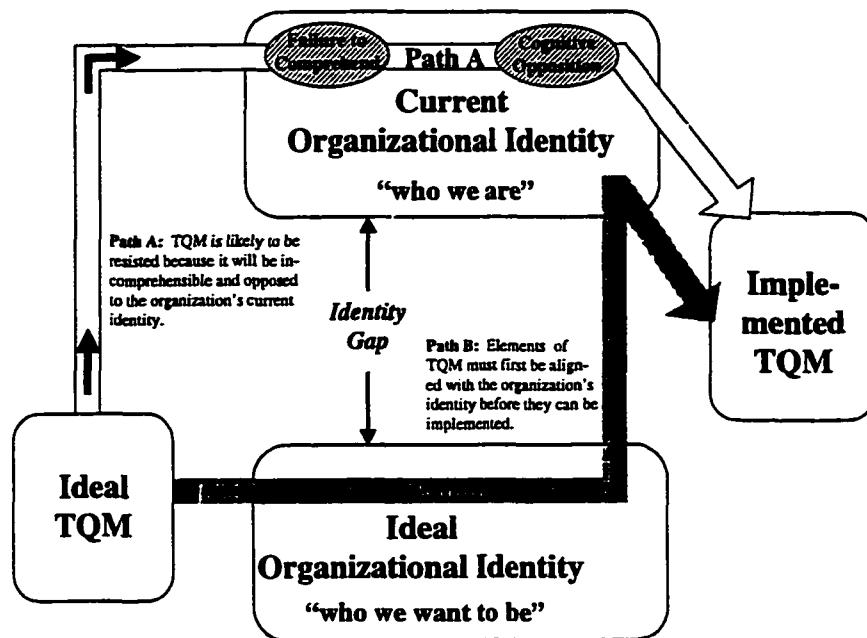


**Figure 4.1 DYNAMIC REFRAMING PROCESS**  
 Source: Reger, Gustafson, DeMarie and Mullane 1994

It is generally accepted by management scholars that successful implementation of TQM requires fundamental change -- "... a change in the basic philosophy of everyone in the company" (Dobyns and Crawford 1991, 151). Given this requirement, cognitive

theory has provided a useful framework for understanding why fundamental organizational change is often misunderstood, resisted, and, ultimately, fails. A central premise, then, is that the implementation of TQM often flounders because it is improperly framed by senior management. Instead, the current state of thinking about total quality and organizational identity should drive how TQM is framed and reframed throughout the implementation process (Reger et al. 1994). As the first two propositions suggest, skillful implementation strategies or *framing* may facilitate some aspects of TQM to be accepted. Figure 4.2 illustrates two conceptual implementation paths. Path “A” represents the direct implementation of TQM in an organization. Relatively straight-forward implementation can occur along Path “A” if TQM is well aligned with the organizational identity as personal construct theory suggests.

Even with the most skillful managerial framing, it is likely, however, that there will be elements of TQM that framing alone cannot make acceptable within the current organizational identity. Therefore, in keeping with the dynamic framing process (Figure 4.1), modification of the organization’s current identity is required to implement the “less appealing” aspects of TQM. Reger, Gustafson, DeMarie, and Mullane (1994) offer two methods for altering current organizational identity: 1) *manipulating ideal organizational identity* and 2) *leveraging current organizational image*. Path “B” in Figure 4.2 illustrates this indirect implementation of TQM. The shading of Path “B” illustrates that aspects of ideal TQM that are not compatible with current organizational identity must first be aligned with the organization’s identity before they can be implemented (Reger et al.).



**Figure 4.2 TQM IMPLEMENTATION\***  
 Source: Reger, Gustafson, DeMarie and Mullane 1994

### Manipulating Ideal Organizational Identity

*Organizational identities*, as discussed previously, are particularly powerful sets of beliefs members hold about their organizations. They are the set of constructs people use to describe what is central, distinctive, and enduring about their organization (Albert and Whetten 1985) and are generally embedded in deeply ingrained and hidden assumptions (Fiol and Huff 1992). Organizational identities are of two forms -- current and ideal. The *current organizational identity* are those constructs concerning existing beliefs -- "who we are." *Ideal organizational identity*, in contrast, refers to beliefs that are future-

\* Phenomenologically, these processes and activities are less clear-cut than the linearity implied by the figure. Like all visual representations, the figure oversimplifies complex organizational processes in favor of conceptual clarity.

oriented -- "who we want to be." As might be expected, "Unless an organization's *current identity* is equivalent to its *ideal identity*, the information contained within one schema will be inconsistent with the information in the other" (Reger et al. 1994, 574). The inconsistency between current and ideal identities causes an *identity gap* -- the cognitive distance between the perception of the current and the ideal identity (Reger et al. 1994). Figure 4.2 illustrates this gap between "who we are" and "who we want to be." This *identity gap* can motivate members of an organization to alter their current organizational identity in favor of an ideal identity. The senior leadership of an organization can affect an organization's ideal organization through *sensemaking* and *sensegiving* activities that are directed at gaining employee's acceptance of the senior leadership's vision for the organization's future (Gioia and Chittipeddi 1991).

#### Leveraging Organization Image

A second method of altering current organizational identity is that of *leveraging organizational image*. Organizational image is defined as what members believe outsiders think of their organization. The premise is that changing organizational image has a great deal of influence in changing members' beliefs about their organizational identity and "...can be a powerful lever for widening the gap between current and ideal identities (Reger et al. 1994, 575). TQM incorporates two specific practices that offer opportunities for senior leadership to leverage an organization's image to widen the identity gap -- competitive benchmarking and direct customer interaction.

Benchmarking is a technique for evaluating internal processes. Managers determine an organization's critical processes and outputs, baseline those processes, then compare the performance of each process against a standard outside the industry. For example, if the goal is to improve a process to world-class quality, managers must find a firm that is recognized as one of the best in the world, not just within the industry (Bounds et al. 1994). By providing vivid examples of "ideal" organizations and specific processes to managers and employees the identity gap can be widened. These benchmarks may redefine cognitive constructs about what is possible and desirable for the ideal organizational identity. Competitive benchmarking may also cause a realization among members of the organization that their current identity constructs are untenable and necessitate change (Reger et al. 1994).

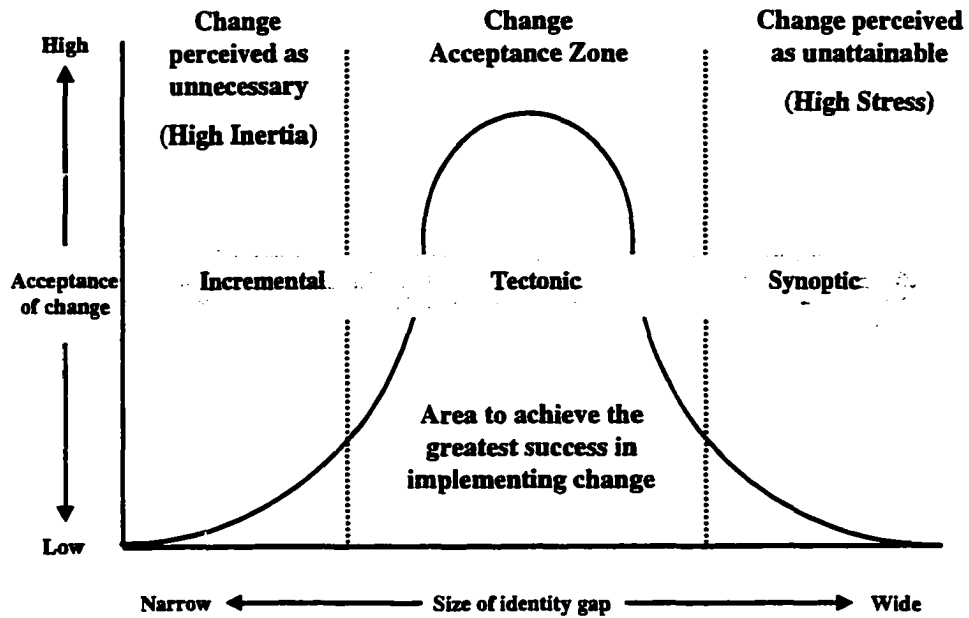
TQM's customer-focus orientation offers another opportunity to leverage an organization's image and widen its identity gap. Customer-focused systems organize horizontal flows of work around customers. The direct interaction between customers and members of an organization generate an awareness of perceived deficiencies. Customers communicating their views of the ideal identity may call in question the current identity constructs of the organization's members. Customer's views, then, may prompt organizational members to continuously reassess their own views. In sum, "... it is possible for competitive benchmarking and customer interaction to influence members to perceive the current identity of the company as less well aligned with the ideal identity. The net effect is that changes in image can widen the identity gap and increase stress to change" (Reger et al. 1994, 575).



## Change Acceptance

The inconsistency in an organization between “who we are” and “who we want to be” is the *identity gap*. The size of the identity gap determines the likelihood of acceptance of change. When there is a high degree of correspondence between the current and ideal organizational identities, then the identity gap is narrow. This narrow identity gap is a source of cognitive inertia -- a resistance to change by organizational members. They perceive change to be unnecessary since the organization’s current identity is aligned close enough with the ideal identity. In contrast, when there is a low degree of correspondence between current and ideal identities, then the identity gap is wide. A wide identity gap is a source of organizational stress and represents “dissatisfactions of individual actors and imperfections in the fit between the organization and its environment” (Huff et al. 1992, 58). As Reger and his colleagues explain, “...organizational stress leads members to seek to close the gap. The perceived gap between ‘who we are’ and ‘who we want to be’ creates pressure for change within the minds of organizational members -- managers and employees alike” (Reger et al 1994, 576). Figure 4.3 illustrates the relationship between the size of the identity gap and the likelihood of acceptance of change.

As Figure 4.3 suggests, organizational members may perceive that the ideal identity is unattainable. This occurs if the identity gap is perceived to be too wide. Members will resist changes despite the high stress to do so. The ideal conditions for change occurs within the *change acceptance zone* -- “when the gap between current and ideal [identities] is large enough to create the stress necessary for members to desire change, but the



**Figure 4.3 PROBABILITY OF CHANGE ACCEPTANCE**  
 Source: Reger, Gustafson, DeMarie and Mullane 1994

dissimilarities are not so great that the ideal is perceived as unobtainable” (Reger et al. 1994, 576). Planned change initiatives, such as TQM, have the greatest likelihood of being successfully implemented and accepted in the organization if it occurs within this change acceptance zone. Reger, Gustafson, DeMarie, and Mullane formalize the concept of probability of change acceptance with the following proposition:

***The probability of organizational members accepting fundamental change will increase when the difference between current and ideal identity falls within the change acceptance zone.***

In bringing about change, the senior leadership of an organization has two fundamental choices: 1) to close the identity gap by changing current organizational beliefs and practices to be more in line with the ideal, or 2) to close the identity gap by altering beliefs about what is ideal in order to make these beliefs more consistent with the

current identity. The first choice is obviously preferred in implementing a TQM change initiative. “By altering current organizational identity, what was previously believed to be unsuitable now becomes acceptable” (Reger et al. 1994, 577).

Figure 4.3 also depicts the full range of possible change. At one end of the scale is *incremental* change. Using the metaphor of an earthquake, incremental changes may cause rumblings, but no significant changes occur and little is achieved in relieving underlying pressures. At the other end of the scale is *synoptic* change. This type of change is analogous to a great earthquake where a significant amount of stress is relieved, but typically results in major, undesirable destruction. The area in the *change acceptance zone* in Figure 4.3 depicts *tectonic* change and represents an intermediate level of change. Tectonic change occurs when organization stress is sufficiently large enough to overcome cognitive inertia, but it is not so great that it overwhelms the organization. Consequently, it appears that it might be more effective to implement “radical initiatives,” such as TQM, through a series of mid-range, tectonic changes (Reger et al. 1994).

### Chapter Conclusion

The Dynamic Reframing Model is useful to this study for several reasons. It brings together several relevant change theories into a common theoretical framework. It provides important insights into the cognitive processes that may hinder or facilitate change initiatives. If deeply held assumptions and beliefs about organizational identity are ignored, then an organization’s current identity can act as a barrier to the implementation of planned change that threatens it. If, on the other hand, “...these implicit and

taken-for-granted assumptions are surfaced and affiliated with change efforts, organizational identity can be a powerful force of leverage” (Reger et al. 1994, 578). The inconsistencies between “ideal” TQM and core organizational values and beliefs generally make implementation problematic. The model provides a theoretical framework for introducing TQM tectonically – one that overcomes cognitive inertia while avoiding cognitive barriers. It provides an underlying logic that guides the management of change over time and the idea that each step along the way must introduce a moderate degree of change.

In order to address the research questions of the study we have established a broad theoretical framework, focused more closely on several particularly relevant theories, and have provided a model that brings cohesion to these theories. The next logical step then is to select an appropriate research methodology to respond to each of the research questions. Given the nature of organizational culture and the difficulties of implementing change, it is perhaps best to consider both qualitative and quantitative approaches.

## **CHAPTER V**

### **VALIDATION**

#### **Overview**

Having examined the separate pieces of the problem in Chapters II and III, Chapter IV then related the pieces into a model. The Dynamic Reframing Model brings cohesion to the organizational change theories surfaced in the study. The change theories presented suggest that people resist total quality initiatives because their beliefs about the organization's identity constrain understanding and create cognitive opposition to radical change. The basic premise of the Dynamic Reframing Model is that implementation of fundamental organizational change is partly dependent on management's ability to *reframe* the change over time. The model is particularly useful to this study in that it provides insights into organizational culture and sources of resistance to change. The conclusion is that implementation of TQM may best be accomplished through a series of "middle-range" changes that are large enough to overcome cognitive inertia, but not so large that members believe the proposed change is unobtainable or undesirable.

With the preceding chapters having established the theoretical framework, this chapter follows by describing the research methodology that was used to respond to the research questions. Indeed, the very methodology used in the study offers insights into answering one of the research questions, "How is organizational culture best measured?" and further addresses a secondary purpose of the study, "To develop and employ a practical, but methodically and theoretically sound way to study organizational culture.

The chapter consists of four major sections. The first section provides an over view of the nature of the study and the argument for a mixed-methodology research design approach. The second section provides the general framework of the methodology used – areas common to both the qualitative and quantitative approaches. The third and fourth sections address, respectively, the specific qualitative and quantitative procedures used.

### **Nature of the Study -- The Fit Between Purpose, Approach, and Theory**

#### **Grounded Assumptions**

In social science studies in general and organizational culture studies in particular, a paradigm shift has occurred in research methodology from the rational, positivistic scientific model (Kuhn 1970) to the qualitative, humanistic model (Guba and Lincoln 1982). The assumption is that empirical inquiry, relying primarily on quantitative methods, only reveals part of the picture whereas inquiry using a qualitative approach is holistic, providing insight that is interpretive, normative, and critical (Soltis 1984, 5). Because organizational cultural changes are typically a subtle and evolving process, traditional survey methods and even in-depth interviews alone cannot adequately reveal the nature and sequence of changes taking place. Instead, research approaches designed to investigate such processes must be non-intrusive, longitudinal, and capable of tracing unfolding changes (Mintzberg, Raisinghani and Theoret 1992, 246). Such research needs to be "interpretive" in nature (Rabinow and Sullivan 1992), which implies an alternative paradigm be applied to the study of organizational culture (Kuhn 1970).

## Argument for a Combined Qualitative and Quantitative Research Design

A combined research design is one in which a researcher uses multiple methods of data collection and analysis. In terms of “mixed method” precedence, Campbell and Fisk (1959) sought to use more than one method to measure psychological traits to ensure that the variance was reflected in the trait and not in the method. Denzin (1978) further developed the mixed method design using the term *triangulation* in arguing for the use of a combination of methodologies as a viable alternative. His concept of triangulation was based on the assumption that any bias inherent in particular data sources, investigator, and methods would be neutralized when used in conjunction with other data sources, investigators, and methods (Jick 1979). More recently, Grant and Fine’s (1992) studies have cited numerous examples of successful mixed method design approaches ranging from the mixing of ethnography and experimental research to the combination of survey research and qualitative procedures. Creswell (1994) advances five purposes for combining methods in a single study:

- Triangulation in the classic sense of seeking convergence of results.
- Complimentary, in that overlapping and different facets of a phenomenon may emerge (e.g. peeling the layers of an onion).
- Developmentally, whereas the first method is used sequentially to help inform the second method.
- Initiation, whereas contradictions and fresh perspectives emerge.
- Expansion, whereas the mixed methods add scope and breadth to a study.

Before describing the mixed-methodological design, it may be useful review the traditional research design paradigms. The *quantitative* method relies on experimental

design and survey procedures in collecting data. The information collected through these procedures is then analyzed statistically to generalize from the data and support or refute theories. The *qualitative* method relies on four common types of data collection: interviews, observations, documents, and visual material. The analysis of these sources of information follows a general model of deriving themes or categories from particulars and developing a qualitative narrative that presents a pattern or a larger picture through multiple levels of analysis (Creswell 1994). In a mixed methodological design study, one finds “mixed methods” presented where the author collects both qualitative and quantitative data. In essence then, both themes and statistical data are presented.

The following paragraphs provide an overview of the mixed-methodological design used in this study. The research design of this study is best described as a *dominant qualitative approach* with a less-dominant or supporting quantitative structure. The qualitative approach used is the ethnographic methodology which consists of a narrative or “thick” description of the phenomenon under study. The less-dominant, quantitative approach involves the employment of descriptive survey design.

The intent is to use both qualitative and quantitative methods to assess the organization’s culture, prevailing conditions, attitudes and practices, and the relationship that exists between phenomena and trends. The central premise of the study was that a large, mature, public-sector organization possesses a shared culture and, further, that the nature of this culture has an affect on the success of implementing major change initiatives (e.g. TQM). The scholarly literature supports these general concepts but requires further empirical validation.



The study's five research questions not only establish a model for conceptualizing organizational culture, but also provides a framework to explore the relationships among the variables identified. The individual, group, subgroup, and formal organizational beliefs as well as individual demographic characteristics that are presented require both quantitative and qualitative analysis. The data analysis involved both the comparison of specific groups in terms of experimental effects (quantitative) as well as interviews (qualitative). The results are interpreted using both the quantitative data (statistical tests) and the qualitative data (themes). The results chapter summarizes both quantitative and qualitative findings. The goal was to triangulate findings and to demonstrate convergence in results.

### **Study Design**

The intent of this second section is to provide an overview of the study's design. It addresses areas common to both the qualitative and quantitative approaches used in the study. The five subsections address the statement of the problem, the research questions, data sources, beliefs as measures of culture, and a description of the subjects and population characteristics.

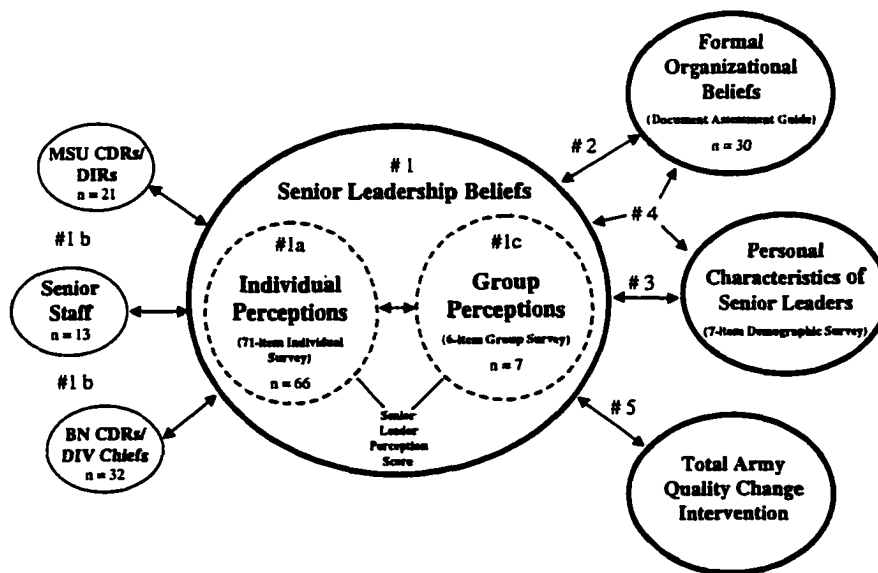
#### **Statement of the Problem**

Quality initiatives presented as radical departures from an organization's culture fail because the cognitive structures of senior leaders constrain their understanding and support of the new initiatives. Many organizations fail to consider how their own "executive culture" can prevent or facilitate the implementation of change.

## Research Questions and Identification of the Variables

The overarching research question driving this study is –"How does the senior leader culture affect the implementation of a quality intervention?"-- In this case, the implementation of Total Army Quality at the Fort Carson US Army installation. Following are five research questions that guided this study :

1. Is there a shared culture among the senior leadership of the organization? Is there a significant difference:
  - 1a. between on individual and group perceptions?
  - 1b. between senior leader and functional subgroups perceptions?
  - 1c. among the three senior leadership functional subgroups?
2. Is there a difference between the organization's formal beliefs and those of the senior leadership?
3. Do senior leader personal characteristics affect perceptions concerning the implementation of TQM?
4. How might organizational culture be best assessed?
5. How might TQM be best implemented in a large, mature organization?



**Figure 5.1 RESEARCH QUESTION INTERRELATIONSHIPS**

Figure 5.1 illustrates the interrelations among the research questions and the variables in the study. Included also is the population size of each of the variables. The first research question looks at a key aspect of culture -- the beliefs of what Schein calls the "executive culture" of the organization. This research question explores the extent that there is a "shared culture" among the 66 people identified as being the senior leaders of the organization. It is widely recognized that many organizations do not adapt effectively to change. Although strategic maladaptation can occur for many reasons, theorists have typically focused on organizational inertia as an underlying phenomenon. While inertial pressures come from many quarters, a great deal of the literature on change interventions, such as TQM, focuses on overcoming employee resistance to change. Evidence also exists, however, that top executives themselves are not uniformly open-minded, much less supportive, of change. Prior studies in this area are not conclusive and it remains relatively unexplored.

Pernick (and other scholars) espouse that culture is an "emergent phenomenon" (1990). Emergence theory offers the following perspective:

. . . culture is more than the sum of the views held by each member of the collective. . . The theory of emergence rules out the use of standardized questionnaires as the sole way to measure culture. Measurement of culture via standardized questionnaires is the mere numerical averaging of individual perceptions, which are then declared a group product. Although quite common, such an approach does not take into account the reality-shaping effects of group interaction. (Pernick 1990, 89)

By extending the first research question into three parts, the question attempts to accommodate this emergence theory of culture. The focus of the first research question then, becomes one of assessing whether there is a significant difference between

individual survey responses and group responses, and if so, to what extent. Emergence theory contends that there is a difference, although does not predict in what direction (Pernick 1990, 90).

This first research question explores three important dimensions -- individual perceptions, group perceptions, and the perceptions of the three functional groups or "subcultures" within the "executive culture." A popular assertion is that a large, mature, bureaucratic organization with a long history possess a shared culture that transcends subcultural boundaries. In contrast, some organizational behavior literature suggests that because organizational members differ by status, skill levels, and social position, the existence of a shared culture across functional groups is in doubt, but that the existence of a shared culture within a functional group is probable (Pernick 1990). In the Fort Carson organization, it appears that the three functional groups tend to interact within their subcultures, and not across them. Evidence of this occurs at social events where executives cluster by functional and/or demographic group. Further, the interaction of these sub-cultural groups appears to be on a continuous and in-depth basis, which strengthens the commonality of perceptions (Pernick 1990). In examining an organization with distinctive executive subcultures are we likely to find a culture based on shared beliefs and values or will we find antagonistic belief systems? The significance of gaining insights into the first research question is that an essential component of implementing organizational change toward a total quality management philosophy primarily depends on "top-down" commitment.

The second research question assesses whether there is a difference between the organization's formal beliefs culture and those held by the senior leaders themselves.

The formal organizational beliefs that undergirds Total Army Quality, as determined by a content analysis of documents, artifacts, and archival records, is compared and contrasted with the collective beliefs of the 66 senior leaders of the organization. The empirical question driving this aspect of the study is -- "To what extent is there a difference in the organization's TAQ beliefs and the beliefs of senior leaders?" The significance of this question is not only in gaining insights into the extent of "top-down" TAQ commitment, but also examines the aspect of "what changes are formally desired?" Referring back to the Dynamic Reframing Model (Figure 4.2), this research question may provide important insights as to the organization's Ideal Organizational Identity -- "who they want to be."

The third research question attempts to shed light into the issue of whether the senior leaders' personal characteristics affect the implementation of TQM, and if so, to what degree. Will TQM likely to be resisted by individuals possessing certain personal characteristics? Are there certain personal characteristics that are supportive of TQM principles? The importance of this question concerns how TQM might be best framed and reframed during implementation in response to specific senior leader demographic characteristics.

Having addressed organizational culture from several dimensions in the first three research questions, the fourth research question logically follows in asking "How might organizational culture be best assessed?" The primary data used to address this question are from a review and analysis of the methodology used in the study as well as the findings derived from the first three research questions.

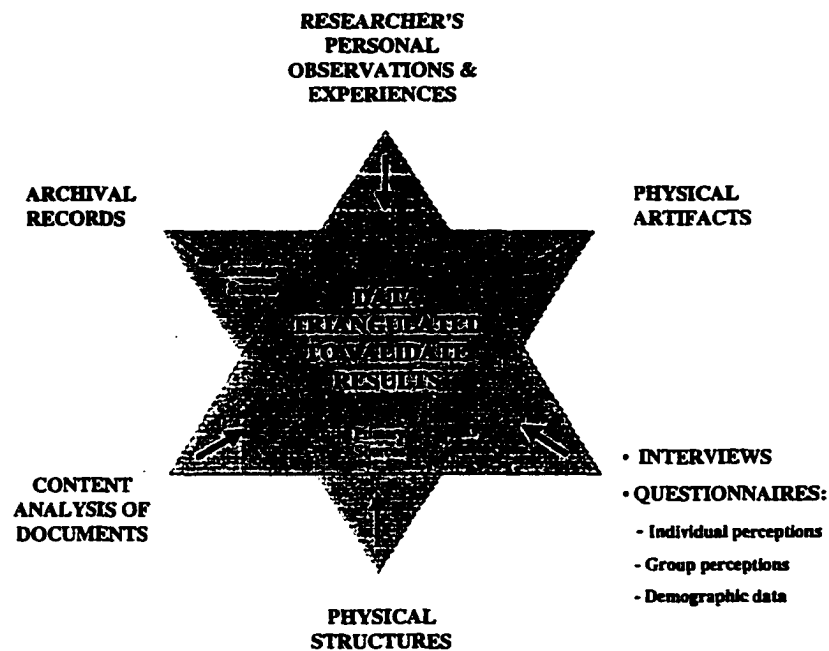
The fifth research question concerns how TQM might be best implemented in a large, mature, bureaucratic organization. The essence of this question is -- "If the formal organizational beliefs and the beliefs of senior management differ significantly, then to what extent will this facilitate or impede the implementation of TAQ?" The significance of this question is that it may shed some light on the impact of the "executive culture" on successfully implementing a TQM intervention. The importance of this question, and the basic premise of the Dynamic Reframing Model, is that implementation of fundamental organizational change is partly dependent on management's ability to *reframe* change, such as implementing TQM, over time. Table 5.1 illustrates each of the five research questions along with their associated data collection method or instrument and method of analysis.

**Table 5.1 RESEARCH QUESTIONS AND DATA COLLECTION METHODS**

<b>Research Question</b>	<b>Instrument / Data Collection Method</b>	<b>Statistical Test/ Proof Criteria</b>
1. A shared senior leader culture? • Individual perceptions • Group perceptions • Among functional groups (3)	• Ethnographic inquiry: Observer-participant, personal interviews (open-ended questionnaire) • DoD Survey Guide (71-item, 1-6 Likert scale) • DoD Survey Guide (6-item, 1-6 Likert scale, constructed) • DoD Survey Guide (71-item, 1-6 Likert scale)	Descriptive statistics, ANOVA & Tukey HSD
2. A difference between formal organizational beliefs and those of the senior leaders?	• Ethnographic inquiry: observer-participant, personal interviews, documents, records, artifacts • Document Assessment Guide (constructed) • DoD Survey Guide Findings (71-item & 6 category)	Descriptive statistics, ANOVA & Tukey HSD
3. Does senior leadership characteristics affect the implementation of TAQ?	• Ethnographic inquiry: observer-participant, personal interviews, documents, records, artifacts • Demographics questionnaire (constructed) • DoD Survey Guide findings (71-item & 6 category)	Descriptive statistics
4. How is culture best assessed in an organization?	• Review and analysis of methodology used in study • Literature review • Survey findings • Personal interviews	Descriptive statistics, triangulation, narrative
5. How might TAQ be best implemented?	• Review and analysis of methodology used in study • Literature review • Survey findings	Triangulation, & narrative

## Data Sources

The primary data sources for this study were personal interviews (qualitative), the personal observations and experiences of the researcher (qualitative), analysis of TAQ-related organizational documents (quantitative), and senior leader responses to the survey instruments (qualitative and quantitative). Secondary data sources included all other organizational records and artifacts relating to TAQ. Figure 5.2 illustrates the data sources employed to assess the organization's culture.



**Figure 5.2 DATA SOURCES FOR THE STUDY**

### Beliefs As Measures of Culture

As suggested throughout this study, organizational culture is a deeply held phenomenon with many facets. "Culture, at its core, can be thought of as the constellation of beliefs and values organizational members hold about work" (Pernick 1990, 62). Beliefs and values are good correlates of behavior and, therefore, an important consideration in assessing an organization's ability to affect change. Any research approach that narrows

the varying dimensions of culture is desirable because studying culture in its entirety is exceedingly difficult, if not impossible. Geertz (1973) urges researchers to refrain from using the complex of cultural elements as an all-purpose explanatory concept. As such, researchers should focus on certain aspects, for example dominant beliefs, “to make culture a more powerful, specialized analytical tool in our understanding of human behavior” (Pernick 1990, 62).

Rokeach (1968) states that an individual only holds about two dozen deeply seated values, but will likely to possess hundreds, if not thousands of beliefs. Based on this assertion, a researcher that focuses on beliefs of individuals will have a larger and more accessible pool from which to draw. Nord et al. (1987) conceptualizes beliefs as what people come to view as being possible. Values, in contrast, refer to one’s desires or views of “how things should be.” Beliefs may be a more accurate measure of the actual, not idealized culture, as they are based on concrete organizational experiences. Further, concrete experiences facilitate recall so they can be more reliably associated with belief statements (Pernick 1990). For these reasons then, this study has operationalized the broad concept culture by focusing on beliefs -- those of individuals, groups, and the organization’s formal beliefs -- and does so using both quantitative and qualitative research instruments.

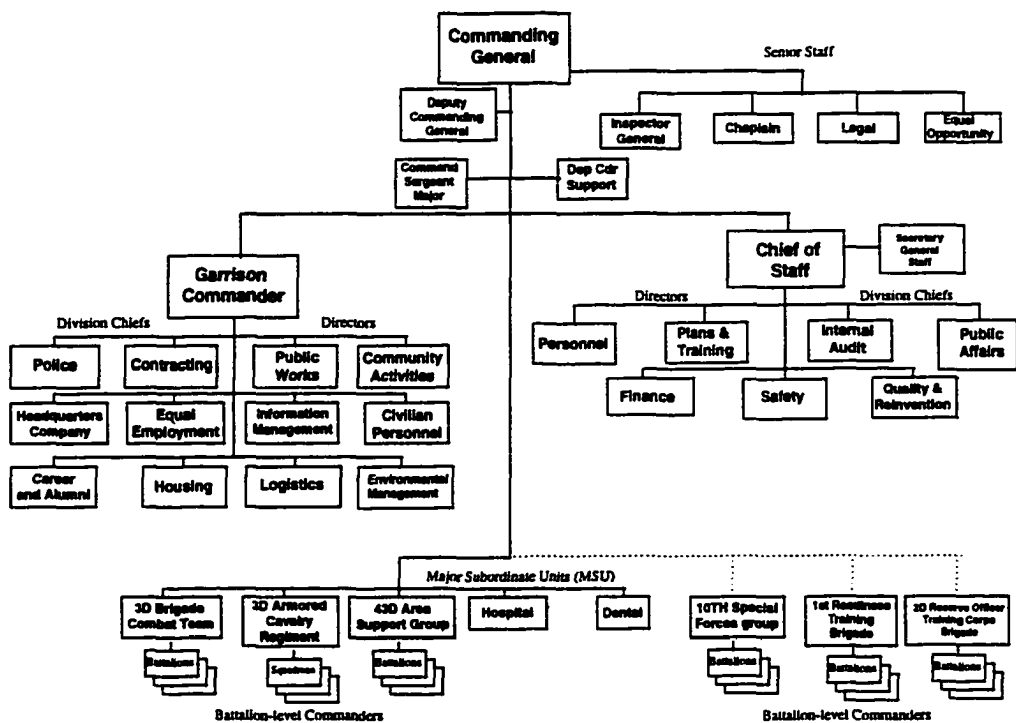
#### Description of Subject, Population Characteristics, and Number of Observations,

The study included the senior leaders (n = 66) of the Fort Carson military installation. Every member of the target population of interest participated. In addition to examining the “senior leader culture” as a whole, the senior leaders were further



studied according to three distinctive subgroups: 1) major subordinate unit-level commanders (MSU CDR), the garrison commander (GC) and directors, 2) senior staff executives, and 3) battalion-level commanders (BN CDR) and division chiefs. Figure 5.3 depicts the formal relationships among the senior leadership groups. There are basically four “subjects of this study” -- the three senior leader groups and the organization itself. Each subject is briefly described as follows:

1) **MSU Commanders, Garrison Commander and Directors (n = 21).** This is the most senior horizontal layer of the upper management group. These individuals consist of both military (n = 16) and civilian personnel (n = 5) and generally average over twenty years of government service. The military personnel average 30-36 months in the organization before being reassigned. The civilian personnel are all Department of the Army



**Figure 5.3 FUNCTIONAL ORGANIZATION CHART ILLUSTRATING SENIOR LEADER POSITIONS**

career civil service personnel and generally average 15-20 years of service. These senior military and civilian leaders have staffs reporting to them and perform the classic management functions of planning, staffing, directing, motivating, and decision-making. These individuals also are members of the Executive Steering Committee (ESC) that works cross-functionally to guide the overall strategy and implementation of total quality management.

**2) Senior Staff (n = 13).** The senior staff provides specialized assistance to the organization and includes such areas as public affairs, legal, inspector general, equal opportunity, and religious services. They are a mix of military (n = 5) and civilian personnel (n = 8) with varying degrees of service tenure, but average in excess of 10-years. They work cross-functionally by participating in quality management boards and process improvement teams. The military members generally average 24-months in the organization while civilian personnel average significantly higher tenures of 8 to 12 years in the organization. All senior staff personnel have supervisory responsibilities.

**3) Battalion-level Commanders and Division Chiefs (n = 32).** This group of military (n = 24) and civilian personnel (n = 8) represent the lowest horizontal tier of senior leadership in the organization. They are also the largest group. They are similar to the senior staff group in that they are a mix of military and civilian personnel with an average of over 10-years of service. In contrast to the senior staff, the military personnel in this group average 15-18 years of service while the civilian personnel average only 5-8 years of service. All members in this group have supervisory responsibilities. This group works cross-functionally primarily by participating in process action teams, in senior

leader off-sites, social events, and at times, as representatives at quality management boards.

**4) Organization.** The organization represents another “subject” of this study. For the purposes of this study, the “formal organizational beliefs” are operationalized by the documents, archival records, and artifacts ( $n = 30$ ) related to Total Army Quality because they are an important measure of the organization’s formal culture. The creation of the documentary evidence that represents the formal organizational culture was reviewed, modified, and approved by the various senior leadership members. These documents are representative, then, of the values and beliefs of the senior leadership of the organization and specifically, their values and beliefs concerning TAQ. A variety of documents were selected from the organization over a 12-month period. Thirty documents (listed at Appendix A) were selected to create a composite picture of the “formal organizational culture” as it relates to TAQ. Their composition ranges from historical summaries to vision statements, concept plans, executive memorandums, news articles, off-site conference notes, and strategic plans. The 66 senior leaders of the organization were directly involved, in varying degrees, with the creation, review, modification, approval, and deployment of these documents. As such, the documents are an important representation of the perceptions, values, and beliefs of the most senior strata of the total organization.

### **Qualitative Procedures**

While the previous section addressed aspects of the research design common to the both the qualitative and quantitative approaches, this section focuses exclusively on the

qualitative design of the study. It first addresses the broader perspective of the interpretative approach to research, then provides an overview of the ethnographic methodology, and closes with a discussion of specific qualitative design considerations.

### The Interpretative Approach

The interpretative approach, broadly stated, is based on the assumption that human understanding and action are based on the interpretation of information and events by the people experiencing them (Rabinow and Sullivan 1992). Understanding and action, therefore, depend upon the meaning assigned to any set of events (Daft and Weick 1984, 284). Meaning, however, is a socially-constructed phenomenon (Weick 1979). Thus, meaning is not only unavoidably subjective, but is also constrained by the context of the goals that the human actors seek to achieve. Understanding and action thus derive from the framework of meaning ascribed by the organization's members (Gioia and Chittipeddi 1991, 435).

Following are implications of these assumptions:

1. The study of interpretation and meaning systems, and the processes whereby those systems are altered, is of fundamental importance to any study of cultural change.
2. Understanding the phenomenon of organizational change, driven by a quality philosophy, requires an accounting of the meanings ascribed by the members of the organization (i.e. not solely by the researcher studying those members).
3. Understanding any such subjective organizational phenomena requires that the researcher be grounded in the organization's culture.

The last point implies the necessity for involved interaction with informants who are experiencing the organizational change effort and therefore, suggests an ethnographic approach (Gioia and Chittipeddi 1991, 435).

## Ethnographic Methodology

Since the purpose of this study is to gain insights into the effect of organizational culture, operationalized as the cognitive perspectives of senior leaders, on an organization as it attempts to fundamentally change, the ethnographic methodology is quite appropriate. The use of ethnographic methods to study organizational culture has increased in recent years, in part, because traditional survey research methods are not able to capture the depth and complexity of the "multiple realities" of organizational culture. Further, survey research usually uses controlled, quasi-experimental designs to investigate human behavior where assumptions about what dimensions are important sharply limits the focus of the inquiry (Hardcastle 1994, 34). Easily quantified questionnaires and structured experimental research strategies are often ill-suited to the subtle shades of meaning and affect that are a part of ethnographic inquiries (Bolman and Deal 1984, 223).

Unlike most experimentally-based research, the goal of most ethnographic inquiry is toward a "holistic" understanding of the dynamics of human behavior within a specific culture or context (Hardcastle 1994, 35). Applying a holistic approach can also help generate research questions more appropriate to the dynamic nature of organizational phenomenon (Dachler and Wilpert 1978).

Ethnographic studies are typically characterized by participant-observation. The researcher has the simultaneous dual role of active participant in the organization's activities and observer of those activities (Spradley 1979). The ethnographic researcher attempts to avoid implicit hypothesis-testing and instead allows inductive reasoning to prevail (Gioia and Chittipeddi 1991, 434).

The ethnographic approach requires immersion in the culture being examined. Every interaction and experience constitutes data to be interpreted as a member of the organization -- and as a researcher. The ethnographer thus relies on prolific record-keeping. (Gioia and Chittipeddi 1991, 435)

Ethnographic reports typically provide a historical analysis of the research site followed by a journalistic narrative rendered mainly in the words of the informants. The reporting of the ethnographic account is framed around the dominant themes expressed by the informants and represents a "first-order analysis." The researcher only later attempts to derive an explanatory framework to put the story into a more theoretical framework by means of a second-order analysis (Van Maanen 1979, 539). It is for this reason that ethnographic, interpretive research often appears "inverted" when compared to the more traditional style of research; rather than theory driving the data gathering, the theoretical perspective is grounded in, and emerges from the first-hand data (Glaser & Strauss 1967).

Scholars contend that ethnographic research can be distinguished from other methodologies (both qualitative and quantitative) by numerous characteristics that are inherent in the design. The following is a synthesis of commonly articulated assumptions regarding ethnographic research characteristics presented by various researchers:

1. Occurs in natural settings where human behavior and events occur.
2. Based on assumptions that are very different from quantitative designs. Theory or hypotheses are not established a priori.
3. The researcher is the primary instrument in data collection.
4. The data that emerge are descriptive, that is, primarily reported in the participant's words or symbols, rather than in numbers.
5. The focus is on participant's perceptions and experiences, and the way they make sense of their lives.
6. Focuses on the process that is occurring as well as the product or outcome.

7. Idiographic interpretation is utilized – attention is paid to particulars and data are interpreted in regard to the particulars of a case rather than generalizations.
8. Outcomes are negotiated and, therefore, emergent in design. Meanings and interpretations are negotiated with human data sources because it is the subject's realities that the researcher attempts to reconstruct.
9. The researcher seeks believability based on coherence, insight, and instrument utility and trustworthiness through a process of verification rather than through traditional validity and reliability measures.  
(Lincoln and Guba 1985, Creswell 1994, Merriam 1988, Eisner 1991)

### Qualitative Research Design

The intent of this section is to address specific elements of the research design. Key elements include the researcher's role and perspective, parameters of the study, ethical considerations, data collection, data analysis, and verification (internal and external validity).

**Researcher's Role and Perspective.** The role of the researcher as the primary data collection instrument necessitates the identification of personal considerations, assumptions, and biases at the outset of the study. The perceptions of the researcher in this study were shaped by primarily by personal experiences. From August 1995 to August 1997 the researcher served with the organization. Conducting research in governmental settings is often a difficult undertaking because most organizations are reluctant to expose internal operations to outsiders. Thus, gaining access to a research site and becoming "immersed in the culture" for a prolonged period is a significant challenge to the ethnographic researcher. As a insider -- a member of the organization for a three year period and as the "special assistant" to the commanding general -- the researcher was ideally positioned in the organization to serve as both a "detached investigator" and as a bona

vide participant in the change efforts. Clifford and Marcus offers these insights concerning this approach:

The predominant metaphors in anthropological research have been participant-observation, data collection, and cultural description, all of which presuppose a standpoint outside -- looking at, objectifying, or, somewhat closer, "reading," a given reality. . . A new figure has entered the scene, the "indigenous ethnographer." Insiders studying their own cultures offer new angles of vision and depths of understanding. (Clifford and Marcus 1986)

As an "indigenous ethnographer" the researcher had direct and often daily, contact with the primary informants within the senior leadership level of the organization. These contacts included the command group (commanding general, deputy commander, chief of staff), major subordinate unit commanders, the garrison commander, senior staff members, directors, division chiefs, and battalion commanders.

Due to prolonged contact with the organization and working closely with the senior leadership, the researcher brought certain biases to the study. Although every effort was made to ensure objectivity, certain biases may have shaped the way the researcher viewed and understood the data and interpreted the events and experiences. In order to prevent the problem of "going native" (i.e. completely adopting the interpretive view of the organizational culture) and losing the dispassionate view required for a more theoretical analysis, the researcher employed several techniques. One important technique to reduce biases was to incorporate a quantitative design into the study. A second technique was the assistance of a second researcher. This individual was not exposed to the direct, subjective, insider organizational experiences and conducted a more objective analysis of the data. The second researcher played an important role in validating and cross-checking findings, thus improving the accuracy of the results.



**Parameters of the Study.** Using ethnographic research methodology, the focus of the study was on the everyday experiences and events of the organization's senior leadership, and the perceptions and meaning attached to those experiences as expressed by the informants. This included making sense of critical events that arise. Particular attention was paid to the senior leaders as they went about implementing the TQM intervention, managed changes, maintained relationships, made decisions, and provided leadership to the organization.

**Ethical Considerations.** First and foremost, the researcher had an obligation to respect the rights and desires of the informants. Ethnographic research is always obtrusive and invades the lives of the informants to the extent that sensitive information is frequently revealed (Creswell 1994). This was a particular concern in this study due to the senior positions of the informants. The following safeguards were employed to protect the informant's rights: 1) the nature, scope, and objective of the study was articulated so that they were clearly understood by the informants, 2) permission to interview informants was obtained prior to proceeding, 3) informants were informed of all data collection instruments and devices used, 4) immediate verbal feedback as well as subsequent written reports were provided to informants, 5) all data collection instruments were designed to ensure anonymity, 6) a research exemption form was briefed to and signed by the responsible senior official, and 7) permission to conduct the study was received by the chief executive (commanding general).

**Data Collection.**

**Interviews.** Multiple interviews ranging from individual to group sessions were conducted with each of these informants over a five-month period. These interviews focused on senior leader perceptions as they went about implementing TAQ and managing this strategic change process. The design of the interviews is best described as “letting the informants engage in a stream of consciousness, and to provide rich, descriptive data on their perceptions about the change process and their efforts to manage it” (Gioia and Chittipeddi 1991). A journal was used to record notes from interviews, key events and activities.

**Questionnaire.** One of the primary qualitative research instruments used in the study was the open-ended individual interview questionnaire. It was designed to support, in general, all of the research questions and specifically, to gain greater insights into research questions 1 and 2. Its purpose was to assess the extent of shared beliefs within and between the three functional senior leader groups and relate those beliefs to the implementation of TAQ. The open-ended interviews specifically assessed beliefs about TAQ, tied those responses to the six broad categories about TQM, and culminated in an assessment of respondents’ level of support for implementing TAQ as determined by their beliefs.

The open-ended interview procedure was piloted with one individual from each of the functional groups. Three major findings emerged from this test. First, respondents were confused as to whether they were supposed to answer the questions based on a

personal perspective or as representatives of their work and/or functional senior leader group. Second, the interview procedure was excessively long requiring an average of two hours and precluded sustained thoughtful responses. Third, the questions were generally biased in favor of encouraging respondents to support TAQ.

The pilot test resulted in several changes to the original open-ended questionnaire. The most significant change was the restructuring of the questions in keeping with the DoD Guide sequence of generalized beliefs. In this way, the open-ended questions were near identical to the ones they had had previous opportunity to comment on during the administration of the individual and group perception surveys. Further, the written questions and oral probes were stated by the researcher in such a way to clarify the desired perspective of the respondent. Thus, respondents were asked to answer the questions as they perceived and experienced their organizational environment. Next, the interview time was shortened to an average of one hour. Respondents were asked only one TAQ-related question per dimension and fewer examples of each belief were provided unless the respondents indicated a need. An additional benefit of this procedure was that it reduced interviewer bias surfaced in providing examples which tended to guide the respondent in a certain direction. Lastly, the open-ended questions were stated in a more neutral form. Respondents merely had to relate their extent of agreement or disagreement with the questions posed which allowed a full range of views without being influenced by the interviewer's bias.

**Key Events.** Key or focal events provide a lens through which to view a culture and, as such, the researcher used these as a focus of analysis. The researcher encountered key events of all shapes and sizes with some more telling about the organizational culture than others. Some images provided clear representations of social activity while others provided a tremendous amount of embedded meaning.

**Visual Representations.** Of particular use in this study was the use of visual representations and included maps, flowcharts, and organizational charts. Like written material, visual representations forced the researcher to abstract and reduce reality to a manageable size – a piece of paper. The process of creating visual representations crystallized images, networks, and understandings and, typically, suggested new paths to explore. For example, the researcher charted for comparison both the formal and informal organizational hierarchies. In this way, the structure and function of the organization was clarified, crystallized in the mind of the researcher, and validated by the members of the organization.

### **Data Analysis.**

*Analysis in ethnography is as much a test of the ethnographer as it is a test of the data*  
(Fetterman 1989, 88)

Analysis is one of the most engaging features of ethnography – it begins from the moment a researcher selects a problem to study and ends with the last word in the study. Ethnographic analysis has no single form or stage and involves many levels of analysis. Some are simple and informal while others require some statistical sophistication. In short, many analyses and forms of analyses are essential. Further, ethnographic analysis is iterative, building on ideas throughout the study. Analyzing data in the field, from the

unique perspective of an “insider,” enables the ethnographer to know which methods to use next, as well as when and where to use them. This approach allows the ethnographer to construct an accurate conceptual framework about what is happening in the social group under study.

Many useful techniques help the ethnographer to make sense of the forests of data, from triangulation to use of statistical software packages. All of these techniques, however, require critical thinking skills – notably, the ability to synthesize and evaluate information – and a large dose of common sense. (Fetterman 1989, 89)

**Verification – Internal Validity.** The ethnographic researcher builds a firm knowledge base by asking questions, listening, probing, comparing and contrasting, synthesizing, and evaluating information. He must find a way through a wilderness of data, theory, observation, and distortion. Throughout this analytical trek, the researcher must make choices between logical and enticing paths, between valid and invalid, but fascinating data, between genuine patterns of behavior and series of apparently similar but distinct reactions (Fetterman 1989). Several useful techniques were used by the researcher this study “to make sense of the forest of data” and to guide him through the “thickets of analysis.” It is useful to briefly discuss some of these techniques in order to understand the types of analysis used in this study as well as the strategies for ensuring internal validity.

**Triangulation.** Triangulation is at the heart of ethnographic validity, testing one source of information against another to strip away alternative explanations and prove an hypothesis. In this study, the researcher compared information sources to test the quality of the information (and the person sharing it) to understand more completely the part an actor plays in the social drama, and ultimately to put the whole situation into perspective.

For example, informal feedback sessions were held with various senior leaders. Responses from these sessions helped to validate the accuracy of preliminary findings and focus the research. Further, drafts of specific observations and findings were provided to various senior leaders to obtain their feedback.

Member Feedback. The informants themselves served as an important check of validity throughout the data collection and analysis process. An ongoing dialogue regarding the researcher's interpretations of the informant's reality and meaning helped ensure the "truth value" of the data

Patterns. Patterns are a form of ethnographic reliability. Looking for patterns is a form of analysis. The researcher in this study began with a collection of undifferentiated ideas and behavior. He then collected pieces of information, comparing, contrasting, and sorting gross categories and minutiae until discernible behavior became identifiable. The researcher then listened, observed, and compared his observations with what was essentially a poorly defined model. Exceptions and variations to the researcher's basic assumptions emerged which circumscribed the activity and clarified its meaning. After further sifting and sorting, themes and ritualistic activities emerged. Patterns, then, consisted of the collection of matches between the models (abstracted from reality) and the ongoing observed reality.

Second Researcher/Peer Examiner. A peer examiner external to the organization but familiar with the change intervention and senior leaders was available and involved in

most phases of data collection and analysis. The second researcher was of particular value in the content analysis or “scoring” of documents.

Content Analysis. The researcher analyzed written data in much the same way as observed behavior was analyzed. Data from the surveys and questionnaires were triangulated to test for internal consistency.

Participatory Modes of Research. Informants were involved in nearly every aspect of the study, from the research design to final input and comment of interpretations and conclusions.

Clarification of Researcher Bias. Researcher biases were carefully evaluated, articulated, and minimized to the maximum extent possible. Biases were acknowledged and included in the writing of the study.

**Verification – External Validity.** The primary strategy used to provide external validity for the study was to provide an accurate and detailed description so that anyone interested in transferability would have a solid framework for comparison (Creswell 1994). The following four techniques were employed to ensure reliability:

1. The researcher provided a detailed account of the framework of the study, the researcher’s role, the informants, and the basis for selection and the context from which data will be gathered.
2. Triangulation or multiple methods of data collection and analysis was used which strengthens reliability as well as internal validity.
3. Data collection and analysis strategies are reported in detail to provide a clear and accurate picture of the methods used in the study.

4. Incorporating quantitative methodologies into the research design strengthens reliability and internal validity.

### **Quantitative Procedures**

The previous section addressed the qualitative procedures used in the study. This section, in turn, focuses exclusively on the quantitative procedures used and consists of two major subsections. The first subsection discusses the rationale for incorporating quantitative methods, and specifically, *survey research* into the study. The second subsection addresses, in more detail, the quantitative research design. Since the survey design (research questions, data sources, measures, description of subjects, population characteristics) was previously addressed, the focus in this section will be primarily on design and analysis considerations.

### **Quantitative Considerations**

The incorporation of quantitative methods in ethnographic research presents several challenges. In many instances, sophisticated statistical approaches are inappropriate in social sciences in general, and in ethnography in particular (Fetterman 1989). One challenge is always the appropriateness of the statistical tools for the problem. A second challenge, a subset of the first, is the methodological soundness of the application. A third challenge with statistical tests is perceptual. Statistics demonstrate correlations, not causality. Yet people frequently fall into the trap of inferring causality from statistical correlation. Despite these challenges, the researcher found appropriate use for quantitative methods and associated statistical analyses in support of this research.

A basic and important assumption of the researcher is that beliefs and perceptions can, to a degree, be quantified and measured. The capturing of individual and group



perceptions along with formal organizational beliefs (from documents) and then performing a quantitative analysis of the relationships among these variables proved to be of particular value in triangulating information to discover patterns and relationships. Further, the use of descriptive statistics was invaluable in discerning relationships among the variables in the study.

*Survey design* methodology was selected as it allowed the researcher to carry out the study in natural, real-life settings and use statistical inferences, thus increasing the external validity of the study. In addition, survey design offered the advantages of quantitative or numeric description of the study's variables, economy of design, rapid turnaround in data collection and analysis, and the ability to identify attributes of a population from subgroups samples of individuals. *Experimental design* methodology was not appropriate for use as its focus is on testing cause and effect relationships and requires the control and manipulation of all the independent research variables – an impossibility in real-life social settings.

### Quantitative Research Design

The quantitative research approach consisted of isolating the necessary data and subjecting that data to a descriptive analysis and a measure of significance. An analysis of variance (ANOVA) was used to determine statistically significant differences. Data collection consisted of identifying the data sources within the organization under study, interviewing informants, analyzing documents, and structuring the data in the appropriate manner for the method of analysis.

The intent of this subsection is to identify the specific data sources, collection methods, and the rationale for the applied methods of statistical analysis. Table 5.2 provides an overview of the study's quantitative research design.

**Table 5.2 RESEARCH DESIGN OVERVIEW**

Components of Study	Individual senior leader perceptions	Senior leader characteristics	Group perceptions (3 functional subgroups)	Formal organizational culture
<b>Instrument</b>	DoD Guide Survey-individual	Questionnaire (constructed)	DoD Guide Survey-group	Document assessment guide (constructed)
<b>Type of Data Gathered</b>	Quantitative 71-item Likert scale (1-6)	Quantitative 7-item demographics	Quantitative consensus scores, 6-item Likert scale responses	Quantitative analysis of content scores Qualitative analysis
<b>Type Scores Produced</b>	Total score plus 6 cat & 20 subcat	Single item indicators	Total score plus 6 category scores	Formal organizational belief score
<b>Population</b>	66 of 66 sr leaders 100%	66 of 66 sr leaders 100%	7 groups of 9-10 sr leaders each	30 documents (artifacts/records)
<b>Reliability</b>	Cronbach's alpha rel. coeff. >.70	N/A	Cronbach's alpha rel. coeff. >.70	Krippendorff's document analysis model
<b>Internal Validity</b>	Tested at 49 DoD organizations	N/A	Based on DoD Guide Survey	Independent coding Triangulation
<b>Stat Test / Proof Criteria</b>	ANOVA (.05 signif) Tukey HSD	descriptive statistics	ANOVA (.05 signif.) Tukey HSD	ANOVA (.05 signif.) Tukey Multi Range
<b>Administration:</b>				
• <b>Consent</b>	waived-w/o identifiers	waived-w/o identifiers	informed consent	inf. consent org POC
• <b>Location/date</b>	sr ldr off-site Apr	sr ldr off-site Apr	sr ldr off-site Apr	research site Apr-Sep
• <b>Time requirements</b>	20 min	1 min	2 hours	6-months

### Survey Considerations

**Survey Design.** The variety of survey instruments allowed for the collection of data in a manner that was both cross-sectional (collected at one point in time) and longitudinal (collected over a period of time). The data from the DoD Guide, which provided individual and group perceptions and the demographics survey, was obtained during an off-site senior leader conference and was thus cross-sectional. The document assessment guide was used to obtain data over a five-month period and was thus longitudinal in nature.

**Variables.** Variables are characteristics which can take on different possible outcomes. As is typical in survey research, this study contained a mix of quantitative (numeric) and qualitative (nonnumeric) variables. The personal characteristics of the senior leaders represent the nonnumeric variables and include such items as age, sex, type of government service, length of time in government service, length of time in the organization, and education level. The senior leader belief scores (both individual and group) and the formal organizational belief scores (from document assessment) provided numeric representations in such areas as strategic focus, senior leader commitment, work force involvement, customer focus, and interpersonal communications.

### Design Considerations

**Population and Sample Selection.** The population is the totality of elements which is of interest. The study's population for the senior leader perceptions score was 66 individuals identified by the researcher and validated by organizational officials as being the "senior leadership." Seven groups of samples of 9-10 senior leaders each served as the population for obtaining the group perception scores. Further, three subgroups of 21, 13 and 32 individuals each served as samples of the larger senior leader population. The organization's documents, artifacts, and records relating to TAQ provided yet another population. A total of 30 documents (Appendix A) were identified by the researcher and validated by organizational members and a second researcher as representative of the organization's formal TAQ beliefs.

**Order of Experimentation (questionnaire content and structure).** This section addresses the specific structure and content of each of the primary instruments which include: 1) the DoD Guide Survey for individual perceptions, 2) the population demographics survey, 3) the DoD Guide Survey for group perceptions, and 4) the Document Assessment Guide. The source of the DoD Guide Survey (instruments 1 and 3) is from one primary data collection instrument – the Department of Defense Quality and Productivity Self-Assessment Guide. The DoD Quality and Productivity Guide was developed by the General Research Corporation and was designed to assist DoD organizations with the assessment of current practices, policies, and employee attitudes concerning quality and productivity enhancement. It consists of three parts and 215 questions which identify the degree of presence (or absence) of factors leading to continuous quality improvement in the areas of Organizational Climate, Productivity-Related Processes and Quality Tools. Following the methodology established by Quirin (1993) in her study of the implementation of TQM at six naval shipyards study, only the "organizational climate" part of the DoD Quality and Productivity Guide was required for use in this study. Since the focus of this study was concerned with specific beliefs related to the organization's TQM climate, and only secondarily in general work beliefs and processes, the DoD Quality and Productivity Guide could not be used in its entirety. Thus, only Part I of the DoD Guide Survey, the "Quality Climate" survey and henceforth referred to as the DoD Guide, was used in this research.

The DoD Guide was administered during a 3-day senior leader off-site and reflects both individual and group perceptions of all of the senior leaders in the organization. Individuals could choose not to complete the surveys nor to participate in the groups and

individual interviews. None of the subjects choose not to participate providing the study with 100% survey and participation rates. The results, therefore, represent a consensus of the population of senior leaders available at the off-site (n = 66). By design and as was previously noted however, the study focuses exclusively on the senior leader population whose perceptions may not be reflective of all of the members of the entire organization.

Administration of the DoD Guide – individual perceptions (Appendix D) and the demographic survey (Appendix C) followed a standardized procedure. The entire senior leader population received the questionnaires along with a cover memorandum explaining the purpose, instructions for completing, and an assurance of anonymity (Appendix B). Respondents were provided a 30-minute block of time during the senior leader off-site to complete the questionnaires. All of respondents (66/66) completed the surveys.

1. DoD Guide – Individual Perceptions. The DoD Guide is a 71-item Likert scale questionnaire in which respondents may select from a range of choices from (1) strongly disagree, (2) disagree, (3) somewhat disagree, (4) somewhat agree, (5) agree, and (6) strongly agree. The focus of the research was on measuring perceptions. Respondents were not given an opportunity to take a “neutral” position (i.e. a “3” on a 1-5 Likert scale). DoD Guide Scores that are lower than or equal to 3.50 mean that some practices considered to be helpful for quality and/or productivity may be absent in the organization. The 71-items are organized into five categories and further divided into 20 subcategories. Table 5.3 illustrates the organization of the DoD Guide in terms of the constructs of the questions into subcategories and into major categories.

The final question on the survey, item number 71, was incorporated into the survey and requested the subjects respond to the statement “Total Quality Army will be successful at Fort Carson.” This question was designed to capture the senior leadership’s perceptions concerning the likelihood of successfully implementing TQM in the organization. These perceptions were compared with the respondent’s demographic data to assess whether the senior leader personal characteristics had an impact on the implementation of TQM.

**Table 5.3 DoD QUALITY AND PRODUCTIVITY SELF-ASSESSMENT CONSTRUCTS OF QUESTION ITEMS TO CATEGORIES AND SUBCATEGORIES**

<b>CATEGORY</b>	<b>ITEMS</b>	<b>SUBCATEGORIES</b>
<b>Strategic Focus</b>	<b>1-21:</b> 1-6 7-11 12-13 14-18 19-21	<ul style="list-style-type: none"> <li>• Awareness of Strategic Challenge</li> <li>• Vision for the Future</li> <li>• Innovation</li> <li>• Quality Policy/Philosophy</li> <li>• Value Systems/Ethics</li> </ul>
<b>Leadership Management</b>	<b>22-35:</b> 22-25 26-28 29-31 32-33 34-35	<ul style="list-style-type: none"> <li>• Top Management Involvement</li> <li>• Visible Commitment to Goals</li> <li>• Role in Quality Improvement Process</li> <li>• Concern for Improvement</li> <li>• System for Quality Improvement</li> </ul>
<b>Work Force</b>	<b>36-64:</b> 36-37 38-41 42-45 46-47 48-50 51-52 53-57	<ul style="list-style-type: none"> <li>• Awareness of Quality Issues</li> <li>• Attitudes/Morale</li> <li>• Cooperation</li> <li>• Involvement</li> <li>• Perceptions of Work Environment</li> <li>• Social Interactions</li> <li>• Task Characteristics</li> </ul>
<b>Customer Orientation</b>	<b>65-66</b>	<ul style="list-style-type: none"> <li>• Customer Knowledge</li> <li>• Customer Care</li> </ul>
<b>Communications</b>	<b>67-70</b>	<ul style="list-style-type: none"> <li>• Communications Channels</li> <li>• Exchange of Information</li> </ul>
<b>Outlook</b>	<b>71</b>	

The DoD Guide reliability was tested using Cronbach's Alpha which is based on the internal consistency of scales (Cronbach 1960). The alphas for the DoD Guide scale ranged from .70 to .98 suggesting an acceptable range of measurement stability. Reliabilities of .70 or higher are considered satisfactory (Quirin 1993, 59). A copy of the DoD Guide – Individual Perceptions is at Appendix D.

In order to examine the internal validity of the DoD Guide scale measures, the Defense Productivity Program Office pretested the Guide at six DoD organizations. A revised version was tested at 49 DoD organizations. Test results provided evidence of the Guide's internal validity (Quirin 1993, 59). A detailed report for reliability and validity testing is available at OASD, 5203 Leesburg Pike, Falls Church, VA 22041.

2. Population Demographics Questionnaire. A demographic questionnaire was prepared and administered to the senior leader group along with the 71-item DoD Guide Survey. It was constructed to provide insights into seven specific demographic areas of the respondents: age, gender, type of service, length of time in service, length of time at the research site, level of education, and position among the senior leader subgroups. The intent of obtaining this data was to ascertain whether individual differences in these areas might be relevant to the senior leader culture of the organization and the implementation of TQM. A copy of the demographic survey is at Appendix C.

3. DoD Guide-Group Perceptions. As with the 71-item DoD Guide for assessing individual perceptions, this survey surfaced from Part I of the DoD Quality and Productivity Self-Assessment Guide. It also uses the 6-item Likert scale format of the DoD Guide in which responses range from (1) strongly disagree to (6) strongly agree and does

not permit respondents to take a neutral position. It differs from the DoD Guide Individual Perceptions Survey in that it was administered to small groups of subjects and focuses only on the six major organizational climate categories as illustrated in Table 5.3. These six categories are strategic focus, leadership, work force, customer orientation, communications, and outlook. The group survey instrument is provided at Appendix E.

Administration of the DoD Guide - Group Perceptions to the three functional senior leader subgroups followed a standardized procedure. As with the Individual Perceptions Survey and the Demographic Survey, the Group Perceptions Survey was administered during a senior leader off-site. A two-hour period of time was allotted to conduct the survey; however, several groups continued their discussions into the lunch period and thus requiring 2 ½ - 3 hours to obtain a group consensus concerning the six questions. The researcher endeavored to create a relaxed environment by conducting the group interview in a quiet conference room with ample refreshments. The letter to participants document (Appendix B) was paraphrased aloud to remind the participants as to the purpose of the study, how the group interview fit into the study, and the assurance of anonymity. The researcher emphasized the academic nature of the research study as opposed to the notion of the study ending in an official report and the identification of the respondents "official positions" on issues. The respondents were further assured that since the focus of this particular survey was on the perceptions shared among the group, individual responses attributed to specific respondents would not be used in any way.

The Group Perceptions Survey (as depicted in Appendix E) was enlarged and placed on a poster board for providing visibility for the entire group. Respondents were encouraged to ask clarifying questions concerning each of the generalized belief ques-



tions. Each respondent spent a few minutes thinking about the specific questions and then gave an uninterrupted response typically lasting a few minutes. The discussion was next opened up to the entire group and respondents were encouraged to talk to each other in explaining, agreeing, and/or disagreeing on the question. The researcher then focused the interview on specifically answering the questions. For example, the first generalized belief question asked: "To what extent does this group believe that there is a strategic focus at Fort Carson?" The researcher asked TAQ-related supporting questions that were tied to the general beliefs question. Such supporting questions of the first generalized belief questions included: "To what extent is there an awareness of strategic challenge at Fort Carson? To what extent is there a vision of the future at Fort Carson? To what extent is there a value system guiding our strategy? What is your opinion concerning these important dimensions of strategic focus?"

Finally, the group was asked to find a point on the six-point Likert scale (the same scale used on all of the surveys) that best captured their collective view of the general belief question. Each group was encouraged to discuss their rationale before arriving at a common point, acceptable to all, to rate the question. While respondents were not required to numerically rate a particular question if they found themselves in fundamental disagreement, none of the seven groups encountered this situation. As a result of this method of group dialogue and assessment of generalized beliefs, the researcher was able to obtain a solid picture of the shared views of the senior leadership, both verbally (qualitatively) and numerically (quantitatively).

4. Document Assessment Guide. As Table 5.1 illustrates, the Document Assessment Guide was one of the primary instruments used to answer research question two -- “Is there a difference in the organization’s formal TAQ beliefs and those of its senior leadership?” The intent of the Document Assessment Guide was to measure formal TAQ beliefs through a content analysis of the organization’s documents, artifacts, and archival records.

A multi-step procedure was employed in analyzing the organizational documents and records pertaining to TAQ following the works of Krippendorff (1980), Holsti (1969), and Pernick (1990). Broadly, the steps included identifying relevant research questions, hypothesizing a set of beliefs, testing the hypothesized beliefs with a sample set of documents, and agreeing on a final set of beliefs to compare with the documents in question.

The researcher hypothesized that the set of beliefs held by the senior leaders and that were motivating the organization to embark on this major organizational change were those of laid out as major categories in the DoD Guide Survey – strategic focus, leadership, work force, customer orientation, communications, and outlook. To determine the accuracy of this hypothesized belief set, interviews were conducted with 18 senior leaders from among all of the functional subgroups. These senior leaders were asked two questions: 1) their reaction to the hypothesized set of beliefs and 2) what other key beliefs, if any, should be included. With some minor exceptions, all six of the beliefs were validated by the senior leaders.

A total of 30 documents (Appendix A) were reviewed for the presence or absence of the six beliefs – either directly or inferred. The six beliefs were used as *a priori* concepts with which to compare the organization's documents, artifacts, and archival records.

The recording unit of analysis was typically a sentence or phrase, but also included the essence of entire paragraphs. A second coder was used in order to enhance the validity of the document analysis process. The second coder, as with the researcher, was an organizational "insider" yet detached from the senior leader group and was, as such, familiar with the organization and the TAQ change initiative. He was trained by the researcher in the methods of content analysis, the six key beliefs, the recording unit concept, the data collection instruments, and the 30 organizational documents.

We independently coded and compared our results on five sample documents to examine any dissimilarities in coding approaches. We sought to understand our cognitive approach to the analysis and in subsequent discussions agreed to adhere to the most narrow meaning code the documents using the sentence as the primary recording unit.

The document analysis procedure follows three sequential steps: 1) recording the number of occurrences of each of the six beliefs found in each document, 2) conversion of raw scores (occurrences) to a 1-6 Likert scale, and 3) computing a formal organizational beliefs score from the category totals. Overall, there was ample evidence of the six underlying beliefs that related to TAQ. The researcher's analysis of documents revealed 942 indications of the beliefs. The second coder found 918 references to the beliefs.

In gross terms, the researcher and second coder disagreed 64 times – that is, not having seen the same frequency of beliefs expressed and/or its existence. For example, on document # 1, the researcher perceived the presence of key belief # 4 (customer focus)

three times while the second coda saw this belief four times. Thus, this was counted as a disagreement, even though both saw evidence of this belief. Appendix G provides the format used for coding documents. Appendix H provides the numerical breakout of our coding decisions. Appendix H, page 2, depicts the conversion of raw scores (occurrences) to the 1-6 Likert scale by the coders as well as the totals used for computation of the formal organizational beliefs score.

The procedure used for assessing the inter-rater reliability of coders follows Holsti's (1969, 140-141) model. In this study, Holsti's computational method (Appendix D), yielded an inter-rater reliability of .780. Holsti notes that some researchers maintain that an acceptable level of reliability should be greater than .80. He disagrees with this blanket statement arguing instead that the study in question should determine the appropriate level of reliability because the complexity of the categories will determine how much agreement can be reasonably expected. Holsti further points out that it is fairly easy to increase the reliability coefficient by narrowly defining the coding categories or restricting the range of documents to include only easily understood material (Pernick 1990). The researcher made a deliberate attempt to impose no such restrictions in this study.

**Levels (scales) of Measurement.** The quantitative analysis that a researcher can perform on a given set of numbers is dependent on the level of measurement attained. Two of the four principle levels of measurement were used in this study. The senior leader characteristics used the lowest level of measurement – the nominal scale. The characteristics represented a classificatory scale. They were classified into categories that

was exhaustive (that is, included all cases of that type) and mutually exclusive (that is, no case could be classified as belonging to more than one category). Accordingly, descriptive statistics were the appropriate measures of associations among the variables. In contrast, perception scores (individual and group) reflected an ordinal scale as is frequently encountered in survey generated data. The researcher measured perceptions by a series of questions, whose alternative answers were ranked in ascending order. Respondents were asked to mark the number representing his or her agreement or disagreement with a given statement. Accordingly, the researcher was free to perform any number of statistical analyses as long as the order of properties was not altered.

### Analysis Considerations

The methods of analysis employed in this study were standard instruments for providing descriptive measures and drawing inferences about populations. Based on the type and amount of data collected and examined, the analysis of variance was the appropriate tool for measuring senior leader perceptions among populations.

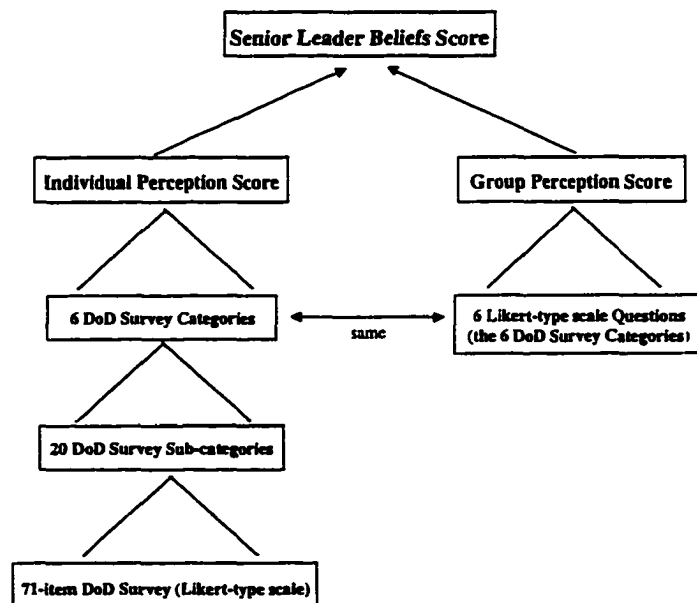
### **Analysis Procedures.**

**1. DoD Guide – Individual Perceptions.** Responses to the individual perceptions survey instrument were statistically analyzed by computing the means and standard deviations for each of the 71-items for the total senior leader population as well as the three senior leader groups. The 71 items were consolidated to their appropriate subcategories and the means and standard deviations were computed for each of the 20 subcategories. The 20 subcategories were further consolidated into the six major categories of the DoD Guide. Finally, all items were consolidated and means and standard deviations were computed

providing an overall individual perception score for the total senior leadership population and for each of the three subgroups.

**2. DoD Guide – Group Perceptions.** Responses to the group perceptions were statistically analyzed by computing the means and standard deviations for each of the six major categories. The six categories were consolidated and means and standard deviations were computed to produce an overall group perception score.

**3. Senior Leader Beliefs Score.** An overall senior leader belief score was obtained by combining the individual and group perception scores. In producing this overall score, each of the six major categories were consolidated and the means and standard deviations were computed for each. Figure 5.4 illustrates the process collapsing categories to produce an overall senior leader belief score.



**Figure 5.4 PROCESS OF FORMULATING AN OVERALL SENIOR LEADER BELIEF SCORE**

**Hypothesis.** The research hypothesis for the analysis of variance was the null hypothesis – the senior leader perceptions among the three functional subgroups are no different than those of the overall senior leader population. The alternative hypothesis is that the functional group perceptions are significantly different (greater or less) than that of the overall senior leader population.

**Test Statistic and Assumptions.** A multivariate analysis of variance (MANOVA) was used to determine the statistical significance of mean score differences among the variables. The analysis of variance was dependent on three assumptions:

1. The observations of the dependent variable (senior leader perception score) were normally distributed for each group defined by the independent variables (subculture groups).
2. The variance of the dependent variable was the same for all groups defined by the independent variables.
3. The observations were independent of one another.

With regard to the first assumption, the data within the three groups presented moderately skewed distributions and demonstrated a relatively small level of kurtosis. Since these data represented the parameters for the distinct populations, the researcher accepted the data presented. With regard to the second assumption, the parameters represented the total population and could not be changed. Since the ANOVA was being used to evaluate the variance between groups, violating this assumption would only help reject the null hypothesis. The third assumption required that the ANOVA be conducted using random samples. Since these figures represented the parameters of the population, they were random and truly representative of the dependent variable.

**Level of Significance and Test Decision Rule.** The statistical test was bound by setting the alpha level or the degree of acceptable error in making a decision regarding the probability of the null hypothesis being true. For this analysis, the level of significance was .05, meaning that the results had a 95% confidence level. In effect, this meant that the null hypothesis was to be rejected if the sample outcome was among the results that occurred by chance no more than 5% of the time.

In order to further pinpoint significant differences among the means of the population groups, the data were subjected to a post-hoc test. Tukey's Honestly Significant Difference (HSD) used the ANOVA results to show where the differences lay between means. In conducting the Tukey, the means of the populations were contrasted to determine the mathematical difference between the largest and smallest mean in a cellwise comparison. A level of significance of .05 was used to determine the Critical Q (from Toukai's Critical Values). The Critical Q was multiplied by the square root of the mean square error divided by the  $n$  of the distribution. The resulting test statistic was the level for an HSD between the means of the populations. Thus, any variation between means greater than this test statistic was considered a significant difference.

### **Chapter Summary**

The intent of this chapter was to clearly communicate the research design of the study. It was necessary to do this in an in-depth manner for two primary reasons. The first is that the study used a combined research methodology and it is important to sufficiently address both the qualitative and quantitative aspects. Second, this chapter attempts to directly addresses the research question "How is organizational culture best



assessed.” It is imperative, therefore, that the research design is presented as clearly and detailed as possible. In addressing this important research question, it is perhaps appropriate to conclude this chapter from a more theoretical perspective.

Research design, according to Pelto (1970), “involves combining the essential elements of investigation into an effective problem-solving sequence” (331). The intent of the research design devised for this study was one of building an idealized blueprint or road map that would help the researcher to conceptualize how each step should follow the one before to build knowledge and understanding. As Fetterman (1989) writes, “a useful research design limits the scope of the endeavor, links theory to method, guides the ethnographer, and assures sponsors” (18).

Different researchers require different levels of confidence about specific research findings. No one can be completely sure about the validity of research conclusions, but the ethnographic researcher needs to gather sufficient and sufficiently accurate data to feel confident about the research findings and convince others of their accuracy. The success or failure of ethnographic research depends largely on the degree to which it rings true to the research subjects as well as to colleagues in the field of study. These readers may disagree with the researcher’s interpretations and conclusions, but they should recognize the details of the description as accurate.

The ethnographic researcher’s task is not only to collect information from the emic or insider’s perspective, but also to make sense of all the data from an etic or external social science perspective. The research design of this study accommodates both of these tasks. Further, the research design used offers insights into one of the research questions that guided this study, “How might organizational culture be best measured?”

In short, the research design of this study blends qualitative and quantitative methods to interpret and describe Fort Carson's "senior leader culture" as it went about implementing a TQM model. Because changes in organizational culture are typically a subtle and evolving process, traditional experimental research designs cannot adequately reveal the nature, implications, and sequence of changes taking place. The primary data sources of the study are personal interviews, responses to survey instruments, and the analysis of documents. Analyses are conducted using standard ethnographic techniques (e.g. triangulation, key events, visual representations) to discover themes and patterns in events and informants' accounts. The research design employs descriptive, observational data that was meaningful to and used by the informants in their environment.

The desire of the researcher in this study, in short, was to employ a research design that provided insights into assessing the question as to whether there was a "shared culture" among the senior leader population, and if so, to what extent. The significance of this information is that it might be useful in developing TQM implementation strategies and assessing whether particular aspects of an organization's culture are supportive or resistant to quality interventions.

## **CHAPTER VI**

### **RESULTS**

#### **Overview**

Two purposes of this study were to investigate the relationship of organizational culture with the implementation of Total Quality Management and also to assess the assumption that there is a “shared culture” among the senior leadership of the organization. These two dimensions are important in the study of organizational change because senior leaders not only have the responsibility for devising plans and setting strategic direction, but also for implementing change and guiding actions that will realize those plans. In short, senior leaders set the “quality tone” for the organization.

At a basic level, substantive change requires alteration of existing value and meaning systems. If senior leaders do not ensure that their roles, behaviors, thoughts, and actions are consistent with the quality philosophy, then it is difficult to create an organizational culture supportive of it. Accordingly, the focus of the research efforts in this study was on investigating the existing values, beliefs, and assumptions embedded in the structure, processes, and perceptions of the organization and its senior members.

The purpose of this chapter is to present the results of the evaluation and analysis of the data and to structure it in a manner that conclusions can be drawn. In keeping with the design of the study, the findings are presented primarily in ethnographic (qualitative) form and then further supported by quantitative findings. The focus of the ethnography is

on describing the struggles and the lessons learned by the senior leadership of the organization as they initiated strategic change in keeping with a TQM model. The themes that emerge in these findings relate primarily to the senior leaders' struggles in implementing change. The roots of these struggles are in the uncertainty regarding the next step to take and in the need for the senior leaders to personally transform the way they go about their work. The conclusion that begins to emerge from the findings is that if strategic organizational change is to occur, it must be preceded by personal changes in those at the top of the organization.

The chapter is divided into four major sections. The first section is a case history of government and TQM. This background material is important in understanding the forces for change experienced by the organization. The second section provides a brief overview of the research site -- a case history of Fort Carson and the chronology of its implementation of TQM. The focus of the third section is on the struggles of the senior leaders in bringing about strategic change. It presents, in ethnographic narrative form, the perceptions, interpretations, and experiences of the informants as recorded by the researcher. The fourth section addresses the research questions from a primarily quantitative perspective. It is in this section that the results of the statistical analyses are presented and interpreted.

It is perhaps useful here to briefly review the methodology used. Thick description and verbatim quotations are the most identifiable features of ethnographic field notes, reports, articles, and books. Ethnographers take great pains to capture the details of a cultural scene or event. The aim is to convey the feel, as well as the facts, of an observed event. These thick descriptions start out as long, unwieldy, redundant entities in note

form during fieldwork. The researcher must carefully select and prune these notes to illustrate key points or to convey important themes and patterns that have emerged. Ethnographic writing, therefore, is a process of reduction as the researcher moves from field notes to refined text. The goal is to represent reality in a concise, but complete fashion -- and not to reproduce every detail and word.

Verbatim quotations are also an important feature of ethnography. They can present a host of ideas to the reader: basic "factual" data, embedded meanings, personal feelings, and internal consistency or patterned inconsistencies. In addition, the use verbatim quotations can provide the reader with sufficient data to determine whether the researcher's interpretations and conclusions are warranted.

As an administrative note, most of the references cited in this chapter are contained in the bibliography. Some references, however, are unique to the organization. These references are listed separately from the bibliography and are available for review in Appendix A (Documents 1–30). When cited in the text of this chapter, these references are annotated as "Doc" followed by the appropriate document listing number.

### **I. Case History: TQM and Government**

The importance of this section is its integration of the voluminous data collected -- a "sensemaking" of the information from a historical and anthropological perspective. This section sets the stage for subsequent sections by examining the question, "What were the responsibilities and expectations placed on the senior leaders in implementing TAQ by senior government officials external to the organization?" This background

material is important in understanding the external influences and forces for change that were experienced by the organization.

### Total Quality Management and Government

During the past fifteen years, TQM has had a major impact on business management practices (Swiss 1992). More recently, TQM has begun to spread to many government organizations. TQM was endorsed by President Bush, who said the following:

Reasserting our leadership will require a firm commitment to total quality management and the principle of continuous improvement . . . Quality improvement principles apply. . . to the public sector as well as the private enterprise.  
(Carr 1990, 2)

Likewise, the Clinton administration has strongly supported the application of TQM in the federal government. The administration's effort to bring about the "reinvention of government" is more formally known as the National Performance Review. Under the active, informed, and enthusiastic personal direction of Vice President Al Gore, the drive to reinvent government has, for a number of reasons, been energized at all levels of the federal bureaucracy (Anschutz 1996, 2).

A primary reason is that Gore began the effort with an extended series of "town meetings," held at virtually every agency of the federal government. His personal appearances and strong advocacy have sent a message government-wide: "We mean it." In each of his town meetings, the Vice President has had the agency head at his side, which had the dual effect of committing the agency head to the TQM initiatives and letting the organization know that the agency head is so committed. Secondly, Gore resisted what must have been a strong temptation to simply proclaim a "quality strategy"

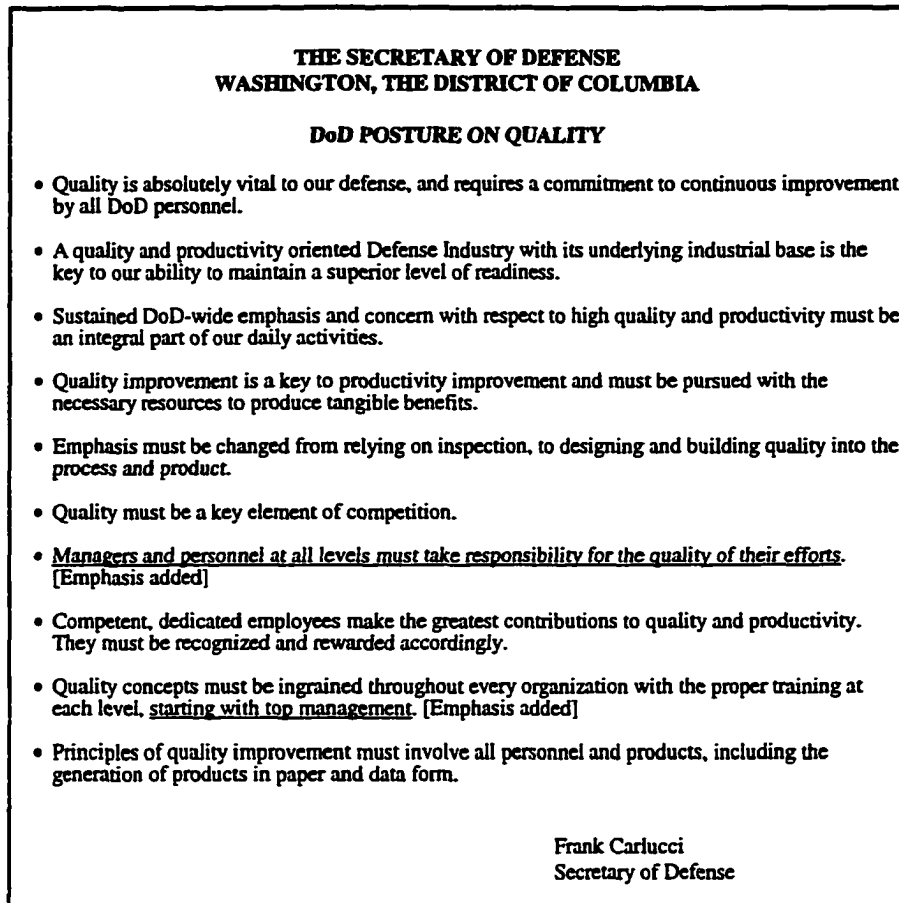
and insist on compliance. Instead, his town meetings were designed to get people at all levels involved. Because governmental officials and workers told him in very public and widely publicized forums what needed improving, those same people now have a vested interest in helping to devise the solutions.

### TQM and the Department of Defense

The Department of Defense is no exception to the impact of the tremendous changes that have occurred in the world. Following is a 1988 memorandum by the Secretary of Defense addressing this concern:

The Department of Defense is facing one of the most challenging periods in its history. We must maintain the important gains in readiness already made and at the same time continue steady improvement in the face of greater austerity, increasing technological complexity, and a growing diversity of threats. . . We believe that Total Quality Management can provide the leverage to meet these unparalleled challenges. (Saylor 1992, 151)

DoD formally initiated TQM efforts in 1988 as a way of making improvements (Saylor 1992, 148). With the issue of a memorandum from the Secretary of Defense in 1988 (Figure 6.1), TQM was officially implemented and became a priority within the DoD. The Secretary of Defense also established nine TQM principles for DoD in order to define fundamental concepts, provide rules for management action, and to create a framework for its implementation. The DoD TQM principles are: 1) continuous process improvement, 2) process knowledge, 3) user focus, 4) leadership commitment, 5) top-down implementation, 6) constancy of purpose, 7) total involvement, 8) teamwork, and 9) investment in people (DoD TQM Guide 1989).



**Figure 6.1 DoD POSTURE ON QUALITY (MARCH 30, 1988)**  
**Source: DoD TQM Guide 1989**

The DoD Total Quality Master Plan, published in August 1988, outlines DoD's TQM implementation strategy. The overall objective of the plan is continuous improvement of products and services in all DoD activities (DoD TQM Guide 1989). The master plan stresses that the successful implementation of TQM requires a nurturing, encouraging environment; a disciplined organizational methodology; and a formal, structured process improvement methodology (Saylor 1992, 153). Each individual organization in the DoD develops its own TQM implementation plan based on the framework of the DoD TQM master plan. This ensures a consistent, organization-wide approach to TQM implementation (Saylor 1992, 154 and DoD Guide 1989).



The cornerstone of DoD's TQM deployment strategy is two-fold: the commitment of senior leaders and the top-down implementation of TQM. Evidence of the importance of senior leader involvement is found in the following excerpts from the DoD TQM

**Guidelines Pamphlet:**

**TQM starts from a top-down commitment. Education must include the active involvement of top leadership. In addition, top leadership must have the skills to set the example for others to follow. . .**

**TQM will first be implemented by DoD leadership and flow down as a waterfall. This cascading deployment ensures that DoD leaders understand, demonstrate, and can teach TQM principles and practices before expecting them from, and evaluating them in, their subordinates.**

**TQM and the U.S. Army**

Since 1988, when the Secretary of Defense directed all of the military services to incorporate TQM principles throughout their organizations, the Army has implemented various management initiatives to continuously improve the way it conducts its daily operations (Vagnerini 1996, 2). A basic assumption of organizational change is that transformation cannot take place unless the leadership of that organization deeply feels a need to change. Then they must convey that sense of urgency to everyone else in the organization, which is hard to do at any time, and even harder to do if things appear to be going well. Government organizations are reported to be even less sensitive to a need to change than private-sector organizations because of the monopolies they enjoy. The concept of "customer" is a difficult one to embrace for many government agencies, especially the military service departments, because they do not have customers in the same sense that businesses do (Kidder 1996, 55).

Nonetheless, since the early 1990s, the Department of the Army has moved ahead with its implementation efforts -- primarily due to a consistent push from the top to institutionalize what it calls Total Army Quality (TAQ). While the US Army does not have a customer, it does have a mission -- to deter war and defend the nation's interests. The Army is also defined in terms of two basic aspects -- a support side and a warfighting side. The warfighting side is made up of operational forces such as the tanks, artillery, helicopters, and troop units. The support side provides them what they need -- the facilities, resources, and installation support (Kidder 1996, 56). The research site of this study, Fort Carson, Colorado, is one of several large installations that provide the Army's "warfighting forces."

**The Need for Change.** In the late 1980s and early 1990s the Army, as well as the entire DoD, was facing a budgetary and geopolitical crisis as the following suggests:

The world scene was changing. The Soviet Union was no longer a global threat, but regional conflicts were continuing, calling for new defense strategies... At the same time, the budget was dropping like a rock as the deficit spiraled out of control. The future would undoubtedly require a smaller fighting force and to close some bases. (Kidder 1996, 56)

In many respects, both the private and public sectors shared many of the same motivations to fundamentally change business practices, to adapt to an ever-changing environment, and to incorporate a continuous improvement philosophy. General Sullivan, former Army Chief of Staff, echoed the need for change with the following:

Today's Army, like many other organizations, desperately needs to transform itself to adapt to the discontinuous shifts in its environment. Incrementally changing is not enough. (Sullivan 1995, 16)

**Implementing Total Army Quality.** In 1991, the Secretary of the Army formed an executive-level team to learn about quality and to develop a continuous improvement plan with the intent of reshaping the Army into the most efficient organization possible (Army Regulation 5-1 1992). In February 1992, the Army Management Division was established to coordinate and facilitate the implementation of TAQ Army-wide (Vagnerini 1996, 2). In June 1992, Army Regulation 5-1, Army Management Philosophy, and the Leadership for Total Army Quality Concept Plan were published, which formally adopted TAQ as the Army's management philosophy. In 1994, the Army Performance Improvement Criteria (APIC), a Baldrige-based criteria, was established as a framework for assessing and improving organizational and operational performance (Doc 28, 29 & 30). In May 1996, the Chief of Staff of the Army approved a strategy to further deploy total quality principles throughout the Army. His strategy proposed a holistic approach to manage change and improve performance (Vagnerini 1996, 2).

**The Importance of Committed Leaders.** Documentary evidence indicates that the cornerstone of institutionalizing TAQ throughout the Army evolved around the personal participation and commitment of senior leaders. In the words of M. P.W. Stone, Secretary of the Army, "Implementing TAQ requires the support of every individual and organization . . . TQM is fundamental leader, soldier and civilian business!" (Army Regulation 5-1 1992, iii). Following is additional documentary evidence that has underscored the critical need for senior leaders to personally transform, accept, and to help promulgate the quality philosophy throughout the Army:

Articulation and dissemination of the vision is nearly as important as the vision itself, because unless it can be shared, it cannot be brought to bear. (Sullivan 1995, 18)

TAQ implementation involves leadership's commitment and personal involvement. (Army Regulation 5-1 1992, 28)

It is obvious from General Reimer's comments and guidance that TAQ has the support of the Army's most senior leaders and is the philosophy for managing change and improving performance in all Army organizations as they face the challenges of today, tomorrow, and the 21st Century. (Vagnerini 1996, 2)

We must transform ourselves and perform our duties at the same time. (Sullivan 1995, 19)

Leaders comprehend, are committed, and personally lead the effort to transform the organization. (Army Regulation 5-1 1992, 1)

Leaders, commanders, and managers at all levels will implement the Army management philosophy . . . (Army Regulation 5-1 1992, 3)

Unless the head of the organization is willing to devote his or her time and effort to personally lead this endeavor, it is better not to start. (Leadership for TAQ Concept Plan 1993, 28)

Implementation of TAQ involves changing the culture of the organization. . . and requires redefining the role of management. . . (Leadership for TAQ Concept Plan 1993, 10)

Leaders must walk their talk. How they spend their time and every decision they make sends a message about their commitment to quality. (Leadership for TAQ Concept Plan 1993, 12)

## **II. Case History: Fort Carson and TQM**

### **Research Site Background**

Camp Carson was established on January 6, 1942. Land for the new site was donated to the War Department by the City of Colorado Springs. The first building, the camp headquarters, was completed on January 31, 1942. On February 22, 1942, Colorado Springs newspapers reported that the new camp would be called Camp Carson in honor of Brigadier General Christopher "Kit" Carson, the legendary Army scout (Historical Summary 1996, iii). During World War II, Camp Carson served as a training

base, military hospital, and an internment camp. The internment camp opened on January 1, 1943 and was the home of nearly 9,000 Axis prisoners of war. A total of more than 100,000 soldiers trained at Camp Carson during the war. Peak troop strength occurred in late 1943 when approximately 43,000 soldiers were stationed at the camp. In 1946, after the war, Camp Carson's military strength declined to an all-time low of 600 (Historical Summary 1996, i).

With the advent of the Korean War, Camp Carson once again saw increased activity. Many Army Reserve and National Guard units mobilized, trained, and deployed to Korea from Camp Carson. In 1954 Camp Carson officially became Fort Carson. During the Vietnam War years, a total of 61 units were activated at Fort Carson to support the war (Historical Summary 1996, iii). With the purchase of the 237,000-acre Pinon Canyon Maneuver Site in 1983, Fort Carson became the second largest ground maneuver training area in the Department of Defense.

Over 3,100 Fort Carson soldiers deployed in support of the Persian Gulf War. More recently, Fort Carson soldiers have participated in peace-keeping operations in Haiti and Bosnia, humanitarian assistance missions in Guantanamo Bay, Cuba, contingency missions in Kuwait, firefighting missions in local and national forests, and counter-drug missions along the U.S.-Mexican border (Historical Summary 1996).

#### Description of Research Site

Fort Carson is located at the foothills of the Rocky Mountains between Colorado Springs and Pueblo, Colorado. It covers a total of 373,299-acres. There are 11,390,862 square feet of building space and a real property value of \$599M (Doc 29, i). Fort Carson

is one of the major troop installations in the U.S. Army. With its troop composition of approximately 16,000 soldiers, Fort Carson is one of the Army's leading "rapid deployment" posts. Its mission is to: "Prepare soldiers to train, deploy, sustain, fight, and decisively win while caring for soldiers, their families, civilians, and retirees." Fort Carson is Colorado's single largest employer and contributes over \$750 million to the area's economy. The annual military payroll for FY 97 was \$469.9M and with a civilian payroll of \$63M. As of February 1997, the Fort Carson population consisted of 16,098 active duty personnel, 4,304 civilian personnel, 31,000 family members, and 54,000 Army retirees and their family members for a total population of 105,402 (Demographic Information 1997, 16).

### **The Competitive Environment**

The following three major areas characterize the competitive environment in which Fort Carson operates:

1. **Internal competition at Fort Carson between functional and cross-functional entities competing for limited resources including budget, manpower, support facilities, and training areas.**
2. **External competition with other military installations.**
3. **Global competition in an environment of changing DoD roles and missions, economy, and the federal budget and labor pool. (Doc 29, 4)**

### **Implementation of Total Army Quality at Fort Carson**

Historical artifacts and archival records establish that Fort Carson's strategic plan and formal structure for implementing a "paradigm shift" to quality and continuous improvement occurred in November 1994. General Dennis J. Reimer, commander of Fort Carson's higher headquarters (Forces Command), made the following statement:

. . . I have challenged Fort Carson to be the model for the Army and charged them with the responsibility of developing the installation to its full potential . . .  
(Doc 29, 1)

Documentary evidence indicates that prior to 1994, quality and strategic planning were largely viewed as a decentralized function. Some documents even described it as a "loose confederation of directorates" (Doc 28, iv). Documents indicate that senior leaders began to learn about and embrace TQM starting in 1992 as they began seeing the benefits of top-driven quality leadership, planning that crossed functional stovepipes, and the systematic collection of data from key processes based on key business drivers (Docs 28, 29, 30).

In November 1994, the Commanding General of Fort Carson established an Executive Steering Committee (ESC) to guide the implementation of Total Quality Army and to provide guidance and direction to the newly formed Quality Management Boards (QMBs) (Doc 28, v). Training was provided for the installation's directorate-level executives and senior military leaders in the areas of TQM, Baldrige Award criteria, and strategic planning. QMBs were established to look at processes that needed improvement or review. Employees at all levels in the organization and across all directorates received TAQ awareness training (Doc 28, 6).

In August 1995, Fort Carson's senior leadership adopted the Army Performance Improvement Criteria (APIC) as a formal driver for change and quality self-assessment. The APIC is based on Malcolm Baldrige National Quality Award performance criteria. A formal self-assessment is conducted annually by all Army installations with the very best being selected to represent the Department of the Army in both the Department of Defense and the President's Quality Award (PQA) programs (Doc 28, 1-1). Fort Carson's

1995 APIC submission not only created a baseline for continuous improvement, but it also achieved the distinction of being the "best first product seen" by the Forces Command Headquarters (Doc 29, iii).

In January 1996, a new general officer assumed command of Fort Carson. An immediate priority of the new senior leader was setting the strategic direction for the organization and "embedding quality in everything we do." His approach and enthusiasm is depicted in the following statements:

People are Fort Carson's key to success. (Doc 25, 2)

Our strategic plan will not only influence our ongoing behavior as an installation -- it will also act as a driver and a template for actions in the future. (Doc 25, 2)

We'll work on evolutionary improvement and also look at revolutionary changes . . . to increase efficiency and effectiveness. (Doc 25, 3)

Our future success is dependent on teamwork -- the coordinated efforts of military and civilian workers and . . . shared understanding of mission, vision, values, and goals. (Doc 25, 2)

In late-January 1996 the commanding general formed a "Quality Council" of mid-to-senior level managers. The Quality Council received intensive TAQ training to serve as the installation's "quality experts." By the end of January 1996, they developed the first draft of an installation strategic plan (Doc 25). In February 1996, Fort Carson's commanding general hosted an executive off-site. It was at this off-site that 63 of Fort Carson's senior military and civilian leaders and their spouses validated and finalized the organization's strategic plan. The following vision statement was crafted by the spouse of a senior staff member and was agreed upon by the senior leader group:

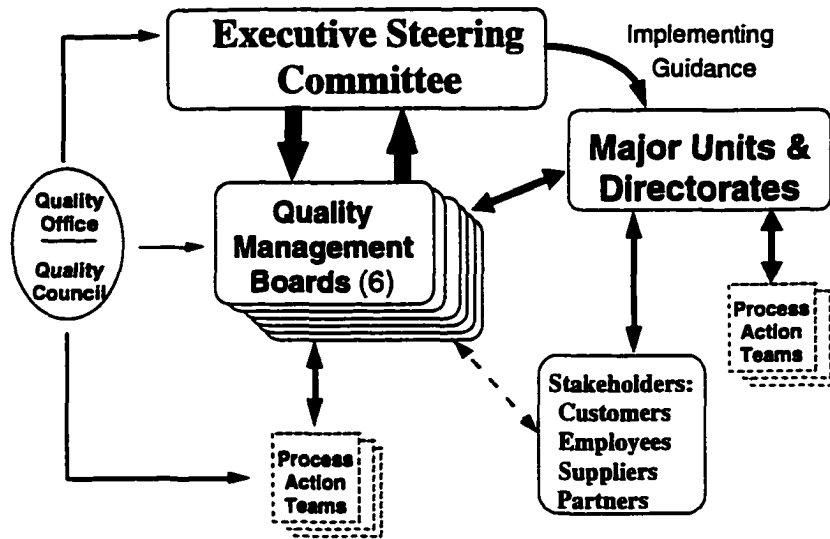


Fort Carson. . . a great place for soldiers to soldier . . . leaders to lead. . . families to grow. . . and people to work. We are a home to the force. . . a committed neighbor. . . trained to deploy, trained to fight. . . trained to win. (Docs 28, 6; 29, i; 30, i)

The senior leaders worked together to develop the following mission statement:

Operate an efficient and effective installation . . . a power projection platform . . . dedicated to training, mobilization, deployment, and sustainment of combat-ready forces, while providing a caring environment for all in a climate of cooperation and partnership with civilian and military neighbors. (Docs 28, 9; 29, 2; 30, 1)

The senior leader off-site produced a comprehensive, results-oriented strategic plan (Docs 23, 24, 25) and a formal Continuous Improvement Structure (CIS) as is illustrated in Figure 6.2 (Docs 2, 3, 4, 7). The CIS describes the ESC as the driving force behind implementing TAQ and process reengineering efforts. The QMBs were realigned along the lines of the seven key business processes identified in the Strategic Plan (Doc 29). Each QMB was made up of mid to senior-level representatives from the various directorates, tactical troop units, and agencies within Fort Carson. The QMBs were designed to act as forums for the generation of issues and processes to be considered for quality improvement. The QMBs, in turn, established Process Action Teams (PATs) to study a specific process and to develop recommendations for improving the process. Also illustrated in the CIS at Figure 6.2 is the CG's Quality and Reinvention Office -- a cross-functional team of mid-level managers that "ensured quality improvements and reengineering initiatives maintained focus and momentum at all levels" (Docs 2, 3, 4, 7).



**Figure 6.2 CONTINUOUS IMPROVEMENT STRUCTURE (CIS)**  
 Source: Commanding General's 29 April 96 Memorandum

The CG published a memorandum in April 1996 (Doc 2) that provides two important pieces of evidence, an overview of the continuous improvement structure and expectations of the senior leaders in implementing this program. An excerpt from the memorandum follows:

This is how it all fits together -- TAQ is the overall Army philosophy. The APIC is the Army program, which institutionalizes the TAQ philosophy. Baldrige is the yardstick for assessing where we stand. The Strategic Plan is the road map we use to focus our quality improvement efforts. Continuous improvement and reengineering are the tools we use to reach our quality improvement goals. Metrics are the measurements we use to track our progress towards those goals. (Doc 2, p. 3)

A common theme throughout the historical archives and documentary evidence is that in addition to a strategic plan, a formal continuous improvement process, and a formal quality self-assessment methodology, the success of TAQ depended on people -- especially those in senior leadership positions. The commanding general reiterated this message continuously as evidenced in the following documentary excerpts:

Senior executives lead by example. They are involved in a variety of activities that reiterate the direction for Fort Carson and emphasize their commitment to quality . . . (Doc 7, 3 )

Senior leaders send an important message to subordinate leaders that Total Army Quality is important . . . (Doc 9, 4)

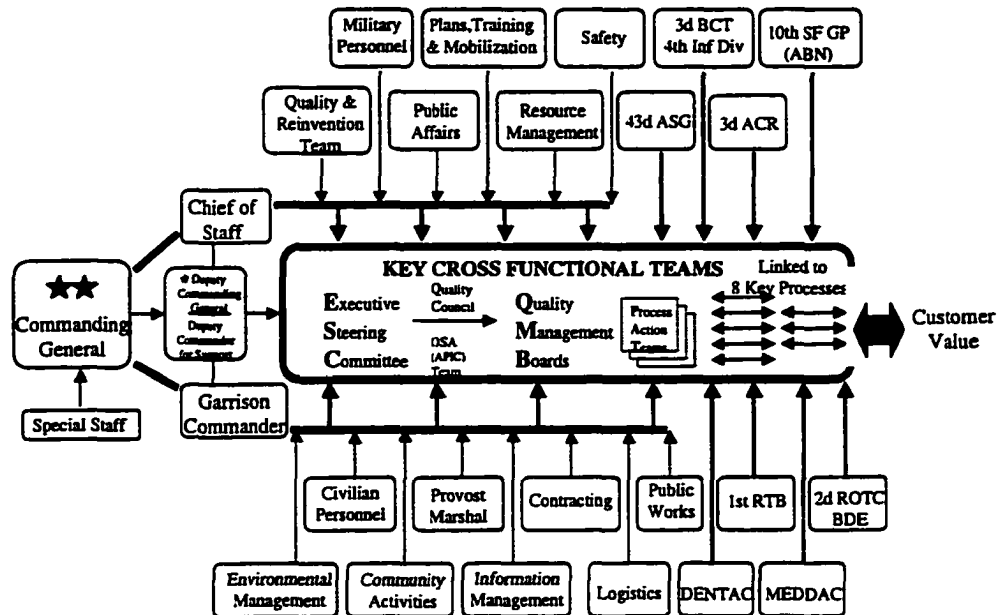
We must all become full participants in this process. (Doc 3, 6)

The key to realizing the promise of greatness embodied in TAQ is the commitment of leadership, soldiers, and civilian employees to executing the strategic plan . . . The strategic plan must not just influence ongoing behavior at the installation, it must be the driver. (Doc 25, 2)

Success at Fort Carson will be measured by our commitment at all levels to change . . . (Doc 23, 5)

In May 1997 Fort Carson revised its organizational chart (Figure 6.3) to reflect its continuous improvement structure and its reorientation toward focusing on producing customer value. The significance of this chart is that it depicts the organization's shift away from traditional hierarchical, functional lines to that of cross-functional relationships in keeping with TQM principles. This chart is also useful in depicting the formal relationships among the senior leaders of the organization whose perceptions are the focus of this study.

The implementation of TAQ at Fort Carson was largely the result of the federal government's and DoD's commitment to strategic change, quality, and "reinventing government." This quality framework and philosophy cascaded down from the Department of Defense to each of the individual services. The Army's translation of TQM into TAQ provided a framework to deploy it top-down and across the organization.

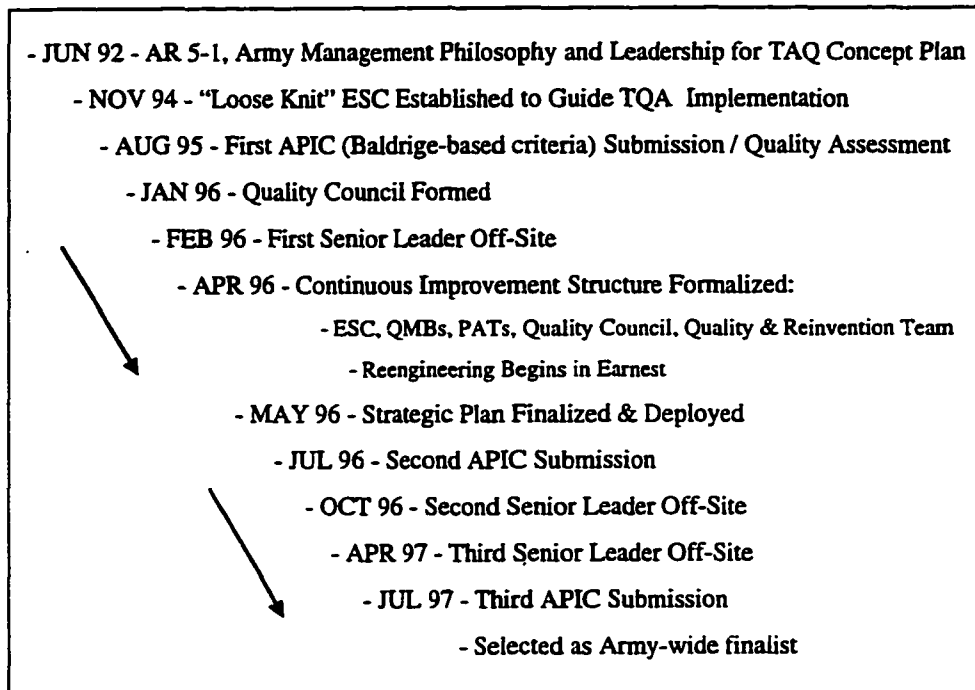


**Figure 6.3 CROSS-FUNCTIONAL ORGANIZATIONAL CHART**

Source: 1996 Fort Carson APIC Submission

Common themes evident throughout the deployment process and at all levels of government included the importance of committed senior leadership, assessment criteria, a continuous improvement structure, and the reengineering of processes to improve efficiencies. Historical artifacts and archival records at Fort Carson provide a well-documented chronology of formal efforts to institutionalize quality. Table 6.1 summarizes the evolution of TAQ at Fort Carson.

**Table 6.1 FORT CARSON'S QUALITY CHRONOLOGY**  
**Source: 1996 Fort Carson Continuous Improvement Report**



The findings presented in the first two sections largely provide relevant background material. The intent of this approach was to reveal insights as to the nature and context of the forces for change that were experienced by the senior leadership of the organization. The conclusion was that powerful external forces were the primary reason for implementing TAQ.

The intent of Section III is to provide a narrative of events, disclose elements of the informants' meaning systems, and reveal insights about organizational barriers and senior leader personal struggles as they went about implementing TAQ.

### **III. Struggles in Leading Change: Senior Leader Challenges**

The focus of this section concerns the struggles of the organization's senior leaders in bringing about strategic change in keeping with a TQM model. It presents, in ethnographic narrative form, the perceptions, interpretations, and experiences of the informants as well as the experiences and observations of the researcher. Rago's (1996) study of public sector organizational transformations provided a useful methodology for presenting the findings for this study. Further, his force-field analysis methodology provided a particularly insightful format.

The most significant issue surfaced in the study was the need of the organization's senior leaders to change the way they conceptualized and conducted their work. In the words of one senior individual, "I realized early on that this was not going to be business as usual. If we do not fundamentally change the way we personally think about leading and managing, then it is very unlikely that we will be successful in changing the organization." Another individual summarized this realization of the need to personally change with the following passage:

In preparation for our quality journey, most of us [senior leaders] were savvy enough to become very familiar the TQM literature. In addition, the consultants provided us with what seemed to be an overdose of quality workshops. Looking back, however, our conception of TQM was based on academics, not on experience. We understood the quality philosophy and all of the basic principles. But what we lacked was a deeper appreciation of their meanings which only experience can provide. What I learned is that it is one thing to officially embrace and espouse quality, and it is quite another to fundamentally change the way you manage an organization.

#### **Why Change?**

Why must the senior leadership change both their conceptualization of their responsibilities and the way they work to meet these responsibilities? What makes this

change important and not just a by-product of an allegiance to a different management philosophy? In short, the transformation of an organization's culture is contingent on the personal transformation of its senior leadership (Rago 1996).

As a public institution operating in an environment where the old ways of doing things were drawing increasing criticism, the organization appears to have been seduced by the continuous process improvement and customer focus appeals of TQM. As with most seductions, however, the senior leaders began their relationship with TQM somewhat ignorant of some of its "deeper concepts." As one individual acknowledged:

I initially thought TQM meant improving our business processes to better serve customers – simply doing better what we were already doing. My concept soon changed when I came face-to-face with that part of TQM that generated such things as 'What do we do to improve customer satisfaction when it is not as good as it should be?'

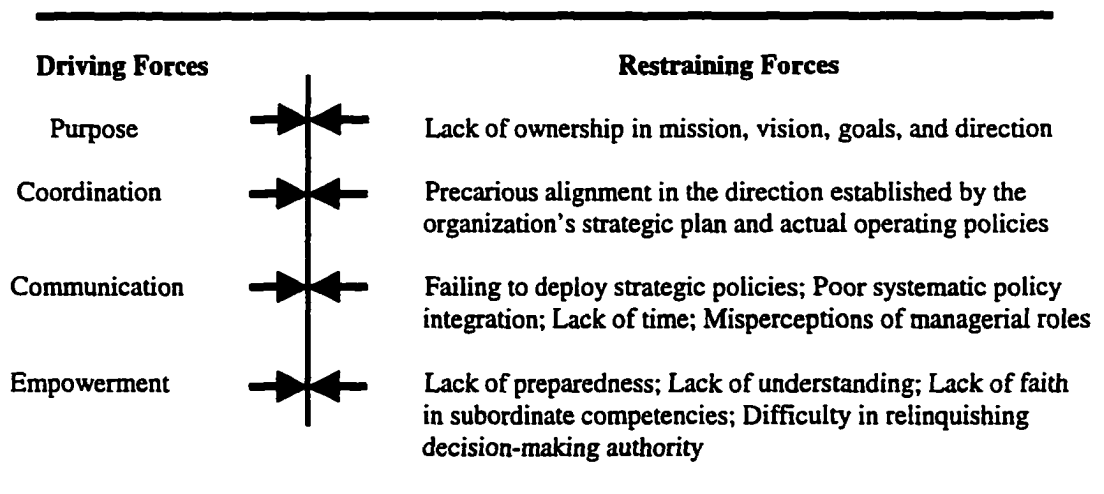
The original intent of the organization's quality journey, shaped by the environment at the time, was to reengineer processes to achieve greater efficiencies. Over the years as the senior leadership worked to implement other aspects of TQM, the organization has become increasingly sensitive to the needs and desires of its customers. This evolution reached a new height with the formulation of a vision and organizational chart (Figure 6.3) depicting cross-functional key processes focused on producing customer value – a system driven by customer needs and desires. This reconceptualization of the organization represented a major change in transformational efforts toward quality. One senior leader commented as follows:

We could mandate such concepts as customer focus and continuous process improvement and, in fact, were historically quite good at it. But we realized that if we really wanted this to work, then we needed to do more than issue mandates. This realization led us to recognize the importance of leadership and the need to personally transform the way we conduct our work.

### A Force-Field Analysis: Forces Driving and Opposing Change

The “Force-Field Analysis” is a useful conceptual model for illustrating major forces for change and those forces that restrain change. In the model, each driving force is met by a restraining force that acts to oppose the desired change. It is the antagonism between these countervailing forces that generates tensions among the workforce – and especially among the senior leadership ranks. From this tension emanates the struggle to make the required personal transformation.

Figure 6.4 illustrates four broad TAQ-related themes the senior leadership desired to incorporate into the organization’s culture – purpose, coordination, communication, and empowerment. Each of the four themes or driving forces are addressed separately and serve as a useful framework in examining the struggles of Fort Carson’s senior leaders in confronting TAQ strategic change initiatives. While Figure 6.4 implies that each theme is mutually exclusive, this proved not to be the case. In practice, the themes are, for the most part, interdependent.



**Figure 6.4 FORCE-FIELD ANALYSIS**



### Senior Leadership's Struggles with Purpose

The theme of *purpose* primarily concerns the organization's vision and mission statements. An initial goal of the new commanding general was to have all of the senior leaders possess the same understanding of the organization's mission. The intent was to ensure a uniform basis for which the senior leaders would think and act. While this may be easily said, it proved to be difficult to accomplish. The magnitude of the "identity gap" surfaced at the February 1996 senior leader off-site. In the words of one individual:

We didn't realize the extent that we had been operating on different sheets of music. The basic question of 'what is the organization's purpose?' generated a great deal of disagreement among the group. This, in turn, brought into question our priorities and goals. It was obvious that we lacked any sort of consensus concerning why the organization existed and what strategy we should collectively pursue.

Table 6.2 illustrates specific senior leader struggles related to *purpose*. As previously discussed, defining the purpose of the organization consists of the leadership activities of creating a mission and a vision. Corresponding to each of these activities in Table 6.2 are the organizational barriers and the personal struggles related to purpose encountered by the senior leaders while implementing TAQ.

**Table 6.2 ORGANIZATIONAL BARRIERS AND PERSONAL STRUGGLES RELATED TO PURPOSE**

Leadership Activities	Organizational Barriers	Personal Struggles
Mission	Lack of ownership	Not enough time to participate in meetings
Vision	Lack of consensus	Perceived relative importance of competing work responsibilities
		The leadership activities are the means for change, not the ends

**Organizational Barriers.** The most significant barriers to the senior leadership activities of developing and articulating a new vision and mission are listed in the second column of Table 6.2. Each of these barriers arose from a lack of organizational identity and infrastructure capable of supporting the desired changes. When viewed from the perspective of an ideal TQM identity, the absence of teamwork and consensus decision-making constitutes a substantial barrier. In contrast, when viewed through the lens of the traditional, “machine bureaucracy” organizational identity, the lack of teamwork and consensus not only does not cause a problem, but may even represent a strength in regard to the management approach required by the old culture.

An important observation that surfaced in the study is that if the vision and mission are to possess functional significance and not simply be cosmetic, it is important that the senior leadership have ownership of these two critical activities. In order to attain ownership of these products, it is critical that the senior leadership develops them in a group process. In this regard, teamwork and consensus decision-making are important tools toward achieving this end. As the commanding general succinctly stated at the February 1996 off-site, “we’re not creating *my* vision and mission statement, we’re crafting a *shared* vision and mission.” One senior leader offered the following:

If anyone had asked us before the off-site, ‘who owns the vision and mission?’, anyone of the senior leaders would have responded ‘it’s the CG’s.’ Now, anyone of us would say, ‘it’s ours. . . we all struggled through a long and often frustrating process of developing it and it’s truly ours. . . we own it and have a vested interest in it.’

**Personal Struggles.** The most significant personal struggles that surfaced among the senior leaders as TAQ was implemented are listed in the third column of Table 6.2. A key question concerns the willingness, or perhaps the ability of each of the senior leaders

to change the way he or she approaches their work. An observation is that it is the extent of this personal change that will determine whether teamwork, consensus decision-making, and ownership will emerge.

The first trend in personal struggles concerned not having enough time to participate in meetings. What was observed in the study was that senior leaders who did not personally transform their approach to work rarely had the time or energy to participate actively and effectively in the senior leadership's group work of developing and articulating a vision and mission. The rationale for this inability to participate is that during the turbulent time of organizational transition, work seems to spontaneously double – there is the work necessary to maintain the way things are currently done (the current identity) and there is the work necessary to do things differently (the ideal identity). The second trend in personal struggles extends from the first and concerns the perceived relative importance of competing work responsibilities. The comments of several senior leaders early in the transformation process reflect this personal struggle:

I can't get my work done if all I do is spend time in these meetings.

The ESC is a waste of my time. . . my primary job is back at my office – that's what I'm paid to do.

I can't let my deputy run everything. I'm supposed to be running the directorate. I don't have time to participate in all of these quality forums.

The boss [commanding general] needs to decide. Does he want us at all of these ESC and QMB meetings or commanding our units? . . . we can't do both.

Not only did the additional work create resentment toward change and TAQ, but perhaps more importantly, it created a situation where many senior leaders had to fundamentally change their personal approach to work, which was in itself frustrating. Some

of the senior leaders who had experienced more positive personal changes in how they conducted their work offered these comments:

**We've made a lot of progress. This new way of doing things requires us to work cross-functionally. The guys that continue to work in their functional areas will become extinct. We need team players to make this work.**

**I've had to change the way I conduct business. I count on my subordinates to make decisions in my absence. I give them broad guidance and they take it from there.**

**My role has, in essence, increased significantly. I spend more time contributing to the senior-level decision-making that affects the entire organization – and much less time worrying about the day-to-day operations of the office.**

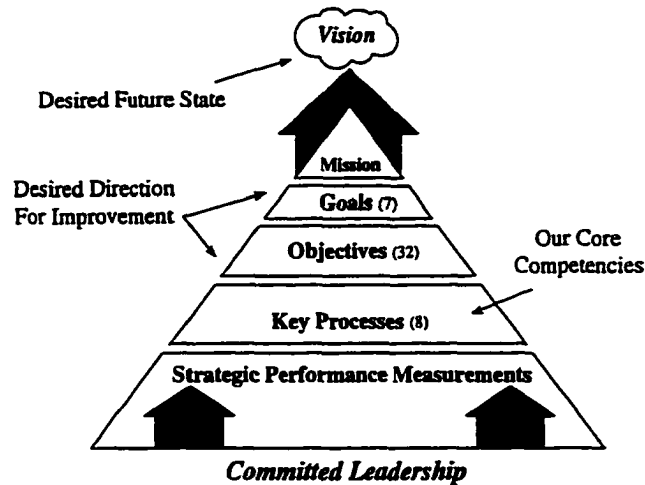
A key finding of the study, then, is that senior leaders who are unable to make a personal transformation, will not be able to spend the time required to work constructively with their senior leader colleagues not only in generating vision and mission statements, but also in the strategic management of the organization. Ownership, as it was observed, requires active participation. Further, senior leaders who lack this ownership, tend not to follow the general direction of the organization, do not shape their decisions in accord with the organization's mission and vision, and do not communicate these critical elements to their subordinates.

The last of the three major personal senior leader struggles involves the realization that the leadership activities of developing and articulating a vision and mission are the means for change and not the ends. This may be a difficult issue since the first two struggles must be resolved if the personal transformation is to succeed. The development of a shared vision and mission was only an initial step and, at best, a temporary success. Many organizations draft vision and mission statements, but rarely are they used to

influence the strategic management of the organization. Simply writing these statements cannot move the organization from its current (“who we are”) to its ideal identity (“who we want to be”). The observations from this study are that senior leaders must see beyond the statements themselves and to the role they play in synthesizing the activities of the organization. They must see the whole of the organization change process in order to effectively manage any of the individual parts. It is only with the development of an organizational *purpose*, that there is a basis for synthesizing activity throughout the organization and, simultaneously, the basis for change.

### Senior Leadership’s Struggles with Coordination

The theme of *coordination* concerns the senior leader activities of developing organizational goals and integrating these into a coherent strategic plan. The vision statement developed by the senior leaders looked at the organization from an eight to ten year perspective. While this long-term view is important, the senior leaders realized that a shorter time horizon was required for making decisions that impact on daily operations. In this regard, they developed seven broad goals and 32 specific operational objectives for the organization that were congruent with the long-term vision and capable of guiding short-term decision-making. Figure 6.5 is an illustration taken from the organization’s strategic plan and summarizes the framework established by senior leaders in setting strategic direction for the organization.



**Figure 6.5 FRAMEWORK FOR STRATEGIC DIRECTION**  
**Source: 1997 Fort Carson OSA**

The goals and objectives, when integrated into the strategic plan, became the means for coordinating the activity of the over 16,000 people. Several senior leaders offered these comments concerning the strategic framework:

...very important to us in providing direction and future opportunities are our strategic goals and objectives. The senior leaders established these goals and objectives in terms of a desired future condition and as a way of attaining our vision of the future.

Our strat [strategic] plan is the primary instrument of our leadership system for establishing direction and providing us with a plan that allows us to move toward our vision in a systematic manner. Our goals are broad statements that describe for us the way of attaining our vision. Our strategic objectives explain to everyone in the organization how we will achieve those goals.

Our plan is designed not just to influence behavior at the installation, but to be the driver and the template for critical decision-making.

The need for a strategic plan capable of functioning as a blueprint for guiding, empowering, and coordinating decision-making was the major reason why the senior leadership was brought together to develop and own the organization's goals and strategic plan. Historically, however, the strategic plan served largely as a public relations

document referencing past and future initiatives. Like past mission and vision statements, it was difficult to make it functional. It was not successfully employed as a decision-making tool. A primary reason for this is because the real owner of the strategic plan was the Quality and Reinvention Office whose staff was responsible for its compilation. The problem of having this office develop the strategic plan was that ownership occurred too low in the organizational hierarchy for decision-making purposes. Since the senior leaders had not participated in the development activities of the plan they did not use it to guide their decision-making. As a result, ownership never materialized. The resulting strategic plans lacked the function and purpose required to cause strategic change.

In the absence of organization-wide goals and objectives and a strong, functional strategic plan, the concept of cross-functional management proved difficult for the senior leaders to grasp. With the absence of ownership in goals and objectives, senior leaders operated within their respective areas of responsibility with minimum concern for the impact of their decisions on the performance of the organization as a whole. This often led to strong and competing functional activities at the expense of accomplishing organizational goals and objectives. As such, the senior leadership was failing to make the success of the organization of prime importance because they were occupied with enhancing their own separate subsystems. Over time and as the senior leaders' experiences with strategic change increased, many realized that for cross-functional management of the organization's key processes to be successful, they needed established goals and objectives supported by all as the basis for setting strategic direction.

**Organizational Barriers.** Table 6.3 summarizes the organizational barriers and personal struggles related to *coordination* encountered by the senior leaders during their implementation of TAQ. One important barrier is a *lack of ownership*. It is not the absence of goals, objectives, or a strategic plan – these have long been present in the organization. The issue of a lack of ownership concerns the inability of the senior leaders to relate these important documents to their daily decision-making that is a barrier. Several managers offered these comments:

I believe that the key to realizing cross-functional activities is the commitment of the leadership, soldiers, and civilian employees to embracing our strategic plan.

Our goals and objectives must drive organizational behavior, define our culture, and serve as a personal compass for each of us.

In the absence of over-arching organizational goals and objectives, cross-functional operations by management are very difficult.

A central theme that emerged from senior leaders' comments is that before any manager is willing to have his or her activity be subordinate to the whole, they need to agree with and support the general direction the entire organization is taking. Otherwise, a well-intentioned, though "territorial," attitude appears and the organization makes little progress.

Table 6.3 ORGANIZATIONAL BARRIERS AND PERSONAL STRUGGLES RELATED TO COORDINATION

Leadership Activities	Organizational Barriers	Personal Struggles
Goals and Objectives	Lack of ownership	Discipline required to make decisions based on direction established in the strategic plan
Strategic Plan	Lack of consensus	



**Personal Struggles.** The third column of Table 6.3 identifies the most prominent personal struggle underlying the barriers and impeding organizational change. The essence of this struggle is a *lack of discipline* in senior leader decision-making. What is meant by the term ‘discipline’ is simply the willingness of individual senior leaders to follow the direction established in the strategic plan as a blueprint for decision-making.

Several senior leaders offered these comments:

I think the installation has always had a fairly good strategic plan. The problem is that the staff put it together without much input from the leadership. It was briefed once a year to all of us and I suppose most of us keep a copy of it somewhere. I can’t say I ever used it or referred to it in the course of my decision-making. Most of my decisions reflected the needs of my directorate.

I have a pretty good idea on the general direction we’re [the organization] heading. But I can’t tell you exactly what the goals and objectives are and, I must admit, I seldom refer to them.

I didn’t usually consider whether my decisions impacted upon or were in alignment with the goals of entire organization. After working together at our off-site and building our current strategic plan, I understand much better what it will take to make us all successful. Now I find myself making decisions or compromising on important issues that will benefit the installation – sometimes at the expense of my shop.

I can honestly say we’ve done a pretty good job of incorporating the strategic plan into how we make decisions and conduct business. The goals and objectives serve as a guide for all of us on how to act and make decisions. The objectives are tied directly to my performance evaluation report. I have a vested interest in participating in the process of developing our strategic plan.

Although the “lack of discipline struggle” may have its roots in barriers such as ownership, it also represented a personal transformation that each of the senior leaders needed to make. Senior leaders that were unable to personally change to the “ideal identity” of cross-functional management based on organizational-wide goals, continued to produce products or services that were misaligned and poorly coordinated. Those

senior leaders that made the personal changes that allowed them to see the value of participating in the strategic planning process, and then used the resulting strategic plan to guide their decisions, were markedly more successful.

### Senior Leadership's Struggles with Communication

The first two of the four senior leader struggles, *purpose* and *coordination*, are concerned with the leadership activities of providing direction for the organization – the desired movement of the organization from its current identity to its ideal identity. The next senior leader struggle concerns the *communication* of this direction throughout the organization. This activity is known as “policy deployment” in the TQM literature.

Policy deployment includes the need for senior leaders to communicate the vision, mission, and strategic plan to other members of the organization. Simply communicating the content of these documents is not sufficient however. Communicating the intent of these documents is the critical task of policy deployment. Senior leaders, therefore, need to fully comprehend and internalize the intent of organizational policies if they are to know how to apply them in the myriad circumstances that arise unpredictably in the course of daily operations. Communicating the organization's policies means integrating the intent of the mission, vision, goals, and objectives into the daily operating environment, management directives and policies, and performance standards. Poor communications lead to potentially contradictory activities across the organization, waste, duplication, and ultimately, to customer dissatisfaction. Two senior leaders offered these comments concerning the importance of communications:

The strategic policies developed by the senior leadership are an invaluable resource for synchronizing our operations, measuring our strengths and weaknesses, communicating with our many shareholders as well as among ourselves, and in evaluating our progress toward achieving our vision of the future.

It is critical that our strategic decision and core policies are fully understood by the senior leadership team and deployed both functionally and cross-functionally. The communication of these important policies must cascade throughout the organization providing a top-down, well-defined, and integrated system.

Table 6.4 summarizes the organizational barriers and personal struggles related to *communication* encountered by the senior leaders during their implementation of TAQ.

**Table 6.4 ORGANIZATIONAL BARRIERS AND PERSONAL STRUGGLES RELATED TO COMMUNICATION**

<b>Leadership Activities</b>	<b>Organizational Barriers</b>	<b>Personal Struggles</b>
Policy deployment	Lack of time Reluctance to travel throughout the organization Poor systematic policy integration	Comprehending and deploying organizational policies as a critical part of the managerial role

**Organizational Barriers.** The most significant barriers to the senior leader activity of policy deployment that surfaced in the study concern the lack of time, a reluctance to travel and interact outside of the office, and poor systematic policy integration. To be effective at communicating organizational policy, senior leaders must allocate sufficient time and be willing to travel and interact with a multitude of shareholders to discuss the intent of the guiding policies they have developed. A general lack of desire in allocating sufficient time to this important task is the most significant barrier to policy deployment. If senior leaders are not willing to fundamentally change their approach to their

managerial roles, they will not have the time to travel, interact, and effectively communicate policies that should be guiding the organization.

**Personal Struggle.** The most significant personal struggle with communication that was observed was the difficulty senior managers had in seeing policy deployment as an important aspect of the job. It is one thing for the senior leadership team to interact and work collaboratively to develop and produce a guiding and strategic plan, and it is quite another for the senior leader to then travel around the organization in a deliberate effort to communicate the intentions behind the guiding policies. In the context of the current (old) organizational identity, many senior leaders saw policy deployment as a questionable use of their limited time. The ideal TQM organizational identity called for a more proactive and involved approach – the communication of policy as the basis for future decision-making throughout the organization. This identity conflict presented itself as a struggle that many senior leaders had to overcome if they were to be successful in making the changes in their personal approach to work necessary for the deployment to be realized.

#### Senior Leadership's Struggles with Empowerment

At the heart of Fort Carson's strategic leadership system are eight key business processes that define whether the organization succeeds or fails in its vision and mission. The success of any of the key processes depends largely on empowering individuals to make decisions. It is this thinking that frames the leadership activity in Table 6.5. Empowerment, as used in this study, is defined as the enabling of decision-making.

**Table 6.5 ORGANIZATIONAL BARRIERS AND PERSONAL STRUGGLES RELATED TO EMPOWERMENT**

<b>Leadership Activities</b>	<b>Organizational Barriers</b>	<b>Personal Struggles</b>
Enabling a decision-making activity in others	Inability to establish the organization's purpose and to communicate this so as to coordinate organizational activity	Lack of faith that others will make the right decisions
	Lack of preparedness to assume responsibility associated with empowerment	Difficulty in transcending personal point of view
	Lack of understanding as to the meaning of empowerment	Difficulty in relinquishing decision-making authority
	Difficulty in providing information to decision makers	

**Organizational Barriers.** As the organization implemented TAQ and struggled to change to a very different "ideal identity," a major responsibility of the senior leadership was to manage the tension that existed between empowerment of individual decision-makers and the need for the entire organization to move in some coherent direction. It was to this end that the leadership activities of purpose, coordination, and communication were directed. It is also, as Table 6.5 depicts, the reason why the inability to complete these activities became a significant barrier to empowerment. They are necessary to enable individual senior leaders to make decisions that they needed to make in order to be responsive to the success of the key processes and ultimately, the success of the organization.

A second barrier to empowerment that surfaced concerned the senior leader perception of a lack of preparedness by those they empowered to assume responsibility for a decision or task. The essence of this issue was whether the senior leadership could

hand-over full responsibility for particular tasks or decision-making to subordinates and then simply retire from the scene. The observations from the study is that they cannot do so. The comments from senior leaders, as well as direct observation by the researcher, suggested that before people or work groups can be empowered, they must receive training and achieve a level of competence that will enable them to manage themselves. A sense of order and competence had to exist in individuals and groups before the senior leadership felt comfortable with empowering them. Observations also suggest that empowerment required a deliberate act of preparedness on behalf of those empowered. In the absence of preparation or demonstrated competence, the senior leaders were very reluctant to take risks that didn't need to be taken. Thus, the lack of emphasis on preparing individuals and work groups for additional responsibilities and their own lack of preparedness stood as a barrier to empowerment. In short, the trend was that senior leaders were cautious about entrusting important decision-making responsibility to those who did not appear ready for the task.

A third barrier to empowerment that was observed in the study was a lack of understanding of the meaning of empowerment. The feeling among some of the senior leaders was that empowerment is analogous to signing a blank check. One individual noted the following:

The bottom line is that I'm responsible for everything that happens or fails to happen in my area. I can't just let any of my subordinates make key decisions. I'm very judicious in who I trust.

The general observation was that senior leaders cannot commit themselves, *carte blanche*, in advance to the decisions of those they have empowered. Instead, empower-

ment must occur within a context which is shaped in large measure by the leadership activities of purpose, coordination, and communication. Further, empowerment in this context is still insufficient. A fourth barrier relates to the difficulty of providing information to decision-makers. Senior leaders must also be willing to interact and work with empowered individuals and work groups. They must provide important information to them and to interact at critical points throughout the decision-making process and work cycles to ensure that they can support the decision. This close interaction between the empowering senior leader and the empowered individual or group tended to further shape the context from which empowerment gets its meaning in the organization and through which action is derived.

**Personal Struggles.** The organizational barriers that arose from the clash between the old identity and the new, ideal TAQ identity generated a series of personal struggles. The most prominent struggle observed among the senior leaders was the lack of faith that others will make the right decisions. The following comments offer evidence of this struggle:

I have a tough time with empowerment. Routine decision-making is no problem at all. You'll find my subordinates well empowered and supported in making these day-to-day decisions. My concern is with the big decisions. I guess my struggle is with trusting them to make important decisions and yet constantly worrying whether they have the requisite experience and background to make those decisions.

Especially when I'm on leave or away on temporary duty, I find myself anxious over whether the XO [executive officer] and staff are making the right decisions. I shouldn't, but I find myself calling in several times a day to check on things.

While on the surface it appeared that many of the senior leaders simply did not trust the judgment of their subordinates, after further observation and inquiry, a deeper, and perhaps more fundamental observation emerged. Rago (1996) noted the following:

. . . there is something about responsibility and status in organizational hierarchy that leads the manager to place his or her stamp on the decision or product of others. This may be attributed to the nature of the 'accountability hierarchy' that exists in all organizations.

This phenomena appears to lead to yet another personal struggle – the difficulty of the senior leader in transcending his or her personal view of the world and using a new perspective, derived from others, as the foundation for action. What was observed repeatedly in the study was the occurrence of individuals or work groups making decisions and senior leaders almost reflexively altering these decisions in some way or another. Even in cases where the work group reported to a different manager, the decisions would still be altered, but typically in a different way. If this phenomena is accurate, and the researcher's observations say it is, then why empower subordinates in the first place? Does the altering of decisions occur to improve the outcome or is it the result of a deeper process at work? The findings suggest that this phenomena is the result of the personal struggle senior leaders have with empowerment – the tension on one extreme of an ideal identity of embracing the empowerment of others and, at the other extreme, an inherent lack of faith in the capacity of others to make important decisions.

The last struggle in Table 6.5 concerns the difficulty of senior leaders in relinquishing decision-making authority. This struggle is, in many ways, a compilation of the other struggles. The traditional managerial roles and responsibilities along with the hierarchical structures make it extremely difficult for senior leaders to relinquish their



decision-making authority. Having a structure in place such as those represented by the previously discussed leadership activities (purpose, coordination, communications) offer an approach in providing such a structure that might facilitate empowerment.

### A Summary of Findings Concerning Senior Leadership's Struggles

The preceding sections have described the efforts undertaken and the lessons learned by the senior leaders of Fort Carson as the organization initiated strategic change initiatives in keeping with a TQM model. The findings revealed that while there have been many successes over the transition period, there has also been a series of organizational barriers and personal struggles opposing change.

The findings suggest that the roots of these struggles are in a mixture of uncertainty regarding the next step to take and in the need for the organization's senior leadership to personally transform the way they go about their work. In short, successfully implementing TAQ is contingent on the personal transformation of the organization's senior leadership – changing the way they conceptualize and approach their work. The conclusion from these observations is that if this personal transformation does not continue, it is unlikely that the effort to fully embrace TAQ will be successful.

The final section of this chapter presents the findings of analyzing, in-detail, the nature of the organization's senior leader population in terms of whether key elements of this population facilitated or resisted the strategic change initiatives. In essence, did the senior leadership team attempt to preserve the organization's status quo or did they lead the strategic change efforts?

#### **IV. Research Question Findings and Interpretations: Analysis of the Organization's Senior Leaders**

While the previous section presented the research results from an ethnographic narrative and qualitative perspective, the purpose of this section is to analyze the senior leader population in more detail and to present the results in a relatively more structured and quantitative method. This section is organized into five subsections related to each of the research questions. The format of each subsection generally follows a restating of the research question, a review of the specific quantitative methods used along with the results obtained, and a brief interpretation of the findings. The intent is that specific findings and interpretations of the data are presented in this section in a manner that broader, more general conclusions can be logically made in Chapter VII.

##### **Research Question 1**

**Research Question.** Research question 1 asked the overarching question, "Is there a shared culture among the senior leadership of the organization?" and further, asked specifically if there was a significant difference: a) between individual and group perceptions, b) between senior leader and functional subgroup perceptions, and c) among the three functional subgroups.

**Methodology and Findings.** Responses to the DoD Guide (both individual and group) were statistically analyzed by computing the means and standard deviations for each of the 71 items for the total population. The 71 items were then collapsed into the appropriate subcategories and further into the six major categories (Figure 5.4). Overall perception scores were then obtained by computing the means and standard deviations for

all six categories. These statistical procedures were followed for the total population and for each of the population subgroups.

**Question 1a.** Table 6.6 pertains to question 1a and depicts individual and group perception scores as well as the overall senior leader perception score. The importance of this table is that it illustrates where there may be significant differences between individual and group perceptions, both by major category and in the total perception scores. The six DoD Guide categories in the left most column in Table 6.6 represent 1) strategic focus, 2) leadership commitment, 3) work force involvement, 4) customer orientation, 5) effectiveness of communications, and 6) outlook for success.

Table 6.6 also reveals the degree that senior leaders perceive the presence or absence of key aspects of TAQ (e.g. strategic focus, leadership commitment, customer orientation, etc). The perception “scores” are the means of DoD Guide questions 1-71. It is important to note that DoD Guide scores that are lower than or equal to 3.50 mean that the senior leadership perceives a particular quality dimension to be lacking or absent in the organization. Conversely, scores greater than 3.50 mean that certain aspects of

**Table 6.6 DOD GUIDE PERCEPTION SCORES FOR MAJOR CATEGORIES, INDIVIDUALS, GROUPS AND OVERALL SENIOR LEADER SCORE**

<b>DoD Guide Category</b>	<b>Individual Perception Scores</b>	<b>Group Perception Scores</b>	<b>Overall Senior Leader Perception Score</b>
<b>1</b>	4.56	4.70	4.26
<b>2</b>	4.73	4.57	4.65
<b>3</b>	4.68	3.43	4.05
<b>4</b>	4.98	3.14	4.06
<b>5</b>	4.76	3.57	4.16
<b>6</b>	4.71	3.29	4.17
<b>Overall</b>	<b>4.74</b>	<b>3.78</b>	<b>4.26</b>

quality are perceived to be present in the organization. The higher the score between 3.5 and 6.0, the greater the perceived presence of specific aspects of TAQ.

**Interpretation – Question 1a.** When assessed individually, senior leaders overall perceived a much higher degree of the presence of TAQ in the organization than when responding in small groups. With a mean of 4.74, individual responses (as a group) were significantly more positive about TAQ. In fact, none of the scores in any of the six TAQ categories were below 3.50, indicating a very broad based agreement that important elements of TAQ are perceived by senior leaders to be well established. Interestingly, the categories with the highest scores are customer focus (4.98) and effective communications (4.76). The categories with the lowest scores are strategic focus (4.56) and work force involvement (4.68).

When questioned in small groups and given the opportunity to discuss and debate the questions and given the requirement to reach a consensus, senior leaders scored significantly lower (3.78) and were, therefore, less positive about TAQ. While the score is above 3.50 and on the positive side, it is only marginally so. Senior leader perceptions about TAQ, as groups, are decidedly more “neutral.” Three categories were below 3.50 and thus may be perceived as lacking in the organization. These were customer focus (3.14), outlook for success of TAQ (3.29) and work force involvement (3.43). In groups, senior leaders felt significantly more positive about the presence of a strategic focus (4.70) and leadership commitment (4.57).

As a form of triangulation, senior leaders were shown the survey results and were questioned by the researcher to explain the differences in their individual and group perceptions toward TAQ. Several of their responses follow:

**Senior staff member:** I feel very positive about the progress we've made in implementing several of the more important aspects of TQM. Obviously, the senior leadership is quite involved and committed to making it work. . . . When I completed the survey I thought that we might be lacking in a few areas, namely strategic focus. We seem to have crafted a powerful vision, but I wasn't sure of our awareness of strategic challenges and especially, including the quality philosophy into our strategy. Later when we met in small work groups and discussed the first question about strategic focus, I could see from the comments of others in the group that we actually rate pretty well in strategic focus. On the other hand, I assumed we were customer focused and rated it pretty high on the survey. . . . When we discussed this, however, we could all see that such areas as customer focus, knowledge, and care were not particularly strong and there is room for significant improvement.

**Director:** I answered the questions pretty much as they were asked in the survey. When we discussed them later, however, I saw different dimensions of each question emerge that I had not considered. . . . The group session was useful in gaining new insights.

**Battalion Commander:** I'm generally optimistic about implementing these quality improvement initiatives. I think we've done a pretty good job so far in laying a good foundation for change. As we discussed in group session, we are particularly strong in the areas of leadership and strategic focus. As several people pointed out, we need to define what we mean by being customer focused; this is tough for me to conceive of what is meant by this – especially in our organization. We also can do better communicating these quality initiatives to our work force and getting their involvement.

The differences surfaced between individual and group perceptions support the notion that organizational culture is more than the sum total of individual member responses as measured by a specific survey instrument. Culture is multi-faceted and perhaps it may be best assessed from several dimensions. As in viewing a prism, multiple dimensions must be viewed in order to appreciate the integrity of the whole.

**In summary, the most significant findings to question 1a are:**

- **When questioned as individuals, the senior leaders were significantly more positive in their perceptions about TAQ. Correspondingly, when senior leaders were provided the same questions, but in small groups, and were able to discuss them, then their perceptions about TAQ were significantly more negative.**
- **Senior leaders, when questioned both as individuals and in groups, were overall positive in their perceptions about TAQ (above 3.50).**
- **When questioned as individuals, senior leaders were most positive about customer focus (category 4) and least positive about strategic focus (category 1). Conversely, when questioned as groups, senior leaders were most positive about strategic focus and least positive about customer focus.**

**Questions 1b and 1c.** Table 6.7 pertains to questions 1b and 1c and depicts the means of the three subgroups. The importance of this table is that it illustrates where there may be significant differences among the three subgroups (question 1b) and between each of the subgroups and the overall senior leader individual perception score (question 1c). Table 6.7 also reveals the degree that each of the senior leader subgroups perceives the presence or absence of key aspects of TAQ. As with question 1a, the perception “scores” were obtained from the means of DoD Guide questions. In this case, scores that are lower than or equal to 3.50 mean that specific groups of senior leaders perceive a particular quality dimension to be lacking or absent in the organization. Conversely, scores greater than 3.50 mean that certain aspects of quality are perceived to be present in the organization.

**Table 6.7 DOD GUIDE PERCEPTION SCORES FOR MAJOR CATEGORIES, SUBGROUPS AND SENIOR LEADER INDIVIDUAL SCORES**

DOD Category	Group A MSU CDR/DIR (n=21)	Group B Senior Staff (n=13)	Group C BN CDR/DIV Chief (n=32)	Senior Leader Individual Perception Scores (n=66)
1	4.66	4.53	4.50	4.56
2	4.76	4.59	4.77	4.73
3	4.62	4.61	4.76	4.68
4	5.02	4.92	4.99	4.98
5	4.73	4.58	4.86	4.76
6	4.67	4.54	4.81	4.71
Overall	4.74	4.63	4.78	4.74

**Interpretation - questions 1b and 1c.** It is important to note that results related to these questions reflect senior leader survey responses as individuals. The results of question 1a have already revealed that individual responses were relatively more positive than those received in small groups of senior leaders. The focus of research questions 1b and 1c, however, were to ascertain whether there were any significant differences among the three subgroups. More simply stated, are the perception scores of Group A: MSU commanders and directors (the most senior of the groups), any different than those of Group B: senior staff members, or Group C: battalion commanders and division chiefs (the most junior of the groups)?

With means of 4.74, 4.63, 4.78 for groups A, B, and C respectively, each of the groups indicate very positive overall perceptions about TAQ. None of the scores in any of the three groups were below 3.50, indicating a very broad based consensus that important elements of TAQ are perceived by senior leaders to be present in the organization. In comparing the scores among each of the groups and also of each group with the overall senior leader perception score, there appear to be no significant differences.

Customer focus (category 4), for example, has the highest category score across each of the subgroups with only insignificant differences in the means- A: 5.02, B: 4.92, C: 4.99, overall: 4.98. Similarly, strategic focus (category 1) has one of the lowest scores in each of the subgroups.

Table 6.8 illustrates the demographics for each of the subgroups. It may be useful, as a second-order analysis, to consider the relationship of senior leader demographics by subgroup to perception scores. Research question 3 looks only at the relationship of senior leader characteristics to the overall senior leader perception score and therefore, does not consider this dimension.

**Table 6.8 SENIOR LEADER DEMOGRAPHICS BY FUNCTIONAL GROUP**

Characteristics	Group A	Group B	Group C	Total
1. Age				
a. < 45 years	7 / 16%	11 / 26%	25 / 58%	43 / 65%
b. > 45 years	14 / 61%	2 / 9%	7 / 30%	23 / 35%
2. Sex				
a. Female	2 / 17%	6 / 50%	4 / 33%	12 / 18%
b. Male	19 / 35%	7 / 13%	28 / 52%	54 / 82%
3. Type Govt / Svc				
a. Civilian	5 / 23%	8 / 36%	9 / 41%	22 / 33%
b. Military	16 / 36%	5 / 11%	23 / 53%	44 / 67%
4. Time in Service				
a. < 15 years	1 / 17%	3 / 50%	2 / 33%	6 / 9%
b. 16-20 years	1 / 5%	4 / 21%	14 / 74%	19 / 29%
c. > 20 years	19 / 46%	6 / 15%	16 / 39%	41 / 62%
5. Time at Carson				
a. < 2 years	8 / 27%	5 / 17%	17 / 57%	30 / 46%
b. 3-5 years	8 / 33%	6 / 25%	10 / 42%	24 / 36%
c. > 5 years	5 / 42%	2 / 17%	5 / 42%	12 / 18%
6. Education				
a. some college	4 / 36%	2 / 18%	5 / 46%	11 / 17%
b. under grad	5 / 23%	4 / 18%	13 / 59%	22 / 33%
c. grad degree	12 / 36%	5 / 15%	15 / 46%	33 / 50%
Note: Percentages rounded up and may not total				
Percentages reflect proportions of total population characteristics (i.e % of males in total population)				



Table 6.8 reveals that Group A is the most senior in age (61% of the total population over 45) and Group C is the youngest (58% of the total population 45 or younger). In terms of sex, 52% of the males are in Group C and 35% in Group A. Group B has the highest proportion of females of any of the groups (50%). Groups A and C are predominantly military and Group B civilian. The majority of the total population with over 20 years of government service is in Group A (46%). People in Groups A and C have served slightly longer at Fort Carson than those in Group B. Proportionately, Group A has the highest level of education (grad degree or higher) at 57% compared to 45% and 47% for Groups B and C, respectively.

The analysis of senior leader demographics by subgroups revealed only moderate differences. Perhaps the most striking difference is with category 6 – the perception that TAQ will be successful in the organization. The most optimistic of the three groups is Group C. Group C is characterized as being the among the youngest in age, predominantly male, slightly more military than civilian, and least experienced in terms of time in service at Fort Carson. Group B, the senior staff members, are as a group, the least optimistic. Group C, however, rates the commitment of senior leadership to TAQ (category 2) relatively lower than the other five categories. Lastly, the Group B's score for communications effectiveness (category 5) was the lowest of the three groups.

Senior leaders were shown the survey results and were questioned by the researcher to explain the relative lack of differences in perceptions among senior leaders in the subgroups and to the overall senior leader perception score. Several of their responses follow:

**Division Chief (Group C):** My intuition tells me that as a group, we are more involved with actually managing the key processes and making things happen around here. We are the ones most accountable and therefore most active in making improvements. Our close involvement with Process Action Teams is one example of this. While it appears we are pretty optimistic about quality, we also feel there is a need for more senior leadership commitment . . . more support from the MSU commanders and civilian directors. We would also like to see more detail in our strategic plan such as well-defined short-term objectives. Again, the senior leaders [Group A] can make an impact in this area.

**MSU commander (Group A):** I think the framework we have created has provided the senior leadership of Fort Carson with a common way of thinking. The off-sites, QMB and ESC meetings, and quality-related documents that have been put together and circulated have all served to provide the senior leadership with a common framework for thinking about quality initiatives. I'm not surprised that our thoughts concerning important aspects of TAQ are very similar. We've had lots of opportunities to discuss these changes and to reach some common understandings. While we may not agree on every aspect, we have a pretty good consensus of opinion among the senior leaders that it is the right thing to do and may benefit the way we do business.

**Staff member (Group B):** As you know we've been working this hard over the past few years. We have had, what four off-sites? . . . Most of us have been involved in some way with incorporating quality and reengineering into the way we do things. We've all been involved in various degrees with the strategic plan and the annual Baldrige criteria assessments. I suppose we [senior leaders] have all worked this enough that we now think very much alike. Since the job of the staff is really facilitating communications, we will probably never be completely satisfied with how we exchange information. That's probably why the staff is not quite as favorable toward the communications category in the survey as the other two groups might be.

**Methodology and Findings – ANOVA and Tukey.** The analysis of variance procedure was employed to determine whether the means of the dependent variable (senior leader perceptions by major DoD Guide categories) and the independent variables (subgroup perceptions by major DoD Guide categories) were significantly different from each other. Thus, the data from the subgroups was subjected to a multivariate ANOVA (MANOVA) to determine if the subgroup perceptions were significantly different than that of the senior leader perception scores.

The first step in conducting the MANOVA was to state the hypothesis:

$H_0: \mu_1 = \mu_2 = \mu_3$ . This implies that the mean of the population A ( $\mu_1$ , MSU CDR/DIR), was the same as the means of populations B ( $\mu_2$ , senior staff) and C ( $\mu_3$ , BN CDR/DIV Chiefs). This was coupled with the alternative hypotheses:  $H_{A1}: \mu_1 \neq \mu_2$ , and  $H_{A2}: \mu_1 \neq \mu_3$ . This constituted a three sample (parameter) test. The ANOVA tested the null hypothesis:  $H_0: \mu_1 = \mu_2 = \mu_3$ , indicating the probability that the null was true.

The data as structured for the ANOVA by grouping all of the DoD Guide responses into 18 cells. This data table, therefore, consisted of the responses to the 71 questions by category on the  $x$ -axis and the 66 respondents by subgroup along the  $y$ -axis. Table 6.9 illustrates how these 18 cells were collapsed into a smaller table appropriate for computing the MANOVA.

*Table 6.9 ANOVA SUMMARY TABLE*

		<b>A1</b>	<b>A2</b>	<b>A3</b>	<b>A4</b>	<b>A5</b>	<b>A6</b>	<b>Row</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	
<b>B1</b>	Mean	4.6576	4.75510204	4.61576	5.02381	4.72619048	4.66667	4.67404
	Sum	2054	1398	2811	211	397	98	6969
	n	441	294	609	42	84	21	1491
<b>B2</b>	Mean	4.5348	4.58791209	4.61273	4.92308	4.57692308	4.53846	4.59047
	Sum	1238	835	1739	128	238	59	4237
	n	273	182	377	26	52	13	923
<b>B3</b>	Mean	4.49925	4.76785714	4.75647	4.98438	4.859375	4.8125	4.69573
	Sum	3019	2136	4414	319	622	154	10664
	n	671	448	928	64	128	32	2271
<b>Column</b>	Mean	4.55668	4.72835498	4.68339	4.98485	4.76136364	4.71212	4.73779
	Sum	6311	4369	8964	658	1257	311	21870
	n	1385	924	1914	132	264	66	4685

By grouping the data into a summary table, it made it relatively simple to statistically analyze subgroup populations (e.g. rows B1 – B3 representing each subgroup) as

well as DoD Guide categories (e.g. columns A1 – A6 representing each of the six categories).

The second step was to bound the analysis by setting the alpha level ( $\alpha$ ), or the degree of error acceptable in making a decision regarding the probability of the null hypothesis being true. For this analysis:  $\alpha = .05$ , meaning that the results had a 95% confidence level. In effect, this meant that the null hypothesis was to be rejected if the outcome was among the results that occurred no more than 5% of the time.

Third, the test statistic used in the analysis was the  $F$  statistic. The  $F$  represented a test statistic to which multivariate indices were transformed to derive a probability level. Mendenhall et al. (1993) demonstrated that  $F = \text{Mean Square Total} / \text{Mean Square Error}$ , where  $F$  was based on the number of variables minus one and the number of cases minus one representing the degrees of freedom. Thus,  $H_0$  was rejected if  $F_\alpha > F$  and lay in the upper tail of the  $F$  distribution.

Fourth, the critical value and rejection region was established. Based on  $df_1 = 2$  and  $df_2 = 4667$ , at a  $\alpha$  of .05, the critical value (establishing the rejection region for the null hypothesis) equaled 2.21 for Test A and 3 for Test B. For the interaction of the two (AB), a  $df_1 = 10$  and a  $df_2 = 4667$ , at a  $\alpha$  of .05, yielded a critical value of 1.83. Since this was a nondirectional hypothesis, any absolute value of  $F$  greater than the critical value caused  $H_0$  to be rejected.

Fifth, the test statistic itself was computed. Table 6.10 presents the ANOVA summary data regarding the calculation of  $F$  from the perception scores of the three populations. The calculated  $F$  was derived from the mean squares of the differences between and within the perception scores of the three populations.

Table 6.10 MULTIVARIATE ANOVA SUMMARY TABLE

<i>j</i> (Column)	6	Source	SS	df	MS	F	CV
<i>k</i> (Row)	3	Test A	36.664	5	7.33280205	4.83143	2.21
SSA	36.66401	Test B	7.34922	2	3.67461034	2.42113	3
SSB	7.3492207	AB	105.657	10	10.5657287	6.96154	1.83
SST	7144.8794	Error	7083.24	4667	1.51772774		
SSA+B+AB	61.644056	Total	7144.88				
SSW	7083.2353						

Sixth, and finally, the test statistic was compared with the rejection region and conclusions about the analysis were stated. Since  $F(6.96)$  was larger than the critical value (1.83), the null was rejected, indicating that at the .05  $\alpha$  level there was a 95% confidence that  $\mu_1 \neq \mu_2 \neq \mu_3$ .

In order to further pinpoint the differences, the data were subjected to a post-hoc test. Tukey's Honestly Significant Difference (HSD) used the ANOVA results to show *where* the difference lay between means. In conducting Tukey's HSD, the means of the three populations were contrasted to determine the mathematical difference between the largest and smallest mean in a cellwise comparison. The number of observations ( $J$ ) = 18, the  $df$  from the ANOVA summary table for the mean square error = 4667, and an  $\alpha$  of .05 was used to determine the Critical  $Q$  (from Tukey's Critical Values of the Studentized Range Distribution). Critical  $Q = 4.64$ , which multiplied by the square root of the mean square error divided by the  $n$  of the distribution (260). The resulting test statistic was the level for an HSD between the means of the population and equaled 0.355. Thus, any variation between the means greater than 0.355 was considered a significant difference. Table 6.11 summarizes the results of Tukey's analysis. The means exhibiting an HSD are located in cells shaded in gray (upper right corner of the table).

	Cell 4	Cell 16	Cell 10	Cell 17	Cell 18	Cell 14	Cell 15	Cell 2	Cell 5	Cell 6	Cell 1	Cell 3	Cell 9	Cell 8	Cell 11	Cell 12	
	5.0238	4.9844	4.9231	4.8594	4.8125	4.7679	4.7565	4.7551	4.7262	4.6667	4.6576	4.6158	4.6127	4.5879	4.5769	4.5385	
Cell 4	0.00	0.04	0.10	0.16	0.21	0.26	0.27	0.27	0.30	0.32	0.37	0.41	0.41	0.44	0.45	0.49	
Cell 16		0.00	0.06	0.13	0.17	0.22	0.23	0.23	0.26	0.3177	0.3268	0.3666	0.3716	0.3863	0.4075	0.4469	
Cell 10			0.00	0.06	0.11	0.16	0.17	0.17	0.20	0.2564	0.2655	0.3073	0.3103	0.3352	0.3482	0.3948	
Cell 17				0.00	0.05	0.09	0.10	0.10	0.13	0.1927	0.2018	0.2436	0.2466	0.2715	0.2825	0.3209	
Cell 18					0.00	0.04	0.06	0.06	0.09	0.1458	0.1549	0.1987	0.1998	0.2246	0.2356	0.2740	
Cell 14						0.00	0.01	0.01	0.04	0.1012	0.1103	0.1521	0.1551	0.1769	0.1909	0.2294	
Cell 15							0.00	0.00	0.03	0.0898	0.0989	0.1407	0.1437	0.1686	0.1780	0.2180	
Cell 2								0.00	0.03	0.0884	0.0975	0.1383	0.1424	0.1672	0.1782	0.2168	
Cell 5									0.00	0.0595	0.0686	0.1104	0.1135	0.1383	0.1483	0.1877	
Cell 6										0.0000	0.0091	0.0509	0.0539	0.0788	0.0897	0.1282	
Cell 1											0.0000	0.0418	0.0449	0.0697	0.0807	0.1191	
Cell 3												0.0000	0.0030	0.0279	0.0388	0.0773	
Cell 9													0.0000	0.0248	0.0358	0.0743	
Cell 8														0.0000	0.0110	0.0495	
Cell 11															0.0000	0.0395	
Cell 12																0.0000	
Cell 7																	
Cell 13																	

Tukey's HSD: Cellwise Comparison

J: 18

Critical Q: 4.64

HSD: 0.35451

Average n used in HSD Calculation: 260

Table 6.11 TUKEY'S HSD CELLWISE COMPARISON

**Interpretation – ANOVA and Tukey.** The results of the ANOVA and sub-sequent post-hoc analysis indicated that there was a significant difference (HSD) between Group B – senior staff members (in cell 4) and categories and subcategories related to the DoD Guide’s Category 6 - the perception that TAQ will be successful in the organization (cells 1, 3, 6, 7, 8, 9, 11, 12 and 13).

It is interesting to note that this finding reinforces the analysis of scores conducted in the previous section. Among the scores in category 6 by subgroup, there exists an HSD in these scores. As was identified previously, Group C (battalion commanders and division chiefs) are the most optimistic of the three groups. Group B, the senior staff members, as a group, are the least optimistic that TAQ will be successful in the organization.

Tukey’s HSD reveals a second significant difference between Group B – senior staff members (in cell 16) and categories and subcategories related to senior leader commitment (cells 3, 7, 8, 9, 11, and 13). Group B, as a group, has a score that is lower and significantly different from the scores of the other two groups. In short, the perceptions of the senior staff members toward senior leader commitment is less favorable than the other two populations.

The third area of significant difference related again to Group B (in cell 10) to the category of communications effectiveness - category 5 (in cells 7, 12, and 13). Group B’s score is lower than Group A’s and significantly lower than Group C’s. This area was surfaced, as were the two other HSD findings, in the previous analysis of subgroup scores by category. As was the intent, Tukey’s HSD served to pinpoint the significant differences between cells and validate previous findings obtained.

In summary, the most significant findings to questions 1b and c are:

- Each of the subgroups indicated very positive overall perceptions about TAQ. None of the scores in any of the three groups were below 3.50, indicating a very broad based agreement that important elements of TAQ are perceived by senior leaders to be present in the organization.
- In comparing the scores among each of the groups and also of each group with the overall senior leader perception score, there appears to be no significant differences.
- Group C (battalion commanders and division chiefs) are slightly more optimistic than the other groups. Group C is characterized as being the among the youngest in age, predominantly male, have slightly more military than civilian members, and are the least experienced in terms of time in service at Fort Carson.

## Research Question 2

**Research Question.** Research question 2 asked, “Is there a difference between the organization’s formal beliefs and those of the senior leadership?”

**Methodology and Findings.** The formal organizational beliefs related to TAQ, as determined by a content analysis of 30 documents, is compared and contrasted with the collective beliefs of the 66 senior leaders of the organization. The significance of this question is that it may provide important insights into how the organization framed their ideal identity – “who they want to be” (Dynamic Reframing Model).

The senior leader beliefs score was obtained by combining the individual and group perception scores. This was done for each of the six DoD Guide Survey categories to



obtain an overall senior leader perception score. Table 6.12 illustrates the senior leader perception scores and formal organizational beliefs scores in each of the six categories.

**Table 6.12 SENIOR LEADER PERCEPTION SCORES AND ORGANIZATIONAL BELIEFS SCORES**

Category	Senior Leader Perception Score	Formal Organizational Beliefs Score
1. Strategic Focus	4.63	5.20
2. Leadership	4.65	5.43
3. Workforce	4.05	3.97
4. Customer Focus	4.06	2.25
5. Communications	4.16	2.57
6. Outlook	4.17	3.53
<b>Overall</b>	<b>4.26</b>	<b>3.83</b>

The importance of table 6.12 is that it illustrates where there may be significant differences among the two scores – the senior leader perception score and the formal organizational beliefs score. Table 6.12 is also useful in identifying where there may be significant differences among the six categories and the degree to which there is the presence or absence of key aspects of TAQ. As with research question 1, the “scores” are based on computing and then compiling the means of DoD Guide questions by major category. Scores that are lower than or equal to 3.50 mean that specific groups of senior leaders perceive a particular quality dimension to be lacking or absent in the organization. Conversely, scores greater than 3.50 mean that certain aspects of quality are perceived to be present in the organization. For the formal organizational beliefs score, the two examiners analyzed each of the documents and then annotated a specific score based on their perception that a particular quality dimension was absent or present.

With an overall senior leader perception score of 4.26 and a formal organizational beliefs score of 3.83, this suggests that there are both positive perceptions about TAQ among the senior leadership and that it is sufficiently promulgated in organizational documents (formalized beliefs). None of the senior leader perception category scores fall below 3.50, indicating a broad consensus that important elements of TAQ are perceived by senior leaders to be present in the organization.

In contrast, the formal organizational category scores reveal a relatively wider variance ranging from 5.43 to 2.25. The highest scores are 5.43 in category 2 (leadership commitment) and 5.20 in category 1 (strategic focus). Categories 3 (work force involvement) and 6 (outlook for success) are closer to 3.50 and thus more “neutral” in rating. The lowest scores are 2.25 in category 4 (customer focus) and 2.57 in category 5 (communications effectiveness).

Tukey Multiple Range procedures were used to determine if there were significant differences between the senior leader perception score and the formal organizational belief score in each of the five categories. An alpha level of .05 identified significant differences between the two scores in the categories of customer focus and communications effectiveness.

**Interpretation.** The question of the linkage between the perceptions of members of an organization and their “formal” or documented beliefs is an interesting and multifaceted one. The concept of organizational culture is difficult and has different interpretations. The interpretation used in the DoD Guide assumes organizational culture to be a set of attributes which can be perceived about an organization as it relates to certain practices and procedures in encouraging a quality environment.

The DoD Guide is intended to assist an organization in assessing its current practices, policies, procedures, and attitudes as they relate to quality and productivity improvement. It asks questions about people's perception about their organization, about organizational policies and practices, and about ways the organization uses to promote quality improvements. The data and subsequent statistical analysis showed that the senior leaders perceived strengths to be in the categories of strategic focus and leadership commitment. In fact, since none of the scores fell below 3.50, it is evident that there exists a very positive attitude about TAQ among the senior leadership.

The relatively wide variance in the formal organizational scores suggests that the senior leadership may not have a solid conceptualization of the "ideal" organizational identity that they desire to create. The document analysis revealed a very strong and coherent focus in the areas of strategic focus and leadership commitment. The analysis also revealed, however, a distinctive lack of coherency in the areas of customer focus and communications effectiveness. The evidence suggests that the senior leadership has not yet come to grips with and conceptualized the meaning of these two important areas.

These findings were discussed with various members of the senior leader population with the intent of obtaining additional insights that might validate or refute the findings.

The following excerpts are reflective of the general pattern of responses:

**Civilian Director:** The 30 documents listed here are a pretty good summary of everything we've done to implement TAQ – it's sort of our 'collective wisdom on paper.' I think we've done a good job of communicating to everyone what this all means. From all of the classes we've had, the executive off-sites, and the regular ESC and QMB meetings, I have a good understanding of TAQ. I use most of these documents here, such as the strat [strategic] plan, the CG's [commanding general's] notes, and the OSA [organizational self assessment], to keep my people informed.

**Civilian Division Chief:** I agree with these findings. . . We're doing a great job in things like strategic planning and leadership, but what we haven't got a clue about what is meant by customer focus, work force involvement and participation, and how we're going to build better and more effective communication channels. . . how are we supposed to work cross-functionally and around our key processes if we still have our stove-pipe structure in place? I'm still not sure how all of this is supposed to work.

**Military Staff Member:** I agree in concept with TAQ. . . It sounds like it will be very beneficial to the entire organization. I'm just not sure about the specifics of implementing it.

**Military Commander – Battalion:** At the macro level, we are well on track. We have done such things as identifying our key processes and have ensured their alignment with our key customer segments. . . same for the strat [strategic] plan. It's a great document at the macro level. Now I just need to figure out what all this means at my level – what is meant by customer focus to military commanders? Who exactly are my customers? How do I deploy TAQ to my subordinates?

In summary, the most significant findings to question 2 are as follows:

- The overall senior leader perception score of 4.26 and the formal organizational beliefs score of 3.83 suggests that there are both positive perceptions about TAQ among the senior leadership and that it is sufficiently promulgated in organizational documents (formalized beliefs).
- Among the category scores of the formal organizational beliefs there is a relatively wide variance. Particularly strong categories are in the areas of leadership commitment and strategic focus. Categories significantly lacking include those of customer focus and communications effectiveness.
- Feedback from the senior leader population is supportive of the findings. The general perceptions are that strategic planning and leadership requirements are well documented and understood. The areas of customer focus, work force involvement,

and communication are much less understood and formalized in the organization's documents.

### Research Question 3

**Research Question.** Research question 3 asked, "Do senior leader personal characteristics (demographics) affect perceptions concerning the implementation of TAQ?"

**Methodology and Findings.** The intent of this question was to shed light on the issue of whether TAQ would be resisted by senior leaders possessing certain personal characteristics. Are there certain personal characteristics that are supportive of TAQ principles? Are certain characteristics resistive to TAQ? The significance of these questions concerns how TAQ might be best framed and reframed during implementation in response to specific senior leader demographic characteristics.

Cross tabulations of the demographic items were compared to determine if a significant difference existed between the respondents and the DoD Guide's six categories. Item 1 – Age was collapsed from five cells to two: 45 years of age and older and under 45. Item 4 – Time in Government Service was collapsed from five cells to three: 15 years and less, 16 to 20 years, and over 20 years of service. Item 5 – Time at Fort Carson was collapsed from six cells to three: 2 years and less, 3 to 5 years, and over 5 years. Item 6 – Education Level was collapsed from five cells to three: some college, an undergraduate degree, and a graduate degree or higher. This was done because having a small or no population in a particular cell would affect the statistical analysis. The intent was that in combining cells, the analysis would have more significance.

Means and standard deviations were computed for the six categories and the overall senior leader perception score by the demographic data of age, sex, type of service, time in government service, time at Fort Carson, and education level. The Tukey procedure was used to determine if any significant differences existed between the personal characteristics and categories. Table 6.13 shows the results of means and standard deviations for the demographic data by the six categories and the overall senior leader perception score.

**Table 6.13 MEANS, STANDARD DEVIATIONS, AND F RATIOS FOR PERCEPTION SCORES BY CATEGORY AND DEMOGRAPHICS**

Category Characteristics	1	2	3	4	5	6	Senior Leader Percept- ion Score
<b>1: AGE</b>							
a. <45 years	4.63/.417	4.52/.480	4.67/.489	4.81/.563	4.91/.414	5.13/.487	4.98/.513
b. >45 years	4.42/.492	4.49/.476	4.58/.378	4.62/.409	4.53/.442	4.62/.456	4.56/.426
F-Ratio/Probability	.3229	2.8504	.8564	.3549	.5260	.4127	.3218
<b>2: Sex</b>							
a. Female	4.55/.341	4.46/.533	4.41/.443	4.81/.412	4.72/.511	4.63/.577	4.68/.405
b. Male	4.79/.312	4.84/.313	4.72/.319	4.79/.482	4.70/.420	5.06/.341	4.80/.416
F-Ratio/Probability	.0219	.1624	.0019	.0214	.2209	.1426	.7263
<b>3: Type of Service</b>							
a. Civilian	4.56/.419	4.68/.461	4.78/.370	4.62/.410	4.65/.421	4.72/.403	4.64/.485
b. Military	4.81/.493	4.72/.415	4.29/.478	4.34/.528	4.71/.412	5.01/.497	4.78/.402
F-Ratio/Probability	1249	.0239	.2221	.0009	.1237	.5362	.0126
<b>4: Time in Service</b>							
a. <15 years	4.72/.393	4.73/.457	4.62/.478	4.57/.368	4.68/.419	4.65/.495	4.69/.453
b. 16-20 years	4.66/.417	4.70/.410	4.68/.476	4.61/.444	4.64/.429	4.69/.452	4.68/.421
c. >20 years	4.65/.410	4.69/.465	4.51/.456	4.52/.487	4.56/.403	4.57/.392	4.58/.432
F-Ratio/Probability	.0022	.0932	.0058	.0932	.6314	.7911	.6901
<b>5: Time at Carson</b>							
a. <2 years	4.75/.490	4.64/.475	4.68/.327	4.66/.493	4.71/.410	4.78/.429	4.70/.413
b. 3-5 years	4.71/.439	4.65/.479	4.69/.529	4.61/.506	4.72/.492	4.73/.376	4.62/.425
c. >5 years	4.65/.498	4.58/.410	4.62/.432	4.56/.419	4.42/.413	4.60/.478	4.51/.527
F-Ratio/Probability	.3169	.2377	.0014	.0002	.1185	.4561	.6327
<b>6: Education</b>							
a. some college	4.73/.371	4.69/.402	4.64/.547	4.69/.473	4.71/.498	4.59/.505	4.61/.453
b. under grad	4.70/.491	4.75/.398	4.69/.482	4.72/.462	4.68/.454	4.61/.462	4.65/.422
c. grad degree	4.68/.417	4.74/.432	4.65/.432	4.70/.436	4.65/.412	4.76/.485	4.72/.419
F-Ratio/Probability	.5211	.0023	.3214	.3125	.0029	.7612	.5834

The data relative to education and time in service showed that no significant differences existed with these characteristics and any of the DoD Guide categories. However, the statistical analysis indicated that significant differences did exist between other personal characteristics and DoD Guide categories. By characteristic, these differences are:

Age. The statistical analysis for age showed that there was a significant interaction between age and the categories of outlook and total senior leader perceptions. In addition, the mean scores revealed that the 45 years and under population had higher relative scores than the over 45 years population.

Sex. The analysis indicated that there was no significant interaction between sex and any of the six categories. An analysis of the mean scores revealed that males had only slightly higher mean scores in the categories of strategic focus, leadership commitment, work force involvement, outlook, and in the total perception score.

Type of Service (military or civilian). Statistical analysis for type of service showed an interaction between the outlook category, but none of the other categories. The mean scores of the military population were higher than the civilian population in the categories of strategic focus, leadership commitment, communications, outlook, and in the total senior leader perception score.

Time in Service. Statistical analysis showed no significant interaction between time in service and any of the six categories. However, the main scores were significant. The

population with greater than 20 years of service had lower mean scores in each of the categories relative to the other two populations (under 15 years and 16-20 years).

Time at Fort Carson. There was significant interaction between time at Fort Carson and the one category of outlook. The main scores are perhaps more significant in that the population with greater than 5 years at Fort Carson had lower scores in each of the DoD Guide categories relative to the other two populations (less than 2 years and 3 - 5 years at Fort Carson).

Education. Statistical analysis for gender indicated no significant interaction with any of the six categories. Additionally, no trends of significance appear in the mean scores of the three population groups.

**Interpretation.** The results, in the aggregate, seem to indicate that personal characteristics have, to a minor extent, an impact on senior leader's perceptions toward TAQ. Several trends surfaced from the statistical analysis as well as from the comparison of the mean scores. Three of the characteristics, age, type of service, and time at Fort Carson, had significant interaction with the category of outlook – the likelihood of success of TAQ.

Perhaps more revealing, however, are the trends from an analysis of the mean scores. Senior leaders with *higher* mean scores were, on average, 45 years old or younger, military, and had less than 20 years government service and less than five years at Fort Carson. Senior leaders 45 years of age or younger represented 65% (43 of 66) of the total population. 67% (44 of 66) of the respondents were military. Senior leaders with less



than 20 years of service were in the minority representing 38% (25 of 66) of the population. And finally, 82% (54 of 66) of the population had less than five years at Fort Carson. Senior leaders with *lower* mean scores were, on average, over 45 years old, civilian, and had in excess of 20 of government service and over five years at Fort Carson. In all but the time in service characteristic, these populations represented the minority.

These findings were discussed with members of each of the various populations (age, sex, service groupings, etc). The intent was to obtain additional insights from the populations and to obtain feedback that would validate or refute the findings. The following excerpts are reflective of the general pattern of responses:

Civilian Director (over 45 yrs old): My observation has been that no particular demographic characteristic stands out as resisting or promoting the implementation of TAQ. Some of the younger managers seem to be more optimistic about implementing these quality initiatives. Most of them have been exposed to various quality training programs and have a good understanding what TAQ can do for us.

Military Commander - MSU (over 45 yrs old): I believe that longevity has a great deal to do with a person's capacity to accept change. As the findings of the surveys indicate, those individuals that have invested a great deal of time in service, whether military or civilian, are less apt to want to bring about changes. The same goes for those people who have been working here for a long period of time . . . We need to make a special effort to get these people on board – to understand and accept what quality is all about. They're good people and we need their experience – we'll just have to help them to think 'outside of the box'.

Civilian Senior Staff Member (under 45 yrs old): You need to understand that civilians are the institutional memory around here. The military leaders are assigned here for 2 to 3 years or less, want to make a lot of changes, and then are gone before any of their ideas are put in place. If we're going to make this quality program work, we will need to work together, both military and civilian, to determine what's worthwhile with TAQ and what's not.

**Military Commander – Battalion** (under 45 yrs old): I think we're very balanced – there's no specific personal characteristic or trait that stood out in my mind as opposing TAQ. All of us are adapting to these changes the best way we can. . . Some of the older, more senior commanders and civilian directors can be difficult at times to work with, but in the end it seems that we come to some sort of consensus about what's best. The younger types and those here only a year or two seem to be are more energetic and flexible with implementing TAQ.

In summary, the most significant findings to question 3 are as follows:

- Senior leaders with *higher* mean scores were, on average, 45 years old or younger, military, and had less than 20 years government service and less than five years at Fort Carson.
- Senior leaders with *lower* mean scores were, on average, over 45 years old, civilian, and had in excess of 20 of government service and over five years at Fort Carson.
- The senior leader population, as a group, does not perceive any particular personal demographic characteristic as impacting either positively or negatively on the implementation of TAQ.

#### Research Question 4

**Research Question.** Research question 4 asks, “How might organizational culture be best assessed?” The response to this question is provided in qualitative form.

**Methodology and Findings.** The intent of this question was to explore the issue of “what is an appropriate method to study culture?” The central argument presented by the researcher in the study is that culture is a group phenomenon. Therefore, the study of culture, or any of its elements such as values, beliefs, and perceptions of people, must include both individual and group measures.

Inquiry into this assertion is performed by looking at the difference between the individual DoD Guide responses completed by each of the senior leaders and their group interview responses using the same belief dimensions. The six belief dimensions (strategic focus, leader commitment, work force involvement, customer focus, communications effectiveness, and outlook) from the major categories of the DoD Guide provided a meaningful measure for comparing individual and group perceptions. The use of the same six belief dimensions in the document assessment guide served as a meaningful way of comparing the senior leader perceptions to their formalized beliefs. Further, the open-ended personal interview questionnaire contained, as its basis, the same six dimensions, which allowed respondents a greater latitude in providing responses and surfacing perceptions important and meaningful to them. It is essential then, that individual, group, and document assessment instruments and the dimensions they measure, bear close similarity.

Tables 6.6 and 6.7 illustrate the results of using this approach. These tables aptly demonstrate the absolute differences assessing organizational culture individually, by groups of people, and through documentary analysis. The results in each case were significantly different. When assessed individually, the respondents perceived a much higher degree of the presence of TAQ in the organization than when responding in small groups. Individual responses were significantly more positive about TAQ. In fact, none of the scores in any of the six TAQ categories were below 3.50, indicating a very broad based agreement that important elements of TAQ are perceived by senior leaders to be well established.

When questioned in small groups and given the opportunity to discuss and debate the questions and given the requirement to reach a consensus, respondents scored

significantly lower and were, therefore, less positive about TAQ. While their perceptions score was still generally positive, it was only marginally so. Respondents perceptions about TAQ, as groups, were decidedly more “neutral.”

The comparison of respondent perception scores with formal organizational beliefs (document analysis results) revealed that both conveyed positive perceptions about TAQ. In contrast to the perception scores, the formal organizational beliefs category scores depict a relatively wide variance in beliefs. Certain beliefs, such as leadership commitment and strategic focus were well conceptualized and espoused. Other beliefs such as customer focus and communications effectiveness were distinctly lacking. The relatively wide variance in the formal organizational beliefs scores suggests that the senior leadership may not have a solid conceptualization of the “ideal” organizational identity that they desire to create.

**Interpretation.** As in most areas of social science, the problems of objectivity and methodology face the researcher of organizational culture. Many methodological problems exist as one strives to obtain valid information about culture. First, one needs to base the study of culture on a theoretically informed model of organizational functioning, otherwise the study will lack coherence. Since culture is probably both an independent and dependent variable, it is difficult, if not impossible to study organizational culture using the standard cause-effect paradigm that exists in most theories of organizational behavior. Second, much of culture is taken-for-granted and perhaps unconsciously, making its measurement elusive, at best.

The research approach of this study addresses some of the methodological problems encountered by researchers. The dimensions for measurement, for example, came from

Buchholz's empirical research of organizational work beliefs. By focusing on beliefs and perceptions, we not only begin to get at the essence of culture, but also cultivate an important element of culture that is specific enough to make the topic manageable.

What is evident, is that organizational culture is clearly not simply the sum total of a given set of individual survey responses. Nor is it the summing of both individual and group survey responses. Adding other dimensions to the equation, such as an open-ended interviews and a systematic content analysis of documents, begins to form an increasingly coherent picture of the "reality" of the culture.

### **Summary of Findings**

- The creation of a shared reality is the essence of culture – a consensus about what is correct, true, real – that emerges through group interaction. Because of the emergence phenomenon, it is natural for differences to arise between individual, group, and documented organizational beliefs. Individual responses can only reflect the person's own perceptual set, recall, or experiences. However, when asked the same questions in group settings, the perspectives of many people come into play, recall is more complete, and more speculation occurs as to the relative importance and cause and effect of organizational events. In short, social reality is constructed and this reflects the cultural reality of the organization.
- The results of this research offers evidence that organizational culture is not simply the sum total of individual survey responses to a questionnaire. Nor is it the summing of both individual and group survey responses. Adding other dimensions to the equation, such as an open-ended interviews and a systematic content analysis of

documents, begins to form an increasingly coherent picture of the “reality” of the culture.

### Research Question 5

**Research Question.** Research question 5 asks, “How might TQM be best implemented in a large, mature, public sector organization?” The response to this question is provided in qualitative form. It is only addressed briefly here, and then in more detail in the next chapter – Conclusions

**Methodology and Findings.** The perspective taken in addressing this question explores the issue of “If the formal organizational beliefs and the perceptions of senior management differ significantly, then to what extent will this affect the implementation of TQM?” The significance of this question is that it may shed some light on the impact of the “executive culture” on successfully implementing a TQM intervention. The importance of this question, and the basic premise of the dynamic reframing model, is that successful implementation of fundamental organizational change is, to a large degree, dependent on management’s ability to comprehend (sensemaking) and to reframe (sense-giving) change over time.

The first four research questions of this study have, in varying degrees, offered a useful methodology for studying culture and have generated findings that have assessed Fort Carson’s organizational culture – that is, the perceptions and beliefs of its “executive culture.” It is through the results of the first four research questions, then, that we can answer the question of how best to implement TAQ.

A basic assumption of the dynamic reframing model is that the implementation of TQM typically fails because it is improperly framed by the organization's senior leadership. TQM initiatives implemented as radical departures from the organization's identity fail because the cognitive structures of its members, whose cooperation is necessary for successful implementation, constrain their understanding and support of the new initiatives. As Reger (1994) points out, the current thinking about total quality and organizational identity should drive how TQM is framed and reframed throughout the implementation process. One of the key features that distinguishes TQM from other types of organizational changes is that successful implementation of TQM frequently results not only in a redistribution of resources and power, but also in a paradigm shift that may bring into question members' most basic assumptions and beliefs about the nature of the organization.

For simplicity and clarity, the dynamic reframing model assumes a shared culture – a strongly held view of organizational identity across members. Members of large organizations, such as Fort Carson, may very well have distinctive subcultural identity beliefs that are internalized with varying degrees of conviction that affect the implementation of TQM. The findings of the first three research questions reveal insights as to whether Fort Carson's senior leaders possess a "shared culture" and the degree to which it may be opposing or facilitating the implementation of TAQ. The findings were as follows:

- Senior leaders, when questioned both as individuals and in groups, were overall positive in their perceptions about TAQ. When questioned as individuals, however, they were significantly more positive in their perceptions than when provided the same questions, but in small groups.

- Each of the three distinctive senior leader subgroups were determined to have positive overall perceptions about TAQ. The high mean scores of each of the groups indicated a very broad agreement that important elements of TAQ are perceived by senior leaders to be both beneficial and present in the organization.
- There appeared to be no significant differences in perceptions among each of the three groups.
- The overall positive formal organizational beliefs score suggests that TAQ is both conceptualized among the senior leaders and, in the aggregate, sufficiently promulgated in organizational documents (formalized beliefs).
- Among the category scores of the formal organizational beliefs, some categories are significantly lacking in substance and suggest that they are much less understood and formalized in the organization's documents.
- There does not appear to be any particular personal demographic characteristic that impacts either positively or negatively on the implementation of TAQ.

### **Chapter Summary**

Thus far, the findings of the study have been presented from four perspectives. The first perspective was that of the external environmental forces promoting change that was experienced by the organization. This perspective was largely a brief case history of government's implementation of TQM. The second perspective focused on the background of the research site -- a case history of Fort Carson and a chronology of its implementation of TAQ. The third perspective offered insights into the organizational barriers and personal struggles of the senior leaders in implementing TAQ. It presented,



in ethnographic narrative form, the perceptions, interpretations, and experiences of the informants as recorded by the researcher. The fourth perspective directly addressed each of the research questions bringing together both qualitative and quantitative analyses.

The intent of this chapter was to present the results of the analysis of the relevant data and to structure it in a manner that conclusions can be drawn. The next logical step is to draw conclusions from the results presented here and to summarize the research. Chapter VII follows and offers broader and perhaps more theoretical interpretations of the research results and recommends future extensions to the research.

## **CHAPTER VII**

### **CONCLUSIONS AND RECOMMENDATIONS**

This final chapter is divided into five sections. The intent is to provide, in summary form, the answers to the following questions: What was done?, What was found?, What can be concluded?, and Where should research go from here? The chapter begins with “What was done?” -- a brief summary of the study’s topic, problem statement, purpose, and methodology. The second section, “What was found?,” is an analysis, interpretation, and set of conclusions drawn from the study’s results. The third section answers the question “What can be concluded?” -- the practical implications of the study. The fourth section, “Where should research go from here?,” offers recommendations for further research. The fifth and last section provides concluding remarks.

#### **I. What Was Done? – A Summary of the Study’s Approach**

A. Topic. The study examined a large, mature, public-sector organization’s efforts to fundamentally change its culture in keeping with a Total Quality Management model. The story is not complete, and is far from it. Although there have been successes over the past several years, these have been marked by a series of struggles that have its roots in a mixture of uncertainty regarding the next step to take and in the need for the organization’s senior leaders to personally and fundamentally change the way they conceptualize and approach their work.

Studying organizational culture can be challenging as there is no commonly accepted definition or theoretical framework to adequately explain what it really means. To some, it is the glue that holds an organization together. To others, it is a system of beliefs – clues to deeper issues. However, at deeper, less visible levels, organizational culture is formed from individual beliefs, values, and unconscious assumptions. Its invisible quality also renders it elusive and difficult to grasp, much less to change. Managers frequently focus on surface-level alterations, leaving deeper beliefs and assumptions untouched. These beliefs and assumptions, however, are those that truly guide day-to-day behavior.

Researchers differ on whether transforming an organization's culture requires a crisis or more peaceful, incremental steps. Most agree, however, that in mature, and especially public-sector organizations, little progress can be made in changing fundamental beliefs without some sort of intense stress or pressure to do so (Wilms et al. 1994). The subject of this study, a large, mature, military organization, affords some insights to the extent culture affects large-scale change initiatives. It reveals the struggles and critical roles played by the organization's senior leaders.

Next to organizational culture, another key component of the study concerns the nature of TQM. TQM is an integrated approach to management that represents a holistic management philosophy rather than a series of techniques. This "philosophy" is embedded with its own set of cultural beliefs, norms, values, and assumptions.

Culture in organizations has been described as patterns of shared assumptions (Schein 1996), socially acquired and shared knowledge that is embodied in organizational frames of reference (Rosen 1993), or as common and clear understandings (Saylor 1992). Implementation of TQM requires changes to those assumptions, frames of

reference, and understandings that organizations have typically long-developed and nurtured through interaction with their environments. Those changes will impact basic beliefs and values that both employees and senior leaders hold about work. How these changes are made and what they come to mean to the organizational members impacts the receptivity of TQM and depends on the dominant values, beliefs, perceptions, and assumptions that are evoked in the organization when the change is made.

**B. Statement of the Problem.** Quality initiatives presented as radical departures from an organization's culture fail because the cognitive structures of senior leaders constrain their understanding and support of the new initiatives. Many organizations fail to consider how their own "senior executive culture" can prevent or facilitate the implementation of change.

**C. Purpose.** The purpose of the study was fourfold: 1) To investigate the relationship of organizational culture with the implementation of TQM in a large, mature, public organization; 2) To assess the assumption that a large, mature, public-sector organization possesses a shared culture across functional subgroup lines; 3) To develop and employ a practical, but methodologically and theoretically sound way to study organizational culture; and 4) To present a conceptual model for implementing TQM.

**D. Methodology.** As in most areas of social science, the problems of objectivity and methodology face the researcher of culture. Objectivity is a challenge due to the ideological nature of culture. Any assessment of an organization's culture will reflect the perceiver's biases, whether they are those of workers', managers', or the researcher's.

As one attempts to study organizational culture, many methodological problems surface. One challenge for the researcher is the need to base the study of culture on a

theoretically informed framework or model of organizational functioning, otherwise the study will lack coherence. Since culture can be both an independent and dependent variable, it is difficult, if not impossible to study culture using the standard cause and effect paradigm that exists in most theories of organizational behavior. Another problem is that much of culture is taken-for-granted and largely “below the surface,” making its measurement elusive at best. A third challenge is that as a group phenomenon, the most appropriate organizational culture measurement method is long-term observation and in-depth interviews – both of which are costly, time intensive, and potentially disruptive to the organization (Pernick 1990).

The research approach of this study addressed some of these methodological problems. For example, the researcher relied upon work beliefs (Buchholz 1979) as primary units of measurement. By focusing on work beliefs we are able to get at an essential element of the culture and it is also specific enough to make the topic manageable.

The standardized DoD quality assessment/work beliefs questionnaire was used as a primary means of data collection. The surveys of both individual and group perceptions were complemented by in-depth personal interviews of the senior leaders. Further, a content analysis of organizational documents was performed to assess the extent of “formal” organizational beliefs concerning the implementation of TAQ.

The study employed the ethnographic research methodology and blended qualitative and quantitative methods to interpret and describe Fort Carson’s “senior leader culture” as it went about implementing TAQ. The ethnographic methodology provided, from an “insiders” view, a holistic understanding of the dynamics of human behavior within its naturalistic context. Because changes in organizational culture are typically a subtle,

evolving process, traditional research survey methods cannot reveal the nature, implications, and sequence of changes that took place.

## **II. What Was Found? – Interpretations Drawn From the Results**

### **A. General Interpretations.**

Sashkin and Kiser (1991) recommend three first steps to implementing a TQM culture in an organization. These steps are, first, to get top level leadership involvement and direction; secondly, to determine organizational fit to a TQM culture; and, finally, to establish a quality infrastructure or framework that will facilitate implementation.

The results of this study suggest that the Fort Carson organization has achieved a good deal of success in each of these steps in implementing TAQ. The findings indicate that the organization's culture, as measured by the beliefs, perceptions, and values of its senior leader population, is not in general conflict with those characteristic of a TQM culture. However, the data do indicate that, despite the overall success, the implementation of TAQ has been marked by organizational barriers, a series of personal struggles, and some differing subgroup cultural viewpoints.

A significant overall trend is the relative positive attitude among the organization's senior leaders that TAQ will be successful. In an environment characterized by downsizing, reductions in personnel, diminishing resources, and near continuous reorganization, this positive attitude appears to serve as a powerful force in dealing with changes to the organization's culture. Ott (1989) supports the view that an organization is largely controlled by its members' cultural norms, values, beliefs, and assumptions. When the leadership of an organization holds such a positive attitude about the likelihood that TAQ

will be successful, then perhaps the capacity of the organization to adapt, evolve, and change can occur.

Deming (1986) clearly states that the level of success for implementing TQM rests in the hands of the management level of the organization. They must be involved and in general agreement with its philosophies, for TQM clearly confronts traditional power distribution and decision-making. It requires the leaders in an organization to push decision-making downward and to fundamentally change the organization's axis of control. Since the point of entry for the implementation of TAQ is high in the organizational structure, the active support of the senior leadership is critical in conceptualizing, accepting, and implementing the changes.

In short, the results suggest that successfully implementing TAQ is contingent on the personal transformation of the organization's senior leaders – that is, fundamentally changing the way they conceptualize and approach their work. The conclusion that surfaces from these observations is that if this personal transformation does not occur, then it is unlikely that the effort to completely implement TAQ will be successful.

Underscoring this conclusion was a common theme that emerged through an analysis of relevant historical archives and documentary evidence. In addition to a well formulated and deployed strategic plan, continuous improvement structure, and formal quality self-assessment methodology, it was very clear that the organization's "formal beliefs" held that the success of TAQ depended upon people – and especially those in senior leadership positions.

The development and deployment of a fundamentally different organizational chart was a very significant event in the transition process – both as a new conceptual model

and structurally (power, alignment, and formal relationships). The significance of this chart was that it depicted the organization's shift away from traditional, functional lines to that of cross-functional relationships and a focus on producing customer value in keeping with TQM principles.

The study's findings also suggest that the impetus to initiate this large-scale change effort was not, at least initially, internally motivated. Initiation of TAQ at Fort Carson was the result of powerful external forces – the federal government's, DoD's, and the Army's commitment to "reinventing government." This quality framework and philosophy cascaded down from higher levels to each of the individual services and further down to the various organizations.

**B. Specific Interpretations.** What follows in this section are specific interpretations of the results framed in terms of each of the research questions.

An important conclusion that was reached from the findings of the first three research questions is that the overall similarity of perceptions and beliefs of Fort Carson's senior leadership population indicates that they indeed have what might be termed a common or "shared culture." These same findings also point out, however, that specific elements of TAQ may be resisted by the senior leaders because they remain incomprehensible and opposed to the organization's current identity. The dimension of customer focus, for example, must be reframed and aligned with the organization's identity before it can be fully implemented. If this does not occur, this element will most likely be resisted due to cognitive opposition and/or a failure of comprehend its meaning. In addition, certain cultural subgroups of the population were less cohesive and there were several specific personal demographic characteristics that differed to a somewhat



significant degree from the larger senior leader population. Concerning subcultural group differences, the analysis of survey data found that the three groups are not significantly different in their overall pattern of perceptions at the .05 confidence level. From the qualitative interview data, the results suggest that the senior leaders are overall supportive of the TAQ initiatives and are generally optimistic about its likelihood of success.

Research question one consisted of three parts and sought to answer the question “Is there a shared culture among the senior leadership of the organization?” The first part explored the differences between individual and group perceptions and found that both populations were overall positive in their perceptions about TAQ. When questioned as individuals, however, they were significantly more positive in their perceptions than when provided the same questions, but in small groups. While the mean group score was above 3.50 and on the positive side, it was only marginally so. In groups, senior leader perceptions were significantly more “neutral” towards TAQ (note Table 6.6).

Why the discrepancy between individual and group perceptions towards TAQ?

One possible reason for the discrepancy is that group dynamics may have influenced the results – that is, informal leaders could have biased the results. As such, dominant personalities in each group may have been especially satisfied or dissatisfied with the implementation of TAQ and managed to influence the others in the group to advance similar positions. The researcher anticipated this possibility, however, and took steps to minimize the biasing effects of any potential overly influential respondents by: rotating the order of initial responses, ensuring that each person had uninterrupted time to speak, drawing out the more reserved group members by asking for their opinions, and

frequently encouraging respondents to disclose their true perceptions without regard to their peers.

A second possible reason for the discrepancy has to do with the emergence phenomenon. Individuals first completed the beliefs survey in isolation from external influences. The assumption is that any one individual typically does not possess a conceptualization of all elements of the organization's culture. As such, individual survey scores represent fragments and not the broader culture.

Additionally, individual scores are unlikely to represent much of the emotional issues surrounding TAQ. The assumption is that completing standardized survey instruments does not typically arouse individual emotions.

In contrast, the group interviews brought to the surface a relatively wide array of perceptions and emotions concerning the implementation of TAQ. As the emergence phenomena suggests, one cannot predict the direction in the change in perceptions, only that change will occur. In all seven groups of senior leaders this is indeed what occurred. What may be logically concluded is that as the groups interacted, the senior leaders became more cognizant of other aspects of TAQ. In this way, the groups soon created a generally shared set of beliefs about TAQ that were distinct from previously held individual perceptions.

As Pernick (1990) points out, "The creation of a shared reality is the essence of organizational culture – a consensus about what is correct, true, real – that emerges through group interaction." The emergence phenomenon tells us we should expect to see differences between individual and group survey scores because an individual's score can only reflect his or her own perceptual set, recall, experiences, and assumptions. In a

group setting, however, the views of many people come into place, recall is more complete, more ideals are introduced and are more fully developed, more speculation occurs as to the cause and effect of events, and the relative importance of organizational events changes with new information – in short, social reality is constructed and this reality reflects the culture of the group. The group finds, negotiates a common framework to understand the question, interprets the question in a way that makes sense for them, filters the question through beliefs, and arrives at a shared answer – in this case, a shared rating about key elements of TAQ.

The second and third parts of the first research question explored whether there were any significant differences among the three senior leader subgroups or between each of the subgroups and the overall senior leader perception score. The findings clearly suggested that each of the three subgroup's scores had, overall, very positive perceptions about the implementation of key elements of TAQ. None of the scores in any of the three groups, and in any of the six categories were below 3.50 (note Table 6.7) indicating a very broad based consensus that important elements of TAQ are perceived to be present in the organization.

A simple way to assess the degree of group similarity of beliefs is by looking at the standard deviation of responses to the standardized survey. Using this measure, the individual perceptions survey data suggest a similarity of responses within and among the three subgroups, whereby all three groups have a standard deviation well below 1.00. In short, the response dispersion is relatively small, providing one piece of evidence that the three subgroups have similar beliefs concerning key TAQ areas.

A multivariate analysis of variance was performed to statistically analyze the subgroup populations and, to further screen for differences, the data were subjected to a post-hoc test – Tukey’s Honestly Significant Difference. The results of these analyses indicated that there was a difference (HSD) with the senior staff members’ (Group B) perceptions concerning whether TAQ might be successful. This group appears to be the least optimistic while the battalion commander and division chief group (Group C) appears to be the most optimistic. Two other significant differences surfaced with both concerning the senior staff group. Their perceptions toward senior leader commitment (category 1) and communications effectiveness (category 5) are lower and less favorable toward than the other two subgroup populations.

The personal interview data provided more insight and perhaps greater explanation as to the differences in senior staff perceptions with the other two groups. One explanation is that the other two groups (A and C), by function, are much more involved in actually managing the organization’s key processes and working the continuous improvement system than are senior staff members. Accordingly, perceptions may be different in such areas as leader commitment and communications (areas of HSD). Further, as one senior staff member explained, the job of the staff is really about facilitating communications and it is no surprise that this aspect may be viewed differently than that of the “operators” (Groups A and C).

In sum, the results indicate near identical agreement within and among the senior leader subgroups concerning perceptions of TAQ. In agreeing with each other to this extent, one can conclude that the senior leaders expressed views, perceptions, and beliefs

– a “TAQ worldview,” if you will – that were essentially the same and thus very much a “shared culture.”

The second research question explored the question of whether there was any significant difference between the senior leader perceptions and those contained in the “formal beliefs” structure – the organization’s documents. Both the qualitative and quantitative findings support that TAQ is both conceptualized among the senior leaders and, in the aggregate, sufficiently promulgated as formalized beliefs in the organizational documents. Some categories, however, were significantly lacking in substance suggesting that they were relatively less understood than other TAQ aspects and as such, may surface as problem areas during implementation.

The significance of this question is that it may provide insights into how the organization framed their ideal identity – “who they want to be” (Dynamic Reframing Model). The relatively wide variance in the scores by category suggests that the senior leadership (the primary authors of the documents) may not have a solid conceptualization of the “ideal” organizational identity that they desire to create. The document analysis revealed a relatively strong and coherent conceptualization in the areas of strategic focus and leadership commitment. The analysis also revealed, however, a relative lack of a clear conceptualization in the areas of customer focus and communications effectiveness. This suggests that the senior leadership has not completely interpreted and “made sense” of these two important areas and is therefore, also less capable of “sensegiving.”

Research question three asked, “Do senior leader personal characteristics (demographics) affect perceptions concerning the implementation of TAQ? The assumption here is that there might be some personal characteristics supportive of TAQ and others

more resistive. If these characteristics can be identified, then the framing and reframing of TAQ as it is implemented in the organization may be altered accordingly.

The statistical analysis of the data revealed that there does not appear to be any particular personal demographic characteristic that significantly impacts, either positively or negatively, on the implementation of TAQ. This finding was further substantiated by senior leader review of these results and their subsequent feedback. In general terms, senior leaders with higher scores, and therefore perceived more evidence of or were more optimistic about TAQ, tended to be: 45 years old or younger, military, and had less than 20 years of service and less than five years of service with the organization. In contrast, senior leaders with generally lower scores, and therefore perceived relatively less evidence of TAQ or were not as optimistic about its success, tended to be: older than 45 years old, civil service, and had over 20 years of service and more than five years with the organization.

Perhaps the most significant conclusion that can be drawn concerns organizational longevity and what may be a diminishing capacity to readily accept fundamental change. Those senior leaders with the longest times in service, whether military or civilian, may have the most invested in preserving the status quo unless there are powerful and sustained reasons for change.

The fourth research question asked, "How might organizational culture be best assessed?" Besides its usefulness with the Fort Carson organization, this study's methodology has practical significance for other researchers of organizational culture. The methods employed permitted an accurate assessment of beliefs and perceptions at relatively low cost in terms of time and disruption to the organization. As was demon-

strated in this study, the questionnaire and interview format easily permits the inclusion of specific organizational concerns which may be linked to fundamental beliefs and assumptions. By adding the content analysis of documents, a researcher can infer the formal organization's basic assumptions on a given issue. He or she can then use those findings as one lens for interpreting members' perceptions and behavior as a reaction to the organization's formal beliefs. In this way, the study's methods can help to uncover some of the causes for resistance to change in an organization.

What is evident from this research is that organizational culture is not simply the sum total of a given set of individual survey responses. Nor is it the summing of individual and group survey responses. Adding further dimensions to the methodology, such as open-ended interviews, participant-observer involvement, and systematic content analysis of documents, begins to form an increasingly coherent picture of the "reality" of the culture.

The conclusion that can be made is that the methodology used in this study is a practical, theoretically sound, and efficient way of assessing organizational culture. It is practical and efficient in that the methodology does not demand an undue amount of time or disruption. Efficiency is obtained in that a relatively small amount of research data yields a substantial amount of cultural information about an organization.

As Weick (1979) points out, researchers must always choose among designs which provide generalizability, specificity, and economy, with the knowledge that one cannot have all three attributes in the same study. The design of this study tended to the attributes of specificity and economy. Further, it provides a base for larger-scale study of organizational culture in the framework suggested here, both within the broader Fort

Carson organization and elsewhere. Moreover, the methodological approach of the study permits more confident results and conclusions.

The fifth and last research question asked is, "How might TAQ be best implemented in a large, mature, public-sector organization?" As Quirin (1993) notes, organizations will differ in their application of TAQ as they are the ones who create the plans and actions. This "equifinality," as described by Katz and Kahn (1966), is supportive of finding the best way to implement TAQ in a specific organization and is based on the culture and state of readiness of the elements of that organization.

The significance of this research question and the basic premise of the dynamic reframing model is that successful implementation of fundamental change is largely dependent on senior management's capacity to comprehend (the activities of sense-making) and to frame and reframe (the activities of sensegiving) the "ideal TAQ identity" over time. The findings in this study suggest that the processes used during the instigation of strategic change can be meaningfully described in terms of *sensemaking* and *sensegiving*. These terms perhaps best describe the activities whereby Fort Carson's senior leaders first tried to figure out and ascribe meaning to TAQ-relevant events, threats, and opportunities, and then tried to construct a vision that stakeholders and constituents could be influenced to comprehend, accept, and act upon to initiate the desired changes.

The launch of Fort Carson's strategic change effort had a distinctive character about it. It was fraught with uncertainty, ambiguity, and emotionality on the part of the senior leaders because of a palpable concern about the initially obscure, but apparently significant, fundamental changes it implied. The notions of "strategic" and "funda-



mental” change was ominous because it hinted at a potential for altering the embedded culture, practices, priorities, and goals of the organization. This beginning stage of the implementing TAQ was perhaps the most notable because it involved a cognitive re-orientation of existing interpretative schemes. A sensible, workable interpretation of a revised organizational identity needed to be devised and accepted by the senior leadership.

Given these cognitive and contextual features that surfaced in the study, a logical conclusion is that the initiation of strategic change can be distinctively conceptualized in terms of processes involving “sensemaking-for-self” and “sensegiving-for-others.” These sensemaking and sensegiving labels perhaps best describe the role of senior leaders in managing change. One senior leader made the following comment:

A leader’s responsibility is to define reality. Those who seek to lead change define reality by asking and receiving the answers to some fundamental questions – questions about what you plan to do, how the change will be organized, who will lead it, and who will be involved to help define reality.

A basic assumption of the dynamic reframing model is that the implementation of strategic change, such as TAQ, typically fails because it is improperly framed by the organization’s senior leadership. It follows, then, that TAQ initiatives implemented as radical departures from the organization’s identity fail because the cognitive structures of its members, whose cooperation is necessary for successful implementation, constrain their understanding and support of the new initiatives. In short, changes that are inconsistent with members’ beliefs about the organization will be difficult for them to interpret. As Fort Carson’s senior leaders experienced, integrating TAQ principles into the organization’s identity required them to change their cognitive interpretations about the very nature of their organization. One of the key features that distinguishes TAQ/TQM from

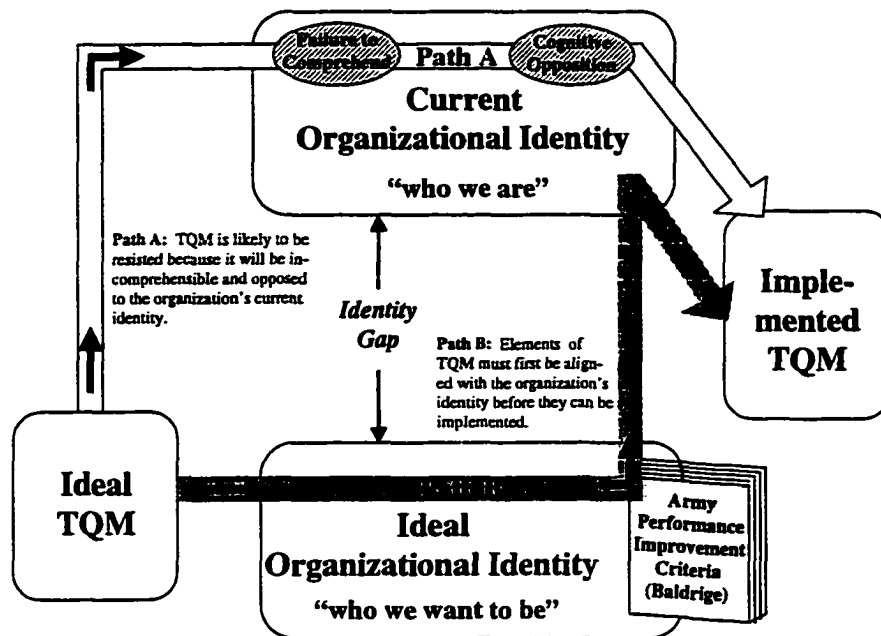
other types of organizational changes is that its successful implementation frequently results not only in a redistribution of power, but also in a paradigm shift that may bring into question members' most basic assumptions and beliefs about the nature of the organization.

An important conclusion that can be drawn from the results of this study is that the senior leadership can effectively guide the evolution of organizational identity by carefully controlling new actions to create new identities that are then incorporated into the existing belief structure. As Reger (1994) points out, the current thinking about total quality and organizational identity should drive how TAQ is framed and reframed by the senior leadership throughout the transition period.

Even with the most skillful sensemaking and sensegiving or managerial "framing," it is likely that there will be elements of TQM that framing alone cannot make acceptable within the current organizational identity. Referring to the Dynamic Reframing Model presented in Chapter 4 and again illustrated in Figure 7.1, the results of the study suggest that Fort Carson's senior leadership have accepted some elements of TAQ with relatively little modification. Examples of these areas include strategic focus and leadership commitment. Other important elements, such as customer focus, received relatively lower perception scores indicating that these areas were not readily understood or fully accepted by organizational members. While all of the senior leaders had training in this area and intellectually grasped the concept, the findings suggest that their understanding was at a more superficial level rather than at a deeper understanding that is necessary for the establishment of cognitive links to their core identity constructs. Implementing this element of TAQ along Path A in the model resulted in cognitive opposition and/or a

failure to fully comprehend it. Less appealing TAQ elements, therefore, required modification of the senior leaders' current organizational identity.

Two methods that Fort Carson's senior leadership might use to alter its current organization identity are manipulating their ideal organizational identity and leveraging their organizational image. Path B in Figure 7.1 is a conceptual illustration of this indirect implementation approach.



**Figure 7.1 TAQ IMPLEMENTATION PATHS – A CONCEPTUAL MODEL**  
**Source: Reger, DeMarie, Gustafson, and Mullane 1994**

Manipulating ideal organizational identity is one way of altering the current identity. Senior leaders can affect this ideal identity through sensegiving activities that are directed at gaining members' acceptance of what is desired – "who the organization wants to be." The inconsistency between the two identities causes an identity gap – the cognitive distance between the perception of the current and the ideal identity (Reger et al. 1994).

It is this self-discrepancy that can provide the motivation for members to alter their current organizational identity.

As depicted in Figure 7.1, Fort Carson's senior leadership was particularly successful in using the Army Performance Improvement Criteria (Baldrige criteria) as the basis for translating "ideal TQM" into TAQ and, most importantly, in defining the ideal organizational identity. Additionally, a 20-30 member cross-functional managerial team conducted an annual formal self-assessment of the organization using the APIC. This assessment served to continually refine the ideal identity in terms of the many dimensions of TAQ.

A second way of altering the current organizational identity is through leveraging organizational image. The assumption is that manipulating organizational image – what members believe outsiders think of their organization – can be a powerful lever for widening the gap between the current and ideal identities (Reger et al. 1994). Fort Carson's senior leaders experienced some success in this regard through the use of competitive comparisons and benchmarking in leveraging the organization's image and thus widening the identity gap. Performance in several areas of TAQ were compared with the best in the "industry" (e.g. other military installations and similar organizations) and provided vivid and very real examples of the desired ideal identity.

The results of the study suggest that it is indeed feasible to alter current organizational identity in such a way that the more "radical" or "undesirable" elements of TAQ may come to be accepted by members of the organization. The net effect of using these methods is that the identity gap can be widened, stress to change increased, and resistance to change decreased, and oftentimes overcome completely.

One final aspect in answering the question, “how best to implement TAQ?,” concerns the relationship between the width of the identity gap and the likelihood of acceptance of change. If the gap depicted in Figure 7.1 is “narrow” and thus there is a high degree of correspondence between current and ideal identities in any given aspect of TAQ, then this can be a source of cognitive inertia. This resistance to change comes from organizational members who perceive that there is a close correspondence between current and ideal identity and, therefore, perceive that change is unnecessary because they believe that the organization’s current state is sufficiently aligned with the ideal (Reger et al. 1994). A relatively wide identity gap in any aspect of TAQ, in contrast, causes stress and motivates organizational members to narrow or close the gap. It is this perceived gap of “who we are” and “who we want to be” that can serve as a powerful force for change in the minds of members of the organization.

The results of the study suggest that among the senior leaders of Fort Carson, the identity gap may have been simply too wide as it related to specific aspects of TAQ, and, perhaps to some extent, as certain aspects related to the personal demographic characteristics of the senior leaders and their subgroup identities. It might be logically concluded, for example, that the customer focus aspect of TAQ was too wide of an identity gap. Organizational members may have believed that this particular “ideal” was unattainable and, despite the relatively high organizational stress, resisted attempts to embrace and align it with their current identity.

It might also be logically concluded that those aspects of TAQ that were more readily accepted and received relatively higher and more positive perceptions from the senior leaders, were those aspects that were implemented within a “change acceptance zone.”

This zone is best characterized as occurring when the gap between current and ideal is large enough to create the stress necessary for members to desire to change, but the dissimilarities are not so great that the ideal is perceived as unattainable (Reger et al. 1994).

A final conclusion that can be reached from the results of this study builds on this conceptualization of a “change acceptance zone.” The results of observing Fort Carson’s implementation of TAQ suggest that “mid-range” changes are likely to be most readily acceptable and successfully implemented in an organization. This magnitude of change is best described as “tectonic change” (Reger et al. 1994). It is defined as a mid-level of change that is large enough to overcome cognitive inertia, but it is not so large that it overwhelms the organization. A strategy of incremental change, in contrast, may be received as unnecessary, result in high inertia, and thus have little real effect. A strategy of “synoptic” change – sudden, great, and widespread change – may be perceived as threatening, unattainable, and result in undesirable stress. Employing a series of mid-range changes, it can be concluded then, may be the most effective strategy to successfully implement TQM in an organization and to bring about fundamental change.

### **III. What Can Be Concluded? -- The Practical Implications of the Study**

What follows in this section are broad conclusions framed in terms of the practical implications of the study. This conclusion is, in essence, an overview of the lessons learned from the Fort Carson organization as it attempted to implement strategic change to its culture.

**The spontaneous reaction of most people to fundamental change is typically negative.**

**This phenomenon places a burden on the senior leadership of an organization that goes well beyond the development and articulation of a vision. Leadership must maintain a constancy of purpose and effort to achieve their vision.**

**The major barriers to fundamentally changing the culture of the organization are, in actuality, the pillars upon which the old culture was built. This makes fundamental change very difficult and deeply personal.**

**The organization's vision, mission, and goals need to be clearly communicated throughout all levels of the organization. The senior leadership needs to be actively involved and visible in this effort.**

**Training related to the change initiative must be rooted in the actual work environment and linked closely with the organization's current identity. The more training is abstract and removed from the current reality, the less likely it will be internalized, accepted, and integrated into the work processes. Senior leaders and supervisors will not expect employees to apply the training because it is likely, they themselves, will not know how to fit the new ways of doing things into the current way of doing things. Employees will not know how to translate the training into work activities.**

**The senior leadership must recognize that underlying the organization's cultural change is the need for individuals to confront and overcome their personal struggles with change. Fundamental change of the magnitude required by TQM creates a psychological state that unwittingly pits the individual against the organization itself. The senior leaders as well as every employee in the organization gets comfortable in working the way they have, precisely to the degree to which the organization makes such demands. Once the**

organization initiates change, personal struggles begin. These struggles need to be recognized and addressed by the senior leadership, the architects of change, such as installing appropriate infrastructures, tools, training, and communications. Above all, however, the senior leaders need to visibly demonstrate a constancy of purpose and effort as evidence to everyone in the organization that the personal struggles are worth winning.

The senior leadership can improve their chances of success in bringing about change by conducting a cultural analysis. Because organizational culture is complex and multidimensional, there is no easy way to assess it. Gaining insight into cultural phenomena requires a systematic and well-grounded approach. Because culture is a dynamic, evolving process, the senior leadership should be prepared to go through cycles of analysis. Each cycle is likely to bring new insights into the organizational culture and how it is either facilitating or impeding the emergence of a new paradigm. This is part of the learning process and must be included in the change effort.

This study also serves to note that strategic change need not be precipitated by a crisis. More often, such change is required simply to maintain the long-term viability of the organization in the face of a changing environment as was the case in this study.

The senior leadership should select a strategy, based on a thorough analysis of the organization's culture and current identity, that specifies: the magnitude and speed of change (e.g. tectonic versus incremental or synoptic); the amount of involvement of leaders and organizational members; that selects specific tactics for use with various individuals (e.g. personal demographic characteristics) and groups (e.g. cultural sub-groups); and that is internally consistent.



The approach used in this study, in recognizing that cognitive framing directly affects an individual's acceptance or rejection of fundamental change initiatives such as TQM, offers an alternative conceptualization to implementing such initiatives. Rather than giving prescriptive steps for all organizations to follow, the dynamic reframing model offers that organizational identity schemas present key contingencies in managing fundamental organizational change. Accordingly, in organizations with disparate identities, implementation must begin with different constructs and ensue at varying paces. Thus, while much of the scholarly literature concerning the implementation of TQM focuses on the "what," the approach of this study and that of the dynamic reframing model offers instead to explain "why."

If beliefs about organizational identity are ignored by senior leadership, then identity can act as a significant barrier to the implementation of planned organizational change that threatens it. Conversely, if these implicit and taken-for-granted assumptions, beliefs, and perceptions are surfaced and affiliated with change efforts, then organizational identity can be a powerful source of leverage (Reger et al. 1994).

The likelihood of inconsistencies between ideal TQM and core organizational values, beliefs, and assumptions makes implementation problematic. A key role of the senior leadership of the organization, then, must be toward understanding these discrepancies and acting accordingly – the activities of sensemaking and sensegiving.

The dynamic reframing model proposes not only the need for an underlying logic to guide the management of change over time, but also the idea that each step must introduce a moderate degree of change that overcomes cognitive inertia while minimizing cognitive barriers (Reger et al. 1994). Tectonic change, then, offers a more viable

approach to change and one that strikes a balance between insignificant and radical changes in organizational identity, both of which are typically rejected.

#### **IV. Where Do We Go From Here? – Recommendations for Future Research**

For the purposes of this study, organizational culture was operationalized as the values, beliefs, perceptions, and assumptions of the senior leader population – a significantly small, albeit important, representation of the much larger total population of the organization. A broader study that is statistically representative of other important dimensions such as by functions, occupations, departments, levels, and geographic locales within the organization is needed to fully answer the question whether there is an overarching culture. Additionally, further study should explore other demographic differences such as grade or rank, occupation or work specialization, and perhaps even race to note the relationship between these variables and organizational culture. For example, is an individual's specialty or field of work a significant contributor or inhibitor to a shared set of organizational values and beliefs? Does minority work group status preclude a group from sharing the same set of work beliefs as that of the majority group? Do shared beliefs differ significantly by work functions, departments, and levels? These types of cultural variables should be researched further, independently, as well as interactively.

Another aspect for further research involves more fully defining the field being measured. What exactly is organizational culture? Is it values, beliefs, norms, myths, legends, rites, rituals, symbols, artifacts, architecture, ceremonies, work methods and organization, policies, procedures, or regulations? Is it all of these or just several selected ones? At what point can one conclude that enough groups of people share enough of

certain elements to be categorized as possessing an overarching culture? This study focused primarily on work-related beliefs and perceptions and organizational documents. This could have done a disservice to the concept of culture which may be more appropriately broadly defined. Convincingly answering whether there is one best methodology for studying and assessing a particular culture, with all of its complexities, awaits further research.

More research is needed to determine the organization's "fit" with TQM principles. TQM studies have been conducted primarily in non-military organizations and most successes have been reported from organizations with product outputs. Further research is needed to determine if, in fact, all aspects of TQM are the right fit in military organizations. If it is, does it require different implementation strategies than that of other product or service organizations? Does the peacetime environment, characterized by achieving efficiencies to reduce costs and improving business processes, differ from a wartime environment? These questions have been relatively understudied.

## **V. Concluding Remarks**

Fort Carson has so far weathered pressures that have caused other similar organizations to founder and its culture continues to evolve. The senior leaders, as a group, are fully conscious of the continuous attention and reinforcement needed to keep the organization from slipping into a comfortable zone of complacency. The commanding general made the following comment:

**My greatest challenge is to make sure that the leadership truly comprehends and internalizes total quality concepts. That is the key to successfully transitioning from our traditional bureaucratic, inefficient ways to our shared vision of what we desire to be.**

The fact that the senior leadership of military installations is interested enough in TQM philosophies to embrace and incorporate them into their organizations tells us something very important. The existence and support of such a fundamentally different management and leadership style tells us that the organizational culture itself is changing.

How military installations are structured is very much related to traditional military organizational cultural beliefs and assumptions. Structural changes and new paradigms are typically resisted as they violate deeply held core values, beliefs, and traditions.

Both external and internal forces are at the root of organizational changes in military installations. Changing national security definitions and priorities, diminishing resources, and societal expectations about the role of the military are important external influences. An important internal force for change are many of the military's own senior leaders, whose changing values, attitudes, and expectations are becoming significant factors in the evolution of their organizations. Large and highly centralized organizations, whether they are General Motors or a large military installation, tend to become slow, unresponsive, and remote from their customers. And just as TQM has made a difference in the private sector, it can make a significant difference in the private sector; its success, however, depends upon the organization's senior leadership.

## **APPENDIX A - LIST OF RESEARCH SITE DOCUMENTS**

1. Centurion Continuous Improvement Report. 1996. Fort Carson: GPO.
2. Continuous Improvement Program. 12 APR 1996. Memorandum from the Commanding General to all Senior Leaders, Headquarters, Fort Carson.
3. Continuous Improvement Structure. 29 APR 1996. Memorandum from the Commanding General to all Senior Leaders, Headquarters, Fort Carson.
4. Executive Steering Committee and Quality Management Board Guidance. 9 FEB 1997. Memorandum from the Commanding General to all Senior Leaders, Headquarters, Fort Carson.
5. "Fort Carson Leads Way in Quality." 3 MAY 1996. Mountaineer. Fort Carson.
6. "Fort Carson Evaluates Quality of Work Life." 14 FEB 1997. Mountaineer. Fort Carson.
7. Goals and Objectives: Commanders Note Number 2. JAN 1994. Memorandum from the Commanding General to the Senior Leaders, Headquarters, Fort Carson.
8. Historical Summary. JAN 1996. 114-Page Book. Headquarters, Fort Carson.
9. Human Resources Plan. JUL 1996. 39-Page Book. Headquarters, Fort Carson.
10. Initial Guidance and Vision Statement. 24 JUL 1996. Memorandum to all Senior Leaders from Commanding General, Headquarters, Fort Carson.
11. Leadership for Total Army Quality Concept Plan. 1993. 31-Page Pamphlet, Headquarters, Fort Carson.
12. Mission, Vision, and Major Communications Themes. 10 OCT 1995. Memorandum to All Personnel from the Commanding General, Headquarters, Fort Carson.
13. My Vision of Fort Carson. JUN 1996. Memorandum from the Commanding General to All Personnel, Headquarters, Fort Carson.
14. Off-Site Conference. 9 SEP 1996. Information Paper for 2-4 OCT 1996 Executive Off-Site, CG's Initiatives Group, Headquarters, Fort Carson.
15. Off-Site Conference. 26 FEB 1997. Memorandum for 10-11 APR 1997 Executive Off-Site, Office of the Chief of Staff, Headquarters, Fort Carson.
16. Off-Site Conference After Action Review (2-4 OCT 96 Executive Off-Site) 9 DEC 1996. 70-Page Memo. Headquarters, Fort Carson.

17. "Reengineering at Fort Carson - The Challenge of Change." 1 MAR 1996.  
Mountaineer. Fort Carson.
18. Vision 2015: Fort Carson's Investment Plan for the Future. OCT 1995. Headquarters,  
Fort Carson: GPO
19. Reporting on the Commanding General's Goals and Objectives. 27 JAN 1996.  
Memorandum to the Senior Leaders, Headquarters, Fort Carson.
20. Strategic Overview. 1996. Headquarters, Fort Carson.
21. Strategic Plan. JAN 1996. 44-Page Draft Workbook for the Senior Executive Off-  
Site. Headquarters, Fort Carson
22. Strategic Plan. FEB 1996. 80-Slide Workbook for Executive Off-Site.  
Headquarters, Fort Carson
23. Strategic Plan. MAY 1996. Flyer to All Personnel. Headquarters, Fort Carson.
24. Strategic Plan. MAY 1996. 6-Page Booklet to All Personnel. Headquarters, Fort  
Carson.
25. Strategic Plan. MAY 1996. 44-Page Book to All Personnel. Headquarters, Fort  
Carson.
26. "Strategic Plan Provides Roadmap for Fort Carson's Future." 17 MAY 1996.  
Mountaineer, Fort Carson.
27. Total Army Quality Employee Survey. 16 JAN 1996. 1200 Employee Surveys.  
Office of the Inspector General, Headquarters, Fort Carson.
28. Organizational Self Assessment, Army Performance Improvement Criteria and  
President's Quality Award. 1997 Submission. Headquarters, Fort Carson: GPO.
29. Army Performance Improvement Criteria. 1996 Submission. Headquarters, Fort  
Carson: GPO.
30. Army Performance Improvement Criteria. 1995 Submission. Headquarters, Fort  
Carson: GPO.

## **APPENDIX B - LETTER TO PARTICIPANTS OF STUDY**



**MEMORANDUM FOR SENIOR LEADERS****SUBJECT: Department of Defense Quality Climate Survey**

1. The attached survey is being conducted to obtain the perceptions and beliefs of Fort Carson's senior leaders concerning Total Army Quality (TAQ). The survey was developed by the DoD Productivity Program Office and was designed for DoD organizations to conduct a self-assessment of current practices, policies, and perceptions concerning quality and continuous improvement. The questions cover six categories: 1) strategic focus, 2) leadership, 3) work force, 4) customer orientation, 5) communications and 6) outlook

2. Participation is voluntary and anonymous. To complete the survey please:

a. Complete the demographic information sheet.

b. Read the survey statements and circle the number which most accurately reflects your attitude toward the statement made based on the following scale:

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

c. Please return the survey any member of the Quality and Reinvention Team prior to the end of the senior leader on-site conference. Thank you for your participation!

3. POC is LTC Mike Beasock, Q&RT, 526-0303.

**FOR THE COMMANDER**

**MICHAEL K. BEASOCK**  
LTC, IN  
Quality and Reinvention Team

**APPENDIX C: SENIOR LEADER QUALITY CLIMATE SURVEY  
DEMOGRAPHIC INFORMATION**

**SENIOR LEADER QUALITY CLIMATE SURVEY  
DEMOGRAPHIC INFORMATION**

Circle the appropriate letter:

1. Age:
  - a. Under 25
  - b. 26 - 35
  - c. 36 - 45
  - d. 46 - 55
  - e. Over 55
  
2. Sex:
  - a. Female
  - b. Male
  
3. Type of Service:
  - a. Civilian
  - b. Military
  
4. Time in government service:
  - a. 0 - 5 years
  - b. 6 - 10 years
  - c. 11 - 15 years
  - d. 16 - 20 years
  - e. Over 20 years
  
5. Time at Fort Carson (in any official capacity):
  - a. 0 - 2 years
  - b. 3 - 5 years
  - c. 6 - 10 years
  - d. 11 - 15 years
  - e. 16 - 20 years
  - f. Over 20 years
  
6. Highest level of education:
  - a. No high school diploma
  - b. High school diploma
  - c. Some college
  - d. Undergraduate degree
  - e. Graduate degree or higher
  
7. Senior leader position:
  - a. MSU CDR, MSU CSM, Garrison CDR, Director
  - b. Staff
  - c. Bn CDR, Bn CSM, Division Chief
  - d. Other \_\_\_\_\_

## **APPENDIX D - DoD GUIDE SURVEY – INDIVIDUAL PERCEPTIONS**

## DEPARTMENT OF DEFENSE QUALITY CLIMATE SURVEY

A list of statements will be presented. Use the scale in the box to indicate your answers. There are no right or wrong answers. Circle the number that you feel best indicates your extent of agreement with the statements.

1. strongly disagree
2. disagree
3. somewhat disagree
4. somewhat agree
5. agree
6. strongly agree

- |   |                       |
|---|-----------------------|
| 1. People at Fort Carson are aware of the overall mission.  | 1   2   3   4   5   6 |
| 2. In general, Fort Carson's customers believe that we care about what they think.  | 1   2   3   4   5   6 |
| 3. People in this organization are aware of how their jobs contribute to the Fort Carson mission.                                   | 1   2   3   4   5   6 |
| 4. It's in everyone's best interests that Fort Carson be successful.  | 1   2   3   4   5   6 |
| 5. People in this organization are aware of how Fort Carson's mission contributes to higher level missions and national well-being. | 1   2   3   4   5   6 |
| 6. In general, Fort Carson's customers would not "go elsewhere" even if it were possible.   | 1   2   3   4   5   6 |
-

- |                      |
|----------------------|
| 1. strongly disagree |
| 2. disagree          |
| 3. somewhat disagree |
| 4. somewhat agree    |
| 5. agree             |
| 6. strongly agree    |

**People at Fort Carson:**

- |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 7. try to plan ahead for changes (such as in policy) that might impact our mission performance.   | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. try to plan ahead for technological changes (such as new developments in computer software) that might impact our mission performance. | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. regularly work together to plan for the future.  | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. see continuing improvement as essential.  | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. care about what will happen to the organization after they are reassigned.  | 1 | 2 | 3 | 4 | 5 | 6 |
| <hr/>   |   |   |   |   |   |   |
| 12. Creativity is actively encouraged at Fort Carson.   | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. Innovators are the people who get ahead at Fort Carson.   | 1 | 2 | 3 | 4 | 5 | 6 |
| <hr/>   |   |   |   |   |   |   |
| 14. The quality of our work is second only to the mission accomplishment as the overriding focus of Fort Carson.                          | 1 | 2 | 3 | 4 | 5 | 6 |
| 15. Every member of Fort Carson is concerned with the need for quality.   | 1 | 2 | 3 | 4 | 5 | 6 |
| 16. Continuous quality improvements within Fort Carson can lead to more productive use of our resources.                                  | 1 | 2 | 3 | 4 | 5 | 6 |
| 17. People at Fort Carson know how to define the quality of what we do.   | 1 | 2 | 3 | 4 | 5 | 6 |
| 18. Every member of Fort Carson needs to contribute to quality improvements.  | 1 | 2 | 3 | 4 | 5 | 6 |
| <hr/>   |   |   |   |   |   |   |

- |                      |
|----------------------|
| 1. strongly disagree |
| 2. disagree          |
| 3. somewhat disagree |
| 4. somewhat agree    |
| 5. agree             |
| 6. strongly agree    |

**People at Fort Carson:**

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 19. live up to high ethical standards.           | 1 | 2 | 3 | 4 | 5 | 6 |
| 20. like to do a good job.                       | 1 | 2 | 3 | 4 | 5 | 6 |
| 21. emphasize doing things right the first time. | 1 | 2 | 3 | 4 | 5 | 6 |
- 

**The senior leaders at Fort Carson:**

- |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 22. are committed to providing top quality services<br>/products/work | 1 | 2 | 3 | 4 | 5 | 6 |
| 23. regularly review the quality of work produced.                    | 1 | 2 | 3 | 4 | 5 | 6 |
| 24. ask people about ways to improve the work produced.               | 1 | 2 | 3 | 4 | 5 | 6 |
| 25. follow-up on suggestions for improvement.                         | 1 | 2 | 3 | 4 | 5 | 6 |
- 

**The senior leaders at Fort Carson:**

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 26. set examples of quality performance in their day to<br>day activities.                         | 1 | 2 | 3 | 4 | 5 | 6 |
| 27. regularly review the organization's progress toward<br>meeting its goals and objectives.       | 1 | 2 | 3 | 4 | 5 | 6 |
| 28. attempt to find out why the organization may not be<br>meeting a particular goal or objective. | 1 | 2 | 3 | 4 | 5 | 6 |
-

- |                      |
|----------------------|
| 1. strongly disagree |
| 2. disagree          |
| 3. somewhat disagree |
| 4. somewhat agree    |
| 5. agree             |
| 6. strongly agree    |

**People in my organization:**

29. turn to their supervisors for advice about how to improve their work.

1 2 3 4 5 6

30. know that their supervisors will help them find answers to problems they may be having.

1 2 3 4 5 6

31. are challenged by their supervisors to find ways to improve the system.

1 2 3 4 5 6

---

**The supervisors in my organization:**

32. make the continuous improvement of our work top priority.

1 2 3 4 5 6

33. regularly ask our customers about the quality of work they receive.

1 2 3 4 5 6

---

34. The structure of our organization makes it easy to focus on quality.

1 2 3 4 5 6

35. The way we do things in this organization is consistent with quality.

1 2 3 4 5 6

---

36. People in my organization understand how a quality Emphasis leads to more productive use of resources.

1 2 3 4 5 6

37. People in my organization can describe the organization's quality and productivity policy.

1 2 3 4 5 6

---



- |                      |
|----------------------|
| 1. strongly disagree |
| 2. disagree          |
| 3. somewhat disagree |
| 4. somewhat agree    |
| 5. agree             |
| 6. strongly agree    |

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 38. People in my organization believe that quality and productivity improvement is their responsibility. | 1 | 2 | 3 | 4 | 5 | 6 |
| 39. People in my organization take pride in their work.  | 1 | 2 | 3 | 4 | 5 | 6 |
| 40. People in my organization share responsibility for the success or failure of our services/products.  | 1 | 2 | 3 | 4 | 5 | 6 |
| 41. People in my organization believe that their work is important to the success of the installation.   | 1 | 2 | 3 | 4 | 5 | 6 |
| <hr/>  |   |   |   |   |   |   |
| 42. We have good relationships between departments in this organization.                                 | 1 | 2 | 3 | 4 | 5 | 6 |
| 43. Co-workers at Fort Carson cooperate with each other to get the job done.                             | 1 | 2 | 3 | 4 | 5 | 6 |
| 44. A spirit of cooperation and teamwork exists at Fort Carson.  | 1 | 2 | 3 | 4 | 5 | 6 |
| 45. We have good relationships with other organizations that we work with.                               | 1 | 2 | 3 | 4 | 5 | 6 |
| <hr/>  |   |   |   |   |   |   |
| 46. Supervisors in my organization request employee opinions and ideas.                                  | 1 | 2 | 3 | 4 | 5 | 6 |
| 47. People in my organization are involved in improving our services/products/work.                      | 1 | 2 | 3 | 4 | 5 | 6 |
| <hr/>  |   |   |   |   |   |   |

- |                      |
|----------------------|
| 1. strongly disagree |
| 2. disagree          |
| 3. somewhat disagree |
| 4. somewhat agree    |
| 5. agree             |
| 6. strongly agree    |

48. We have the appropriate personnel in my organization to get the job done properly.

1 2 3 4 5 6

49. The work goals or standards in my organization are generally fair.

1 2 3 4 5 6

50. The supervisors in my organization do a good job of setting work expectations.

1 2 3 4 5 6

---

51. People in my organization are friendly with one another.

1 2 3 4 5 6

52. People in my organization enjoy their co-workers.

1 2 3 4 5 6

---

53. We have the right tools, equipment, and materials in my organization to get the job done.

1 2 3 4 5 6

54. The materials and supplies we need in my work unit are delivered on time and as ordered.

1 2 3 4 5 6

55. The distribution of work among the people in my organization is well balanced.

1 2 3 4 5 6

56. In my organization, we have enough time to perform our jobs in a professional manner.

1 2 3 4 5 6

57. My organization is structured properly to get the job done.

1 2 3 4 5 6

---

- |                      |
|----------------------|
| 1. strongly disagree |
| 2. disagree          |
| 3. somewhat disagree |
| 4. somewhat agree    |
| 5. agree             |
| 6. strongly agree    |

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 58. People in my organization are rewarded for good work.  | 1 | 2 | 3 | 4 | 5 | 6 |
| 59. People in my organization are paid fairly for the work that they do.   | 1 | 2 | 3 | 4 | 5 | 6 |
| 60. Attempts are made to promote the people in my organization who do good work.                                   | 1 | 2 | 3 | 4 | 5 | 6 |
| 61. People in my organization receive promotions because they earned them.   | 1 | 2 | 3 | 4 | 5 | 6 |
| 62. Supervisors in my organization give credit to people when they do a good job.                                  | 1 | 2 | 3 | 4 | 5 | 6 |
| 63. There are penalties for people in my organization who do not perform well.                                     | 1 | 2 | 3 | 4 | 5 | 6 |
| 64. There is quick recognition for people in my organization for outstanding performance by an individual or team. | 1 | 2 | 3 | 4 | 5 | 6 |
| <hr/>  |   |   |   |   |   |   |
| 65. People in my organization know who their customers are.  | 1 | 2 | 3 | 4 | 5 | 6 |
| 66. People in my organization care about our customers.  | 1 | 2 | 3 | 4 | 5 | 6 |
| <hr/>  |   |   |   |   |   |   |
| 67. There are effective communication channels between departments in this organization.                           | 1 | 2 | 3 | 4 | 5 | 6 |
| 68. People in my organization do not have to rely on the "grapevine" or rumors for information.                    | 1 | 2 | 3 | 4 | 5 | 6 |
| 69. People in my organization have ample opportunity to exchange information with their supervisors.               | 1 | 2 | 3 | 4 | 5 | 6 |
| 70. People in my organization get the facts and the information they need to do a good job.                        | 1 | 2 | 3 | 4 | 5 | 6 |

- |  |
|--|
| <ol style="list-style-type: none"><li>1. strongly disagree</li><li>2. disagree</li><li>3. somewhat disagree</li><li>4. somewhat agree</li><li>5. agree</li><li>6. strongly agree</li></ol> |
|--|

71. Think about what you know and feel about Total Army Quality. Select the answer that you feel best indicates your extent of agreement with the following statement:

**Total Army Quality will be successful at Fort Carson.**

1   2   3   4   5   6

## **APPENDIX E - DoD GUIDE SURVEY – GROUP PERCEPTIONS**

**DEPARTMENT OF DEFENSE  
GUIDE SURVEY GROUP INTERVIEW**

1. strongly disagree
2. disagree
3. somewhat disagree
4. somewhat agree
5. agree
6. strongly agree

**To what extent does this group rate the following:**

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| <b>1. There is a strategic focus at Fort Carson:</b>   | 1 | 2 | 3 | 4 | 5 | 6 |
| <ul style="list-style-type: none"> <li>• An awareness of strategic challenge</li> <li>• A vision for the future</li> <li>• Innovation</li> <li>• A quality policy / philosophy</li> <li>• A value system</li> </ul>  |   |   |   |   |   |   |
| <b>2. The senior leaders demonstrate:</b>  | 1 | 2 | 3 | 4 | 5 | 6 |
| <ul style="list-style-type: none"> <li>• Involvement</li> <li>• Visible commitment to goals</li> <li>• An active role in the quality improvement process</li> <li>• Concern for improvement</li> <li>• Support for a system / structure for continuous quality improvement</li> </ul>      |   |   |   |   |   |   |
| <b>3. The work force at Fort Carson:</b>   | 1 | 2 | 3 | 4 | 5 | 6 |
| <ul style="list-style-type: none"> <li>• Is aware of productivity / quality issues</li> <li>• Displays good attitudes / morale</li> <li>• Is cooperative</li> <li>• Is involved in continuous quality improvement</li> <li>• Is generally satisfied with their work environment</li> </ul> |   |   |   |   |   |   |
| <b>4. Fort Carson is customer oriented:</b>  | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>5. Effective communications exist between organizations at Fort Carson:</b>   | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>6. Total Army Quality will be successful at Fort Carson:</b>  | 1 | 2 | 3 | 4 | 5 | 6 |

## **APPENDIX F - INDIVIDUAL INTERVIEW OPEN-ENDED QUESTIONNAIRE**

## INDIVIDUAL INTERVIEW QUESTIONNAIRE

The intent of this interview is to ask you open-ended questions and to obtain from your responses your perceptions and beliefs concerning the implementation of Total Army Quality at Fort Carson. Six questions will be asked. The questions address six major categories: 1) strategic focus, 2) leadership, 3) work force, 4) customer orientation, 5) communications, and 6) outlook. In addition, you will be asked to share any additional insights you may have concerning the implementation of TAQ and not covered in the questions. It generally takes one hour to complete the interview. Please feel free to ask, at any time, clarifying questions you may have concerning the nature of this interview or any of the questions being asked.

Your participation is voluntary and anonymous. Do you desire to participate in this interview at this time?

### **To what extent do you believe that:**

- 1. there is a strategic focus at Fort Carson encompassing an awareness of strategic challenge, a vision for the future, innovation, a quality philosophy, and a value system?**
- 2. the senior leaders demonstrate involvement, a commitment to goals, an active role in the quality improvement process, a concern for improvement, and support for a system for continuous quality improvement?**
- 3. the work force at Fort Carson is aware of productivity/quality issues, displays good attitudes/morale, is cooperative, is involved in continuous quality improvement, and is generally satisfied with their work environment?**
- 4. Fort Carson is customer oriented?**
- 5. effective communications exist between organizations at Fort Carson?**
- 6. Total Army Quality will be successful at Fort Carson?**

**Are there any additional thoughts you would like to share concerning the implementation of Total Army Quality?**



## **APPENDIX G - DATA COLLECTION FORMAT FOR CODING DOCUMENTS**

**DATA COLLECTION FORMAT FOR CODING DOCUMENTS**

Procedure: Each rater reviewed all 30 documents and inferred and/or extracted the presence and frequency of the six central TAQ beliefs using the following matrix. Each rater worked independently with results not being revealed until all documents were rated.

<b>Central beliefs:</b>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
<b><u>Document:</u></b>						
<b>1</b>						
<b>2</b>						
<b>3</b>						
<b>4</b>						
<b>5</b>						
<b>6</b>						
<b>7</b>						
<b>8</b>						
<b>9</b>						
<b>10</b>						

**Beliefs:** 1-Strategic Focus, 2-Senior Leader Commitment, 3-Workforce Involvement, 4-Customer Focus, 5-Effective Communications, 6-Implementation Outlook

## **APPENDIX H - NUMERICAL RESULTS OF DOCUMENT ANALYSIS**

## NUMERICAL RESULTS OF DOCUMENT ANALYSIS

Step 1: Recording number of occurrences of beliefs

	Coder A						Coder B					
<b>Belief:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Doc #:</b>												
<b>1</b>	5	5	3	3	2	4	5	5	4	4	2	3
<b>2</b>	3	4	0	0	1	3	4	4	0	0	1	2
<b>3</b>	3	5	2	0	1	2	3	5	2	0	1	3
<b>4</b>	4	4	1	0	1	3	5	4	1	0	0	3
<b>5</b>	6	5	3	1	2	1	6	5	3	1	2	2
<b>6</b>	4	4	4	0	1	2	4	5	3	0	1	2
<b>7</b>	5	6	1	1	2	3	6	6	1	1	2	3
<b>8</b>	8	6	3	1	1	3	9	6	3	1	1	3
<b>9</b>	12	14	22	4	8	7	11	13	19	4	9	8
<b>10</b>	4	5	2	0	0	3	4	5	2	0	0	3
<b>11</b>	6	7	4	0	2	3	6	6	4	0	1	3
<b>12</b>	6	8	3	1	1	2	7	8	3	1	1	2
<b>13</b>	9	7	6	4	3	2	5	6	6	4	3	2
<b>14</b>	8	10	3	1	1	3	8	9	3	1	1	3
<b>15</b>	3	4	2	0	1	2	3	5	2	0	1	3
<b>16</b>	2	3	1	0	1	2	2	3	1	0	1	2
<b>17</b>	3	2	0	0	1	0	3	2	0	0	0	0
<b>18</b>	5	6	3	1	2	2	5	6	3	2	2	2
<b>19</b>	5	4	6	1	1	2	4	5	5	1	1	2
<b>20</b>	4	3	4	0	0	3	5	3	4	0	0	3
<b>21</b>	4	5	3	1	1	4	4	5	3	1	1	4
<b>22</b>	12	15	8	6	4	8	11	14	9	5	4	7
<b>23</b>	8	4	4	4	2	2	8	6	4	4	1	2
<b>24</b>	3	3	1	0	0	2	4	3	1	0	0	3
<b>25</b>	4	5	2	0	0	2	4	5	1	0	0	2
<b>26</b>	10	12	7	4	4	6	9	13	6	4	3	5
<b>27</b>	3	3	10	0	2	0	2	3	11	0	2	0
<b>28</b>	26	24	18	18	22	19	25	22	16	18	21	19
<b>29</b>	24	23	22	18	21	18	22	23	21	19	22	17
<b>30</b>	20	22	21	19	19	18	17	23	19	17	15	16
	<b>219</b>	<b>228</b>	<b>169</b>	<b>88</b>	<b>107</b>	<b>131</b>	<b>212</b>	<b>230</b>	<b>161</b>	<b>88</b>	<b>99</b>	<b>129</b>
	<b>Coder A Total: 942</b>						<b>Coder B Total: 918</b>					

## Step 2: Conversion of raw scores (occurrences) to 1-6 Likert scale

Belief:	Coder A						Coder B					
	1	2	3	4	5	6	1	2	3	4	5	6
<b>Doc #:</b>												
1	6	6	4	4	3	5	6	6	5	5	3	4
2	4	5	1	1	2	5	5	5	1	1	2	3
3	4	6	3	1	2	3	4	6	3	1	2	4
4	5	5	2	1	2	4	6	5	2	1	1	4
5	6	6	4	2	3	2	6	6	4	2	3	3
6	5	5	5	1	2	3	5	6	4	1	2	3
7	6	6	2	2	3	4	6	6	2	2	3	4
8	6	6	4	2	2	4	6	6	4	2	2	4
9	4	4	6	1	2	2	4	4	5	1	2	2
10	5	6	3	1	1	4	5	6	3	1	1	4
11	6	6	5	1	3	4	6	6	5	1	2	4
12	6	6	4	2	2	3	6	6	4	2	2	3
13	6	6	6	5	4	3	6	6	6	5	4	3
14	6	6	4	2	2	4	6	6	4	2	2	4
15	4	5	3	1	2	3	4	6	3	1	2	4
16	3	4	2	1	2	3	3	4	2	1	2	3
17	4	3	1	1	2	1	4	3	1	1	1	1
18	6	6	4	2	3	3	6	6	4	3	3	3
19	6	5	6	2	2	3	5	6	6	2	2	3
20	5	4	5	1	1	4	6	4	5	1	1	3
21	5	6	4	2	2	5	5	6	4	2	2	5
22	6	6	5	4	4	5	6	6	5	4	4	5
23	1	5	5	5	3	3	6	6	5	5	2	3
24	4	4	2	1	1	3	5	4	2	1	1	4
25	5	6	3	1	1	3	5	6	2	1	1	3
26	6	6	5	4	4	5	6	6	5	4	3	4
27	4	4	6	1	3	1	3	4	6	1	3	1
28	6	6	5	5	6	5	6	6	4	5	6	5
29	6	6	6	5	6	5	5	6	6	5	6	5
30	6	6	6	5	5	5	4	6	5	4	4	4
	157	161	121	67	80	107	155	165	117	68	74	105
	<b>Coder A Total: 693</b>						<b>Coder B Total: 684</b>					
	5.23	5.37	4.03	2.23	2.67	3.57	5.17	5.5	3.9	2.27	2.47	3.5
	<b>Coder A Average: 3.85</b>						<b>Coder B Average: 3.80</b>					

**Formal Organizational Beliefs Score = 3.83**

**APPENDIX I - INTER-RATER RELIABILITY FORMULA FOR  
DOCUMENT ANALYSIS**

**INTER-RATER RELIABILITY FORMULA FOR DOCUMENT ANALYSIS**

To use this formula, it is first necessary to determine the percentage of expected agreement by chance by calculating the proportion of items falling into each category of a category set, and summing the square of those proportions.

$$pi = \frac{\% OA - \% EA}{1 - \% EA}$$

where:

**% OA = percentage of observed agreement between raters**

**% EA = percentage of expected agreement between raters**

Source: Holsti 1969, 140-141.

## **APPENDIX J - PARTICIPANT CONSENT FORM**



## PARTICIPANT CONSENT FORM

You are invited to be in a research study of "organizational culture." You were selected as a participant because of your senior position in the organization. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

**Background Information.** This study is being conducted by Colorado Technical University. The purpose of this study is to gain insights into the interaction between organizational culture and the implementation of Total Army Quality / continuous quality improvement. For the purposes of this study "organizational culture" is operationalized as the perceptions and beliefs of members of the senior leadership team. Since Total Army Quality is a relatively new concept, few empirical studies have been conducted to assess its impact on the organization.

**Permission to conduct study.** Approval to conduct this research has been obtained by the Office of the Commanding General, Fort Carson.

**Procedures.** Data for this study will be collected through four primary procedures: 1) a review of institutional documents, 2) an individual questionnaire, 3) individual open-ended interviews, and 4) a group survey. If you agree to be in this study, you will be asked to respond to questions concerning your perceptions of Total Army Quality / continuous quality improvement at Fort Carson. The individual interviews will be tape-recorded to ensure accuracy in recording responses. The initial interview should take approximately one hour, with a possible follow-up call for clarification of the data. If you agree to participate in this research, you will be asked to sign this consent form prior to beginning the interview.

**Confidentiality.** The records of this study will be kept private. For the purposes of confidentiality, a code number will be assigned to the data collected from each individual respondent. Interviewees will be unknown to each other and names will not be used. Published findings will not include any information that will make it possible to identify you nor any other subject. All information collected in the interview will be used solely for purposes of the research report and will be held confidential. You will be given a copy of this form.

**Risks of Being in the Study.** There are no identified risks to you for participating in this study.

**Compensation.** You will not receive compensation for participating in this research.

**Voluntary Nature of the Study.** Your decision whether or not to participate will not affect your current or future relations with the organization. If you decide to participate, you are free to withdraw at any time without affecting those relationships.

**Contacts and Questions.** The researcher of this study is Michael K. Beasock. You may ask any questions you desire to clarify your role in this research. If you have any questions that surface at a later date, you may contact the researcher at 579-9779 (home) or 526-9835 (work).

**Statement of Consent.** I have read the above information and consent to participate in this study. I have asked questions and have received answers necessary to be fully informed about this research.

Signature \_\_\_\_\_ Date \_\_\_\_\_.

Signature of Investigator \_\_\_\_\_ Date \_\_\_\_\_.  
Michael K. Beasock

## SELECTED BIBLIOGRAPHY

- Albert, S. and D. Whetten. 1985. Organizational Identity. L. Cummings and B. Staw (Eds) Research in Organizational Behavior. Greenwich, CT: JAI Press.
- Albrecht, K. 1987. The Creative Corporation. Homewood, IL: Dow Jones-Irwin.
- Aldich, H. 1979. Organizations and Environments. Englewood Cliffs, NJ: Prentice-Hall.
- Allen, A. and B. Schneider. 1956. Industrial Relations in the California Aircraft Industry. Berkley, CA: University of California.
- Anschutz, E. 1996. TQM-The Public Sector Challenge. National Productivity Review. Winter: 1-6.
- Appleby, P. 1978. Government Is Different. J. Shafritz and A. Hyde (Eds) Classics of Public Administration. Oak Park, IL: Moore.
- Argyris, C. and D. Schon. 1978. Organizational Learning. Reading, MS: Adison-Wesley.
- Army Management Philosophy. 1992. Army Regulation 5-1. Headquarters, Department of the Army. Washington, D.C.: GPO.
- Atkinson, P. 1990. Creating Culture Change: The Key to Successful Total Quality Management. San Diego, CA: Pfeiffer.
- Babione, S. 1995. A Case Study of the Interface Between Organizational Culture and Processes of Continuous Quality Improvement in the Community College Environment. Dissertation. University of Toledo.
- Baldrige, J. 1971. Power and Conflict in the University. New York: John Wiley.
- Bales, R. and F. Strodtbeck. 1951. Phases in Group Problem-Solving. Journal of Abnormal and Social Psychology. (46) 485.
- Bandura, A. 1977. Self-Efficacy: Toward a Unifying Theory of Behavioral Change. Psychological Review. (84) 191-215.
- Barcelo, A. 1993. An Evaluation of Culture Change: An Organization Development and Action Research Approach. Dissertation. Walden University.
- Barr, P., J. Stimpert and A. Huff. 1992. Cognitive Change, Strategic Action, and Organizational Renewal. Strategic Management Journal. (13): 15-36.

- Bartunek, J. 1984. Changing Interpretative Schemes and Organizational Restructuring. Administrative Science Quarterly. (29) 355.
- Barzelay, M. 1992. Breaking Through Bureaucracy. Los Angeles: University of California.
- Beer, M. and E. Walton. 1990. Developing the Competitive Organization: Interventions and Strategies. American Psychologist. 45(2): 154-161.
- Bennis, W. 1966. The Coming Death of Bureaucracy. Systems, Organizations, Analysis, Management: A Book of Reading. New York: McGraw-Hill. 11-17.
- Bensimon, E., A. Newmann, and R. Birnbaum. 1989. Making Sense of Administrative Leadership: The "L" Word in Higher Education. Washington, D.C.: George Washington University.
- Berger, P. and T. Luckmann. 1966. The Social Construction of Reality. Garden City, NY: Doubleday.
- Berman, E. and J. West. 1995. Municipal Commitment to Total Quality Management: A Survey of Recent Progress. Public Administration Review. 55(1): 57-66.
- Berry, T. 1995. Managing the Total Quality Transformation. New York: ASQC Quality Press.
- Birnbaum, R. 1992. How Academic Leadership Works: Understanding Success and Failure in the College Presidency. San Francisco: Jossey-Bass.
- Blank, S. 1986. Hershey: A Company Driven by Values. Management Review. (75).
- Blumenthal, B. and P. Haspeslagh. 1994. Toward a Definition of Corporate Transformation. Sloan Management Review. (Spring):101-106.
- Bolman, L. and T. Deal. 1984. Modern Approaches to Understanding and Managing Organizations. Jossey-Bass: San Francisco.
- Bounds, G., L. Yorks, M. Adams, and G. Ranney. 1994. Beyond Total Quality Management Toward the Emerging Paradigm. New York: McGraw-Hill.
- Bourgault, J., S. Dion, and M. Lemay. 1993. Creating a Corporate Culture: Lessons from the Canadian Federal Government. Public Administration Review. (Jan/Feb) 53(1): 73-80.
- Bowen, D. and L. Greiner. 1991. Moving From Production to Service in Human Resource Management. Organizational Dynamics. (19): 35-53.

- Bowditch, J. and A. Buono. 1990. A Primer on Organizational Behavior. 2nd Ed. New York: John Wiley.
- Bowman, E. and H. Singh. 1993. Corporate Restructuring: Reconfiguring the Firm. Strategic Management Journal. (14): 5-14.
- Brocka, B. and M. Brocka. 1992. Quality Management: Implementing the Best Ideas of the Masters. Homewood, IL: Irwin.
- Broedling, L. 1990. Beyond the TQM Mystique: Real-World Perspectives on Total Quality Management. Washington, D.C.: American Defense Preparedness Association with Organizational Dynamics
- Buchel, M. 1996. Accelerating Change. Training & Development. (April) :48-51.
- Burns, M. and J. Stalker. 1961. Leadership. New York: Harper & Row.
- Burrell, G. and G. Morgan. 1979. Sociological Paradigms and Organizational Analysis. London: Heinemann.
- Campbell, D. and D. Fiske. 1959. Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix. Psychological Bulletin. 56. 81-105.
- Carr, D. 1990. Excellence in Government: Total Quality Management in the 1990s. Arlington, VA: Coopers and Lybrand.
- Chakravarthy, B. and P. Lorange. 1991. Managing the Strategy Process. Englewood Cliffs, NJ: Prentice-Hall.
- Chorn, N. 1991. Total Quality Management: Panacea or Pitfall? International Journal of Physical Distribution and Logistics Management. 21(8): 31-35.
- Cigler, B. and H. Neiswender. 1991. Bureaucracy in the Introductory American Government Textbook. Public Administration Review. 51(5): 442-450.
- Clifford, J. and G. Marcus. 1986. Writing Culture. Berkley: University of California Press.
- Clinton, R., S. Williamson, and A. Bethke. 1994. Implementing Total Quality Management: The Role of Human Resource Management. SAM Advanced Management Journal. (Spring): 10-16.
- Coeling, H. and J. Wilcox. 1988. Understanding Organizational Culture - A Key to Management Decision-Making. Journal of Nursing Administration. (18).

- Cohen, S. 1988. The Effective Manager. San Francisco: Jossey-Bass.
- Conger, J. 1992. Learning to Lead. San Francisco: Jossey-Bass.
- Conner, D. 1993. Managing at the Speed of Change. New York: Villard Books.
- Cooper, R. and M. Markus. 1995. Human Reengineering. Sloan Management Review. (Summer): 39-50.
- Craimer, S. 1996. The Rise of Guru Skepticism. Management Today. (March): 48-52.
- Creswell, J. 1994. Research Design: Qualitative and Quantitative Approaches. London: Sage Publications.
- Cronbach, L. 1960. Essentials of Psychological Testing. New York: Harper and Row.
- Cummings, T. and E. Huse. 1989. Organization Development and Change. St. Paul, MN: West.
- Dachler, P. and B. Wilpert. 1978. Conceptual Dimensions and Boundaries of Participation in Organizations: A Critical Evaluation. Administrative Science Quarterly. (23): 1-39.
- Daft, R. and K. Weick. 1984. Toward a Model of Organizations as Interpretation Systems. Academy of Management Review. (9): 284-295.
- Dalton, G. 1992. Men Who Manage. New York: John Wiley.
- D'Aveni, R. 1994. Hyper-competition. New York: Free Press.
- Davis, K. and J. Newstrom. 1985. Human Behavior at Work: Organizational Behavior. New York: McGraw-Hill.
- Davis, S. 1984. Managing Corporate Culture. Cambridge, MA: Ballinger Pub.
- Davis, T. 1985. Managing Culture at the Bottom. Kilman Ralph (ed.) Gaining Control of the Corporate Culture. San Francisco: Jossey-Bass.
- Deal, T. and A. Kennedy. 1982. Corporate Cultures: The Rites and Rituals of Corporate Life. Reading, MA: Addison-Wesley.
- Deming, W. 1982. Quality, Productivity and Competitive Position. Cambridge, MA: Center for Advanced Engineering.
- \_\_\_\_\_. 1986. Out of the Crisis. Cambridge: MIT Press.

- Denison, D. and A. Mishra. 1989. Organizational Culture and Organizational Effectiveness. Proceedings of the Annual Meeting of the Academy of Management. Washington, D.C.
- Denzin, N. 1978. The Research Act: A Theoretical Introduction to Sociological Methods. 2nd ed. New York: McGraw-Hill.
- Dobyns, L. and C. Crawford-Mason. 1991. Quality or Else: The Revolution in World Business. Boston: Houghton-Mifflin. 566.
- Downs, A. 1967. Inside Bureaucracy. Boston: Little Brown.
- Duncan, R. 1972. The Characteristics of Organizational Environments and Perceived Environmental Uncertainty. Administrative Science Quarterly. (17): 313-27.
- Durant, R. and L. Wilson. 1993. Public Management, TQM and Quality Improvement: Toward a Contingency Strategy. American Review of Public Administration. (23): 215-246.
- Durkheim, E. 1947. The Division of Labor in Society. New York: Free Press.
- \_\_\_\_\_. 1938. Rules of Sociological Method. New York: Free Press.
- Dutton, J. and R. Duncan. 1987. The Creation of Momentum for Change Through the Process of Strategic Issue Diagnosis. Strategic Management Journal. (8): 279-295.
- Ernst, C. and W. Young. 1992. Total Quality: An Executive's Guide for the 1990s. San Francisco: Jossey-Bass.
- Eskildson, L. 1995. TQM's Role in Corporate Success: Analyzing the Evidence. National Productivity Review. (Autumn): 25-37.
- Etzioni, A. 1961. A Comparative Analysis of Complex Organizations. New York: Free Press.
- Faidley, R. 1996. Performance Essentials: Alignment + Standards + Commitment. Supervision. 57(5): 14-16.
- Fiol, C. and A. Huff. 1992. Maps for Managers: Where are We? Where Do We Go From Here? Journal of Management Studies. (29) 267.
- Firth, R. 1973. Symbols: Public and Private. Ithaca, N.Y: Cornell University Press.
- Fiske, S. and S. Taylor. 1991. Social Cognition. New York: McGraw-Hill.

- Fransella, F. and D. Bannister. 1977. Manual for Repertory Grid Technique. London: Academic Press.
- Garrity, R. 1993. Total Quality Management: An Opportunity for High Performance in Federal Organizations. Public Administration Quarterly. (17): 430-459.
- Garvin, D. 1988. Managing Quality: The Strategic and Competitive Edge. New York: Free Press.
- Gattis, D. and J. Lamm-Tennant. 1996. Teaching and Learning are Components of Success. Best's Review. (February).
- Geertz, C. 1973. The Interpretation of Cultures. New York: Basic Books.
- Gehani, R. 1993. Quality Value-Chain: A Meta-Synthesis of Frontiers of Quality Movement. Academy of Management Executive. (7): 29-42.
- Ghoshal, S. and C. Bartlett. 1996. Rebuilding Behavioral Context: A Blueprint for Corporate Renewal. Sloan Management Review. (Winter): 23-36.
- Ginnodo, W. 1992. How TQM is Redefining Management and Leadership. Tapping the Network Journal. (Fall).
- Gioia, D. 1986. Symbols, Scripts, and Sensemaking. H. Sims and D. Gioia eds. The Thinking Organization. San Francisco: Jossey-Bass.
- Gioia, D. and K. Chittipeddi. 1991. Sensemaking and Sensegiving in Strategic Change Initiation. Strategic Management Journal. (12): 433-448.
- Gioia, D. and E. Pitre. 1990. Multiparadigm Perspectives in Theory Building. Academy of Management Review. (15) 584.
- Glaser, B. and A. Strauss. 1967. The Discovery of Grounded Theory. Chicago: Aldine.
- Golembiewski, R. 1985. Humanizing Public Organizations. Mt Airy, MD: Lomond.
- Golembiewski, R., C. Proehl, and D. Sink. 1981. Success of OD Applications in the Public Sector: Toting Up the Score for a Decade, More or Less. Public Administration Review. (41) 679.
- Goodman, R. 1988. The Determinants of Banks' Success and Failure in a Changing Regulatory Environment. Dissertation. University of Minnesota.
- Gouldner, A. 1954. Patterns of Industrial Bureaucracy. Glencoe, IL: Scott-Foresman.

- Grant, R., R. Shani, and R. Krishnan. 1994. TQM's Challenge to Management Theory and Practice. Sloan Management Review. (Winter): 25-35.
- Green, F. and V. Wayhan. 1996. Reengineering: Clarifying the Confusion. SAM Advanced Management Journal. (Summer): 37-39.
- Green, R. 1993. Global Quality: A Synthesis of the World's Best Management Methods. Milwaukee, WI: ASQC Press.
- Greenwood, R. and C. Hinings. 1996. Understanding Radical Organizational Change: Bringing Together the Old and the New Institutionalism. Academy of Management Review. 21(4): 1022-1054.
- Grimm, C. and K. Smith. 1991. Research Notes and Communications Management and Organizational Change: A Note on the Railroad Industry. Strategic Management Journal. (12): 557-562.
- Guba, E. and Y. Lincoln. 1982. Effective Evaluation. San Francisco: Jossey-Bass.
- Gullet, C. 1975. Mechanistic Versus Organic Organizations: What Does the Future Hold? Personnel Administrator. (20): 17-21.
- Gunz, H. and R. Jalland. 1996. Managerial Careers and Business Strategies. Academy of Management Review. 21(3): 718-756.
- Hackman, J. and R. Wageman. 1995. Total Quality Management: Empirical, Conceptual, and Practical Issues. Administrative Science Quarterly.(40): 309-342.
- Halachmi, A. 1996. Business Process Reengineering in the Public Sector: Trying to Get Another Frog to Fly? National Productivity Review. (Summer): 9-18.
- Halberstam, D. 1986. The Reckoning. New York: Morrow.
- Hambrick, D. 1982. Environmental Scanning and Organizational Strategy. Strategic Management Journal. (9) 399.
- Hambrick, D. and S. Finkelstein. 1987. Managerial Discretion. Research in Organizational Behavior. (9) Greenwich, CT: JAI Press.
- Hambrick, D., M. Geletkanycz, and J. Fredrickson. 1993. Top Executive Commitment to the Status Quo: Some Tests of Its Determinants. Strategic Management Journal. (14): 401-418.
- Hannan, M. and J. Freeman. 1977. The Population Ecology of Organizations. American Journal of Sociology. (83): 929-964.



- Hardcastle, A. 1994. The Voices of Organizational Culture: An Ethnographic Study of Total Quality Management Implementation at Douglas Aircraft Company. Dissertation. University of California.
- Hatch, M. 1993. The Dynamics of Organizational Culture. Academy of Management Review. 18(4): 657-693.
- Herzberg, F. 1966. Work and the Nature of Man. Cleveland: World Publishing.
- Historical Summary. 1996. Headquarters, Fort Carson, CO: GPO.
- Homans, G. 1950. The Human Group. New York: Harcourt Brace.
- Hubiak, W. and S. O'Donnell. 1996. Do Americans Have Their Minds Set Against TQM? National Productivity Review. (Summer): 19-32.
- Huff, J., A. Huff, and H. Thomas. 1992. Strategic Renewal and the Interaction of Cumulative Stress and Inertia. Strategic Management Journal. (13) 55.
- Hugh, E. 1992. Helping Managers Get Religion: Developing Leadership Commitment to Quality Improvement. Ernst and Young (Eds). Total Quality: An Executives Guide for the 1990s. New York: Wiley.
- Hunt, V. 1993. Managing for Quality: Integrating Quality and Business Strategy. Homewood, IL: Irwin.
- Huston, L. 1992. Using Total Quality to Put Strategic Intent Into Motion. Conference Executive Summary. (Sep/Oct): 21-22.
- Jennings, D. and S. Seaman. 1994. High and Low Levels of Organizational Adaptation: An Empirical Analysis of Strategy, Structure, and Performance. Strategic Management Journal. (15): 459-475.
- Jick, T. 1979. Mixing Qualitative and Quantitative Methods: Triangulation in Action. Administrative Science Quarterly. 24. 602-611.
- Juran, J. 1991. Strategies for World-Class Quality. Quality Progress. (March): 81-85.
- Katz, D. and R. Kahn. 1978. The Social Psychology of Organizations. New York: Wiley.
- Kelly, G. 1955. The Psychology of Personal Constructs. New York: Norton.
- Kennedy, D. and B. Young. 1989. Managing Quality in Staff Areas. Quality Progress. (22) 87-91.

- Kerlinger, F. 1973. Foundations of Behavioral Research. New York: Holt, Rinehart and Winston. 30-39.
- Kidder, P. and B. Ryan. 1996. How the Deming Philosophy Transformed the Department of the Navy. National Productivity Review. (Summer) 15(3): 56-63.
- Kiesler, S. and L. Sproull. 1982. Managerial Response to Changing Environments. Administrative Science Quarterly. (27) 548.
- Kilmann, R. 1985. Beyond the Quick: Managing Five Tracks to Organizational Success. San Francisco: Jossey-Bass.
- Kimberly, J. and R. Miles. 1980. The Organizational Life Cycle. San Francisco: Jossey-Bass.
- Kimberly, J. and R. Quinn. 1984. Managing Organizational Transitions. Homewood, IL: Irwin.
- Klein, J. 1984. Why Supervisors Resist Employee Involvement. Harvard Business Review. 62(5): 87-95.
- Kluckhohn, F. and F. Strodtbeck. 1961. Issues in Understanding and Changing Culture. California Management Review. (Winter) 28.
- Kroeber, A. and C. Kluckhohn. 1952. Culture: A Critical Review of Concepts and Definitions. New York: Vintage Books.
- Kuhn, T.S. 1970. The Structure of Scientific Revolutions. Chicago: University of Chicago Press.
- Labich, K. 1996. Sometimes the Sky is Falling. Fortune. (October)14: 216-217.
- Leadership for Total Army Quality Concept Plan. 1993. Headquarters, Department of the Army. Washington, D.C.: GPO.
- Lee, S. and G. Schwendiman. 1982. Japanese Management: Cultural and Environmental Considerations. New York: Praeger.
- Leshner, M. 1996. Targeting Work Culture Leads to Winning Teams. Best's Review. 96(10): 51-55.
- Levinson, D. 1978. The Seasons of a Man's Life. New York: Knopf.
- Likert, R. 1961. New Patterns of Management. New York: McGraw-Hill.

- Louis, M. 1983. Organizations as Cultural Bearing Milieu. Organizational Symbolism. Greenwich, CN: JAI Press.
- Mans, C. and H. Sims. 1989. Superleadership. New York: Berkley Books.
- March, J. and J. Olsen. 1976. Ambiguity and Choice in Organizations. Bergen, Norway: Universitetsforlaget.
- March J. and H. Simon. 1958. Organizations. New York: Wiley.
- Marshall, J. and A. McLean. 1985. Exploring Organizational Culture as a Route to Organizational Change. V. Hammond (Ed.) Current Research in Management. London: Frances Pinter.
- Masland, A. 1985. Organizational Culture in the Study of Higher Education. Review of Higher Education. 8(2): 70-78.
- Maslow, A. 1954. Motivation and Personality. New York: Harper & Row.
- McCurdy, H. 1992. NASA's Organizational Culture. Public Administration Review. (Mar/Apr) 52(2): 189-192.
- \_\_\_\_\_. 1991. Organizational Decline: NASA and the Life Cycle of Bureaus. Public Administration Review. 51(4): 308-315.
- McGregor, D. 1960. The Human Side of Enterprise. New York: McGraw-Hill.
- Merton, R. 1940. Bureaucratic Structure and Personality. Social Forces. (18): 560-68.
- \_\_\_\_\_. 1968. Social Theory and Social Structure. New York: Free Press.
- Meyer, A. 1982. How Ideologies Supplant Formal Structures and Shape Responses to Environments. Journal of Management Studies. (19): 45-61.
- Meyer, A. and W. Starbuck. 1991. Organizations and Industries in Flux: The Interplay of Rationality and Ideology. New York: New York University Press.
- Meyer, M. 1982. Bureaucratic Versus Profit Organization. B. Staw and L. Cummings (Eds) Research in Organizational Behavior. Greenwich, CT: JAI Press.
- Military Financial and Demographic Information. 1997. Memorandum from Director of Resource Management, Headquarters, Fort Carson, CO: GPO.

- Miller, K. 1993. Total Quality Management and State Governments: Are We Reaching the Fair-Trial Point. Paper for the SECOPA Conference, Cocoa Beach, FL.
- Mintzberg, H. 1979. The Structuring of Organizations. Englewood Cliffs, N.J.: Prentice-Hall.
- Mintzberg, H. and F. Westley. 1992. Cycles of Organizational Change. Strategic Management Journal. (13): 39-59.
- Mintzberg, H., D. Raisinghani, and A. Theoret. 1976. The Structure of Unstructured Decision Processes. Administrative Science Quarterly. (21): 246-275.
- Nachmias, D. and D. Rosenbloom. 1980. Bureaucratic Government USA. New York: St Martin's Press.
- Nisbet, R. 1970. Developmentalism: A Critical Analysis. J. McKinney and E. Tiryakin (Eds) Theoretical Sociology: Perspectives and Developments. New York: Meredith.
- Office of Deputy Assistant Secretary of Defense for TQM. 1989. Total Quality Management: A Guide for Implementation. DoD Guide 5000.51G. Washington, D.C.: GPO.
- O'Keefe, J. and L. Nadel. 1978. The Hippocampus as a Cognitive Map. Oxford: Clarendon Press.
- Ortner, S. 1973. On Key Symbols. American Anthropologist. (75): 1338-46.
- Ott, J. 1989. The Organizational Culture Perspective. Pacific Grove, IL: Brooks & Cole.
- Ouchi, W. 1980. Markets, Bureaucracies, and Clans. Administrative Science Quarterly. (25): 129-140.
- \_\_\_\_\_. 1981. Theory Z: How American Business Can Meet the Japanese Challenge. Reading, MA: Addison-Wesley.
- Park, S. 1991. Estimating Success Rates of Quality Circle Programs: Public and Private Experiences. Public Administration Quarterly. (15) 133.
- Pascale, R. and A. Athos. 1981. The Art of Japanese Management: Applications for American Executives. New York: Simon and Schuster.
- Pasmore, W. 1982. Overcoming the Roadblocks in Work-Restructuring Efforts. Organizational Dynamics. (10): 54-67.

- Pelto, P.J. 1970. Anthropological Research: The Structure of Inquiry. New York: Harper and Row.
- Pernick, R. 1990. Organization Culture: Work Beliefs and Reactions to a Planned Change. Dissertation. University of Maryland.
- Peters, T. and R. Waterman. 1982. In Search of Excellence: Lessons from America's Best-Run Companies. New York: Harper & Row.
- Petersen, J. 1993. New Roles for the U.S. Military. Sloan Management Review. (Winter): 93-98.
- Pettigrew, A. 1979. On Studying Organizational Cultures. Administrative Science Quarterly. (24): 570-581.
- \_\_\_\_\_. 1985. The Awakening Giant. Oxford: Blackwell.
- Polanyi, M. 1962. Personal Knowledge: Towards a Post-Critical Philosophy. New York: Harper and Row. 570.
- Pondy, L. 1978. Leadership is a Language Game. McCall and Lombardo (Eds). Leadership: Where Else Can We Go? Durham, NC: Duke University.
- Pondy, L. and A. Huff. 1988. Budget Cutting in Riverside. L. Pondy, R. Boland, and H. Thomas (Eds) Managing Ambiguity and Change. New York: Wiley.
- Poole, M. 1981. Decision Development in Small Groups: A Test of Two Models. Communication Monographs. (48) 1.
- Poole, M., A. Gioia, and B. Gray. 1989. Influence Modes, Schema Change, and Organizational Transformation. Journal of Applied Behavioral Science. (25) 271.
- Price, F. 1989. Out of Bedlam: Management by Quality Leadership. Management Decision. (27): 15-21.
- Quinn, J. 1980. Strategies for Change: Logical Incrementalism. Homewood, IL: Irwin.
- Quirin, J. 1993. Organizational Culture Change with Quality and Productivity Improvements: The Identification of Barriers and Supporters, the Predictability of Success and Evaluation of Training. Dissertation. Northern Illinois University.
- Rabinow, P. and W. Sullivan. 1992. Interpretive Social Science. Berkley, CA: University of California Press.

- Radin, B. and J. Coffee. 1993. A Critique of TQM: Problems of Implementation in the Public Sector. Public Administration Quarterly. (17): 43-54.
- Rago, W. 1994. Adapting Total Quality Management (TQM) to Government: Another Point of View. Public Administration Review. 54 (1): 61-64.
- \_\_\_\_\_. 1996. Struggles in Transformation: A Study in TQM, Leadership, and Organizational Culture in a Government Agency. Public Administration Review. 56(3): 227-234.
- Rainey, H. 1983. Public Agencies and Private Firms: Incentives, Goals, and Individual Roles. Administration and Society. (15) 207.
- Reed, R., D. Lemak, and J. Montgomery. 1996. Beyond Process: TQM Content and Firm Performance. Academy of Management Review. 21(1): 173-202.
- Reger, R., L. Gustafson, S. DeMarie, and J. Mullane. 1994. Reframing the Organization: Why Implementing Total Quality Is Easier Said Than Done. Academy of Management Review. 19(3): 565-594.
- Reimann, B. 1994. The New Strategic Leadership: Driving Change, Getting Results! Planning Review. (Sep/Oct): 6-8.
- Reimer, D., General. 1996. Reengineering Forces Command for the 21st Century. Fort McPherson: GPO. (May).
- Richardson, F. 1955. Anthropology and Human Relations in Business and Industry. Yearbook of Anthropology. American Anthropological Association.
- Robertson, P. and S. Seneviratne. 1995. Outcomes of Planned Organizational Change in the Public Sector: A Meta-Analytic Comparison to the Private Sector. Public Administration Review. 55(6): 547-558.
- Romanelli, E. and M. Tushman. 1994. Organizational Transformation as Punctuated Equilibrium: An Empirical Test. Academy of Management Journal. 37(5): 1141-1166.
- Rosen, E. 1993. Improving Public Sector Productivity: Concepts and Practice. Newbury Park, CA: Sage.
- Roy, D. 1960. Banana Time: Job Satisfaction and Informal Interaction. Human Organization. (18): 158-161.
- Rudestam, K. and R. Newton. 1992. Surviving Your Dissertation. Newbury Park, CA: Sage Publications.

- Salancik, G. and J. Pfeffer. 1977. An Examination of Need-Satisfaction Models of Job Attitudes. Administrative Science Quarterly. (Fall): 453-463.
- Saylor, J. 1992. TQM Field Manual. New York: McGraw-Hill.
- Schein, E. 1980. Organizational Psychology. Englewood Cliffs N.J.: Prentice-Hall.
- \_\_\_\_\_. 1983. The Role of the Founder in Creating Organizational Culture. Organizational Dynamics. (Summer).
- \_\_\_\_\_. 1984. Coming to a New Awareness of Organizational Culture. Sloan Management Review. (Fall)
- \_\_\_\_\_. 1985. Organizational Culture and Leadership: A Dynamic View. San Francisco: Jossey-Bass.
- \_\_\_\_\_. 1986. What You Need to Know About Organizational Culture. Training and Development Journal.
- \_\_\_\_\_. 1996. Three Cultures of Management: The Key to Organizational Learning. Sloan Management Review. (Fall): 9-20.
- Scott-Morgan, P. 1994. Learning the Unwritten Rules of Organizational Change. Planning Review. (Sep/Oct): 32-34.
- Selznick, P. 1957. Leadership in Administration. New York: Harper & Row.
- Senge, P. 1994. The Fifth Discipline: The Art and Practice of the Learning Organization. New York: Doubleday.
- Seymour, D. 1993. Causing Quality in Higher Education. Phoenix, AZ: Oryx Press.
- Sherwood, J. 1988. Creating Work Cultures with Competitive Advantage. Organizational Dynamics. (Winter).
- Shores, R. 1992. Improving the Quality of Management Systems. Quality Progress. (June): 53-57.
- Siehl, C. 1985. After the Founder: An Opportunity to Manage Culture. Frost, Moore, Louis, Lundberg, and Martin (Eds). Organizational Culture. Beverly Hills: Sage Publications.
- Slater, R. 1991. Integrated Process Management: A Quality Model. Quality Progress. (April): 69-73.

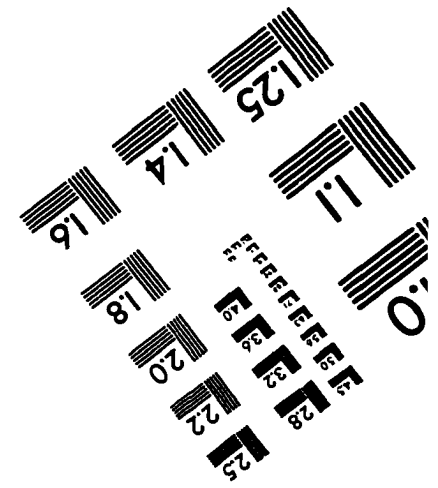
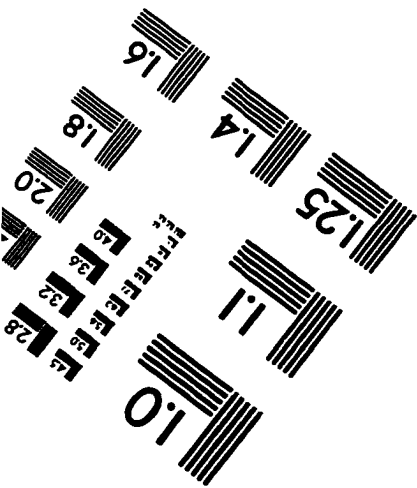
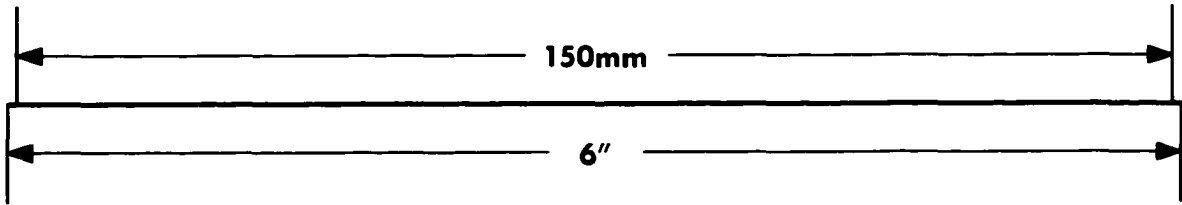
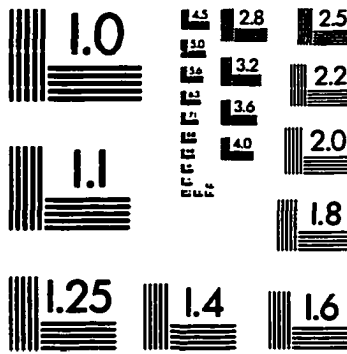
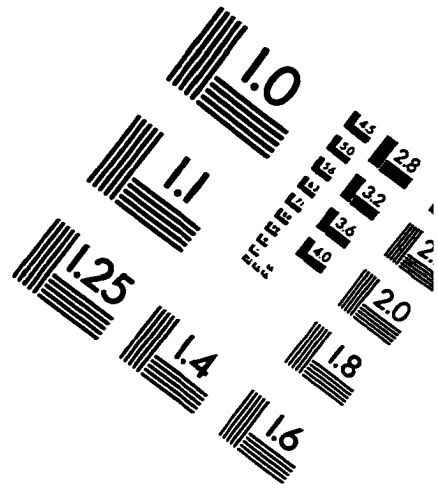
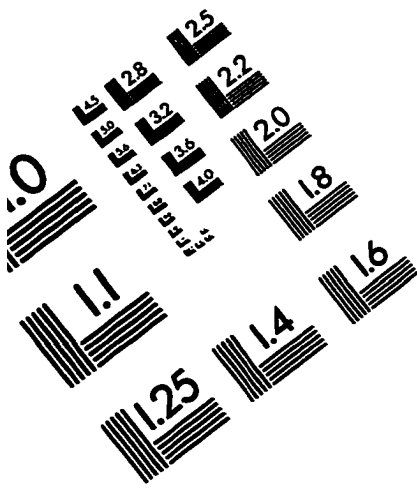
- Soltis, J. 1984. On the Nature of Educational Research. Educational Researcher. (13): 5-10.
- Spanbauer, S. 1992. A Quality System for Education. Milwaukee, WI: ASQC Press.
- Sparks, R. and J. Dorris. 1990. Organizational Transformation. SAM Advanced Management Journal. (Summer): 13-18.
- Spencer, B. 1994. Models of Organization and Total Quality Management: A Comparison and Critical Evaluation. Academy of Management Review. 19(3): 446-471.
- Spradley, J. 1979. The Ethnographic Interview. New York: Holt, Rinehart & Winston.
- Starbuck, W. and F. Milliken. 1988. Challenger: Finetuning the Odds Until Something Breaks. Journal of Management Studies. (25) 319.
- Sullivan, G., General. 1995. Leading Strategic Change in America's Army: The Way Forward. Planning Review. (Sep/Oct): 16-19.
- Swiss, J. 1992. Adapting Total Quality Management (TQM) to Government. Public Administration Review. 52(4): 356-362.
- Tilelli, John H., General. 1996. Reengineering Azimuth Check. Headquarters, Fort McPherson, GA: GPO.
- Tomasko, R. 1996. The Catch-22 of Reengineering. Across the Board. 33(5): 12-18.
- Trabant, B. and W. Burke. 1996. Creating a Change Reaction: How Understanding Organizational Dynamics Can Ease Reengineering. National Productivity Review. (Autumn): 37-46.
- Trice, H. and J. Beyer. 1993. The Cultures of Work Organizations. Englewood Cliffs, N.J: Prentice-Hall.
- Tushman, M. and E. Romanelli. 1985. Organizational Evolution: A Metamorphosis Model of Convergence and Reorientation. B. Staw and L. Cummings (Eds) Research in Organization Behavior. (7) 171. Greenwich, CT: JAI Press.
- Vagnerini, R. 1996. Institutionalizing Total Army Quality. Leading Change TQA Newsletter. Headquarters, Department of the Army. Washington, D.C.: GPO.
- Vancil, R. 1987. Passing the Baton: Managing the Process of CEO Succession. Boston, MA: Harvard Business School Press.



- Van De Ven, A. and M. Poole. 1995. Explaining Development and Change in Organizations. Academy of Management Review. 20(3): 510-540.
- \_\_\_\_\_. 1988. Paradoxical Requirements for a Theory of Organizational Change. R. Quinn and K. Cameron (Eds) Paradox and Transformation: Toward a Theory of Change in Organization and Management. New York: Harper-Collins.
- Van Maanen, J. 1979. The Fact of Fiction in Organizational Ethnography. Administrative Science Quarterly. (24): 539-550.
- Van Maanen, J. and S. Barley. 1985. Cultural Organization: Fragments of a Theory. Organizational Culture. Beverly Hills: Sage Publications.
- Wanous, J. 1980. Organizational Entry: Recruitment, Selection, and Socialization of Newcomers. Reading, MA: Addison-Wesley.
- Waterman, R. 1990. Adhocracy, The Power to Change: How To Make Innovation a Way of Life. Knoxville, TN: Whittle Direct Books.
- Weber, M. 1947. The Theory of Social and Economic Organization. London: Oxford University Press.
- Weick, K. 1979. The Social Psychology of Organizing. Reading, MA: Addison-Wesley.
- Weick, K. and M. Bougon. Organizations as Cognitive Maps. 1992. H. Sims and D. Gioia (Eds) The Thinking Organization. San Francisco, CA: Jossey-Bass.
- Whetten, D. 1988. Sources, Responses, and Effects of Organizational Decline. K. Cameron and D. Whetten (Eds) Readings in Organizational Decline. Cambridge, MA: Ballinger.
- Wilkins, A. and W. Ouchi. 1983. Efficient Cultures: Exploring the Relationship Between Culture and Organizational Performance. Administrative Science Quarterly. (28): 468-481.
- Wilms, W., A. Hardcastle, and D. Zell. 1994. Cultural Transformation at NUMMI. Sloan Management Review. (Fall): 99-113.
- Wilson, L. and R. Durant. 1994. Evaluating TQM: The Case for a Theory Driven Approach. Public Administration Review. 54(2): 137-146.
- Wolff, M. 1995. Managing Change-Who Does It Best? Technology Management. (Jul/Aug): 10-11.

Zajac, E. and M. Kraatz. 1993. A Diametric Forces Model of Strategic Change: Assessing the Antecedents and Consequences of Restructuring in the Higher Education Industry. Strategic Management Journal. (14): 83-102.

# IMAGE EVALUATION TEST TARGET (QA-3)



**APPLIED IMAGE, Inc**  
1653 East Main Street  
Rochester, NY 14609 USA  
Phone: 716/482-0300  
Fax: 716/288-5989

© 1993, Applied Image, Inc.. All Rights Reserved