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TOTAL QUALITY MANAGEMENT: BRIDGING THEORY TO PRACTICE

by

Richard Ross Brydges

**A dissertation submitted in partial fulfillment
of the requirements for the degree of**

Doctor of Education

University of San Diego

1997

Dissertation Committee

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ABSTRACT

TOTAL QUALITY MANAGEMENT : BRIDGING THEORY TO PRACTICE

RICHARD ROSS BRYDGES. University of San Diego, 1997. 228 pp.

Director Susan M. Zgliczynski, Ph.D.

The purpose of this study was to evaluate the practice of Total Quality Management (TQM) in an organizational culture using Deming's System of Profound Knowledge (1993) as a construct that combines the philosophical and methodological dimensions of TQM. As with TeleServices Resources (TSR), the evaluative case study subject for this research, organizations worldwide have adopted TQM to establish a culture that would make them more capable of producing quality products and services. Many of these efforts never realized their potential. My premise for this study is that the potential of their efforts are not fully realized, because organizations do not have the perspective or framework to evaluate their own progress.

This research combined the four dimensions of the System of Profound Knowledge with the Fourth Generation Evaluation (Guba & Lincoln, 1989) methodology, a process of constructive inquiry, to evaluate the inculcation of TQM at TSR. The four dimensions of the System of Profound Knowledge served as a template to guide the data collection and analysis process: Appreciation for a System, Knowledge about Variation, Theory of Knowledge, Psychology. Three data sources were triangulated to describe the current state relative to each dimension: employee interviews, document review, evaluator observations. These constructed realities were acknowledged and negotiated for understanding, revision and consensus among and between a cross section of representatives from each of three levels: executive management, middle management, agents and supervisors.

The conclusions in bridging TQM theory to practice in this case study evaluation reflected that, although significant quality initiatives had been put into place with some measured results, TSR had not optimized the potential of TQM to fully inculcate the qualitative ideas and quantitative methods as represented in the four dimensions of the System of Profound Knowledge. The recommendations provided additional thoughts and strategies to continue to derive TQM's potential by encouraging TSR to not abandon their investment, to follow through on their efforts to date and to reaffirm TQM as a viable corporate initiative in accomplishing strategic objectives. This work provided an evaluative framework for organizations and future researchers to reflect and to build on TQM's potential to establish an organizational culture that optimizes resources and fosters collaboration among stakeholders in the creation of quality products and services.

DEDICATION

I dedicate this dissertation in the loving memory of my mother, Maxine Ross Brydges, who was the source of my being and the inspiration for me to follow my passions and my dreams. She mentioned to me once, that from her experience in life, there were two kinds of people in the world, the talkers and the doers. Her wisdom and example have inspired me to strive for the latter in making worthwhile and significant contributions.

ACKNOWLEDGMENTS

The Leadership Doctoral Program at the University of San Diego was a significant and unique experience in my life. The program's framework and resulting explorations probed the depths of my beliefs and values. The experience has profoundly effected the way I view life, pursue its opportunities and attempt to meet its challenges. For this, and a great deal more, I would like to express my gratitude to the entire faculty and staff in the School of Education at the University of San Diego.

In particular, I would like to thank Dr. Joseph C. Rost for setting an example of integrity, intellect and humanism that has profoundly influenced me. Without his vision and fortitude there would not have been a leadership program.

I want to especially thank the members of my dissertation committee for their conscientiousness and fortitude. My director, Dr. Susan Zglizynski, for grounding me in the realities of doing a dissertation and for keeping me headed and pointed in the right direction. Dr. Edward Kujawa for guiding me in the use of the Fourth Generation Evaluation Model and for generally just always having a good attitude. Dr. Jeffrey Glazer for his sage advice, timely prouiding and friendship.

I acknowledge and thank my children, Brooks, Kelly and Megan Brydges, for their support, and their sacrifices in not always having my presence, because "I didn't have time." I thank Gail Brydges for her support in assisting me through the program.

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CHAPTER I

STATEMENT OF THE ISSUE

Introduction

The only constant in the world is change (Kanter, Jick & Stein, 1992). One of the most viable strategies in keeping up with the ever increasing pace of change, as this country moves from a self-sufficient to a more globalized economy, is America's quality management philosophy revolution. This revolution can be characterized by the emergence of Total Quality Management (TQM) as a philosophical and methodological construct with which to address the complexities involved in bridging quality theory to practice. TQM is a pervasive concept that is more than a prescription for the creation and delivery of better products and services, it is a way of changing how we think, work and relate to one another (Main, 1994). This TQM concept in practice is the subject of this research.

Need For Study

Simply acknowledging the existence of change and its accelerated pace in every facet of our lives is only a beginning in addressing the opportunities represented by such change. Philosophies, frameworks, methods and tools to deal with this accelerated dynamic must be put into place to cope with the realities of this multidimensional challenge. Senge (1990) described this challenge before us as "dynamic complexity", as opposed to the more mechanistic, reductionistic and "detailed complexity" associated with industrial paradigm that has characterized progress since the turn of the century. It was a period in which variables could be more easily isolated and dealt with in a linear fashion. Senge went on to strongly suggest that individuals, groups and organizations

consider TQM as a proven and viable holistic construct in addressing the challenges and opportunities of the Information Age and beyond.

Based on this description of the future, the need for this study rests not only with a reflection on what TQM has brought to the table, but on the examination and analysis of its capacity and potential to meet the ongoing challenges of the next millennium. We can no longer afford to continuously graze in search of prescriptive remedies, leading edge panaceas, and silver bullets, or what Deming termed "instant pudding." While new and alternative thinking is called for, we don't need to keep reinventing the wheel. We need to integrate proven applications with new ideas that address a constantly changing environment, implement new initiatives, provide adequate resources, and finally, reflect on and critically analyze the resultant changes over time. The need for this study is that TQM, and Deming's System of Profound Knowledge, be seriously looked at and revisited for its merits, applicability and ongoing potential to meet the challenges described in this introduction. The premise is that it is a proven and viable medium through which to address the challenges before us.

This study is then designed and carried out with the intention of reflecting on both the theory and practice of TQM in meeting the issues associated with the realities of dynamic complexity and challenges of the next millennium. Many authors, academics, futurists and practitioners support this contention and have contributed to the emergence of TQM as an operational construct worldwide. While many contributors to TQM are referenced and recognized in this work, this study focuses on Deming's contributions as being the most comprehensive and representative embodiment of the ever evolving quality philosophy to date. His contributions spanned the of the Twentieth Century and had significant influence worldwide on how we looked at and conducted business in all aspects of society. This research extensively references his last published work The New Economics For Industry, Government, Education (1993). In this last publication, he systematically integrated his work into what he described as the System of Profound

Knowledge. It uniquely interrelated and integrated his philosophy with his vast and proven experience to embody and represent the culmination of his life's work. It is a framework in which he urged others to refine this system and perpetuate its application and potential. Deming described his philosophy as improving quality, and brought about "a new kind of world" (Delavigne & Robertson, 1994, p. 63).

Bringing about a new kind of world might appear to be somewhat ambitious, however, it speaks to Deming's insightfulness and vision for the future. For those possibility alone, his work merits the attention of academics and practitioners alike in exploring the possibilities of his work and its unfulfilled potential. This research is designed to expand the envelope of TQM application by using Deming's System of Profound Knowledge to evaluate the reality of TQM in bridging quality theory to practice. This research evaluates TQM's ability to face the complex challenges before industry, government, and education through a study and analysis of its application and implementation in a representative organization. This case study evaluation reflects the travails and accomplishments of such an undertaking. It is a situational reality that can be somewhat objectified in its description and whose conclusions and lessons learned might be generalized to other organizations involved in finding better ways to employ and optimize their valued resources in pursuit of mutual purposes. This is a never ending aspiration in which we are all involved with in one way or another.

Purpose of Research

The purpose of this research is to evaluate the practice of Total Quality Management (TQM) in changing and shaping an organizational culture. To capture the effects of TQM in bridging quality theory to practice, Deming's System of Profound Knowledge (1993) is used as an evaluative framework in this endeavor. Deming described this system in terms of four distinct theoretical dimensions:

1. Appreciation of a System. This dimension addresses the work flow processes and structure within an organization.

2. Theory of Variation. This dimension deals with the identification and measurement of variation in individual work processes and systems overall.
3. Theory of Knowledge. This dimension addresses theory based learning and an organization's ability to "learn to learn."
4. Psychology. This dimension captures the relationship between human dignity and work.

As a reference baseline for this framework, each dimension is thoroughly described in Chapter II, Review of Literature. Each of the four dimensions guides the research methodology through designing the interview process, making observations, reviewing documents, and ultimately collating and triangulating the data for analysis. Deming's four dimensions of the Theory of Profound Knowledge served as a theoretical standard upon which quality theory in practice is observed, analyzed, evaluated and critiqued. The objective of this research is to assess the capacity of TQM practices to influence and change an organization's climate and culture in pursuit of their mission and vision. This is accomplished by answering the following research questions.

Research Questions

To capture the essence of TQM in practice within an actual organizational setting, five research questions are developed and used. Each of the first four questions are based on the four dimensions of the System of Profound Knowledge and are used to frame the interview process. The last research question is designed to address the effects of the four dimensions together in influencing an organization's climate and culture. The following five research questions are used to guide the inquiry process in assessing the practice of TQM:

Appreciation of a System

1. To what extent is Systems Theory used to define and optimize the efforts of human and material resources to accomplish specific objectives and the organization's mission overall?

Theory of Variation

2. To what extent is the Theory of Variation , Statistical Process Control (SPC) and associated methods, used to define process capability, remove undesired variation and ultimately make processes and the system stable and predictable?

Theory of Knowledge

3. Using the Theory of Knowledge as a criteria, to what extent does the organization use grounded theory, experience, training and education to create a "learning organization"?

Psychology

4. How do the principles and concepts of Total Quality Management manifest themselves in terms of individual behaviors, group relationships and the leadership dynamic among stakeholders?

Combined Influence

5. How do the four preceding dimensions of the System of Profound Knowledge come together to influence, change and shape the organization' culture?

Significance of Research

The significance of this research has a number of possibilities in contributing to both leadership and organizational development theory and practice. However, the main focus is on the following two dimensions. First with respect to leadership, this study is about the leadership legacy reflected in Deming's work and his selfless contributions to industry and the world in general. Deming's legacy of personal leadership challenged others to struggle with the realities of keeping pace with change in general, and to bridge TQM theory to practice. Deming's espoused values reflected leadership by example, concern, consistency and commitment (Main, 1994). Many authors acknowledged and lauded his leadership by recounting his many contributions ranging from the Deming Prize Award, an award offered by the Japanese for the demonstration of world class

quality, to a litany of contributions he made to organizations worldwide through his teaching and consulting (Mann, 1985; Walton, 1990; Gabor, 1990; and Neave, 1990). It is important that his work continues to influence both incremental change, the cultural transformation of organizations and all forms of change in between. These changes are not only necessary to meet the demands of ever more discriminating and sophisticated customer populations in a global economy as a threshold requirement, but to also redefine the meaning of work and the ethic of contribution as it relates to the dignity of workers and mankind in general.

While Deming's Fourteen Principles of Management, cited in the Literature Review, Chapter II, described his leadership concept in terms of objectified principles, Point 7 titled Institute Leadership, addressed the responsibility of leaders. The number one tenant of his leadership paradigm was that the job of a supervisor is not to tell people what to do nor to punish them, but to lead. Leadership consists of helping people do a better job by learning through objective methods who is in need of individual help (Walton, 1990). One analogy consistent with Deming's premise is that a leader is considered a coach in collaboration with her/his players, instead of supervisory control and power over constituents.

This research addresses the relationship between Deming's concepts of leadership that champion people, and a school of thought about the postindustrial leadership that emanated from the leadership doctoral program at University of San Diego. The postindustrial leadership concept was reflected in Rost's book Leadership for the Twenty-First Century (1991). This research articulates the congruencies between Deming's leadership concepts and Rost's postindustrial leadership paradigm under the Psychology Dimension of the Literature Review, Chapter II. In addition, it focuses on the potential impact that Deming and Rost have for the cultural transformation necessary in our organizations and institutions to meet the challenges of next millennium (Deming,

1993, Rost, 1991, Burns, 1978). This research reflects on the power and possibilities inherent in the congruence between these two schools of thought.

The second significance aspect of this research involves organizational development and organizational culture. Deming's (1993) concepts as portrayed in his System of Profound Knowledge, represented a framework or schema through which leaders and stakeholders can collaborate to influence change and transform organizations. The System of Profound Knowledge primarily focused on transformation from the present style of management to one of optimization (Deming, 1993). This construct provides the framework through which leadership can change and transform people and organizations.

This research captures the utility of the System of Profound Knowledge in evaluating the implementation of TQM in an organization. It also acknowledges the leadership realities and the potential of TQM as they both interrelate and influence cultural transformation. Schein (1992) noted that it is the reaction, evolution and management of culture that ultimately defines leadership. Therefore, this research defines leadership in the context of organizational change and cultural transformation using the Theory of Profound Knowledge as a template through which the inculcation of TQM concepts are analyzed. This proposition is unique, significant and relevant to the challenges before our leaders and organizations today. This research effort will not purport to have all the answers, or any answers for that matter, but it is definitely designed to focus a dialogue on the process of bridging TQM theory to practice. The intentions of this research are significant in that TQM content and process are both value-added to discovering and releasing the potential of people in organizations. My premise and general view of the world is that people are caught up in organizations incapable of attaining their full potential. This work is targeted at minimizing, or at least reducing, that burden of reality by providing organizations with a capacity to tap into that potential.

Definition of Terms

The following concepts are significant to this research and it is important that they be defined and understood in the context of this case study. The Venn diagram, Figure 1, depicts four terms, or constructs, that anchored this work based on their individual definitions and their meaning in their congruence or juxtapositions to one another. In the context of this case study evaluation, they are not mutually exclusive phenomenon. Their congruence represents change, or at least the possibility for change, as they symbolically play off and inform one another. In addition to this dynamic interfacing, they respectively represent the “what, why and how” questions of organizational development and change in this case study scenario. A scenario based on the views and multiple realities of TSR’s internal and external customers.

Figure 1. Interrelationship of research constructs.

Total Quality Management (TQM). Due to the nature of TQM’s somewhat eclectic and varied evolution as described in Chapter II, several definitions of TQM

reflect the breadth of acceptable interpretations, including the definition used at TSR, the case study subject: (a) "TQM is a way to continually improve performance at every level of operation, in every functional area of an organization, using available human and capital resources" (Brocka & Brocka, 1992, p. 3), (b) "A philosophy of management committed to achieving a system of quality predicated on top down leadership which emphasizes and supports grass roots involvement of the organizational processes" (Arnold & Brument, 1990, p. 2), and (c) President Lauri L. Curtis of TSR (1995) defined TQM as "an intense focus on the customer by using a structural system for creating organization-wide participation. It is a continuous improvement process to meet customer needs."

Organizational Culture. Schein (1985) described organizational culture as "a pattern of basic assumptions - invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration - that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (p. 9). "I will argue that the term 'culture' should be reserved for the deeper level of basic assumptions and 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. These assumptions and beliefs are learned responses to a group's problem of survival in its external environment and its problems of internal integration" (1985, p. 6).

Leadership. The third construct of this triad represented by Rost's (1994) most recent definition of leadership, "Leadership is an influence relationship among leaders and their collaborators who intend real changes that reflect their mutual purposes" (p. 7). Four elements of this definition address the "how" parameter of implementing TQM. They distinguished leadership from other human relationships and management endeavors. The four elements are: (1) the relationship is based on influence, (2) leaders

and their collaborators are the actors in the relationship, (3) leaders and their collaborators intend real changes, (4) the changes the leaders and their collaborators intend reflect their mutual purposes.

Leadership as the “how” in this equation, is addressed further in Literature Review, Chapter II, as part of the Psychology Dimension of the System of Profound Knowledge. In addition to this definition establishing a background, context and framework for the qualitative analysis of the “people” dynamics within the Psychology Dimension, it provides an important lens for assessing leadership as it exists. It also provides a dialogue in which the possibilities for leadership to manifest itself in attaining organizational goals and objectives can be discussed. It set both a criteria for identifying leadership and provides a model consistent with Deming’s notions of leadership. Notions Deming himself confused by referring to leadership either as management or supervision. Rost’s definition provided a clear distinction.

Organizational Change. Change, as related to this study, is described and viewed in numerous ways based on the situational specifics and contingencies associated with a given scenario or particular change process itself. The following three perspectives are used to help bound the phenomenon of change in the context of this study:

1. Goodman (1982) defined change in an organizational context and acknowledged that change itself can occur randomly (chaos theory), through evolutionary processes (the organic model), or any number of organizational development (OD) design intervention, of which TQM is one. Recognizing that these constructs of change are influencing the case study organization, the evaluation focuses on the causes and effect of planned change associated with the implementation and evolution of TQM in influencing organization’s culture: “Planned organizational change refers to a set of activities and processes designed to change individuals, groups, and organizations structure and processes” (Goodman, 1982, p. 4).

2. In addition to defining planned change in a traditional sense, Morgan (1985) identified more contemporary ideas about the management of change in organizational theory that can be addressed on two levels: "The first is mainly descriptive and attempts to identify and catalogue manufactures of change.... The second is more analytical and attempts to characterize change in terms of more abstract concepts such as its degree of uncertainty or turbulence " (Morgan, 1985, p. 267). He went on to describe that while these efforts succeed in producing descriptions and classifications of the nature of change, they don't really explain its basic dynamic. They allow us to develop theories about how organizations can respond to different types of change, but they provided no indication as to how organizations can begin to influence the nature of the change that they encounter. This research explores such possibilities with organizational stakeholders in understanding discrete events that make up their experience of change as it relates to TQM and the organizations' culture.

3. The last perspective identifies the inter relatedness of change to the environment. Woodward (1994) described the nature of change as an ongoing, self-adapting, and unpredictable. In turn, those dimensions and their dynamic interplay define the environmental realities of change itself.

Limitations and Assumptions

The assumptions and limitations of this study generally fall into three categories: (a) those dealing with the subjective nature of organizational development and the limits of a research methodology to bound and frame a vast array of cultural dynamics, (b) those limitation and assumptions that are imposed by the researcher's desire and ability to maintain a focus and constancy in purpose in addressing and answering the research questions themselves, and finally, (c) the role, or perceived role, of the researcher.

The first category involves assumptions and limitations associated with selecting a methodology that would most effectively and efficiently answer the operative research questions in this study. After reviewing a continuum of quantitative and qualitative

methods, the qualitative framework seems best suited to the nature of this somewhat open ended constructive inquiry and evaluation. The specific case study evaluation methodology, chosen with many of its situational options and contingencies, is thoroughly described in Chapter III. While the qualitative methodology selected is determined to be best fit for this investigation, its limitations in defining variables and their multiple interpretations are problematic in exacting specific and common interpretations of individual constructed realities and their relationship to the environment and culture overall. The very nature of organizational development, cultural change and leadership do not necessarily lend themselves to exact interpretation and specificity called for in the scientific paradigm. This dilemma resides predominantly in the diversity of backgrounds and experience within the organizational population itself. It is further compounded by the lack of a common language through which stakeholders can express their reality in general, and their experience with TQM.

In working with this realization, the research process and parameters are guided as much by the emerging data itself as by the initial design criteria. An example of this emergence is reflected in selecting the sample size of the population to be interviewed. The final number is determined only after the data begins to repeat itself. This is in many instances a subjective interpretation on the part of the researcher in terms of interpreting and correlating the data. These diversity and language barriers are primarily dealt with by simply acknowledging their existence and dealing with that reality.

The second set of assumptions and limitation involves the researchers desire to address a myriad of issues and challenges associated with capturing and describing the case study subjects' culture. The participants' openness and candid willfulness to address and discuss their reality is a testament to the organization's general state of stability and health. However, that same openness presents a veritable plethora of options and contingencies in describing and characterizing that culture. While getting my arms around the culture in general is important to capture the impact that TQM has, it requires

a degree of synthesis and interpretation that departs from the traditional scrutiny of quantitative research. The limitation or reality of such an endeavor is that the research cannot be informed enough. The challenge to the researcher is in deciding when enough is enough in meeting the objectives of the research, providing a "complete" picture, adding value to the organization and to a body of knowledge in general. The intention is that these would be totally congruent objectives.

The third set of assumptions and limitations deals with the evaluator role, or perceived role, in this intervention. The question is, will the interviewer be perceived as a researcher, consultant, friend, foe, some combination, or whatever? I will try to allay any fears and create a sense of credibility and rapport by sending out advanced information describing the nature and purpose of the study. In addition, I will enclose a copy of the Disclosure/Confidentiality Consent to Act as a Research Subject agreement (Appendix A), so that they could see the terms and option of their totally voluntary involvement. My strategy in the scheduled interviews and informal wandering about is to present myself as a person who will listen to them and honestly attempt to relate to and capture their reality relative to the organizations' TQM culture, or whatever else is on their minds. Whatever their perception, dealing with their reality is the key to a successful research process. The success of these intentions are reflected in the completeness and richness of data/findings presented in Chapter IV.

CHAPTER II

LITERATURE REVIEW

Introduction

The framework for this literature review is centered around Deming's last published book The New Economics for Industry, Government, Education (1993). The author of three books and over 170 papers, this book represents a synthesis and culmination of those contributions and of his life's work in general. In addition, his work and contributions are a reflection and embodiment the quality movement or revolution that has occurred in this country, and worldwide, over the past couple of decades (Main, 1994). In this book, Deming presented the System of Profound Knowledge as an alternative for people who are living under the tyranny of the prevailing system and style of management (Deming, 1993). The System of Profound Knowledge, with its four dimensions, was used as a template through which to evaluate the actual implementation and cultural impact of Total Quality Management (TQM) in an organization. This chapter is organized around the four dimensions of the System of Profound Knowledge (Deming, 1993): Appreciation for a System, Knowledge about Variation, Theory of Knowledge, Psychology. Incorporated into the essence of Deming's description of each dimension are the referenced perspectives of published authors, researchers and practitioners who were either involved with or reflected on specific dimensions, their effects in various combination and/or their impact on the quality movement in general.

To put the System of Profound Knowledge in a contemporary context, Deming (1993) described the prevailing economic climate and business culture as followings:

We have been taught by economists that competition will solve our problems.

Actually, competition, we see now is destructive. It would be better if everyone

would work together as a system, with the aim for everybody to win. What we need is cooperation and transformation to a new style of management (p. xi).

Based on that an characterization of the past, he presented the System of Profound Knowledge as a transformational route toward changing that prevailing climate. This holistic system composed of four parts are systemically related and interrelated to each other:

1. Appreciation for a System - structural definition and optimization of processes and the system overall.
2. Knowledge about Variation - measurement and analysis of capability through the elimination of undesired variation.
3. Theory of Knowledge - learning to learn as an individual and collective capability.
4. Psychology - the recognition of human dignity in striving toward the self-actualization of stakeholders in an organization.

Using the System of Profound Knowledge as an subject matter framework, this literature review explored writings and research that provided multiple perspectives on the value-added possibilities or limitations associated with specific dimensions, their systemic combinations and/or the system as a whole. The review addressed both the theoretical and practical applications of Deming's System of Profound Knowledge with the aim of establishing a framework for this research and for the general analysis of TQM theory in practice overall. This framework would provide a context in which TQM theory and practice continuously inform each other in the transformation from the existing styles of management and prevailing cultures of the past, to a climate and environment where human contributions and material resources are appreciated and optimized in the creation of value-added products and services (Deming, 1993).

Background

As an initial point of reference for Deming's work, and specifically the System of Profound Knowledge, his Fourteen Points for Management are presented as a starting point for this literature review and as a philosophical grounding for this research in general. The Fourteen Points are reflected on and referenced throughout this study. While these points continuously evolved through Deming's work over the years, they were first described as a complete listing at a meeting of the Deming User's Group (DUG) San Diego, California in February of 1985. They became synonymous with quality movement in many circles and established a basis for the transformation of American industry (Mann, 1987). He strongly suggested that their adoption would signal that management intended to stay in business with the aim of protecting investors and jobs alike, win-win (Deming, 1986). A brief description of each of Deming's Fourteen Points for Management follows (Dowd, Houghton & Snyder, 1994, pp. 242-244):

1. Create consistency of purpose. Create constancy of purpose toward improvement of products and services, with the aim to become competitive, stay in business, and provide jobs.
2. Adopt the new philosophy. We are in a new economic age, created by Japan. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.
3. Cease dependence on mass inspection. Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.
4. End the practice of awarding business on price tag. Instead, minimize total cost. Move toward a single supplier on any one item on a long-term relationship of loyalty and trust.

5. Consistently and forever improve the system. Improve constantly and forever the system of production and service, to improve quality and productivity and thus constantly decrease costs.

6. Institute modern methods of training. Institute training on the job.

7. Institute modern methods of supervision. Institute leadership. The aim of leadership should be to help people, machines and gadgets to do a better job. Supervision of management is in need of overhaul as well as supervision of production workers.

8. Drive out fear. drive out fear, so that everyone may work effectively for the company.

9. Break down barriers. Break down barriers between department. People in research, design, sales, and production must work as a team to foresee problems of production and in use that may be encountered with the product or service.

10. Eliminate numerical goals. Eliminate slogans, exhortations, and targets for the task force that ask for zero defect and new levels of productivity.

11. Eliminate work standards. Eliminate work standards (quotas) on the factory floor. Substitute leadership. Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.

12. Remove barriers. Remove barriers that rob the hourly worker of this right to pride of workmanship. The responsibility of supervisors must be changed from stressing sheer numbers to quality. Remove barriers that rob people in management and engineering of their right to pride of workmanship. This means, inter alia abolishment of annual merit rating and of management by objective.

13. Institute a program of education and retraining. Institute a vigorous program of education and self-improvement.

14. Put everyone to work to accomplish the transformation. The transformation is everyone's job.

Scherkenback (1986), a noted colleague of Deming, who was charged with TQM implementation at Ford Motor Company and later at General Motors, wrote a book titled Deming's Road to Continual Improvement. The book was dedicated to the understanding of Deming's important call for organizational transformation through the application of these Fourteen Points. In addition, many authors, practitioners and consultants in the quality field over the past decade refer to the Fourteen Points as a unique and significant contribution to the Quality Revolution (Garvin, 1988; Main, 1994). These contributors have provided a focus for companies and organizations to regenerate their competitive viability in a global market place with a common emphasis on high quality products and services (Gabor, 1990; Caroselli, 1991).

In addition to the Fourteen Points in guiding the transformation of organization, Deming characterized the Deadly Diseases and The Obstacles as self-inflicted problems that impede productivity and the adoption of the quality philosophy (Main, 1994). To accomplish this adoption and ultimate transformation, action must be taken by a critical mass of stakeholders in an organization who understand not only the Fourteen Points, but the related Seven Deadly Diseases and the Obstacles (Walton, 1991). The following self-inflicted problems, The Seven Deadly Diseases, are often more threatening to an organization than the external competition itself (Snyder, Dowd, Houghton, 1994):

1. A lack of consistency of purpose to improve products and services by providing resources for long-term planning, research and training.
2. An emphasis on short-term profits.
3. Using individual performance evaluations through merit ratings and annual reviews.
4. Instability resulting from the mobility of managers.
5. The misuse of data.
6. Excessive medical costs.
7. Excessive legal liability costs.

Obstacles can impede productivity and the adoption of a quality philosophy. However, they differ, Deming proposed, from the Points and Diseases in that they are somewhat easier to cure (Walton, 1991). The Obstacles are following:

1. Impatience for quick results.
2. A dependence on technology to solve problems
3. The tendency to rely on examples from other companies to improvement methods rather than developing methods to fit the organization internally.
4. Thinking that problems are unique as a rational to avoid dealing with the real quality issues.

Deming's Fourteen Points, Seven Deadly Diseases and four Obstacles combined represent the philosophical foundation on which the System of Profound Knowledge is based. They are used independently and collectively as points of reference and reflection in creating a dialogue and consciousness in which a quality philosophy can be introduced, supported, sustained and evaluated.

TQM Pioneers

Prior to addressing the individual dimensions of the System of Profound Knowledge, the process involved in this review of the literature included searching for multiple perspectives and constructive critiques related to Deming's work and specifically the System of Profound Knowledge. These perspectives included those within the quality movement and some squarely outside the emphasis or tradition. Main in his book Quality Wars (1994) documented the struggles of a dozen companies attempting the transformation to Total Quality Management and the adoption of a supporting culture. In this 15 year longitudinal review, he documented multiple philosophies and strategies used by practitioners to establish a culture and achieve the outcomes necessary for their companies to compete in a global market place. All reviews acknowledged the work of Shewart, a physicist at Bell Research Laboratories, as the father of the new quality movement (Main, 1994). The genesis of his work was initially

documented in a paper published in 1931 titled "Economic Control of Quality of Manufactured Product." "Giving the discipline a scientific footing, Shewart gave a precise and measurable definition of manufacturing control, developed powerful techniques for monitoring and evaluating day-to-day production, and suggested a variety of ways of improving quality" (Garvin, 1988, p.6).

In the subsequent decades there were four individuals most credited with building on Shewart's foundation and forwarding the quality revolution. Each had their own unique interpretation and advocated different points of emphasis in both the theory and practice of quality. In 1950, Armand V. Fergenbaum, General Electric's Chief of Quality, argued that quality was the responsibility everyone, not just the quality department. The next year, Joseph Juran who worked for Western Electric published a book entitled Quality Control Handbook that essentially documented the quantitative techniques involved in Statistical Process Control (SPC) (Main, 1994). Deming's contributions simultaneously added to this growing body of knowledge and work. These contributions are referenced in terms of culminating work, *The System of Profound Knowledge*.

Deming's, Juran's and Feigenbaum's individual work and collective contributions were congruent in both theory, application and practice. While their work during and post World War II continued in some obscurity, their message was beginning to get through to a broader audience (Main, 1994). Then starting in 1979, Philip Crosby former vice president of quality at ITT, wrote a series of books that appealed to a broader base of managers and leaders in establishing a quality dialogue (Crosby, 1989). His initial publication Quality is Free (1979) "unfortunately left the impression that quality is easy as well as free" (Main, 1994, p. 22). A premise appealing to many, but not supported in practice.

As the works of Deming, Juran, Feigenbaum and Crosby became more recognized, particularly in light of Japan's economic resurgence, many in this country viewed the 1980 NBC documentary, "If Japan can...Why can't we?" which explained

how Deming, then unknown in America but famous in Japan since the 1950, could reduce failures through Statistical Process Control (SPC) and thus improve competitive position (Mann, 1985). "The more cerebral might have gotten the message from the so called PIMS studies, which presented convincing evidence that quality was the key to growth and greater market share" (Main, 1994, p. 22). However this message was received, it was the dawning of a new era in this country. When the strategic aspects of quality were recognized and embraced, they became the basis for competition for the more sophisticated consumers world wide (Garvin, 1988).

Based on the efforts of the four men acknowledged above, Shewart's foundational work was applied in numerous settings and organizations. From those beginnings, the history of the quality movement has been characterized by a steady evolution of dialogue and application based on that genesis of work. A history dating back to pre World War II, and whose zenith of attention seemed to peak in the mid to late 1980's. During that period certain quarters in academia and significant numbers within the consulting population assisted organizations to take on the mantel and challenges of organizational transformation through Total Quality Management (TQM). In addition to manufacturing, TQM was also being adapted for service based organizations in both the public and private sectors.

Based on TQM's historical progression and the premise that Deming's work, specifically the System of Profound Knowledge, reflected the quality movement in general, the remainder of this literature review was focused on the four dimensions of the System of Profound Knowledge. Other more recent contributors and practitioners were referenced and acknowledged in the remainder of this literature review and the study throughout. Among the contributions reviewed, only two research efforts were found that included or integrated the System of Profound Knowledge into their research (Walker, 1994 & McNary, 1993). Despite this limited coverage, quality in general, and

specifically the System of Profound Knowledge, remain fertile areas for continued research (Garvin, 1988).

The System of Profound Knowledge

Deming's System of Profound Knowledge (1993) combined his previous work on "variation" and "systems" with two additional areas, "knowledge" and "psychology." These four dimensions comprised the system. Combined, they present a conceptual road map for the transformation initially called for and outlined in Deming's Fourteen Points for Management. The system incorporates the four dimensions into two broad areas of understanding: (1) technical and (2) social (Michaelson, 1990). The variation and systems components of the System of Profound Knowledge cover the more technical aspects of TQM, while knowledge and psychology address the social dimensions. However, the System of Profound Knowledge is holistic in that the various components interact with one another to create a systemic whole. This literature review first addressed each dimension separately for clarification and understanding. Then, the research process itself addressed the concept in practice reflecting the realities of their individual and combined effects.

Appreciation of a System

Deming (1993) described a system as a network of interdependent components that work together to try to accomplish the aim of the system. Organizations, whether they are service or manufacturing based, must be viewed as a system or network of processes with an identified aim. That aim is a desired outcome as defined by the customer. In the context of TQM, the outcome is not only defined by the customer, but in addition, reflects the customer's implicit and explicit needs now and in the future. These expressed needs in term initial specifications and/or emerging requirements become "the voice of the customer" (Joiner, 1992). Those requirements are then translated into the aim. Optimization in a systems context is a process of orchestrating the efforts of components toward achieving the designated aim and it is management's

job to do such (Deming, 1993). It is tested when the "voice of the process", the process capability, meets the "voice of the customer", the customer's needs. This threshold requirement is accomplished when natural process limits, plus and minus three standard deviations, meet or exceed the specification limits set by the customer (Chamber & Wheeler, 1992).

A central theme expressed by Deming (1993) in this systems dimension is one of cooperation, as opposed to competition, in meeting the optimum aim point, or voice of the customer, described in the previous paragraph. Deming pointed out that for the most part systems are interdependent, and that the greater the independence between structural components, the greater will be the need for communications and cooperation between them. The underlying premise is that cooperation fosters synergy and alignment, while an atmosphere of competition sub-optimizes efforts in achieving the prescribed aim.

Deming's idea of cooperation versus competition referred to interactions both inside and outside the organization, with internal as well as external customers. It is neither realistic, nor reasonable, to expect American organizations to abandon the idea of competition in total. However, it is realistic that organizations recognize the advantages of collaboration and cooperation, in both a micro and macro economic sense (Kiser & Sashkin, 1993). Fundamental to systems optimization is cooperation which involves the eradication of competition among its component parts. The performance of the individual components are rated according to the contribution of each to the system, rather than individual ratings of profit, production, or other competitive standards. This allows everyone to work together for the company (Dobyns, 1989).

Deming's thoughts on systems are compatible with the evolution of general systems theory in that the tendency is to study systems as an entity rather than a conglomeration of parts. An Appreciation for a Systems dimension is consistent with the disposition of contemporary science not to isolate phenomena in narrowly confined context, but rather to open interaction for examination and examine larger and larger

slices of nature (Bertalanffy, 1968). This, in part, was what Deming called for in Point 9, breaking down barriers between departments and other entities within the organization. Such integration helps counter the "stove pipe" mentality that has dominated organizational structure since the Industrial Revolution.

Deming's (1993) overall vision relative to this dimension is that:

The aim proposed here is for everyone to win-stockholders, employees, suppliers, customers, community the environment-over the long term. Based on this win-win proposition, management's responsibility takes on a different genera. It shifts from a mind-set of win-loss as part of competition that is predominant in our Western style of management, to a context of cooperation where everyone wins in the long term (p. 98).

Notwithstanding the obvious cultural ramifications of Deming's philosophy on systems as it relates to TQM, the bottom line question is whether the organization is systematically structured to optimize its resources in meeting customer requirements? While fundamental systems change is management's responsibility, everyone in the system must collaborate to make the system work (Walton, 1991).

Theory of Variation

The Theory of Variation is the foundational dimension to the System of Profound Knowledge. This dimension establishes the premise that "life is variation" (Deming, 1993, p.101). The Theory of Variation establishes the realization that there will always be inherent variation in processes, and people that come together to produce products and services. It is the responsibility of those involved in a process to be aware of that reality, but it is management's specific responsibility to understand and address the source and nature of that variation to the maximum extent possible. It is management's job to take that information and subsequent knowledge and use it to remove undesired variation (continuous improvement) and to predict future capability (Deming, 1982). This

approach to understanding the nature of variation is commonly referred to as the "voice of the process" (Chambers & Wheeler, 1992, p. 120).

The roots of this continuous improvement theory and associated methodologies are based on the work of Dr. Walter Shewart at the Bell Laboratories in the early 1920's. He studied the laws of nature relative to variation and applied those principles to manufacturing situations. There was enough correlation to establish a system of tools and techniques designed to provide a basis for action in manufacturing (Ishikawa, 1976). A basis from which data driven decisions could be made in establishing and predicting the capability of a process or system.

The statistical methods and tools associated with identifying this capability are commonly referred to in the collective as Statistical Process Control (SPC). The associated methodologies lend objectivity and accuracy to observation and can further deepen the resident knowledge of production processes and ways to improve it (Kume, 1985). The tools of SPC and associated techniques present a picture of what is happening to and in a process relative to its inherent variation. These pictures are referred to as control charts and are used to monitor conditions in the process (Amsden & Amsden & Butler, 1991).

Statisticians such as Dr. Deming emphasized that these statistical techniques can be used in every facet of business. The goal of the statistical approach is improved operating efficiency using a variety of problem-solving tools associated with the statistical approaches: Pareto Charts, flowcharts, cause and effect diagrams, histograms, scatter grams, control charts (Siegel, 1982). The Theory of Variation combined with the tools of SPC depict what is happening to a particular process and provides the basis for making informed decisions.

Theory of Knowledge

In describing the Theory of Knowledge, Deming (1993) makes reference to C. L. Lewis' Mind and The World Order (1929). Lewis addressed the nature of knowledge by

probing nine thesis dealing with how knowledge and experience are constituted. Deming (1993) reduced Lewis' inquiry to the interplay between prediction and observation in the creation of knowledge and described this interplay as the Theory of Knowledge:

The theory of knowledge teaches us that a statement, if it conveys knowledge, predicts future outcomes with risk of being wrong and that it fits without failure observations of the past. Rational prediction requires theory and builds knowledge through systematic revision and extension of theory on comparison of prediction with observation (p. 103).

Delavigne and Robertson (1994) describes Deming's ideas about knowledge as people who work within systems need to have knowledge of both the system and its purpose. Deming perceived that "all knowledge is prediction." (Deming, 1993, p. 165). The recognized value of this knowledge is used to predict the future. Thus, knowledge carries a strong connotation of prediction and future validity in the context of TQM. "Rational prediction requires theory and builds knowledge through systematic revision and extension of theory based on comparison of prediction with observation" (Deming, 1993, p. 103).

Deming's practice and basic assumptions about TQM treated knowledge as probabilistic and not absolute, consistent with his premise that "life is variation" (Deming, 1993, p.101). Based on the probabilistic nature of life's happenings in general and specific processes under study, the path to improvement is constantly gaining new knowledge. The vehicle for gaining such knowledge was described by Deming as the Plan-Do-Check- and Act Cycle (PDCA), commonly referred to as the Scientific Method or the Deming Cycle (Bassard, 1989). This cycle is the key to problem solving in an on-going context. It takes an observable event through a process that continually refines the outcome.

Based on the assertion that Deming's Fourteen Points for Management follow naturally as a application of the System of Profound Knowledge, Points 6 and 13 are in

direct support of this dimension (Deming, 1993). Point 6, institute training on the job, should be an integral part of building a knowledge base utilizing with the tool and methodologies of TQM. Without such an investment in training, management can only expect business as usual (McManus & Schulmeyer, 1992).

Deming's Point 13, institute a vigorous program of education and self-improvement, goes beyond just providing the skill based described in Point 6. Point 13 focuses on management's responsibility to provide on-going educational opportunities. Deming believed that management must treat people as an asset and not a commodity. Investment in long-term education and growth does not occur when people are treated as commodity or a liability (Scherkenback, 1986). Deming (1982) linked an organization's competitive position directly to the acquisition of knowledge through education. "People require in their careers, more than money, ever-broadening opportunities to add something to society, materially and otherwise" (Deming, 1982, p. 86).

Senge (1990), a colleague of Deming, devoted The Fifth Discipline, to the building of "learning organizations" consistent with the Theory of Knowledge. Deming endorsed his vision of creating "organizations where people continually expanded their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (Senge, 1990, p. 3).

Senge's (1990) views on building learning organizations based on the Theory of Knowledge are also related to and consistent with Deming's (1993) Appreciation for a System dimension of his System of Profound Knowledge. This linkage comes from changing how we think we're connected to the world:

At the heart of a learning organization is a shift of mind-from seeing ourselves as separate from the world to being connected to the world, from seeing problems as caused by someone or something out there to seeing how our own actions create the problems we experience. A learning organization is a place where people are

continually discovering how they create their reality, and how they change it. A Archimedes said, 'Give me a lever long enough...and single-handed I can move the world' (Senge, 1990, p. 13).

That "lever" is a metaphor for individual and collective knowledge gained from education and experience. Both Deming (1993) and Senge (1990) are challenging everyone to engage in the art and practice of collective learning in the unceasing pursuit of knowledge. Knowledge gained from one's own experience and observations in the world.

Psychology

Deming's Psychology dimension addresses human dynamics associated with the System of Profound Knowledge. "Psychology helps us to understand people, interaction between customers and suppliers, interaction between teacher and pupil, interaction between a manager and his people and any system of management" (Deming, 1993, p. 110). In probing the different aspects of this dimension, Deming describes a number of situations people face in dealing with the system they work and live in, and the people they work and live with in organizations and society at large. The core issue in possible interaction is human dignity and self-esteem, or the restoration of the individual (Delavigne & Robertson, 1994).

Delavigne and Robertson (1994) believed that neo-Taylorism, with its view of people as bionic machines, was the philosophy of management from which Deming wanted people to be restored from. He wanted people to be recognized as the most critical and vital resource to any undertaking. A situation in which people would be restored from an environment based on fear, internal competition, manipulation, control, power over and the ranking of people within the system. These descriptors are representative of the old organizational paradigm. Deming and other authors, cited in this literature review, address these limiting characteristics and their potential alternatives

through the framework of the Psychology. A dimension that deals specifically with people and human dynamics as they exist.

A case can be made for the fact that Deming's Fourteen Points for Management related to improving the human condition. However, Points 2, 7, 8, 12 and 14 have the most direct relevance in terms of the Psychology dimension. In these five Points, Deming called for adopting a new philosophy, instituting leadership, driving out fear, removing barriers that robing people of their pride of workmanship, and putting everyone to work. Deming believed that the transformation of the human condition is accomplished through the Psychology dimension as it relates to the other three dimensions, Variation, Systems, and Knowledge, of the System of Profound Knowledge (Deming, 1981). While the Fourteen Points address the benefits of quality in improving competitive position overall, these five points directly address individual self-esteem and job satisfaction as a critical part of establishing and sustaining a viable competitive position.

Of all the possibilities in restoring and optimizing human dignity and self-esteem, the presence of fear in the workplace is a valid place to start. If workers feel that they are in a genuine partnership with management, they can collectively deal with the maladies that plague their organization, and they can begin to unleash some of the human potential that has been suppressed. Management must provide leadership and invite employees to be partners in system improvement (Tribus, 1983). While some progress is being made, this situation is not the norm in organizations today.

Before moving on to addressing the existence of fear in the workplace, it is important to establish what "fear" is in the context of TQM and the System of Profound Knowledge. Fear is an emotion associated with negative connotations. It is defined in the dictionary as an unpleasant, often strong emotion caused by the awareness of danger (Webster's Ninth New Collegiate Dictionary, 1987). This unpleasant emotion is most often accompanied by anxiety. As Neave said, "With fear, one knows what one is up

against, and can perhaps plan something to fight it. But, anxiety has no focus, the cause is neither known nor understood" (1990, p. 341).

With a basic idea of what fear is and what its symptoms are, the Psychology dimension specifically tries to identify the sources of fear, their effects on implementing TQM and their ramifications to the overall culture. For fear is a distracting force that robs employee's and organization's of their potential. Fear erodes joy in work, limits communication, and stifles innovation. "In fear-based management cultures, people tend to focus on eliminating the threat instead of working to achieve the desired positive outcomes" (Suarez, 1993, p. 4). It is difficult, if not impossible to address the technical problems of quality without addressing the social systems side of the organization. The findings and analysis associated with this dimension will attempt to do both. The bottom line as stated by Deming's Point 8, drive out fear, is that people ask for the chance to work with pride and to work without fear. A goal leaders in collaboration with organizational stakeholders must address to optimize the resident human potential.

If the problem is fear in the work place, then the antidote is trust. Walton (1990) describes a situation in a company where the solution to a problem was to establish blame. This created an atmosphere of mistrust and fear in the work force. It became an environment where workers didn't trust workers, and managers didn't even trust each other. Deming envisioned an environment where trust would prevail. An organizational culture that fosters employee creativity, takes pride in workmanship, supports employees, and creates a general atmosphere of trust and respect (Lee & Ebrahimpour, 1985). An atmosphere that leads to collaboration instead of competition, creates a learning environment and actively encourages behaviors that allow trust to exist and grow among group members (Delavigne & Robertson, 1994).

To create the environment of trust, Deming calls for leadership in promoting his System of Profound Knowledge (Sherkenback, 1991). Such leadership is accomplished by focusing on the customer, removing obstacles to joy in work, being a coach and not

judge, understanding the nature of variation, and creating an atmosphere of trust.

Deming (1993) proclaimed that the understanding the System of Profound Knowledge would lead to the transformation of management and that it was the leaders job to accomplish the transformation of the organization.

To transform an organization, leaders must understand the importance of building trust starting with a vision that describes aim of the organization (Suarez, 1993). It is a mechanism for pulling people together to work toward a desired future. Such focus instills confidence in employees that their leaders are thinking about the long term best interest of the organization and consequently the vested interest of everyone involved. Deming (1991) said that without such an aim there is no system. A vision statement helps describe the aim and serves as a mechanism for pulling together in working toward a desired future.

Deming's concept of leadership that creates an environment of trust, respect, creativity, pride, human dignity, and collaboration is compatible with Rost's (1991) definition of leadership, "Leadership is an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes" (p. 102). Rost's definition reflects Deming's call for collaboration, finding "mutual purpose" as in "constancy of purpose", and in transformation as related to "intended real change." Based on Deming's charge to leadership for the transformation of organizations, leadership will be a major focus of this study. This study assesses leadership as a catalyst for change in the following areas: (a) joy in work, (b) cooperation versus competition, (c) trade-off between intrinsic and extrinsic motivation, (d) systems thinking and optimization, (e) self-esteem as related to responsibility and blame, and (f) leadership in relation to the other dimensions of the System of Profound Knowledge (Delavigne & Robertson, 1994). I will use Rost's postindustrial model of leadership to examine the leader follower dynamic in the organization selected for this case study.

Organizational Culture and the System of Profound Knowledge

The ultimate challenge in bridging TQM theory to practice is the creation of a quality culture. "There is significant debate, and some would argue great confusion, about what quality is and how it becomes part of an organizations culture." (Dowd, Houghton, & Snyder, 1994, p. 89). In reviewing the literature on organizational culture, several authors shared a common theme about organizational development and change (Hunter, 1991; Kahn, 1974; Jordan & Swartz, 1980; Gerstein, Nadler & Shaw, 1992; and Weisbord, 1987). Their common theme was the necessity for leaders to establish and communicate their vision, values, and belief system. Then, to put them into a proven framework for action. This research study explored and analyzed the interplay between leadership, TQM and the creation of a intended organizational culture using the dimensions of the System of Profound Knowledge as lens of observation.

Conclusion

In closing, I refer back to the statement that the only constant in the world is change (Kanter, Jick & Stein, 1992). After addressing a plethora of possibilities related to change, it is incumbent upon practitioners, educators, and leaders to have a framework and associated tools to deal with the dynamics, complexities, turbulence and even chaos associated with change (Drucker, 1980). Margaret Wheatley (1992) talks about her desire to have new understandings translate quickly into reliable and trusty tools and techniques. Deming (1986) calls this quick translation a desire for "instant pudding" reflecting an age in which instant gratification has become a societal norm. Unfortunately, instantaneous solutions are not the reality that exist in our world today. We need to have the framework and tools to break down complexity, plan for the future, and be pro-actively involved in the quest to continuously improve our organizational systems and processes toward the optimum. The traditional approach to "instant pudding" has been reductionistic; breaking the system down into successively smaller processes and trying to learn about the system by aggregating the knowledge of

individual pieces (Delavigne & Robertson, 1994). "In contrast, Deming's approach is holistic, emphasizing the need for the system to have an aim and to be managed as a system; stressing that the system optimization is not brought about by optimizing individual elements; and telling management they must stop putting people and departments in competition with one another" (Delavigne & Robertson, 1994, p. 91). Based on these traditional realities, we can't assume that a reductionistic mind-set and competition will be the great levelers in dealing with a complex world. This research takes a more holistic view in meeting those challenges. A view that looks for emergent constructs or realities that evolving from the individual dimensions and the System of Profound Knowledge. Realities through which real intended change can ultimately create a TQM culture.

Whatever position is taken on individual and institutional change, it should be oriented toward a critical inquiry (Foster, 1986). An inquiry consistent and congruent with the multiple realities that exist within an organization (Lincoln, 1985). The methodology described in the next section was chosen to address the multitude of possibilities associated with the System of Profound Knowledge identified in this literature review.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Introduction

The purpose of this research is to evaluate the practice of Total Quality Management (TQM) in an organization using Deming's System of Profound Knowledge as an evaluation framework in an organizational culture. To comprehensively address this purpose and to answer the research questions posed, a continuum of quantitative and qualitative research methodologies were reviewed. These methodological alternatives were iteratively considered using a combination of perspectives and criteria: the research purpose and questions, site/organization selection criteria, the researcher's own preferences and emerging research orientation, and other practical considerations such as access to the site and the availability of participants. First, this chapter describes how the research methodology for this study was arrived at and selected. Second, it describes the criteria for and process of the site selection. Last, the research intervention process, a description of the qualitative case study evaluation methodology used in conducting this research, is described.

The Methodology Selection Process

A review of methodological alternatives began with this acknowledgment of a basic research tenet, "Research is the manner in which we resolve knotty problems in our attempt to push back the frontiers of human ignorance" (Leedy, 1980, p. 84). Combining that broad mandate with the realization that research is a much involved, complex and sometimes chaotic discipline, the breadth of choices and desire to find the best fit was at first an overwhelming proposition. However, in breaking down the continuum of research options, the first decision I made in the methodological algorithm was to decide

between a quantitative or qualitative approach. Based on this study's focus to evaluate the practice of TQM in an organizational culture with all its' associated social, political and value-oriented variable, a qualitative research approach was best suited due to the difficulty in quantifying such dimensions and associated. The qualitative paradigm could best address the myriad of embedded human and organizationally contextual variables associated with large-scale change and cultural transformation that is suggested in Deming's System of Profound Knowledge and thought possible by many TQM advocates.

A Case Study Approach

Within the range of qualitative research options, the case study action research model provided the best match for this proposed undertaking. It offered what Yin (1984) described as a natural fit between form and function, and between process and content. He noted that "In general, case studies are preferred strategy when 'how' and 'why' questions are being posed, when the investigator has little control over events and when the focus is on a contemporary phenomenon within a real-life context"(p. 13). This was consistent with my intention to focus on the "how" and "why" questions associated with implementing TQM in a real world context.

This non-experimental, or what Merriam(1988) described as descriptive research, is undertaken when description and explanation rather than prediction based on cause and effect are sought. Because the purpose of this study was limited to characterizing TQM as it existed in an organization where variables were not easily isolated and too embedded in the culture to manipulate, the case study methodology under a qualitative research paradigm continued to define the best approach and fit. Anticipating scenarios consistent with a research agenda in which the investigator did not have the involved presence or authorization to manipulate variables of interest or concern in order to determine their cause and effect relationships involved in experimental research, a non-experimental qualitative case study approach for this systemic inquiry was a better alternative. This in

turn fit with the inductive nature of the case study process, where the results are presented using words and pictures rather than quantitative statistics and numbers to create a thick and rich description. Yin (1984) described the case study's unique strength as its ability to deal with a full variety of evidence, documents, artifacts, systematic interviewing and direct observation. Such latitude gave this effort the degrees of freedom necessary to probe a full spectrum of data alternatives within the selected organization.

An Evaluative Frame of Reference

Having focused on a qualitative case study methodology for this research, I reviewed a matrix designed by Guba and Lincoln (1981) that crossed the purpose of a case study to chronicle, render, teach or test with three research elements to form a typology: factual, interpretation, evaluation. The data gathering process in this case study was initially designed to draw on the characteristics described in all three research elements of this typology. However, since the purpose of this research was to evaluate TQM theory in practice, the process of inquiry drew primarily from the elements described under the evaluation considerations section. Therefore, evaluation strategies and methods described by Guba and Lincoln (1989) were focused on and incorporated into the design of the study.

The complete act of evaluation involves both description and judgment (Yin, 1984). A thick and rich description associated with the responsive and naturalistic evaluation process provided a truth value and internal validity (Campbell & Stanley, 1963) in evaluating the practice of TQM. However, the evaluator as participant and judge, described in Chapter I, Limitations and Assumptions, was problematic in that it allowed the subjective interpretations of the evaluator, my etic or outsider constructions, to be part of the evaluation process and findings. Thus, attempting to maintain aspects of neutrality in the study continuously forced me to reflect on my role in the evaluation process and to question what effect it had on influencing the content of the findings. In my role as a TQM consultant, educator, practitioner and dedicated student of Deming's

concepts over the past ten years, I considered my experience and expertise to be an asset to the evaluation process and this research overall. In order to integrate my experience and knowledge as a value-added dimension to this case study, I had to differentiate my views and biases, aspects of neutrality, from the multiple realities of TSR stakeholders, aspects of consistency, in the overall evaluation (Campbell & Stanley, 1963). In making this distinction between neutrality and consistency, the burden of truth shifted to the confirmable actions that had taken place and were documented in the description of the overall organizational culture itself.

In further researching evaluative techniques, Guba and Lincoln's (1989) Fourth Generation Evaluation Model provided a framework to deal with these aspects of relevance and consistency under their naturalistic approach. Their constructivist paradigm gave me a framework to deal with the realities and complexities that emerged in capturing the dynamic variables involved in bridging TQM theory to practice. The focus on these dynamics and their associated realities are in the process rather than the outcomes, in context rather than in specific variables, and in discovery rather than confirmation (Merriam, 1988). The resultant focus on these dynamic variables were captured in the data matrices and ultimately described in the Findings, Chapter IV.

Fourth Generation Evaluation

Based on Guba and Lincoln's (1989) extensive description of the first three generations of evaluation, I began to understand the ontological and epistemological assumptions unique to their Fourth Generation Model. The Fourth Generation Evaluation Model provided a general orientation to and strategies for breaking down the complexity inherent in this real world case study. This generation of evaluation clearly moved from positivistic orientation of previous generations to a constructivist paradigm that is best suited for probing into the social, political and value-oriented aspects of this study in dealing with truth, application, consistency and neutrality issues.

Guba and Lincoln (1989) described the basic underpinnings of this approach in the following, "The ontological assumption denies the existence of an objective reality, asserting instead that realities are social constructions of the mind, and that there exist as many such constructions as there are individuals, although clearly many constructions will be shared" (p. 43). The epistemological assumption of the constructivist paradigm denies the possibility of subject-object dualism, suggesting instead that the findings of a study exist precisely because there is an interaction between the observer and the observed that literally creates what emerges from that inquiry (Guba & Lincoln, 1989). These ontological and epistemological assumptions combined with the emergent nature of this design provided me with a research methodology that allowed the integration of my knowledge of and experience with Deming's System of Profound Knowledge. This integration was used to inform and shape the subject population's constructed realities relative to the practice of TQM in their organization.

Based on Guba and Lincoln's Fourth Generation Evaluation Model, I proceeded to set up a research approach that would take full advantage of and account for the observer and the observed interaction in the creation of constructed realities. The methodology for creating these constructions was the hermeneutic dialectic process, subsequently described in the intervention process itself. This interactive process asks as its central question, "What are the conditions under which a human act or a product was produced that makes it possible to interpret its meanings?" (Patton, 1990, p. 88). This question again reflects the inductive and naturalistic inquiry of approaching a setting without predetermined hypothesis.

This naturalistic, responsive and evaluative research approach builds on the traditional case study framework by integrating interviews, review of documents and observations into the data gathering process (Merriam, 1988). However, this research process predominantly focused on the hermeneutic dialectic interaction between stakeholders on all levels and the evaluator to develop their joint constructions. Guba

and Lincoln (1989) defined stakeholders as people with a vested interest in the outcomes of such an evaluation. They described this responsive evaluation approach in terms of claims, concerns, and issues, referred to as CC&I's, that each stakeholder would have in describing their constructed reality. "A claim is any assertion that a stakeholder may introduce that is favorable to the evaluand.... A concern is any assertion that a stakeholder may introduce that is unfavorable to the evaluand.... An issue is any state of affairs about which reasonable persons may disagree" (Guba & Lincoln, 1989, p. 40). I used claims, concerns, and issues in conjunction with the four dimensions of the System of Profound Knowledge to literally paint a picture relative to each dimension and the overall TQM culture at TSR. It was my task as the evaluator to ferret out the different constructions based on individual stakeholder's claims, concerns and issues and to bring them together as joint constructions on three levels in this evaluation: strategic, tactical, operational.

Stake (1989) described this approach as transaction-observation. Its purpose was to provide an understanding of activities and values inherent and operative in a situation or organization. This approach is consistent with answering the research questions posed, and it ultimately provided a descriptive account and broad based picture of TQM in practice. This picture of TQM in practice is reflected in Chapter IV, Findings, and it represents both the consensus and conflict of values in action. Based on these findings, my conclusions in Chapter V offers recommendations that address present realities and provides a basis upon which to formulate action forwarding strategies.

Site Selection

With a research focus and methodological approach for this study identified, the next step was to simultaneously set criteria for the selection of a case study evaluation subject. This criteria setting process considered the objectives of the study and the Fourth Generation Evaluation process in parallel. Selecting the site for this research was an critical factor in terms of efficiency, mutuality of purpose, and any potential

generalizability of the findings and conclusions. The threshold criteria included a medium sized Fortune 500 manufacturing or service based company that had to have three elements in place: (1) they had to have an officially designated TQM program, (2) the program had to be actively employed as a competitive strategy, and (3) the implementation had to have incorporated training employees in the TQM philosophy and methods.

With a methodological approach and some basic criteria in mind, the next step was to find companies that would potentially fit this research criteria. Since there are relatively few organizations that publicly describe or write about their TQM programs, I had to explore other possibilities in finding candidate site. I began querying my network of TQM consultants and trainers, both internal and external. Individuals that I had come in contact with in my own practice since I began seriously studying and working with TQM. That networking uncovered a number of viable and attractive alternatives. Out of these potential candidates, I narrowed them to four primarily based on their perceived willingness to explore research possibilities in augmenting their own TQM efforts in forwarding the objectives of the organization. In addition, I felt that an internal point of contact would be advantageous to the research process and logistic requirements in many respects. While I knew that I would have to deal with and account for that persons biases, having a known ally and insiders perspective far outweighed the downside risk of inappropriately skewing the data.

After interviewing and screening four possible candidate sites, TeleService Resources (TSR), a division of AMR Corporation ,better known as American Airlines, was selected. TSR met all the initial threshold criteria. Furthermore, they became the prime candidate because of their general openness and perceived willingness to explore new possibilities involving TQM in my initial correspondence with them. Their pursuits with TQM as a competitive strategy had been constantly challenged by the parent company and internal skeptics. This scrutiny coupled with the highly competitive

environment of a relatively new and rapidly evolving telemarketing industry gave this candidate case study a distinct situational reality. These internal demands and external competitive pressures provided a dynamic sense of urgency in getting to their bottom line, delivering “cash” to the parent company and ultimately the investors. The parent company’s priori question became, did TQM fit with this reality?

TSR’s background and structural relationship to the parent organization was significant in understanding TSR’s reality as an embedded culture within the AMR family. This reality is continuously referenced in the data and findings, Chapter IV. The challenges before TSR were twofold: (1) to maintain a symbiotic relationship with the parent company (AMR) in terms of their direction and requirements, (2) to create and perpetuate an organization that met and surpassed the demands and realities of their own externally defined industry and market.

Within the AMR macro corporate structure, TSR beginning in 1984 had grown to the largest third-party, private-label provider of telemarketing and reservation services in the world, employing over 5,400 people in six locations internationally. In addition to providing reservation services to travel related businesses and telemarketing capacity to Fortune 500 companies, they offered an array of management advisory and consulting services to internal and external clients. In the Spring of 1995, TSR attained the status of being the largest inbound telemarketing call-handling service bureau in the United States (Wilson, 1995).

While TQM initiatives existed throughout AMR since the mid 1980’s, TSR did not specifically adopt and formally deploy TQM methodologies and strategies as a way of doing business until the 1992 time frame. The focus at that time was to provide “a new way of thinking, behaving and planning to continuously improve our services and product offerings on a long term basis” (Curtis, 1995, p. 2). This was part of a communiqué to employees in which, Ms. Curtis, the President of TSR, went on to describe how the fundamental principles of quality provided a framework for doing

business. This framework was designed to strike an effective balance between achieving financial performance objectives, meeting and exceeding customer expectations, and ensuring employee satisfaction as the three sides of their Quality Triangle, with leadership and communication in the middle as foundational anchors for whole quality process. This triangle became the symbol for TSR's quality philosophy and culture (Sabre, 1994). As part of TQM's official sanctioning, an aggressive internal orientation and training program was put into place, and by 1995 a team of six designated TQM internal consultants and trainers helped establish and sponsor over fifty Quality Improvement Teams (QIT's). Their goal was to "improve quality, cost, procedures, and systems to provide customers with services that are cost effective and meet or exceed their expectations" (Curtis, 1995, p. 2).

Contrasting this initial emphasis, by early 1996 the internal trainer/consultant pool had been reduced from six to one through personnel attrition or redeployment. Commensurably, active Quality Investment Teams (QIT) were diminished from over fifty to less than a dozen in that same year. While there may have been many internal and external "business" reasons for this apparent shift in emphasis not directly attributed to or associated with TQM itself, the shift was obvious and intentional. Despite this significant decline in emphasis, this research continued to focus on the degree and extent to which TQM influenced TSR's climate and overall culture. Whatever the reasons for TQM's apparent de-emphasis, its rise and fall appeared to follow and correlate with similar trends taking place all over corporate America. At the extremes, the choices for this apparent re-orientation were that: (1) TQM was a passing fad, flash in the pan, or (2) that had been fully inculcated into the organization. I began to speculate whether I evaluating TQM's renewal or burial. The actual reality appeared to lie somewhere on these bounded continuum. This research explored in one organization what appears to be a common modern day reality in many others. The question is, has TQM served its purpose?

Research Process

Moving through a figurative methodological algorithm and becoming better informed by the options described in the first part of this chapter, Guba and Lincoln's (1989) case study evaluation process described in their book Fourth Generation Evaluation became the model and framework for this study. It provided the best fit between research objectives and the researcher's growing appreciation for the power and capacity of the constructivist paradigm as a research orientation. A paradigm in which the ontological assumptions, what is it that can be known, deny the existence of objective realities, but instead assert that those realities are social constructions of the mind. The epistemological assumptions, what is the relationship of knower to the known, deny the possibility of subject-object dualism, but rather assert that the findings exist precisely because there is an interaction between observer and observed that literally creates realities that emerge from the inquiry. This naturalistic paradigm rejects the controlling, manipulative, and experimental approach that generally characterizes science and substitutes the hermeneutic dialectic process. A process of inquiry that takes full advantage of and accounts for the observer and observed interaction to construct realities that are both informed and sophisticated (Guba and Lincoln, 1989). A constructivist methodology for this study was formulated by integrating the parameters of the naturalistic paradigm with an adapted version of Guba and Lincoln's (1989), process flow model.

Guba and Lincoln's (1989) twelve step flow model of the Fourth Generation Evaluation Process was referenced in formulating the actual intervention steps used in this research. The ten steps used in this research are depicted in Table 1, Methodological Steps and Procedures. Each step in this process is further expanded upon in the remainder of this chapter. In addition to using the Fourth Generation Evaluation Flow Model as a guide, other sources were referenced to obtain multiple perspectives and options appropriate to and/or adding value to individual steps and the overall research.

Table 1.

Methodological Steps and Procedure

Steps	Procedure
<hr/>	
1. Agreement	Established guidelines, specifications and requirements for this research with TSR.
2. Organization	Reviewed and integrated information and documentation reflecting TSR's social, political and cultural factors at play.
3. Stakeholders	Involved identifying a population of experienced stakeholders in the implementation and practice of TQM at TSR. The population was stratified into three levels: strategic (President and Vice-Presidents), tactical (middle management), operational (supervisors and agents).
4. Constructions	Interview data from each level was used to structure a data matrix reflecting emerging within group joint construction.
5. Enlarging	Emerging joint constructions were tested and enlarged by integrating all data sources: documents and records, professional literature, other stakeholder circles, observation and the evaluator's own etic (outsiders) construction.

Table 1.**Methodological Steps and Procedure**

Steps	Procedure
6. Sorting	Representative research participants were selected to review, modify and/or confirm their respective claims, concerns and issues at each level.
7. Prioritize	Selected representatives reviewed joint constructions (data matrices) from their respective levels and prepared for negotiation between the other two levels by organizing and prioritizing the data into a force-field analysis format.
8. Negotiation	This step brought the representative from the three levels together to present and negotiate, if necessary their joint constructions as represented in a force-field analysis format.
9. Reporting	The initial report of findings came in the form of two executive summaries. The final report is the dissertation itself.
10. Recycling	The last step in the processes is recycling which may include unresolved issues or any claims and concerns the organization may decide to further pursue and evaluate in the future.

process. The description of what actually took place in each step is presented in the Finding, Chapter IV. Applying this description of the actual methodology used and considering the findings themselves, the objective in building this model and process was that other researchers would be able to replicate it, modify it as required or desired, and most importantly, learn from and build on the methodological applications of this research experience through reflection and experience.

Contractual Process

The first consideration in the overall evaluation process was to initiate and establish an agreement with the perspective evaluand, TSR. Guba and Lincoln (1989) described several factors that ought to be considered in the agreement/contractual process phase. I compressed these factors into two categories: (1) establishing a framework through which all involved can best understand the research intervention process, and (2) informing all stakeholders by outlining their participation and setting up safeguards to ensure their rights and well being were considered and protected.

To establish the first of these agreement objectives an initial dialogue was established with John Dewey, a TSR internal TQM trainer/consultant. A series of telephone conversations ensued in which we talked about TSR's "realities", both in general and specific to TQM, and my proposed research agenda. Combining this information, a cursory review of industry specific literature, and the site selection criteria previously described in this chapter, I screened and qualified TSR as a research candidate. Based on this pre-qualification and identified congruence between mutual purposes and potential outcomes in these phone conversations, I provided TSR, through Dewey as my point of contact, with an outline of the proposed research process and my credentials relative to the project. This information continued a dialogue in which we identified additional and more specific potential outcomes that further established a congruence between my research agenda with their organizational goals and objectives. To further explore these possibilities and establish a more focused agenda, I provided

written correspondence describing mutual benefit, fit, and ultimately what commitment to proceed would look like. In that initial correspondence, I suggested that we begin with the following two priori outcomes in mind: (1) a credible fulfillment of my dissertation requirement, and (2) a good return on the investment of TSR's collective time, commitment and energies in attaining their already established as well as the emerging goals and objectives from this project. In addition, this correspondence included my resume outlining my personal and professional background and experience relative to this undertaking.

The next two correspondence letters with Dewey further detailed my desires and intention relative to my research objectives and my expectations for collaborating with TSR stakeholders. During this time, Dewey was conferring with the President of TSR and other key stakeholders to sense both their acceptance and their resistance to the possibilities inherent in the project. The only feedback from Dewey concerning this inquiry was that I and this research remain grounded in the "real world" of doing business, my intentions exactly. Subsequent to this informal probing, a telephone conference call was set up between myself and the President of TSR, Ms. Laurie Curtis. Based on the background Dewey provided her and my correspondence to date, her only input at that point concerned TSR's time commitment to the project and the impact it might have on normal operation. I assured her that I, with Dewey and others involved or impacted, would continuously assess potential conflicts in terms of personal availability to priority tasks and de-conflict accordingly. I also assured them that their benefit from this research would far exceed their investment. Based on these preliminary understandings, Curtis gave me verbal permission to proceed with the case study evaluation. I confirmed this agreement in a subsequent letter thanking her for her willingness to proceed and support my research study. Additionally, I confirmed an on site start date and noted other logistical expectations and considerations to be worked out between Dewey and myself.

Guba and Lincoln (1989) strongly suggest that a formalized written contract be established because evaluation results are potentially and frequently problematic and/or contestable. However, due to my relative inexperience with this type of intervention and its associated emerging design options and resulting content, I did not push for explicit design specifications or contractual agreements up front. While this lack of specificity presented some amount of risk based on unarticulated requirements and expectations, having degrees of freedom in the process at first appeared to be and subsequently became a worthwhile trade-off. One example of an emerging requirement was the communications and correspondence necessary to keep the President and other key stakeholders informed of my progress. Such communication and correspondence were submitted by me when I sensed they were needed or appropriate, instead of some prearranged periodicity. However, this option cut both ways as exemplified by the President's request for a specifically focused Executive Summary (Appendix B) addressing what I thought she should do relative to a preliminary analysis of the data previously provided to her the Initial Findings (Appendix C). In other words, she wanted immediate feedback in determining if the raw data were complimentary or conflicting with other sources of information she was receiving about TSR overall, and about her leadership specifically. Presentation of this data and subsequent analysis are provided in Chapters IV and V.

The second consideration, in establishing an initial agreement with the evaluand, involved creating an environment of integrity and trust. My attempts to establish such an aura, to inform participants of the overall process and associated personal safeguards were the first priority. I provided a memorandum addressed to TSR's Total Quality Management Stakeholders for distribution titled, Identification and Assessment of TQM in TSR (Appendix D). In addition to providing an overview of the research process, described in the next step under Organizational Factors, I enclosed a copy of the Consent to Act as a Research Subject Agreement (Appendix A) for their review prior to

scheduled interviews. The Protection of Human Subjects Request was approved by Dr. Edward F. DeRoche, Dean of the School of Education University of San Diego. With that approval, participant stakeholders were guaranteed anonymity and confidentiality. In addition, it provided them with the opportunity to refuse participation in or withdraw from the study at anytime without consequence. This option is what Guba and Lincoln refer to as an “escape clause” (p. 195). It reserves the right of all parties to withdraw from the process for whatever reason or reasons. These acknowledgments and safeguards were documented in the consent to Act as a Research Subject Contract (Appendix A). The desired objective was to engender a sense of confidence and trust in both the researcher and the process. As Guba and Lincoln (1989) stressed repeatedly in their book, the hermeneutic dialectic process will not work in an environment absent of trust and integrity. While no agreement can guarantee these conditions, it was both the explicit and implicit intention of this understanding to foster trust and integrity by holding all parties involved responsible and accountable for their actions in this relationship.

Therefore, the parameters of the initial agreement were established by describing the intervention process and informing participants of their rolls and their rights. This agreement served as the foundation upon which to carry out the methodology and subsequently integrate emerging requirements, both are described in remainder of this chapter.

Organizational Factors

After attaining an initial agreement to proceed, the second step was to further organize the process and prepare the evaluation team. In addition to addressing basic schedules and logistics, Guba and Lincoln (1989) recommended that the evaluator take into account “all local social, political and cultural factors”(p. 195). These factors were initially identified and addressed in a review of organizational documents and literature.

This review and attempts to put that information and data in context were complemented by frequent telephone conversations with Dewey. He helped to clarify and provide a historical perspective on a variety of informational points and potential considerations as they arose, such as structural rationale and cultural orientations. His background and experience at TSR provided an invaluable resource and perspective in grounding me in the realities of the organization, laying the foundation for this study, and generally dealing with the overall social, political and cultural ramifications of information as it arose.

Another aspect of preparation addressed by Guba and Lincoln (1989) is in training and preparing the evaluator and/or evaluation teams. My training and preparation involved researching the application of the evaluation model into this real time case study scenario. Dewey and I spent many hours in preparation by pre-thinking and anticipating possibilities associated with the data collection process. In retrospect, this preparation served as an organizing baseline and framework to deviate from. The emergent design made use of these preplanned responses and multiple strategies in dealing with situations as they arose. While this preparation provided me with a sense of confidence in dealing with an array of circumstances and dynamics, many times I felt like I was "flying by the seat of my pants" in conducting this emerging constructivist inquiry. I had to sense where the organizational constituents were coming from, in the first few moments of an interview and make adjustments accordingly. No two interviews were alike. I found that the best preparation was to be as informed and knowledgeable about the methodology and TSR as possible prior to each step in process, anticipate alternatives and exceptions, and be prepared to accept whatever came up.

Another organizing factor was to establish credibility and to gather support within the organization. I only had one chance to make a first impression. While this evaluation was sanctioned by the President and endorsed by TSR's internal TQM consultant, I wanted to establish my own relationship and rapport with designated stakeholder

participants and informally with everyone I came in contact with in the organization. Guba and Lincoln (1989) pointed out that formal gatekeepers have authority and informal gatekeepers have influence. However, either group has the power to support or hinder the evaluation process and ultimately influence the end product. To establish both credibility for the study and initiate a dialogue with participants about this research, I wrote a seven page memorandum to all TSR/TQM participant stakeholders describing the System of Profound Knowledge and an overview of the methodology (Appendix D). It addressed background information about the nature of the study, specific objectives associated with the data gathering phase, the potential overall significance of the research, a condensed description of the methodology, an overview of the Theory of Profound Knowledge, and copies of the interview questions and the consent forms. While this memorandum most probably only got a cursory reading at best by participants, it provided a common frame of reference and starting point for each individual interview. In addition to establishing credibility by providing them with some background and a concise way to orient themselves to this process in advance, this memorandum obviated excuses for not having been informed. More importantly, it established a basis for trust that led to the candid and insightful data described in the Findings, Chapter IV.

In their book Naturalistic Inquiry Guba and Lincoln (1985) expressed participant trust as a developmental task and not something that suddenly appears after certain matters have been accomplished. "Moreover, trust is not established once and for all; it is fragile, and even trust that has been a long time building can be destroyed overnight in the face of an ill-advised action. The question, 'what have you done for me lately?' is one that the constructivist should keep constantly in mind, for it will certainly be in the forefront of the respondents thinking" (Guba and Lincoln, 1985, p. 247). The ramifications of establishing and maintaining a "trust factor" was always on my mind, and in a priori sense, guided my conduct throughout the evaluation process.

The next organizational consideration was preparing to interact with the local social, political and cultural factors as they arose. These factors were contextually shaped and could only be understood through intensive involvement with their own situational specifics (Guba and Lincoln, 1989). As a participant observer, I took every opportunity to immerse myself in their reality as best I could. This immersion was augmented by random inquiring conversations with employees on the floor and constantly observing operations. I would then reflect on this information with Dewey for confirmation or alternative interpretation. These early observations and continuous data analysis of the hermeneutic dialectic process gave me a sense and feel for what individual claims, concerns and issues might mean in the broader context of their local social, political, and cultural realities.

One last consideration I consciously held in this organizing phase was "starting with the end in mind." The Theory of Profound Knowledge (Deming, 1993) provided a framework to answer the research questions. The research questions were derived from that theory. The hermeneutic dialect interview process provided the content in terms of identifying individual construction. It then became my responsibility as a constructivist investigator to link those constructions together into a joint reality acceptable to individuals and stakeholder groups alike. This joint reality and associated constructions were the desired end state of this methodological process and are described and analyzed in Chapter IV, Findings. As described by Guba and Lincoln (1989), "these constructions come about by virtue of interaction of the knower with the already known and the still-knowable or to-be-known" (p. 43). These preparatory steps established the foundation and framework for this study. The remainder of this chapter describes how the joint constructions were formulated.

Interview Design Format and Guide.

Another more pragmatic aspect of this organizing process was the design of the interview guide. Guba and Lincoln (1981) suggested that "the formation of good

interview protocol is not simply a matter of making up a number of questions that follow the broad outline of the research" (p.165). With that in mind, the design of the interview guide used in this research started with the end in mind, the ultimate purpose of the research: To evaluate the practice of TQM in an organization by using Deming's System of Profound Knowledge as an evaluation framework. With that objective fixed, the very nature of the constructionist inquiry was reviewed in establishing the open-ended questions leading to the inquiry process, and finally, the inquiry product. The first four questions inquired into the stakeholders experience and tacit knowledge relative to each dimension of the System of Profound Knowledge. The interview questions (Appendix A) reflect the research objectives in identifying the claims, concerns and issues relative to each dimension. In addition, a plain language question was used to initiate a dialogue and ultimately establish a basis for the hermeneutic dialectic process in the interviewees own language. The last question addressed their combined influence in shaping the overall TQM culture in that organization.

As described by Guba and Lincoln (1989), there are several fundamental assumptions that should be considered in designing the interview guide and in the execution of the interview process itself. First, the constructivist typically enters the frame as a learner. Even though the researcher in this case was thoroughly grounded in TQM theory as described by Deming in the System of Profound Knowledge, that knowledge was used in the interviews as a basis for discovering the realities within TSR as described by the participants. That knowledge was not used to ground the research, not to educate participants. I was there to capture their "knowing" based on their insider constructions. The last point considered in formulating the interview guide was based a constructivist orientation to the interview process as compared to conventional assumptions. "The latter is linear and collapsed. By contrast the former is iterative, interactive, hermeneutic, at times intuitive and most certainly open" (Guba & Lincoln, 1989, p. 183). The combination of these considerations established the interview guide as

a starting point and open ended framework to pursue the inquiry process. These assumption allowed both the researcher and participant stakeholders to uncover widely contrasting views and continuously challenge them as part of the emerging design until some level of consensus was reached as to what were the salient claims and concerns relative to each dimension, and finally, to the culture overall.

Selecting the Stakeholder Population

The third step in laying out and establishing this methodological process was to identify a stakeholder population within TSR. Those individuals defined by Guba and Lincoln (1981) as persons or groups that are put at some risk by the evaluation, that is, people that literally have a stake in their relationship with the organization. Guba and Lincoln go on to subdivide stakeholders into three groups: (1) agents, those persons involved in producing, using, or implementing the evaluation; (2) beneficiaries, those persons who profit in some way from the evaluation; and (3) victims, those persons who are negatively affected by the evaluation. I would like to have thought that everyone involved in this evaluation, or at TSR in general, was a potential beneficiary. However, such an assumption was neither realistic nor prudent to this evaluation or evaluations in general. Despite my well-wishing and good intentions, I had to consider and accept the possibility that individuals or groups could find this evaluation to be very much a liability rather than an asset. Accordingly, it could put them at some risk. My responsibility was to identify risk factors, eliminate them, or at a very minimum, inform those at risk and minimize the consequences.

While I accepted this responsibility and reality as a researcher, I did have some influence and control based on what Guba and Lincoln (1989) describe as "relative stake." Based on that notion, one of my responsibilities as the evaluator was to arrange situations so that no party was intentionally put at risk by the way the data were handled or presented. The process was designed to be empowering, reflective, insightful and educationally constructive. The intention was to open a discourse/dialogue leading to

possible reconstruction or deconstruction of ideas and perceptions based value added knowledge and informed perspectives concerning TQM and its relevance to TSR. In addition to not intentionally putting stakeholders at risk, I accepted the inclusionary responsibility to insure that this cross section of participants had sufficient background knowledge and sophistication to participate (Guba and Lincoln, 1989). I took every opportunity to inform and educate people about this process and/or TQM whenever needed and desired. In other words, I ensured that they were grounded in both the process and intent of study.

Based on the preceding definitions, considerations and criteria, a population of potential stakeholder participants were identified and stratified into three levels; strategic (upper management/leadership), tactical (middle management), operational (working level). Ultimately 7 of 10 executive managers, 27 out of 260 middle managers and 49 first line supervisors and agents out of a population of approximately 2000 were interviewed at their respective levels. The criteria for selection was that they represented multiple perspectives about and experience with Total Quality Management (TQM) at TSR. Based on this profile, Dewey and I identified a pool of potential participants. Because my criteria for concluding the data gathering phase was content dependent, exact numbers were not specified and left open up front. The initial pool of stakeholders was expanded, contracted or modified to match emerging needs and requirements identified in the ongoing analysis.

The ongoing requirement consistent with the hermeneutic dialect was that participants represented differing, if not opposing, views of TQM and its associated phenomena as it existed in the organization. Although the diversity of their TQM experience and multiple perspectives in this stakeholder population was assured by Dewey based on his working knowledge of participants in the respective stratified levels, we constantly reviewed the cross-sectional make up of designated participants based on information derived from the continuous analysis of the emerging data and made

adjustments and substitutions accordingly. This emerging analysis and adjustment ensured that a full range of perspectives were included, by both organizational position and known personal disposition, their unique view of the world. On a continuum, these perspectives included orientations that ranged from being supportive to less than convinced of the merit and benefits derived from TQM in practice.

To conduct the interview process in accordance with Guba and Lincoln's constant comparative analysis method as described in Naturalistic Inquiry (1985), participants with known competing perspectives were scheduled sequentially, thus optimizing the hermeneutic dialectic process by consciously integrating the juxtaposition of experience and perspectives. This continuous adjustment process capped the initial stakeholder selection criteria and substitution process. The population was continuously reviewed and changes were made as the interviews and negotiations proceeded to ensure that a fully balanced and diverse description of TQM theory in practice was being represented through individual inputs and group constructions. Capping the number of interviews on each level was determined when the data inputs became repetitive and no new information was being presented or offered to emerging constructs and ongoing analysis.

One very critical factor in the ongoing selection of the stakeholder population was the potential of Dewey, or myself, in biasing the research based on our selection of interviewees. While the constructivist paradigm, as described by Guba and Lincoln (1989), provides a great deal latitude in this area, there is still a "truth factor" that must be considered. To counter the possibility of unknowingly biasing the data in our rolling selection of participants, we were in constant dialogue about my analysis of the emerging constructions. After each round of interviewing, I would debrief with Dewey on a daily basis and based on that dialogue we selected interviewee for subsequent rounds. Thus, inclusion and exclusion decisions were based primarily, if not exclusively, on the emerging qualitative data. We both understood that the credibility of this study emanated from capturing stakeholder participants perspectives in meeting the primary goal of

fourth generation evaluation .”.. to open a discourse leading to possible reconstructions based on added knowledge and sophistication” (Guba & Lincoln, 1989, p. 203). Our expertise and knowledge was used to ensure representative balance of the initial constructions so that their would be trust and confidence in data as a basis for negotiation and potential reconstruction.

Group Joint Constructions

This fourth step involved the first full application of the hermeneutic dialect circle previously described under Organizational Factors. Guba and Lincoln (1985) point out in their Fourth Generation Evaluation Model that it doesn't make any difference where or with whom you start, they recommend just getting started. However, I made a conscious decision to start the first hermeneutic circle on the strategic management level, and then move down through the other two circles, tactical and operational. Since TQM was purportedly a top down implementation at TSR, I wanted to start with the strategic perspective and determine how the implementation manifested itself down through the ranks. However, it was more important to ensure what Guba and Lincoln (1985) called representativeness or typicalness in ensuring that multiple realities were captured in the process than to move in any particular hierarchical direction. Therefor, the participant selection process focus on the representation of multiple perspectives vice hierarchical protocol.

Another factor identified in the joint construction process noted by Guba and Lincoln (1985) was the between interview analysis, referred to in the previous step as the ongoing/emerging analysis. While interviewees were given the opportunity to express their own original thoughts and reactions to the interview questions, my progressive input into the dialogue with stakeholder participants incorporated previously analyzed data from all sources: other interviews, documentation, and/or observations. The object was not only to probe for consensus around claims, concerns and issues, but to also devise and evolve constructions as the data gathering progressed by incorporating the

juxtaposition of conflicting ideas in presenting previous positions (Guba & Lincoln, 1989). At the same time, I used my own etic constructions formed in the analysis of all data to not only inform the inquiry process, but to challenge or engage perspectives as they emerged. My conscious objective and purpose was to get past the cursory, obligatory or superficial responses and probe a deeper level of interpretation, discovery and reality.

In addition to the repetition criteria described in the last step for determining the ultimate number of stakeholder interviews, Guba and Lincoln (1985) addressed two more criteria in completing the hermeneutic dialectic circling process. The first criteria was that consensus be reached on joint construction. This became an intrinsic part of my ongoing inquiry and analysis. If something was stated in an interview that was new or drastically different from my previous analysis and derived consensus to date, that subject would then be pursued until a sense of consensus was attained as to whether a topic was to be classified as a claim or concern, or issue. The consensus constructs derived from and defined by claims and concerns are addressed in the Findings, Chapter IV.

The second criteria in completing the hermeneutic dialectic circle involves credibility. As constructions began to emerge, respondents who were early contributors may not have found themselves in agreement with the subsequently devised joint constructions. In addressing this credibility factor, a representative review group from each level was assembled to review the data matrices for their respective level for consistency. This review process is described in step six of this methodological process. This review afforded representatives at each level an additional opportunity to respond to specific data points outlined in the data matrices described in the next section. This secondary review helped insure consistency and representativeness in the final joint construction. The ultimate objective of the evaluator was to say, "This stakeholder group now sees the evaluand as being of this-and-so nature and having thus-and-so

characteristics, and raises the following claims, concerns, and issues about it” (Guba and Lincoln, 1989, p. 209). This was accomplished and is reflected respectively in each group’s raw data matrices.

Enlarging Joint Group Constructions

In the fifth step, data from transcriptions of taped interviews were combined and correlated with hand written interview notes, and laid out into 3X5 data matrices (Appendix E). The individual matrices were organized with claims, concerns and issues on the horizontal axis and the four dimensions of the Theory of Profound Knowledge plus another category called “other” on the vertical axis: systems, measurement, knowledge, people, others. The “other” category was added during the first round of the hermeneutic dialectic interview process to account for data inputs that just didn’t fit naturally into one of the four dimensions of the Theory of Profound Knowledge. These initial joint constructions emerged from each of the stakeholder group’s as individual emic or insider constructions.

Once this initial framework was established, other sources of information and data were introduced and incorporated into the constructions. These additional information sources included document and record review, personal observation, review of professional literature their field, a comparison of other stakeholder circles and the evaluator’s own etic, outsider’s, perspectives. The purpose for systematically introducing information from these other data sources was to triangulate the initial interview data, thus raising each joint construction as represented by the data sets for each respective levels of representation to higher levels of sophistication, completeness and credibility (Guba & Lincoln, 1985). Because this additional information was being integrated into the joint constructions by the evaluator, consensus among participants and potentially contending parties was not the objective at this point. This information was introduced first to ensure the comprehensiveness and robustness of the data in probing and presenting a complete picture of what was going on. Thus, these relatively complete

descriptions would increase the likelihood of a derived consensus among participants in subsequent steps.

After integrating the information from internal documents, on site observations and industry literature, I addressed the more problematic ramifications of folding in the last two data sources, other stakeholder views and the evaluator 's own etic construction. I used the three stakeholder circles in parallel analysis to look for gaps in my inquiry at each level, or to identify the absence of certain information between and within the three levels. This comparative paralleling and continuous analysis presented a dynamic challenge in putting together joint constructs and preparing their use for further dialogue and/or negotiations among and between the respective levels.

The last data source involved in testing and enlarging joint stakeholder constructions dealt with integrating the evaluator's own etic, outsider, constructions. This relates back to my role as a participant observer addressed in Chapter I, Assumptions and Limitations. Once again, the Fourth Generation Evaluation Process assumes that I as the evaluator will bring my first hand a priori knowledge and opinions to bear on the evaluand and to the context of the evaluation itself (Guba and Lincoln, 1989). The issue of concern in a constructivist paradigm is not whether the evaluator has some opinion or not, but how that opinion surfaces. The assumption is that the only true state of affairs can emerge when the evaluator himself joins in , so long as those views receive no more weight than that to which they were entitled. While these inputs were subjective calls on my part, my credibility with the stakeholders, the company and those responsible for reviewing this study was at stake. Because this was an emerging process constantly open to the scrutiny of all involved, I felt confident that my orientation, views, and biases were appropriate additions to the constructions. In addition, it was my observation and gut feel that their introduction and inclusion as an objective third party, honest broker if you will, actually fostered trust and confidence in the evaluation process itself.

Sorting Claims, Concerns, and Issues

Step six followed completion of the first round of the hermeneutic dialectic process and organized that input into three respective joint constructions: strategic, tactical, operational. This step brought selected representatives from each group/level together to review their respective data matrices. Their task was to review, modify and/or confirm the respective claims, concerns and issues that came from their dialectic circle. A lead representative was designated at each level and all selected representatives were given the matrix sheets from their respective levels to review in advance. The representatives for each group were selected by Dewey and myself to ensure that a balanced mix of perspectives on and experience with TQM at TSR was included. There were eight representatives on the operational level, six on the tactical level and four on the strategic level. The meetings were facilitated by me and the results are presented and analyzed in Chapter IV, Findings.

The first agenda item for these meetings was to once again review the designated issues to see if there was consensus for reclassifying them as claims or concerns. If this was not the case, such issues were set aside for future consideration or as preliminary data for the next evaluation. The remaining claims and concerns were confirmed as representing their joint/shared constructions. These constructions were intended to represent a glimpse of reality at TSR relative to each level's perspective and experience with TQM in general and with each individual dimension within the System of Profound Knowledge.

Prioritizing the Data

The second participant stakeholder review was the seventh step in this overall process. This review brought together selected members from each level of the first data review process to prepare themselves for presentation and negotiation with the other two levels using the refined input (matrix data sheets) from each respective level. The objective of this session was to determine the congruence and/or deviations, incongruent

realities, that existed within the constructed realities at each level and to negotiate/collaborate towards a more consensus oriented framework of understanding . The fundamental goal of this naturalistic method was to develop constructs, if not theories, which explained the feelings, emotions, definitions, attitudes and actual behaviors of the constituent stakeholders within TSR (Denzin, 1978). To prepare for this step and to accomplish the above identified objective, a memorandum (Appendix F) was forwarded to each selected participant. The memorandum designated a lead representative for each group, strategic, tactical and operational. In addition, it generally described the review, analysis and negotiation phases and their role in it. They were provided with updated and refined matrices from step four, Group Joint Constructions, and were asked to select the five priori claims and concerns within each dimension of the System of Profound Knowledge and come to consensus among themselves at a facilitated within group working session. The results were arranged into the Force-Field Analysis framework. This presentation format was used in the following step to present and clarify their reality as represented by the prioritized claims and concerns between groups relative to each dimension.

The processes of further developing and refining the joint constructs represented in the data matrices for each respective level began with an imagineering exercise. I facilitated each of the three groups separately and started the process by having them envision an analogy that described how they would “like” the organization to look and operate in the future. They then shared those images/analogies with the other representatives from that group. The intention was to get them to systemically think about how all this data and the associated constructions might come together to represent a common reality within TSR relative to TQM and its potential to help create the future they envisioned. Whatever came up for them, my main purpose was in part to strike a positive note and set an open/constructive environment in which to proceed.

Having previously addressed the issues category of the data matrices in the first review, step four, to see if any issues could be reclassified as a claim or concern, the groups focused on prioritizing claims and concerns relative to each dimension using a modified force-choice pairing to construct a Force-Field Analysis presentation. The Force-Field Analysis (Fordyce and Weil, 1971) was introduced by me into Guba and Lincoln's (1985) evaluation flow model as a graphically visual and concise way of presenting the data for clarification and/or negotiation. These Force Fields are presented in the first Executive Summary (Appendix F). These findings are presented in Chapter IV.

To introduce the Force-Field Analysis and remain consistent with the Fourth Generation Evaluation Model and methodology, the following rationale and semantic correlations were used. According to Kurt Lewin (1951, 1948) an acclaimed organizational theorist and behavioral scientist, behavior is a function of a person's personality discussed primarily in terms of motivation or need, and the situation or environment in which the person is acting. "Thus, a person's behavior at any given moment can be predicted if we know that person's needs and if we can determine the intensity and balance (whether the force is positive or negative for the person) of the forces impinging on the person from the environment" (Burke, 1982, p. 30). While it is not in the scope of this analysis, Lewin made a distinction between imposed or induced forces, those acting on a person from outside, and own forces, those directly reflecting individual need. Many of these distinctions and their implications were obvious in the presentation of the raw data matrices, but not discussed or analyzed to any depth. Whether a goal is imposed or determined by the individual helps explain the generally positive consequences of the Collaborative Leadership Model defined in Chapter I and expanded upon in Chapter II, Literature Review.

Based on the proceeding description and rationale for shifting to a force-field context, the following semantic correlations were tacitly identified. The connection was between what Guba and Lincoln (1989) described as claims and concerns, and what

Lewin (1948) described as driving and restraining forces. My suggestion was that they had similar connotations relative to the context of this evaluation and that the Force Field presentation was a value-added way to present the data because it was visual and powerfully simplistic in the way it represented these constructs for analysis and negotiation. Therefore, this methodological research used them as congruent descriptions in visually framing an impetus for change. Change as the resultant effect from what Guba and Lincoln (1989) described as the hermeneutic dialectic process, and what Lewin (1951) described as action research.

Having defined and presented claims and concerns as assertions favorable and unfavorable to the evaluand, the following bridges to what Lewin (1948) described as a dynamic rather static context. He described this process flow as forces pushing in one direction or another, counterbalancing forces that restrain movement. The correlation is that claims and concerns in the context of this study and a force-field analysis identify the two sets of forces that represent counterbalancing dynamics. Implicit to the content of this study and addressed in Chapter V's recommendations is Lewin's (Burke, 1982) theory that it is better to diminish the opposing or restraining forces than to intensify the driving forces, or what this study labels challenges (concerns) and enablers (claims) accordingly.

Another aspect of this Force Field inclusion addressed not only the nature of change but how to accomplish it more effectively. "Lewinian theory argues that it is more efficacious to direct change at the group level than at the individual level" (Burke 1982, p. 31). His theory reinforces this research design in that while the group processing was messy and often problematic in term a common agenda, it served as a credible foundation upon which change strategies could be collaboratively formulated and change itself initiated. Deming would have seen this as the ground work for applying the Scientific Method (PLAN -DO- CHECK-ACT). This methodology and Deming's Scientific Method are both preludes for change and continuous process improvement.

This shift in design and semantic correlation was not intended to add complexity or to create confusion in this study. Rather, it was intended to lay open and reinforce the connections and congruencies among Deming's work, specifically the System of Profound Knowledge, organizational development theory/practice, and the Fourth Generation Evaluation Model. There is great potential for organizational change, specifically at TSR, in looking at both the juxtapositions and congruencies of these concepts and methodologies in holding up a mirror to an organization and having them reflect on their own situation, vis-à-vis the joint constructions. An organizational mirror that presents and provides feedback that can then be turned into action plans and strategies that arise out of focused articulation and consensus (Fordyce & Weil, 1979). From Guba and Lincoln's (1989) perspective, and for all practical purposes, joint constructions are evolved if enough information is available and if appropriate levels of sophistication are reached. The test of "enough" and "appropriate" were established and validated by the stakeholders as they took ownership of the data at this meeting.

The last objective at this meeting, following prioritizing and organizing the data, was to prepare the agenda for negotiation at a final session with representative from each of the three levels. As a participant observer, I facilitated each of these approximately three hour long sessions in getting representatives to come to consensus on claims and concerns and to put them into the Force-Field Analysis Framework. The data matrices from the earlier hermeneutic circles determined which facts or perceptions ought to be included in these joint constructions. To help focus their efforts, I reminded them of the process objective, "The purpose of the hermeneutic process is not to attack or to justify but to connect different constructions. It is engagement, not confrontation, that leads to reconstruction" (Guba & Lincoln, 1989, p. 219). This step accomplished that construction or reconstruction by narrowing the focus to priori claims and concerns, and by putting them in juxtaposition to one another. The final negotiation session decided what these constructed realities meant to TSR in both an individual and collective level.

Carrying Out the Negotiation

The final negotiation, step eight in this process, brought the representatives from the strategic, tactical, and operational levels together to present and negotiate their respective joint constructions as reflected in the force-fields representations. This process was carried out once again using a real-time version of the hermeneutic dialectic process in a group session. The individual force-field constructs were initially presented by me, the evaluator, and followed by my facilitation of dialogue and discussion among the stakeholder representatives. As the mediator and facilitator, I ensured that participation was both inclusive and balanced among representatives. At different points in the discussion, I specifically asked certain individuals to respond to ensure that representativeness was achieved and a balanced discussion was maintained. The overarching intent was to insure that singular agendas did not dominate or prevail. Representatives were acutely aware of the joint-constructions they represented and were free to negotiate in the broadest and best sense of that term. In other words, as they saw fit. Their dialogue was taped and whatever emerged from the group was a result of that deliberation and resulting consensus. In the final presentation of the data in the Chapter IV, Findings, the process is but the means. Guba and Lincoln (1989) were equally as concerned with the ends. These ends in the form of preliminary conclusions were presented to TSR in both an initial Preliminary Findings (Appendix C) and a requested follow up Executive Summary feedback (Appendix B).

Negotiations ended when a sense of consensus was reached about the three joint constructions presented in their force-field format. In fact, for all intent and purposes the three melded into one as they negotiated and understood the other perspectives. However, I was prepared to deal with dissension and competing constructions/realities. In actuality, the process predominantly called for clarification more than anything else. Once clarification was achieved these constructions became a basis for future efforts, shared views of the world, and a common vision. The resultant outcomes fostered a spirit

of empowerment and laid a foundation for action planning. At that point the question became more - what do we do about it and where do we go from here?

The process ended with wanting to proceed into an action forwarding phase. While that is beyond the scope of this study, there seemed to be a general agreement and understanding among and between the stakeholders as to the present state of affairs. They were poised to start asking the really hard questions. Guba and Lincoln (1989) pointed out that this posture is in accord with the principle that every good evaluation is likely to raise more questions than it answers. While this certainly seems to be the case here, agreement and understanding do not necessarily translate to commitment or action. They did however collectively confirm and reconfirm their reality as a situation in which opportunities and challenges existed in abundance. In fact, one stakeholder commented "What do we do now?" The old analogy of you can take a horse to water, but you can't make him drink might be applicable here. However, that remains to be seen and could be a topic for another study.

Reporting

This last step in this methodological process was the reporting of the findings and results. The President wanted a report immediately following the last step in the intervention. I prepared a preliminary report of the findings and forwarded it to her (Appendix C). After sharing the report with her Vice Presidents, she asked specifically what I would do based on these preliminary findings? I then authored and sent an Executive Summary recommending and explaining six immediate actions and three future strategic actions (Appendix B). The final and most complete report of this intervention is this dissertation.

These reports were intended to render constructions not only in a "factual" sense but in ways that clarified the meaning and interpretations to be made of those "facts" (Guba & Lincoln, 1989). This overall case study evaluation provides a vicarious experience that allows readers to walk in the shoes of TSR stakeholders and reflect on

their reality. While Guba and Lincoln (1989) outlined numerous possible criteria for such an evaluative study, those aspired to in this report were: reflections of multiple rather than singular realities: elegance, creativity, openness, independence, commitment, courage, egalitarianism, fairness, educative, actionable, empowering. While these criteria are ambitious, they reflect the aspirations and standards by which this research was conducted.

As noted, “fourth generation evaluations are by their nature divergent - they tend to raise more questions than they answer” (Guba & Lincoln, 1989, p. 226). Because of its emergent construction there is a continuously evolving reality. New information and increased sophistication makes this a never ending process. Therefore, it should be noted that this report is only a snap shot in time. However, it does offers a context from which to analyze, reflect and make conscious decisions on where and how to proceed from that point in time. This methodology is powerful because it creates a potential for action that is almost impossible to achieve in any other way (Guba & Lincoln, 1989).

In addition, the fourth generation evaluation methodology is consistent with Deming’s teachings in that they both encourage risk-taking, unleashing of energy through empowerment, stimulating creativity, instilling pride, building commitment, taking responsibility, and evoking a sense of investment through involvement. The “fourth generation evaluation is a means to empowerment, both because of its process aspects and because it shares information (which is itself powerful)” (Guba & Lincoln, 1989, p. 227). For all these reasons, plus the fact that it was challenging and fun, the Fourth Generation Evaluation Methodology was a natural fit for me and this research.

The Final Product

The final product from this evolved process is the prioritized claims and concerns prepared by operational, tactical and strategic representative groups for each of the four dimension of the System of Profound Knowledge. These twelve data groupings are presented in Chapter IV, Findings. Following the presentation, clarification and

acknowledgment of these data sets carried out in the step eight negotiations, they in total became TSR's constructed reality relative to TQM as evaluated through the lens of the System of Profound Knowledge. The conclusions and recommendations made in Chapter V are the final product of this data driven research. The combined influence of these conclusions reflect the influence and impact TQM had on TSR's organizational culture.

CHAPTER IV

RESEARCH FINDINGS

Introduction

This chapter couples collected research data with an analysis of the findings in addressing the stated purpose of this research and ultimately to answer the research questions in Chapter V, Conclusions and Recommendations. The purpose of this research as stated in Chapter I, Statement of the Issue, was to evaluate the practice of Total Quality Management (TQM) in an organizational culture using Deming's System of Profound Knowledge as an evaluation reference criterion. The framework for addressing this purpose came from three sources: (1) the research questions first described in Chapter I, (2) the description of the System of Profound Knowledge in the Literature Review, Chapter II, and (3) the description of the Fourth Generation Evaluation methodology described in Chapter III.

Building on the general description of the case study Fourth Generation Evaluation processes presented in Chapter III, this chapter first describes the criteria that was used to identify the case study subject. Following a discussion of the selection process, the contractual arrangements for proceeding with the research study are described. In addition to the criteria for participant selection initially outlined in Chapter III, this chapter further identifies the selected interviewee population. Following an historical description of the external and internal environments in which TeleService Resources (TSR) operated, progress in the implementation of their TQM program to date is provided as a historical backdrop and starting point for the data collection process. Immediately preceding the presentation and analysis of data associated with each research question, a description of each dimension of the System of Profound

Knowledge and a document review of information pertaining to that dimension is provided to initially guide and frame the analysis. The data collection process information, that is the site selection, contracting, scheduling and selection of participants, and TSR's historical background discussion combined with the presentation and analysis of the data form the data-driven information base ultimately used to answer the five research questions posed for this study.

Historical Backdrop

By way of introduction to the data collection process, presentation and analysis of data, the selection of the case study subject, TSR, the contracting process and the scheduling of data collection and interviews are reviewed in the following discussion. This section describes the process of selecting the case study subject, the agreement and contracting process, and the initial intervention schedule. Following these descriptions, TSR's historical background and TQM program implementation are presented.

Site Selection

The criteria for a case study subject, first addressed in Chapter III, was formulated out of the intention to explore and examine the effects of an officially sanctioned and established TQM program within a corporate environment. A program that had some amount of documented and recognized history in influencing and shaping the culture of that organization. Based on those preliminary objectives, the four criteria for final selection were that the organization had to have the following: (1) a recognized and established TQM program, (2) an officially and openly endorsed TQM program as a viable business strategy, (3) a TQM training component in place, and (4) put its TQM implementation strategies into effect.

The best way to screen organizations using the above criteria was to contact and discuss the potential of this research with designated internal quality consultants and trainers charged with the implementation of TQM in their respective organizations. Based on my previous involvement and work as a TQM educator and consultant, I had

several contacts in companies and government agencies who were actively in the role of coordinating their respective TQM efforts. In narrowing my options from over a dozen potential candidates, I began serious negotiations with four organizations. In addition to narrowing the pool of potential candidates, these discussions with experienced practitioners helped to further guide and focus this research effort by addressing different scenarios and an array of "real world" possibilities. Possibilities that addressed both the practical and the theoretical aspect of such an undertaking. It was encouraging that all four of the candidates were interested in pursuing and supporting such an effort. However, each had their own internal politics to consider in endorsing such an effort. It appeared that their hesitations were analogues to the old axioms - if you can't stand the answer, don't ask the question. In other words, it might be better to "let sleeping dogs lie." Their TQM programs for the most part were going through some transition or metamorphose relative to their organization's strategic initiatives and having someone come in from the outside might at that point in time prove to be non value-added or even disruptive.

While each of the selected organizations were interested and viable candidates based on the initial threshold screening criteria, TeleService Resources (TSR) was selected for the following three reasons. First, they were a service based organization. The greater majority of the TQM literature addressed manufacturing or product-based organizations where the cost of quality ranges between 15 to 30% of the sales dollar (Amsden, Butler & Amsden, 1991). Amsden, et. al., estimate the cost of quality in service based industries to be as high 30 to 40% of the sales dollar (1991). Working with TSR as a service based organization allowed for further scrutiny of this premise and other areas less addressed in the mainstream quality program review and literature. The second reason for selecting TSR was that while TQM had been established as a viable business strategy, they were struggling to maintain its emphasis in the entire scheme of corporate events. I saw this internal scrutiny as an opportunity to examine the life cycle of a TQM program in what I perceived to be a critical phase of its existence as a viable corporate

strategy. Lastly, based on all my initial correspondence in which certain supporting requirements were identified, TSR was the most receptive and open candidate to host this research and explore its potential in the context of their own self-interest.

Contracting

The contracting process began with written and verbal correspondence between John Dewey, a TSR internal quality consultant/trainer and TQM program coordinator. Following correspondence outlining the research objectives and a series of conversations with Dewey, he took my proposal to the President of TSR. At that point the President agreed to a conference call on the 20th of June 1995 with Dewey and key members of her staff, the Vice President of Human Resources and the Head of the Training Department. Following some clarification as to the purpose of the research, her only reservation was that the intervention process minimize disruption to operations. I assured her that such minimization would be a priority concern in all phases of the data collection process. In addition, I expressed my intent that this work would be a worthwhile investment on their part and would ultimately contribute to and provide value to the organization overall. At that point in time, all parties accepted the proposed research effort as described in the outline of the proposed research objectives. In addition, I assured her that I would keep her and other key players informed as the project emerged. I then signed a Nondisclosure Agreement, an agreement to not directly disclose corporate information with TSR's competitors, and proceeded to work with Dewey in accessing and collecting documents for review, scheduling visits to the site and laying out the criteria for stakeholder participation.

Scheduling

The scheduling of data collection was based on the preliminary understandings from the contracting and selecting phases noted in the previous discussions. I made a three day exploratory visit to further assess the feasibility of this project with a representative cross section of TSR employees. Based on a general sense of acceptance

to this research process, a series of visits for data gathering, feedback and negotiation sessions were scheduled. These visits were scheduled in October, November and December of 1995, and then January, February, March and April of 1996. The on-site intervention process ended with an Executive Summary (Appendix C) of the initial findings and a verbal debrief presentation with the President of TSR in July of 1996.

Target Population and Interview Process

The criteria for selecting the sample of the population was described thoroughly in Chapter III, step three of the methodology, Selecting the Stakeholder Population. The two basic criteria for selection were: (1) that interviewees had to have a "relative stake" in TSR's objectives, and (2) that they had been exposed to and involved with the TQM program at TSR. The total population was stratified into three levels: strategic, tactical, operational. Out of a total population of 2650 employees at the Dallas site, the following numbers of employees from each level were interviewed: seven out of ten on the strategic level, twenty seven out of six hundred fifty at the tactical level, and forty nine out of two thousand at the operational level.

Dewey, as my internal point of contact, and I discussed the overall population and selection criteria for each level at length to ensure the inclusion of diverse and multiple perspectives. To that end, special emphasis was put on selecting representatives that would provide a full range of perspectives and experiences with the company and TQM. The rationale for this broad based inclusion of multiple, if not dissenting, perspectives as described by Guba and Lincoln (1989) is "to open a discourse leading to possible reconstructions based on added knowledge or sophistication" (p.203). Based on Guba and Lincoln's description, Dewey and I debriefed daily using the emerging information to designate the next round of scheduled interviewee stakeholders. This constant review helped ensure a full and inclusive representation of perspectives at each level. Dewey's own credibility with the organization was vested not exhibiting any inappropriate biases into the selection criteria and process.

The final criteria we discussed, and I used, was consistent with the emerging constructivist paradigm, was that the final numbers of stakeholders interviewed were determined by a daily and an ongoing analysis of the interview data. When the data started repeating itself and Dewey and I didn't sense that there were other significant views relative to the purpose of the study, I terminated the interview process at that point.

With the criteria for target populations identified, a series of on site visits to TSR were scheduled on a "not to interfere" basis, meaning that TSR got to choose which week in any given month was convenient or optimal based on their schedule and requirements. Based on those designated windows of opportunity, seven, four day, monthly visits were scheduled starting in October of 1995 through April of 1996. Based on the established criterion for stakeholder participation discussed extensively in Chapter III and reviewed in this section, Dewey would designate and schedule in advance the interviews for each day of the four day visits. Scheduling based on the initial pool of stakeholders was constantly modified relative to the continuous review of the interview data in moving to a constructed reality for each of the respective levels.

Five to seven interviews were scheduled each day during the data gathering phase. The schedule included attending and observing Quality Improvement Team (QIT) meetings. Between interviews and meetings, I took every opportunity I could to observe and informally interact with members of the organization. This mix of activities made for twelve hour plus days, not including evening debriefing sessions with Dewey to review the day and make changes to the next days schedule of activities if warranted. Based on this real time review and analysis, several modifications concerning who would be interviewed the following day were made. This was designed into the process to ensure that the full range of representative perspectives were being sought after and hopefully captured.

Each interview was scheduled for one hour. Interviewee attendance was prompt in meeting at a designated office or reserved meeting room. Having interview

arrangements and associated logistics coordinated for me by the company greatly facilitated the process and generally enhanced the perceived professionalism of the data gathering process overall. The interviewees promptness appeared to be a reflection of their professionalism and internal discipline on all levels. I also took this as a sign of their willingness to participate in and contribute to a study from which they and their company might benefit. These observations were further corroborated in the interviews themselves.

Each of the designated interviewees had been provided with a brief written description of Deming's System of Profound Knowledge and an overview of the research objectives. After reviewing and signing a consent form protecting individual anonymity, I began each interview session by asking if they had any questions before proceeding with the guided interview format. Beginning with the respective question for each dimension, further inquiry was either keyed on their comments or their questions. This dialogue was captured on a tape recording and interview notes. These recorded sessions were later reviewed and salient points written on cards that were used to structure 3X5 data matrices (Appendix E) described in Chapter III. Once again the number of interviewees at each level was determined when the data inputs became repetitive and no new information was being presented or offered to the ongoing analysis.

Description of TeleService Resources (TSR)

In establishing a starting point in researching the case study subject, I reviewed and analyzed the background and history of TSR. Upon my request and search for background information, I was provided a range of documentation that included quality training manuals and instructor guides, a management orientation manual, an employee satisfaction survey, a customer satisfaction survey, annual reports, newsletters and other miscellaneous pieces of information and correspondence. In synthesizing this information, I used the documents to first describe the organization overall, and secondly, to describe what their literature said about quality and their TQM program. From this

archived literature, I was able to compare their espoused quality values with their values in action as derived from the interviews, documents and observations. This review established a starting point in examining the impact and influence that TQM had on the organization's culture using the Fourth Generation Evaluation methodology in conjunction with the four dimensions of the System of Profound Knowledge.

TSR's History

The parent structure under which TSR operates is the AMR Corporation. It is made up from three groups: (1) American Airlines, which provides the operational passenger and cargo air transportation, (2) the Sabre Group which provides travel distribution services for nearly 30,000 travel agencies in 74 countries, and (3) AMR Services which provides training, consulting and other services. Their vision is "... to be the global market leader in air transportation and related information services" (TeleService Resources, 1995, p. 5). TSR is a division of the AMR Services Group and was founded in 1984 as a vehicle to diversify AMR's portfolio and to leverage the assets and management expertise of AMR Corporation as described in their Annual Report (AMR, 1995).

TSR as a self-supporting profit center is a supplier of telemarketing support, call center management and related consulting services. It provides inbound and outbound call handling to Fortune 500 companies and government agencies. In 1994 TSR was recognized as the second largest inbound telemarketing service provider and was named the "number 1" inbound call center for 1994 by "Telemarketing Magazine" (TeleService Resources, 1995).

Since 1991 TSR has expanded from their headquarters and central operating center in Dallas, Texas to five other geographic locations employing over 6,000 people. Interview data were gathered at the Dallas operation with approximately 2,650 employees in the active data base at the time this research was conducted. Of that population about 2,000 were agents on the phones conducting inbound and outbound

telemarketing , reservation services and mail tracking for TSR clients, and 650 were support staff and management personnel. The distinguishing difference between inbound and outbound telemarketing, is that inbound telemarketing calls are generated by potential customers who are requesting a service or product based on an advertising piece or other references, i.e. 800 telephone numbers. Very much different from the more passive and relatively stable environment of inbound telemarketing, mail tracking and reservations, outbound telemarketing is an aggressive “cold call” situation in which agents try to get perspective customers to buy certain products and services.

This agent population generally comes to TSR with relatively low skills and experience in the telemarketing field. Based on the relatively high supply to low demand availability of personnel in the labor pool at large, newly hired agents are paid minimum wages with low margin increases for longevity or promotion. Corporate benefits with airline travel options available are attractive to many employees. However, this minimal package in conjunction with the pressures associated with a sales environment results in a high agent attrition and turnover rates. This situation was the topic of an active Quality Improvement Team (QIT) striving to determine the cost of attrition (Sabre Group, 1994). The data will reflect numerous issues related to the valuing and retention of agents and employees in general.

TSR's growth has been fueled by revenues that increased from approximately 10 million in 1984 to a projected gross of 128.4 million in 1995 (TeleService Resources, 1995). Based on this strong financial performance and other industry competitive factors, TSR's vision was, “To become the number 1 worldwide call center solutions company” (TeleService Resources, 1995, p. 4). This ambition translated into their mission statement, “ To acquire, delight and retain customers for our clients” (TeleService Resources, 1995, p. 5). This in turn was supported by a set of espoused values described in their literature as RSVP (TeleService Resources, 1995, p. 5):

1. Respect. To mutually respect one another inside and outside the workplace.

2. Satisfaction. To satisfy ourselves and our customers on a daily basis.
3. Values. To value individuals for their contribution and creativity.
4. Profit. To recognize that each of us profits when the company does.

Part of the challenge of this research was to look for these espoused values in action as a reflection of TSR's overall culture. To see if these professed articulations were boilerplate or meaningful manifestations of conscious efforts to create an environment of mutual respect and trust among all members of the organization. This was a goal Deming ardently fought for in his attempts to influence industry culture (Deming, 1993). Such cultural analysis will be part of Chapter V, Conclusions. Whatever the outcomes of that analysis, the things that were obvious and clear at that point in the review was that TSR was an aggressive organization that prided itself in adapting to a dynamic and highly competitive emerging telemarketing and call center management industry. These business realities coupled with the internal pressures from the parent company for financial performance had TSR continuously striving for a competitive edge in perpetuating their position in the industry while satisfying AMR's financial demands.

This is where Total Quality Management (TQM) came to TSR's mix of strategies and competitive consciousness. Since 1993, the TQM philosophy, methodology and associated strategies have been adopted and implemented by TSR. TQM was described in the following message from the President to employees - "TQM's focus is to provide a new way of thinking, behaving and planning to continuously improve our services and product offerings on a long term basis (Team Directory, 1995, p.1).

History and Progress of TQM.

Since adopting TQM in 1993 as a competitive philosophy and strategy, it has been an integral part of their training and continuous improvement initiatives. While its implementation had been pursued with varying degrees of emphasis since the initial adoption, it had established a presence. The degree of that presence in influencing and

shaping TSR's culture is the purpose of this study. The following is a brief history, from 1992 to 1996 on the implementation and state of TQM at TSR.

In a review of TSR's TQM program to date, John Dewey, their quality consultant, reported that there were 31 active quality teams. Another 21 teams completed their charter in 1994 and 11 more through August 1995. These 63 teams involving 561 employees throughout the ranks had received TQM training and had been or were presently involved in sanctioned and budgeted quality initiatives. These initiatives covered a wide range of projects, from those with a near-term impact based on solving an identified problem to initiatives that had a long term continuous improvement context. The evolution part of their implementation strategy was that these trained and experienced stakeholders would form a "critical mass" for inculcating the organization's culture with TQM values. Their long-term commitment was again articulated in a message by the President of TSR to employees at a 1995 event titled TSR Quality Fair (TeleService Resources, 1995, p. 1):

Total Quality Management is about meeting or exceeding our customer's requirements the first time, every time. The fundamental principles of quality provide a framework for doing business which can ensure the success of TSR for the rest of the 1990's and beyond. Successful companies strike an effective balance between achieving financial performance objectives, meeting and exceeding customers expectations, and ensuring employee satisfaction. The President's last statement about striking an effective balance was termed, The Quality Triangle. The Quality Triangle became the symbolic representation of their TQM program as depicted in Figure 2. Figure 2. shows the Quality Triangle with the three objectives, related to TQM, at the corners with leadership and communications in the center.

Figure 2. The Quality Triangle: Three objectives of the TQM program, external customer satisfaction, internal customer satisfaction and financial performance with leadership and communication in the center.

One of my objectives was to determine what this looked like and meant to members of the organization in their daily pursuits and overall reality at TSR. The first question that came to mind was did balance mean a trade-off as situations and external pressures changed, or was it a continuous concerted effort to optimize each in carrying out the vision, mission, and objectives of the organization? In defining the values of TSR through actions and not just words, the four dimensions of this System or Profound Knowledge will be the lens through which espoused values will be compared to values in use in answering this question and many others.

Before going on with that objective, the last piece in describing the quality paradigm at TSR was review of their training program. The objective of the training program, as stated by the President, was, "The training demonstrates how business should focus on process versus projects, as well as on 'what process is not working well?' versus 'who messed up?'" (TeleService Resources, 1995). To initially assess this focus I reviewed materials developed by The Sabre Group titled *Investment in Quality* (1995 edition). These materials included an orientation manual, a student guide and an instructors manual. In an extensive review of these manual, I prepared a five page overview titled *Data Analysis/Document Review*. It served first as a grounding point in analyzing the TQM exposure and education process at TSR, and secondly, it provided a common framework for dialogue with those responsible for its delivery and those organizational members that attended the course.

The two-day course was provided to teams that had been chartered by the appropriate division Executive Steering Committee (ESC). The whole process of content determination and team makeup was outlined in a document titled *Guidelines for Initial Quality Improvement Team (QIT) Subject Selection* (The Sabre Group, 1994). Once the charter and budgeting had been approved for that team, QIT roles and responsibilities were assigned. Whether that team was made up of personnel from one division or had cross-functional representatives, that team would proceed through the training and process meetings as an intact unit. A designated internal quality consultant would give the initial training. That same consultant would facilitate and guide the team through periodically scheduled team meetings until the project was complete. While the initial training was very short, the strategy was that they would learn by doing the assigned project itself. The activities of the teams had varying degrees of success in terms of their identified objectives, and they were being continually pressed to quantify their efforts in hard dollar return on investment. The TQM efforts did not escape TSR's bottom line/results oriented mind set. The question raised is can quality in terms of customer

satisfaction always be measured in dollars and cents? While the answer is obviously no, management pressed the issue and favored those projects that could. It came down to managers comparing the value added benefit the company derived from their employees participating on quality teams, to the loss of man hours in taking people off their operational task to participate. There was an ever-growing anxiety over this determination that reflected a bias for short term gain, over a longer term continuous improvement mentality. This skewing of emphasis coupled with the reduction of quality consultants from 6 to 1 during the period 1993 to 1995 were strong indicators that previous emphasis on TQM was losing support. In fact, the number of training classes offered for new starts went from 25 in 1994 to 8 in 1995. Was this a significant trend at the end of an era or had TQM values been inculcated in the organization in such a way that they would continue to derive TQM's benefits now as TSR's way of doing business and not as a separate program? To some extent, I think management wanted this intervention and research to help them make that decision. The answers to this question, at least in part, are in the interview findings, observations, and continued examination and review of documents to enlighten and inform constructed reality as viewed by participant stakeholders.

The Data Collection Process

This chapter addresses the four questions associated with each dimension of the System of Profound Knowledge by providing a first-cut analysis of the findings collected around each question. This analysis draws from and triangulates where possible, the three data sources described in Chapter III, Methodology: (1) document review, (2) employee interviews, and (3) observations.

The analysis of each question begins with a brief summarization from Chapter II, Literature Review, describing what Deming thought were the salient features that made up the construction of that dimension. All the interviewees were provided with a description of the System of Profound Knowledge prior to their interview in a

memorandum titled Identification and Assessment of TQM in TSR (Appendix, D). This memorandum provided a short description of each dimension and included characteristics identified by Deming as the values or attributes associated with each dimension. In addition to this background information designed to provide a starting point and frame of reference for the interviews, it gave an overview of the study, described specific objectives in terms of answering the research questions, addressed the potential significance of the research itself and provided a brief description of the methodology.

Based on that established frame of reference, interviews were conducted in each of the stratified representative population levels: strategic, tactical, and operational. Each of the 83 hour-long interviews started by first referring back to the above described memorandum for questions and then directly asking for their responses to each question in term of claims, concerns and issues. The specific questions from the preformatted interview questionnaires were provided to interviewees in advance. They paralleled the research questions, but were initially posed and explained to them at the interview sessions in a way that they might best interpret what was being asked.

Their initial responses were captured on audio tape recordings and interviewer notes. Raw data comments were then transcribed from the interview tapes and notes. Data were then sorted by claims, concerns and issues relative to each dimension and collated into a data matrix for each of the three levels of the stratified interview populations. Based on the initial critique of the research proposal, another dimension was added titled "other" for the data comments that didn't seem to be a natural fit into one of Deming's four dimensions. This now (3X5) data matrix was laid out with claims, concerns and issues on one horizontal axis and the research/interview questions addressing Deming's four dimensions of the System of Profound Knowledge, plus the category called other, on the vertical axis. The sixth step in the evaluation methodology outlined in Chapter III was to have the data matrices reviewed by selected representatives from each of the stratified organizational levels; operational, tactical, and strategic. Their

tasking included: (1) clarifying the data for accuracy of interpretation, and (2) to see if they could come to a consensus on whether an issue could be reclassified as a claim or concern. They were given their respective data sheets in advance of a three-hour long session to individually accomplish these designated objectives.

Consistent with Guba and Lincoln's Fourth Generation Evaluation process, the first objective at these sessions was to check on their interpretation of the data's credibility in developing their within-group joint constructions (1989). Representatives asked a few clarifying questions about some of the data comments. Following those clarifications, they unanimously confirmed that the data were accurate in terms of what they knew to be "reality" at TSR. In addition, they concurred that data overall was representative and could be used to shape their emerging joint constructions. In fact, several representatives noted that they had been directly quoted in the data matrix and indicated that they appreciated both the accuracy and acknowledgment. These comments were consistent with their desire for input and to have their voices heard. The significance of this will be additionally addressed as a major theme in Chapter V, *Conclusions and Recommendations*.

As part of developing a joint construction around claims, concerns, and issues for each dimension, the second objective was to determine if the identified issues could be moved by consensus to a claim or concern in preparing the joint construction agendas for negotiation. With issues being defined "as any state of affairs about which reasonable people may disagree" (Guba and Lincoln, 1984, p. 40) this was a check to see if those items could be conferred upon by consensus as being either a claim or a concern. After a thorough review of these designated issues there was no consensus for moving them out of that category. They remained as part of the data set for completeness and inclusion at a later time in the negotiations. Guba and Lincoln (1989) suggest that if the items are not brought up again in the evaluation process, that they be put aside and held over as a starting point for review in subsequent evaluations or other types of interventions. The

premise being, that over time they will evolve into a claim or concern, or disappear as an issue. However, for the completeness and validity of this study, they needed to be documented and accounted for. With those two preliminary objectives accomplished, the respective group's reviewed their data matrices and concentrated on confirming and clarifying the claims and concerns for each dimension. These confirmations led to their acknowledging that the data collectively represented and reflected their joint constructions of reality.

The next and seventh step in the methodological procedure was to prepare the individual joint constructions on each level for negotiation as described in Chapter III, Methodology. Specifics for this step were outlined in a memorandum dated 25 March 1996 (Appendix F) and were conducted during the May visit to TSR. The memorandum designated a lead and at least three other representatives from each level. Their responsibilities were to first review the issues again to see if there might be consensus on whether it could be re-categorized as a claim or concern, and secondly, they were to review the data sheets in advance and select out up to five of the most important/significant claims and concerns relative to each dimension for consideration and possible consensus among fellow representatives.

The sessions at each level began with an "imagineering" exercise in which they were asked to visualize and describe a desired future state for their organization using whatever analogies they thought were appropriate. This exercise accomplished at least two things. First, it got them future focused. Secondly, it provided them an opportunity to share and hear their colleague's aspirations for a desired future state at TSR. With that accomplished, they prioritized their respective claims and concerns for final presentation and negotiation with and between representatives from the other two levels. These prioritized claims and concerns were put into a force-field format and this is where the analysis of the conferred upon and prioritized data for each level begins.

Presentation and Analysis of Data

The analysis of each dimension of the System of Profound Knowledge begins with a review of some of the more salient or critical descriptors of each dimension from the Chapter II, Literature Review. This review is followed by inputs from the documentation review, a presentation and description of the interview data, and finally, observations relative to that dimension. The background information combined with the triangulation of document review, interview, observation data were designed to provide a comprehensive reflection of each dimension and how it influenced and impacted TSR's culture overall. This assimilation of prioritized data is the embodiment and results of steps 1 through 7 of the methodological procedures, and the steps were replicated at each level for all four of the dimensions.

Following a brief review of each dimension, the next step was to present the data, Tables 2 through 13, and a first cut analysis of the claims and concerns associated with each dimension at each of the three population levels: strategic, tactical, and operational. Tables 2, 5, 8, and 11 present the data from the seven (7) strategic level stakeholders interviewed. Tables 3, 6, 9, and 12 present the data from the 27 tactical level stakeholder interviewees. Tables 4, 7, 10 and 13 present the data associated with the 49 interviews on the operational level.

Description of the Appreciation for a System Dimension

Deming (1993) advocated looking at systems or structures as a network of interdependent components that work together to try to accomplish what he termed to be the "aim of the system." "The aim proposed here for any organization is for everybody to gain - stockholders, employees, suppliers, customers, community, the environment - over the long term" (Deming, 1993, p.51). This suggested that there are defined functions and a recognized "aim" as precursor to creating structural alignment, synergy and ultimately optimization of the system overall. The criteria for such optimization has been suggested as when the "voice of the customer" is matched with the "voice of the

system" (Joiner, 1992). While these are certainly worthy pursuits in terms of setting ultimate objectives and fostering a climate of cooperation verses competition, they are idealistic aspirations for a context in which everyone wins by creating a constancy of purpose. The reality of structures in dealing with open systems architecture and dynamic complexity is that organizations are living process structures that are continuously adapting to their environment (Wheatley, 1992). This organic analogy coupled with Deming's more determinist and reductionistic strivings presents a realistic framework in dealing with the reality of systems and organizational structures.

However, Deming's bottom line question, no matter how the realities of the organization are perceived and presented is whether the organization is structured to optimize its resources in meeting customer requirements, now and in the future. The "now" is problematic enough, but without some proactive visiting of the future in terms of adaptation and evolution, organizations will not survive the dynamics of the information age and beyond. Simply noted, the system must be able to deal with risk, uncertainty, and complexity that define the business environment of the 1990's (Cotter, 1995).

System Document Review

Based on that background and framing, I was looking at certain characteristics consistent with or contrasting to these thoughts on this dimension in the data collections process. Starting with documents provide to me by TSR, I was able to get a structural orientation to American Airlines (AMR Corporation) overall and TSR Group specifically. I was briefed that TSR had gone through four major restructuring phases since 1990 starting with a Boston Consulting Group intervention that totally redefined the corporation in terms of what business they were in. TSR, as the telemarketing arm of the business, survived as a "core business entity" primarily based on the fact that it had "good numbers." The translation being that TSR was a "cash cow" and as long as they spun off enough cash according to certain return on investment (ROI) parameters, they

would continue to be sanctioned and capitalized by the parent corporation, AMR. This created what appeared to be a contingency requirement that was constantly being scrutinized by the President of AMR himself. This constant oversight around the “numbers game” manifested itself in terms of pressure to perform and constant uncertainty within the TSR ranks. While little of this is actually documented, the not so subtle nuances were part of the corporate legacy. It was a legacy of success that directly reflected the style of its leader. As I read TSR’s Annual Reports (1994) and started asking questions about the AMR legacy, I began getting a true feel for the corporate culture overall, a macro perspective. It was a critically important perspective in understanding TSR’s cultural realities.

This review not only provided me with a cultural sense of the organization, it additionally provided me with an insider’s perspective through which to contextualize the data. This then helped me to understand not only how TSR had evolved, but to some extent, why they were structured the way they were. Looking at the organizational charts, TSR looked like a traditionally hierarchical structure that was organized along functional lines in that employees were grouped together according to similar tasks or resources. However, as you move down the organization they became self-contained units structured around customers. These units were identified as campaigns. Being both functional and self-contained, this situation was the text book definition of a hybrid structure (Draft & Steers, 1986). The organization was predominantly structured around tasks, or customer campaigns in this case. However, Human Resources/Administrations and Training, Finance, and Technology Departments were maintained as centralized functional departments.

Based on restructuring documents, it appeared that TSR was continually struggling for the right structural formula. A structure that could optimize both the utilization of resources while adding value to the customer. Deming did not see these as a systemic tradeoff, but the reality at TSR was that everyone was competing for resources

and not focused on either value-added or optimality. Which begs the question, is competition the great leveler when it comes to structure and resource allocation. Deming (1993) said that we need to replace competition with cooperation less the system be destroyed, “causing loss of unknowable magnitude” (p. 67). It is an alternative certainly worthy of near term consideration, if not the long term survival of TSR.

To somewhat mitigate the forces of competition, at least internally, TSR attempted to focus on the needs of the customer. They touted the fact the “customer rules.” A fact not totally supported by other data, but it became a catchy mantra. If nothing else, TQM brought the spectra of this orientation to the company. Despite or because of this orientation, the facts were that they evolved to a matrix organization in the series of restructuring. A system in which both product and functional structures are implemented simultaneously (Daft & Steers, 1986). Rather than having the separate functional and product structures associated with the hybrid organization, TSR created dual hierarchies. While it provided certain efficiencies and economies-to-scale, it added complexity. The ramifications of which are cited throughout the interview data in the fact that product managers and functional managers have equal authority within the organization, and many employees reported to both managers simultaneously. Their often-competing agendas would for the most part surface at the top of the organization for resolution. However, these issues for the most part were not dealt with or resolved due to lack of strategic focus and a myopic structural “silo” mentality. These dual authority conflicts become less prevalent and noticeable as you went down the organization where more simple lines of authority existed.

System Interview Data

Using the document review and clarifying conversations as a backdrop, the next leg of the triangulation process was the interview data itself. In accordance with the ten

Table 2.

Final Claims and Concerns for System Dimension at the Strategic Level

Claims	Concerns
1. Gaining on trust versus fear ratio through structure and role clarification	1. DFW too big, satellites better structured for business...more flexible
2. The structure does respond to anomalies and crisis well	2. Executive management still too involved in day to day operations...
3. Investments in new technologies are helping to streamline the system and make TSR more competitive	they are not dealing with strategic issues
	3. Structure should better serve the unique aspects of our business ... not for control and compliance
	4. Need more strategic planning and focus ... can't be all things to all people

steps described in the Methodology Chapter, Table 1, mutual agreements were put into effect, stakeholder populations were identified, within group constructions were formulated, and finally, these constructions were presented and negotiated for a common understanding of TSR's "constructed reality." This part of the analysis will deal strictly with the data collected around the systems dimension and put into the force-field format described in Chapter III by designated stratified levels of the organization.

Strategic Level System Data.

The first step in presenting the data is a first-cut analysis of the prioritized data that was consensually agreed upon as a representative “joint constructions” from the seven strategic level, direct report, vice presidents. Their prioritized claims and concerns around this dimension are presented in Table 2.

Strategic Level System Claims.

Each of the data comments presented in Table 2 are cited and explained in this first cut analysis of the systems data:

1. The first consensus response to this dimension was that the organization was “gaining on the trust versus fear ratio through structure and role clarification.” Despite the fact that the matrix organizational structure posed a level of complexity in the execution of daily operations, the organization was countering the fear of the unknown by putting more specificity into its structure and roles. While a stable steady-state condition was the objective, internal and external events continuously destabilized processes and the system overall as the focus and direction seemed to change with each customer. Comments that they felt like they were always “reinventing the wheel” were prevalent, suggesting that they needed to continue to build trust and confidence in what they were doing as a repetitive business process.

2. Due in part to the unstable conditions described above, the second claim was a self-proclaimed ability of their system and related processes to respond to crisis and anomalies of most any kind. They credited their reactive posture as an ability to “rise to any occasion.” They in fact prided themselves in this latent “surge capability.” However, I observed that many times this translated to a series of “knee jerk reactions” as the responses rippled down through the organization. The genesis of this ability, by their own admission, resulted from a lack of strategic leadership. They took very little time to capture lessons learned and improve processes and the overall system for the long term. They were too busy “getting good at doing the wrong things” by focusing on the

short term instead of long term strategic initiatives. The good news was that they at least recognized this reality as being more reactive than proactive in literally creating their future.

3. The last prioritized enabler in this dimension identified TSR's investment in new technologies as helping to streamline processes and the system overall. While they recognized that benchmarking technology was not a panacea to maintaining competitive advantage, it was a significant factor in allowing them to remain competitive within the industry. Corporate did require that capital investment for such technological upgrades be raised out of their own profit margins. However, corporate closely scrutinized TSR's revenue streams and made demands on those margins that took away from their ability and means to make such capital investments in technology. So while they were making progress, it was a continuous struggle to convince corporate that investments in technology would yield not only a competitive return on investment, but a better ROI than like amounts could be vested in other corporate endeavors.

Strategic Level System Concerns.

1. Countering these enabling forces were the following priority challenges (concerns) identified by strategic management. The first concern identified in this dimension was the size of the Dallas-Fort Worth (DFW) site. With over three thousand employees, those numbers alone impaired their flexibility. Spans of control were stretched and communication flow was sub-optimized due to the bureaucratic tendencies in the processing of information and decision making.

2. The second concern addressed executive management's involvement in the day to day operations of TSR. While at times hands-on involvement in some instances due to the pressures from corporate to "perform" was an imperative, such examples of micro-management appeared to become more the rule than the exception. Not only did it appear to undermine the development of internal capability at the working level, such involvement distracted management from their primary responsibility, visioning the

future and putting strategies in place to achieve it. Basically, strategic management acknowledged that they were not doing their jobs, because they were too busy responding to short term needs perceived to be generated by customer demands. This is both a “personal problem” and a systems issue in that the leadership does little, if anything, to change the existing priority. Employees were not necessarily rewarded or acknowledged for their responsiveness, however, if they are not responsive to customer needs, they perceived that they would lose their jobs.

3. The next concern indicates that the structure does not serve or compliment the unique aspects of TSR’s business. In other words, the structures are more control and compliance oriented, versus oriented toward flexibility and adaptation in meeting the needs of both internal and external customers. The old adage that “form follow function” is not the dominant rationale in creating structures at TSR.

4. The last concern noted the lack of strategic planning in TSR. It appears that strategic management was not incentivized to take a strategic focus. Their attempts to plan were manifested in the creation of an annual operation plan. This plan was literally a wish list of funding items, and budgets were allocated based on a department’s ability to “plead their case.” This short term focus lacked systemic integration and vision.

Tactical Level System Data

The next step in presenting the interview data is a first-cut analysis of the prioritized claims and concerns data that was consensually agreed upon as a representative “joint constructions” from the 27 tactical (middle management) level participants. Their prioritized claims and concerns relative to this dimension are presented in Table 3.

Tactical Level System Claims

1. The first input identified was that - “the present organizational structure is better than ‘chaos’ but that it had a long way to go in optimizing resources”, both human and materials. The not so subtle intimation was that the present system had a long way to go in optimizing resources. However, it was just slightly better than having no structure at all. This

Table 3.

Final Claims and Concerns for System Dimension at the Tactical Level

Claims	Concerns
1. Present organization structure is better than "chaos" , but has a long ways to go to optimizing resources	1. Pay more attention to the implementation of change (i.e. roll out of 50:1, that is supervisors to agents ratio)
2. The initiative to make Client Services more customer focused	2. Recognize the clash between entrepreneurial culture of the past and a more mature/ stable situation now
3. Organizational restructuring is moving in the right direction	3. We need a structure that will listen to and better respond to the customer needs (both internal and external)
4. We are defining roles better	
5. The organization was moving toward a more team based approach	

inference was supported in numerous interview comments for a variety of reasons. The reasons given for having a long way to go to optimize resources ranged from a personal lack of understanding as to how and why the organization was structured to the way it was organized, to identifying specific problem areas, such as size and bureaucratic procedures.

2. The second acknowledgment identified was the "initiative to make Client Services more customer focused" indicated a positive systemic change in aligning the

"voice of the customer" with the "voice of the process." It involved a restructuring and internal alignment of the interface with the customer by providing one point of contact (a consistent face) from sales and contracting through the implementation and maintenance of that campaign. This was a structural change initiated by top management in hiring an individual specifically charged with focusing on marketing and sales efforts. As a direct report to the Vice-President of Operations, he had more "clout" in customer affairs and client services. While this was definitely a customer valued-added initiative, it caused a "turf war" over certain planning functions and responsibilities that originally resided with the Vice-President of Finance. Collaboration was and is the obvious antidote to this situation, but the old functional boundary syndrome impeded that interface. Overall, this structural initiative created systemic cause and effect ramifications throughout the organization. This so called "ripple effect" tested not only their willingness to change, but more importantly, their ability to rally around an agreed upon strategic initiative. The typical reaction to initiatives such as this was - "I'll go along with it only if it doesn't upset my rice bowl." The jury was still out on this particular initiative when I completed the data gathering. A time two update on this matter would be a significant data point in validating their espoused desire to innovate and adapt as a system.

3. Overall, there was a sense among middle managers that "organizational restructuring is moving in the right direction." However, this premise was strongly contested over the supervisor to operator ratio policy (50:1). While middle managers supported this getting "leaner and meaner" initiative as an industry imperative in terms of efficiency, it was a perfect case study on how not to implement change. The ramifications of this implementation are presented in the operational data inputs and reflected on in depth in the final analysis, Chapter V Conclusions and Recommendations. For the most part, the final analysis showed that the resistance to the 50 to 1 ratio policy was more about its top down implementation than the realities of the policy itself.

4. The next data point in this array indicated that “they were defining roles better.” With the evolution and seeming maturation of the organization, they were putting in more position specificity and descriptions of accountability. This helped them get the “right people for the right jobs.” While the trend seemed positive in his area from middle management on up, the operational data shows less significant progress in this area by contrast. It may be that the “trickle down” process was not flowing fast enough. Whatever the case, role definition was cited as a claim or enabler that was moving TSR forward.

5. The last data point was a structural acknowledgment that the “organization was moving toward a more team based approach.” Part of the TQM training program entailed the formation of natural, if not self-directed, work teams. The TQM program additionally trained them about how to use quality methodologies and practices in supporting value-added initiatives. These Quality Improvement Teams (QIT) established a precedent for collaboration in proactively dealing with core issues and quality initiatives. These quality initiatives coupled with a more team oriented approach in serving the customer did indicate a move toward a team-based collaborative approach. These quality initiatives and team orientations were seen as positive affirmations of the TQM training program.

Tactical Level System Concerns.

On the other side of the coin, middle managers came to a consensus around the following systems concerns (challenges):

1. While middle managers generally supported the supervisor to operator ratio (50:1) initiative, at least politically, they concurred that more attention needed to be paid to the implementation process. The authoritarian top down implementation associated with this initiative became more an issue of procedure than substance. The suggestion was to get those most effected into the implementation process. They should have had more input into policy formulation itself. However, due to timing and politics that just

didn't occur. Since the President said "do it", it would be regressive, if not deleterious to one's job security, to challenge the policy at this point in time. Middle managers could clearly see that the "ball had been dropped." It was time to let the "dust settle", their words. Once again, this issue will be thoroughly reflected upon in Chapter V.

2. Middle managers for the most part, "recognized the clash between the entrepreneurial culture of the past and a more mature, and by comparison, stable situation now." The most important aspect of their perspective and this finding is that they reorganized the shifting in cultural values. The more entrepreneurial style came with the territory so to speak in that telemarketing is a relatively new and emerging industry that in the past called for a degree of autonomous experimentation. As the industry and TSR matured, competitive advantage moved toward a more steady state posture or condition. A condition in which Deming would advocate the careful definition of processes and the overall construction of a system that operates not only effectively and efficiently, but constantly adapts to the needs and desires of the customer, both internal and external. Middle managers recognized the need for this simultaneous "loose-tight" condition, and understood for the most part the realities in dealing with this cultural mix and eventual integration. In the day to day operations they saw "cultural clashes" as more of a balancing act than outright competing orientations. However, they did acknowledge that there were some "cowboys" still trying to blaze the frontiers of this industry. The general prognosis was that they would go the way of other early pioneers, eventual extinction. They would either assimilate to the new environmental realities or they would become a part of a dying breed. However, the final analysis will show that they didn't want complete extinction. The cowboy and pioneer attitudes did have their place in this environment.

3. They recognized the "need for a structure that would listen to and better respond to the customer's needs, both internal and external." They indicated that "active listening" was not a cultural norm at TSR. Everybody was so busy "doing", or at least

they appeared as such, that there was little time to listen and much less time to reflect on the happenings and events. It would be pure speculation to estimate the amount of listening to or the degree to which the customer's input was assimilated. However, they did agree that in an "action biased" culture, listening to external customers, let alone internal customers, was more of an espoused value than a reality. The existence of this action bias was recognized on many levels of the organization, and its ramifications will be addressed in the final chapter under the culture's present state.

Operational Level System Data.

The following data were derived from over 45 interviews on the operational level.

Table 4. is the presentation of their prioritized claims and concerns.

Operational Level System Claims.

1. On a most obvious level they recognized and acknowledged that "there is a structure and a plan in place." Regarding the purpose for that particular structure and plan, they couldn't comment. They were not given any significant description or explanation about the structure or plan and had not been asked for input to either. Therefore, it was difficult for them as hourly employees to comment on plans and structures with any sense of knowledge. Their comments and inputs did not consider the systemic relevance of plans and structure for the most part. They were definitely "at effect" rather than "at cause" when it came to the "big picture." They were on "the loose end of the whip." They seemed to feel in the dark when it came to matters of direction and strategy. Despite the limited efforts of TQM initiatives to get employee more involved in all aspects of the system and acknowledge their contributions, TSR was a long way from the TQM conceptualization of the "inverted pyramidal" structure. A conceptual construct where the customers and first line workers are at the top and all other structural components support that interface. The bottom line was that workers felt that systems were in place more to "command, delegate and control" rather than to foster

a sense of involvement, much less collaboration. Therefore, their acknowledgment of plans and structures was cursory at best.

Table 4.

Final Claims and Concerns for System Dimension at the Operational Level

Claims	Concerns
1. There is a structure and a plan in place	1. MDP always in a constant state of flux
2. Management is doing more inquiring as to what's going on (walk a mile)	2. Vision ...where we're going is not clear
3. Matrix structure and support is working	3. Lack of alignment with customer, ...both internal and external
4. President is accessible, provides information and listens	4. Not aware of specific customer requirements ...contract is not good source
	5. Limited forecasting
	6. Better job description, people are "puffed into" jobs

2. Workers positively acknowledged "that management is doing more inquiring as to what's going on ...walk a mile initiatives." While this management by walking around syndrome was not invented at TSR, workers saw this as a positive sign. Perhaps due to the "Hawthorne Effect" of simple acknowledgment, or maybe it represented

opportunities in which they could get involved in influencing the system and perhaps even its' destiny. Overall, what workers wanted most was to be heard and know that their perspectives were valued. This explicit desire will be reinforced in the data associated with the fourth dimension, People/Psychology.

3. In response to their knowledge of the company's structure on a working level, they were in concurrence that the "matrix structure and support is working." For the most part, they didn't have to deal with dual hierarchies or multiple lines of authority, they were basically concerned with whether or not their more immediate needs were being met. Due to a very positive internal customer support orientation of the matrix components at this level, if their needs were not met, they received a reasonable explanation and projections as to when their needs might be met.

4. Their acknowledging that the "President of TSR is accessible, provides information and listens" has system ramifications. In periodic open invitation "chats with the President", certain expectations were at times raised without commensurably informing or involving of the layers of management and supervision in between. From a risk-reward perspective, the symbolism of open access to the top was probably worth the down-side risk of "blind siding" those not in that communications loop directly. From their perspective the access was a worthwhile trade-off, because it provided a human linkage with and direct communication to those in control at the top.

Operational Level System Concerns.

1. From an operational perspective, they felt that TSR's "Management Development Program (MDP) was in a constant state of flux." This program was important in that it represented upper mobility opportunities to them. It was designed to select operators who had distinguished themselves through their work and exhibited managerial attributes and potential for growth. Many of the candidates directly or indirectly got involved in the quality program and initiatives as a way of distinguishing themselves. However, the criteria for getting into the program and the program itself was a "moving target." Upper management's motives in supporting the program were

suspect. Was the program "tokenism" or a legitimate and viable way to get ahead? The instability of the program and seeming lack of managerial support indicated the former and left this as definitive systems concern.

2. When asked about the direction of the organization at the operator/supervisor level the almost unanimous response was - "where we're going is not clear." Yes, their job was to satisfy the customer, but what was the long term context in which priorities are set and trade-offs made? If there was a strategic vision other than fiscal viability, this was not shared. The ramifications relative to what Deming (1993) refers to as the "aim of the system" are that if you don't know where your going any road will get you there. In the short term, as long as they "spun off cash" to the parent corporation, things were all right. However, in terms of the telemarketing industry they hadn't determined their market niche, much less "what they wanted to be when they grew up." This lack of vision and strategic direction had numerous ramifications for the quality program and morale. How could they know or differentiate between doing the "right" things or just getting better at doing the wrong things? Was just being profitable in the short term and satisfying investor criteria enough? Deming would have probably suggested that this is a formula for extinction.

3. The apparent "lack of alignment with customers, both internal and external", was a priority concern. While this misalignment was referenced in many ways, it generally referred to constituents having different priorities, if not agendas. This was actually a symptom related to the lack of a vision and associated plans for TSR overall. Alignments were created as circumstances emerged further suggesting that the modus operandi for TSR was more reactive than proactive. Due to a lack of forecasting, contingencies were not put into place for the potential alignment and optimization of the system overall. In very basic terms, TSR was described as a predominantly reactive "hand to mouth" operation. An operation that would respond to and take on "most any

customer that showed up to the door with cash in hand.” It appeared that opportunity defined the business.

4. Always looking for guidance, operators felt “unaware of specific customer requirements.” They even noted that the contracts were not a good source for such information. Therefore, it was difficult to satisfy the customer if they didn’t know what the customer specifications or parameters were. To a certain degree, this gap could be traced back to an implicit sales philosophy “that would promise most anything to the customer and then figure out how to deliver later.” However, the follow through and back end arrangements were all too often lacking. The results created the potential for dissatisfaction for all parties involved.

5. The fact that there was “limited forecasting” once again reflected on the overall reactive posture of the organization. On the operator level this played itself out most predominately in terms of not having a projected needs analysis, and then having to scramble for resources to make things happen. While this effected both human and material resources, the human side of the equation left employees very unsettled at best. With high turnover rates at the operator level, as much as 50%, and drastically fluctuating needs, recruitment became more of a “warm body count” rather than a search for the most qualified personnel. Many new employees, despite a week long indoctrination program, didn’t even know that they were being hired for a sales position until they got to the campaign floor itself. A good percentage of those wouldn’t have accepted the position in the first place if they had known. This dilemma was well documented in the employee satisfaction surveys and accounts in part for the high attrition rate. This coupled with a minimum wage pay scale and marginal benefits sent a strong signal as to the valuation of employees at this level. Employment at the operator level was almost exclusively a supply and demand proposition. Unfortunately for the workers, and TSR in the long run, supply is high and demand is generally low, accept for an occasional spike or surge in the campaign requirements.

6. The last concern in this data set is the need for "better job descriptions." This concern relates to the previous concerns about forecasting requirements and allocating resources accordingly . Because of the emergent nature of positions as they were needed, the minimum requirements and specifications for jobs were unknown until the need actually existed. People were what they described "puffed into the job" without matching requirements and capabilities. With minimum screening, people were literally placed in sink or swim situations. In some cases this might mean a raise representing \$.50 an hour more pay, no "big deal" in light of the additional responsibility and potential aggravation involved. While most survived because other workers rallied around to try to "save the day", if not the person, from such situations, the dilemma once again reflected a lack of systemic planning. This problem was endemic to the overall system, not one created on any particular level. Within the campaigns themselves, there was a lot of camaraderie and esprit de corps as workers demonstrated their genuine concern for the welfare of their fellow workers. Unfortunately, it was the system itself that they were protecting themselves from. This situation begs a question about the role of human dignity and self-actualization at TSR. A question that will be further addressed in the Psychology/People Dimension.

Appreciation for a System Observations

Observations made during my visits to TSR corroborated the document and interview data. I used the information from these two sources to look for certain observable manifestations of systemic characteristics written and described. In general, I observed an "orderliness" in the way individuals and groups conducted business. There was a physical structuring or layout of the site that reflected the hierarchical organizational chart. The East end of the building was reserved for executive management, the West end of the building housed the operational component, and in the middle , the middle management staff were positioned in offices. The physical organization reflected a traditional structure in terms of traditional hierarchy.

In terms of a systems context, the matrix structure was transparent for the most part. By contrast, the individual telemarketing campaigns were each located in the same physical space. Campaigns were physically divided by partial wall dividers and rows of telemarketing phone banks and computer terminals. When I had time to walk through and observe the operation, I was identified as someone from management, because I had a tie on. After I assured them that I was not a “spy”, they appeared to be quite willing and proud to explain their particular operation, who did what and how they were structured at that level.

Overall, my observations did not confirm or deny the presence of systems thinking as Deming advocated. Therefore, it was difficult, if not impossible, to visually determine if Deming’s notion of an optimal structure aligned to a specific aim did in fact exist. Rather, my observations more supported the data in that the structure reflected upper management’s expressed need for traditional control and accountability.

Description of the Theory of Variation Dimension

As noted in the Literature Review, Chapter II, the Theory of Variation is the foundation dimension to the System of Profound Knowledge. Deming viewed the importance of variation in this demonstrative quote: “Life is variation. Variation there will always be, between people, in output, in service, in product. What is the variation trying to tell us about a process, and about the people that work in it?” (Deming, 1993, p. 10). In the System of Profound Knowledge, the key to understanding the capability of a process or system is through statistically defining its performance parameters. Those performance characteristics are then extrapolated to predict the future. While all performance characteristics cannot be reduced to enumerative studies or analysis, it is important to capture and frame those that can be (Deming, 1993).

TQM professionals, statisticians and quality engineers have derived very sophisticated methodologies to capture measurable performance characteristics in the context of Statistical Process Control (SPC). SPC in its most simplistic terms is about

what you measure, why you measure it and how its' measured. Such measurements tracked over time present a picture of capability that statisticians and engineers put into attribute and variable control charts. These charts are then used in conjunction with the PLAN-DO-CHECK & ACT (PDCA) cycle as a mechanism for improving quality through continued process improvement (Gitlow, Gitlow, Oppenheim, Oppenheim, 1989).

It is the premise of quality professionals in general that management must demonstrate its commitment to quality by working "on" the system to reduce undesired common cause variation. Workers are responsible for communicating to management the information they have about processes and the system so that management can make the appropriate decisions and take action accordingly. It is in this context that a "quality environment" is established and fostered. An environment that creates higher quality, reduced cost, and greater profitability for the enterprise (Gitlow et al., 1989).

From this knowledge base, I reduced my data gathering and inquiry about the Theory of Variation to the following questions. The data gathering process focused on what was measured in the organization, why was it measured, how was it measured and how was it analyzed? This first-cut analysis of the data and ultimately answering the research questions in Chapter V for this dimension came from these straight forward questions.

Theory of Variation Document Review

After reviewing TQM training documents, quality directives, annual reports and TSR's company literature in general, I could find little indication that the organization was even aware of the Theory of Variation, in concept or practice. The quality consultants and trainers had little exposure to or formal training in this area. As a result, their training of quality teams lacked reference to the benefits of measurement, data tracking and analysis, much less any remnants of Statistical Process Control (SPC) tools and methodologies. In interviews with several of the campaign managers, I asked what

data they measured and tracked? They did cite some data that tracked operational performance in terms of calls per hour, rejection rates, conversion opportunities and other similar metrics. However, outside of a cursory review of short term trends or obvious anomalies, the data were not analyzed to identify process and system capability in a context of continuous improvement or to make future predictions.

The metrics used to track performance and progress were almost exclusively financial as reflected in AMR's Annual Reports and other TSR internal records. These measurements reflected a prevailing "bottom line" mentality that measured performance and capability almost exclusively in terms of net earning and return on investment. These performance parameters were in turn compared to alternative uses of capital in making business and strategic decisions. This observation in no way minimizes or questions the necessity of those parameters in determining business viability and strategy. However, those parameters alone limited TSR in determining their present capabilities and future potential. The result of this emphasis was that performance was almost exclusively based on bottom line financial results. It did not include tracking performance capability. Systemic capability that would portray and track process improvement.

Based on a corporate culture where the emphasis was almost exclusively on short term financial results, it was no wonder that interview data and other observations revealed little knowledge about or application of the Theory of Variation as related to their daily operating procedures. While such bias is probably more the norm than the exception in most companies and institutions, especially service based organizations, it is an area in which potential quality gains could be rapidly accelerated. The reality of this potential is addressed in Chapter V, Conclusions and Recommendations.

Theory of Variation Interview Data

Based on the paucity of information about knowledge relating to the Theory of Variation and its application, I anticipated some degree of wonderment in the interview process as to what I was asking for, and where I was going in my line of questioning. In

Strategic Level Theory of Variation Data.

Table 5.

Final Claims and Concerns for the Theory of Variation at the Strategic Level

Claims	Concerns
1. Some data are used and plotted, but doesn't paint full picture Quarterly quality reviews use this data, but more data and expert interpretation are needed	1. Measurements or statistics are not used to guide and/or forecast
2. What little data we have gives us a starting point, a history	2. Doesn't measure for long term capability
	3. We don't measure over the long term, little trend data
	4. We don't use reliable data/information to forecast with
	5. Contract specifications are not set up into measurable parameters

some interviews, I prefaced this question with a brief tutorial on how control charts might be used to track performance by identifying common and special cause variation in a specifically defined context to see what kind of reaction I would get. While most understood the underlying principles, they had no practical experience with that type of application and analysis. What came out in the interview process was that most

managers and workers conceptually understood the Theory of Variation and its merits, but there was no emphasis or backing to apply it. These general observations were further reflected in and substantiated by the following interview data. The Theory of Variation dimension claims and concerns at the strategic, tactical and operational levels are presented respectively in Tables 5, 6 and 7.

Strategic Level Theory of Variation Claims.

1. "Some data is used and plotted, but doesn't paint a full picture."

This comment identifies the fact that some data were collected and data bases were formulated. However, very little, if anything, was done to analyze the data and utilize it for continuous improvement efforts. This comment in one form or another was a consistent reality on all levels throughout TSR.

2. At quarterly campaign reviews, or more frequently with new campaign or campaigns that are perceived to be trouble, all available information was brought to analyze the current state of affairs. However, the information was not presented in a format in which trends and anomalies could be identified in a process context. The norm was single data point analysis. Once again, the tools and methodologies for SPC were non-existent in TSR's quality program. Occasionally, managers would be asked to track an isolated variable such as worker attendance, but that request and task had little to do with the Theory of Variation and continuous process improvement.

3. "What little data we have gives us a starting point, a history." This comment along with the previous two did try to acknowledge in a positive sense that while TSR's efforts in this area are minimal, those efforts are better than nothing at all. I give them credit for the fact that it was a starting point. However, the value of this realization should be tempered by their relative lack of awareness and sophistication in this area. It did give them some reference points, but the potential of such information (data) is sub-optimized because there was no framework to analyze cause and effect relationships or any number of statistical inferences with which to improve and forecast. It is

management's responsibility to work "on" the system by reducing undesired variation (Deming, 1995). They just simply couldn't get there with their present data and analysis capacity.

Strategic Level Theory of Variation Concerns.

1. This comment was a flat out statement of what had become obvious in reviewing TSR's quality program - "measurement or statistical analyses are not used to guide and/or forecast." This acknowledgment at the strategic level was at least a starting point in attempting to know what they didn't know. However, due to corporate priorities such reflection and analysis were not priorities in this results oriented and action biased environment.

2. "Don't measure for long term capability" again reflected the inability or inclination for systemic analysis and prediction based on statistically defined capabilities.

3. Again, the fact that "we don't measure for the long term, little trend analysis" reflected the perceived assumption that their situation, and even the industry as a whole, was so dynamic that there was marginal, or no, value in statistically determining process capability. Unless, those parameters could be translated to dollars. Unfortunately, by the time any such parameters could be translated to monetary terms it would be too late for preventive measures. TSR needed to move upstream in their process analysis, not downstream in the after the fact region of their defined activities.

4. The fact that TSR didn't use historical capability to forecast which further suggests that they didn't see the relevance of making projections based on defined capability and capacity. The "squeeze and pray" theory seemed to suffice as a forecasting approach.

5. The fact that "contract specifications are not set up into measurable parameters" was a relevant and significant data comment. For the most part, TSR viewed such parameters as being qualitative in nature, and thus they were difficult, if to impossible, to measure in quantifiable terms. The consequences of this assumption were

that contract specifications lacked measurable performance parameters. In most cases, contract performance was reduced to qualitative judgment and opinion. If things went off-track or were cross wired in a contract, which frequently occurred, it was difficult to find a common reference point, let alone do root cause analysis on the problem. The bottom line is that TSR didn't create a definitive frame of reference from which to measure performance. The result was that when things went bad everybody "scrambled" to please the customer. While this may have been a necessary action, it was reactive and quite often resulted in too much rework. The Theory of Variation is designed to avoid this condition through determining capability with the customer and making realistic predictions accordingly.

Tactical Level Theory of Variation Data.

Table 6.

Final Claims and Concerns for the Theory of Variation at the Tactical Level

Claims	Concerns
1. There are some performance measurements in place (need more)	1. No postmortem on campaigns to capture information and reflect
2. QIT projects are doing some but of this need more training in SPC related tools	2. MBO more a hindrance than a help because most criteria is not measurable
	3. Everything depends on dollars, this is a financially driven company

Tactical Level Theory of Variation Claims.

1. There was consensus at this level that there were “some performance measurements” in place, but more were needed. However, as a group, they didn’t come to consensus or articulate what measurements outside of financial goals might be tracked over time to determine system capability.
2. Since most of this group had first hand experience with a Quality Improvement Team (QIT) project, they could site examples, or attempts, to quantify and statistically measure performance. However, they noted that they didn’t have the training in Statistical Process Control (SPC) tools and methodologies to pursue their efforts with any degree of confidence. Deming recommended to companies that they have a Ph. D. statistician on staff to help set up, analyze and interpret statistical data. TSR did not have any such resource. It appeared that they “didn’t even know what they didn’t know.” It appeared that this apparent case of ignorance gave a false impression of bliss.

Tactical Theory of Variation Concerns.

1. The fact that there was little, if any, systemic and periodic reflection on campaigns appeared to be a concern. In fact, they had light meaningful data upon which to reflect. Most critiques were more subjective in nature since they lacked the data to track performance or the continuous improvement of processes and the system overall from an individual campaign perspective.
2. Middle managers generally didn’t have much good to say about Management by Objective (MBO). Mostly due to the fact that it lacked measurable criteria in creating a common frame of reference. It was used more as a “report card” than as a way to improve performance or quality. It was set up to be almost exclusively outcome oriented. Again, process performance and capability were not tracked.
3. The bottom line was that performance was almost exclusively tracked with financial metrics. If the parent company could get a higher return on asset (ROA) yield on some other employment of capital, TSR would have been history. Therefore, their

attention was more on short term results than on long term capability. This was a fact of life at TSR.

Operational Level Theory of Variation Data.

Table 7.

Final Claims and Concerns for the Theory of Variation at the Operational Level

Claims	Concerns
1. Some measurements are in place	1. Measurements are used
2. While there are some measurements taken, we're not sure how realistic they are	to react on a short term basis, not used to improve
	2. Evaluations need to reflect more quantitative data for consistency and reliability
	3. "We don't think outside the box" in terms of customer and industry standards
	4. Contract specifications should reflect quantitative data that can be tracked by all stakeholders, "read off the same sheet of music"
	5. We don't have much to check progress against

Operational Level Theory of Variation Claims.

1. "Some measurements are in place" represented a weak endorsement of actions taken to establish meaningful metrics and performance measurement.

2. The next consensus claim also acknowledges that "some" measurements were taken. However, these efforts did not generate confidence in how they were used. The question became, were they realistic in tracking performance that in turn would equate to quality and ultimately customer service? There was not a sense that this was a realistic expectation.

Operational Level Theory of Variation Concerns.

1. On the concerns side of this issue, agents and supervisors had a great deal of concern about measurements of any kind because of the mostly punitive way they were used. In addition, as a group their awareness of the Theory of Variation was almost non-existent. Specifically, they saw the measurements in place as being reactive and after the fact at best. Parameters like call rates and conversion sales statistics were used as quotas to gauge efficiency and effectiveness. The emphasis was more on effectiveness and efficiency than on serving the immediate customers and improving long term quality service.

2. Operators wanted their evaluations to be more quantitative. This would balance a qualitative assessment of an operator's performance and add to the reliability factor and consistency of these reports over time. Evaluation report preparation would be less subjective to the last minute whims and afterthoughts of hastily prepared documents. They wanted a review based more on fact than on speculation and recall.

3. The data comment referring to "thinking out of the box" was a consensus concern about being creative in terms of industry benchmarking analysis and generally satisfying the customer. The hourly wage and quota mentalities did not foster an environment of innovation and creativity.

4. This population segment generally felt that more quantitative parameters could and should be part of the contract specification. This would set more realistic boundaries that could be statistically tracked over time to demonstrate performance capability and hopefully improve individual processes and the system overall. They further recommended that these parameters be made available and tracked by all stakeholders. In their terms, “get everyone reading off the same sheet of music.”

5. The final concern at this level generally reflected a frustration about ways to check progress. They really wanted to measure performance, quality and service that went beyond their transactional hourly work for pay contracts. They wanted better ways to reflect their contributions, instill more pride in their work and ultimately support TSR and their own human dignity.

Theory of Variation Observations

The physical and observations evidence supporting the presence and use of the Theory of Variation were for the most part nonexistent. I specifically asked to see any type of data that might reflect the quantitative tracking and analysis of process and systems capability. Since the awareness and resident expertise for the merits of the Theory of Variation and SPC did not seem to exist at TSR, searching for physical manifestations of its presence proved futile.

Description of the Theory of Knowledge Dimension

Deming (1993) views on the Theory of Knowledge had two overarching themes. The first involved the premise that the pursuit of knowledge starts with having a theory. The theory used in this case study was the System of Profound Knowledge. Based on such theory predictions are extended, outcomes are observed and modifications are made. The acquisition of knowledge in this context follows Deming’s PLAN-DO-CHECK-ACT Continuous Improvement Cycle, also known as the Scientific Method (Bassard, 1989) of learning through prediction and validation. While it can be applied with varying degrees

rigor, this theme was used to analyze the foundational constructs on which TSR trained, educated, and generally built knowledge into their system.

The second theme in this dimension correlated with Points 6 and 13 of Deming's Fourteen Points for Management that respectively called for instituting training on the job and establishing a vigorous program of education and self-improvement that goes beyond job skills training referenced in the first of these two points (Deming, 1993). He was referring to the organizational value of making a long term investment in education thus providing the opportunity people to contribute at a meaningful level (Deming, 1993). The ramifications of such a valuation, or lack of, will additionally be analyzed in findings from the next dimension, Psychology.

The final theme to review in analyzing this data were what Peter Senge (1990) described and Deming (1993) endorsed as the concept of building a "learning organization." An organization that values the capacity to learning-to-learn as individuals and as a collective system overall. Senge in 1990 wrote that the quality movement was in fact the first wave in building learning organizations, organizations that continually expanded their ability to shape their future. In summary, these three themes represent the educational value strands I looked for in the data. The following data analysis indicates their presents, degree of emphasis, or lack there of.

Theory of Knowledge Document Review

The primary documents reviewed for this dimension were produced by The Sabre Group, a division of AMR. The series was titled "Investment in Quality." This series included an orientation guide, an instructors' manual and a participant hand book outlining and describing a two day course. This two-day course was delivered to members of TSR's chartered Quality Improvement Teams (QIT). This course and the ongoing facilitation of team meetings by the assigned quality trainers/consultants represented formal quality training in its entirety. Some organization members and the consultants had received more extensive education and training in TQM from outside

sources, but the “critical mass” of those trained and experienced was minimal. In summary, TSR’s investment in training time was marginal and provided cause to question the organization’s commitment to quality overall.

In reviewing the training materials, I summarized the content in an outline titled Data Analysis/Document Review. This review grounded me in the content and objectives of TSR’s training workshops. The objectives of this two-day workshop were to: (1) learn a common language, (2) gain an understanding of quality concepts, tools and techniques (Sabre Group, 1994). A third objective was later described as teaching a common methodology for analyzing problems and solving problems. This was the first indication that TSR’s quality agenda and efforts were more specific issue oriented in terms of problem solving than building a long term continuous improvement process capability. The identification of team project charters further supported this observation in that they were primarily oriented to solve specific problems and would be dismantled once that issue had been addressed or resolved.

A review of the training content presented a variety of quality subjects. It mixed a little quality philosophy with a predominance of process identification and problem solving techniques. The course and materials provided only a minimal theoretical TQM foundation leading to the enculturation of the organization. However, it did provide some basic techniques and skills that could be used by the teams in carrying out their charters and perpetuating a quality dialogue. The training was more outcome than process oriented, thus perpetuating the bottom line mind set of the corporation.

Despite the training package’s obvious focus, it did make the following points in applying TQM to TSR’s situation and environment. First, it identified the fact that this approach was not exclusive to the manufacturing of products, but had equal relevance to service based industries as well. Since TSR was a service-based company, this was an important distinction. Secondly, it emphasized that “quality is not a destination or a point, rather, it is a continuous process of improving the things we do for our internal and

external customers” (Sabre Group, 1994, p.5). This acknowledgment of internal customers and suppliers reflected the valuing of employees, a notion critical to Deming’s quality paradigm, the System of Profound Knowledge. TSR’s bottom line was that the company produce services that fully satisfy their customers, or those customers will go elsewhere to have their requirements met. Hopefully, this was understood to include internal customers as part of building a quality culture.

Theory of Knowledge Interview Data

From a review of the Theory of Knowledge dimension and the document review of relevant materials to this dimension, the presentation and analysis of the Strategic, Tactical and Operational Levels prioritized claims and concerns from each stakeholder group follows Tables 8, 9 and 10.

Strategic Level Theory of Knowledge Data

Table 8.

Final Claims and Concerns for the Theory of Knowledge at the Strategic Level

Claims	Concerns
1. Training department is working hard to meet agent needs, but hasn’t got the formula or resources yet	1. Hiring policies need serious review, training can’t perform miracles 2. Bring lead agents into the hiring process 3. Agents need stable mentoring process to augment training

Strategic Level Theory of Knowledge Claims.

1. The one claim the strategic level came to consensus about was “that the training department is working hard to meet agents needs, but hasn’t got the formula or resources yet.” From a strategic perspective, they saw the Training Department as a resource to TSR overall. However, they had limited resources in covering the multiple training and education needs of the organization. Training was primarily focused on getting agents up to speed on the job and increasing their production capacity. While the TQM training covered a broader spectrum of TSR’s employee population, to include staff and management on the quality teams, they still saw training through an industrial paradigm of becoming more effective and efficient at whatever the focus was. There was no talk of building a learning organization vis-à-vis Deming (1993) and Senge (1990).

Strategic Level Theory of Knowledge Concerns.

1. The statement that the “hiring policies need serious review, training can’t perform miracles” is analogous to that old adage “you can’t make a silk purse from a sow’s ear.” This comment reflected training’s challenge in taking new hires that didn’t have a clue about what was expected of them at TSR, to making them on-line agents in less than one week. This was a near impossible task, but they were doing it. The systemic ramifications were that training’s sparse resources were being spread thin to say the least. Specifically, the TQM training was being conducted by one person.

2. “Bring agents into the hiring process” was more a concern about the quality of newly hired agents than training or knowledge building. However, the suggestion was to have agents as active members of the hiring process so they could tell perspective candidates what the job required. This would give them better information about their decision to come aboard and make that decision before training costs were incurred.

3. While this level endorsed mentoring be their comment that “agents need a stable mentoring process to augment training”, there was no level of specificity as to what

a mentor might do. Deming (1982) was hesitant about endorsing workers training workers. He saw it as a high risk proposition in

Tactical Level Theory of Knowledge Data.

Table 9.

Claims and Concerns for the Theory of Knowledge at the Tactical Level

Claims	Concerns
1. We get some good training, but it's not optimized or utilized to the extent it could be	1. Need more real time review of performance and train accordingly 2. Need to use training as a way to standardize operations 3. We don't allow for mistakes as a necessary part of the learning experience

that it was likely that such a relationships would only induce more undesired variation into the system. If mentor relationships were considered, they needed to be specific about the responsibilities and not simply use it to shore up already taxed training resources.

Tactical Level Theory of Knowledge Claims.

1. Similar to the strategic level, the fact that there was only one consensus claim presented in this dimension, reflected a lack of experience with and exposure to TSR's training program overall. "We get some good training but its not optimized or utilized to the extent it could be" for the most part reflected their experience with outside vendors

providing content specific and professional growth training. While the training was value-added, it was not systemically integrated into organizational strategies or objectives. This could be traced back to the lack of strategic focus identified in the systems dimension.

Tactical Level Theory of Knowledge Concerns.

1. Their concern with the “need for more real time review of performance and training accordingly” related to the systemic tie between actual performance and training needs. The “real time” referred to the lack of an on-going needs assessment in a fast moving and ever changing industrial environment.

2. The concern that TSR “needs to use training as a way to standardize operations” was one of only a few comments that could be thought of as directly related to the knowledge dimension. However, my strong sense was that it would directly complement the Theory of Variation in terms of continuous improvement. It was meant more along the lines of literally establishing a base-line for doing business. Again, this was seen as another training task rather than establishing an internal capacity to analyze process and systems variation.

3. The concern that “we don’t allow for mistakes as a necessary part of the learning experience” had many ramifications for the Knowledge dimension. The two that were discussed follow. First, the fact that everything seems to be a crisis does not allow or build in time to reflect on whatever is happening. Without such a review, TSR in general tended to view new campaigns as unique experiences. Thus, they continuously “reinvented the wheel” by not banking the experience of their mistakes. Secondly, this was a root problem for any notion about building a learning organizations. Their action biased culture left them in a very reactive posture. Yes, they prided themselves with the ability to “rise to any occasion”, however, if crisis is the only time the organization can rally its capability, then it waits for crises to arise. The fallout to training and education is that it also became more reactive than proactive in its training objectives. Once again,

this was not an optimal orientation in which to establish a learning organization. There were individuals who spoke in learning to learn terms, but such a capacity was not an organization norm or value.

On balance, I saw this consensus comment to be a very significant “red flag” in the overall analysis of this dimensions. If TSR had any hopes of moving more toward the system education that both Deming (1993) and Senge (1990) described, their foundation was weak. Some ideas of how this situation might be turned around will be addressed in Chapter V.

Operational Level Theory of Knowledge Data.

Table 10.

Claims and Concerns for the Theory of Knowledge at the Operational Level

Claims	Concerns
1. We are known as the industry leaders, but the competition is closing fast	1. Training needs to be more “needs based,” what skills and support do agents really need?
2. Initial training is good, but needs to be more oriented to sales	2. We don’t learn from our experience, we’re too busy, reflection needs to be valued
	3. Need more “being on the phone” sales training
	4. Ongoing professional development is not there

Operational Level Theory of Knowledge Claims.

1. The comment that “we are known as industry leaders, but the competition is closing fast” acknowledged that their competitive position, in part, had to deal with the fact that they think they were a “learning organization.” However, they also realized that the gap on this competitive edge was closing rapidly. From their perspective, more training in the first line ranks was imperative. Like many of the claims in other dimensions, this one also had a double edge in that they acknowledged what little training they get allows them to compete and grow, but it is not enough. The inference was that there must be more of an investment made in upgrading agent skills and capabilities overall.

2. Again, in this comment agents were in consensus that the training provided was good. However, they identified need for training to be “more oriented to sales.” This pointed out the need for a proper mix of content in terms of product knowledge and selling acumen. While many aspects of phone management are important, the fact is that performance translates to sales and sales alone. Some agents weren’t even aware that the job was sales until after they were on the job. They believed now in retrospect, that a sales orientation and training ought to be an up front priority in preparing agents for the job.

Operational Level Theory of Knowledge Concerns.

1. This first concern reflected that the training needed to be more “needs based.” Because training time and dollars were such rare and valued commodities, those sparse resources needed to be better targeted on what the agents thought and knew were the necessary skill sets. While training tried to continually assess this, the dynamics of the sales environment made this a rapidly moving target at best. Based on that reality, from an agent’s perspective training always lagged. This was particularly true in terms of product update or other market specific information.

2. The comment that “we don’t learn from our experience, we’re too busy, reflection needs to be valued” had many connotations and ramifications from a Theory of Knowledge perspective. While many of these will be addressed in the final analysis, this further confirms TSR’s reactive and action biased environment. The agents recognized the need for and value of “reflection.” However, it just wasn’t a cultural norm at TSR.

3. This statement acknowledged that agents in general needed more on line aids and strategies in dealing with the specific product they were selling. Again, they were asking for more practical training in dealing with the dynamic complexities of telemarketing and sales. They wanted this complexity reduced so they wouldn’t get overwhelmed in getting to the bottom line, will the customer buy that product?

4. The last comment this group came to consensus on was “that ongoing professional development is not there.” In terms of upward mobility, agents didn’t see any training or education for assuming greater responsibility and moving up. In other word, TSR did not seem to value knowledge expansion in terms of professional development.

Theory of Knowledge Observations

The data comments overall for this dimension were skewed to the concerns side of the force-field analysis. While the training that was provided was good, it lacked specificity and there was all too little of it. When comparing these inputs against Deming’s thoughts about theory-based education, TSR’s program fell short to say the least. This seemed to hold true for product specific training as well as professional training overall, including the TQM training program.

I observed that the Training Director fought hard for a budget necessary to better meet the needs of the organization, but was given less than a third of what was requested. This reflected a serious investment shortfall. Budgets and funded training projects needed to show an almost immediate return on investment to even be considered. While

the Training Department made valiant efforts in documenting needs and quantifying investment, their requests fell on deaf ears.

The Quality Improvement Team (QIT) training meetings I attended dealt with a formal agenda of TQM subjects designed to augment the team's efforts. Due to the length of formal training each team had, two days, I questioned the relevance of the topics they choose to discuss at their sessions. While such topics may have added some value, in my estimation, most topics were pretty far removed from the education needed to embed TQM into the culture at TSR. With regard to TQM training, education and knowledge, my observations were that TSR was for the most part simply going through motions. It was like they were in waiting for the next "good idea" to come along. In fact, they contracted for the Steven Covey Principle Centered Leadership training and hired a consultant to do a re-engineering prototype project. The quality focus and emphasis had seen its day.

Description of the Psychology Dimension

The research question related to this dimension was: What are the claims, concerns and issues relative to the Psychology dimension? In other words, what does the human dynamic look like in this organization, specifically addressing leadership and followership? The following provides a review of the major characteristics in presenting and analyzing the data associated with the dimension.

Deming (1993) acknowledged that this dimension in the context of building and creating an organizational culture brings the System of Profound Knowledge together. In its most simplistic terms, he described this dimension as, "Psychology helps us to understand people, interaction between people and circumstances, interaction between customer and supplier, interaction between teacher and pupil, interaction between a manager and his people and any system of management ." (p. 110) These dynamics are literally the "glue" that bring a system together. While it has many ramifications for

workers and managers alike, at its core it is about releasing human potential (Tribus, 1983).

Deming (1993) in the context of this dimension speaks specifically about dignity, self-esteem, confidence, intrinsic motivation, self-discipline, and about self-efficacy. He was a champion of human dignity and saw it as the systemic cornerstone in building an organization that reflects its espoused values. An organization that “empowers” people to do the work they are capable of doing (Synder, Dowd, & Houghton, 1994).

Empowerment then requires leaders to refuse to accept the motive that they alone can make decisions, judge, think and act. Deming’s System of Profound Knowledge builds a systemic framework through which an organization can tap into the collective potential resident in all its members, including immediate and extended customers and suppliers.

Creating such a culture is where leadership becomes the critical component in understanding that the “job of a leader is to accomplish transformation of that organization” (Deming, 1993, p. 119). This transformation correlates closely with what Rost (1993) described as collaboratively moving from an industrial to a post-industrial set of values, thus creating a culture shift. Intrinsic to this value shift are Deming’s (1993) 14 Points to Managers (1982) in which he advocates improving the human condition by adopting a new philosophy, instituting leadership, driving out fear, removing barriers that rob people of their pride of workmanship, and put everyone to work. I looked for and asked about such aspects as they related to this dimension.

Psychology of Document Review

In reviewing TSR’s documents and making connections between this dimension and TSR’s espoused values begins with the description of their TQM Tools and Techniques Workshop. In it they talk about striking a balance between customer satisfaction, employee satisfaction and financial performance. The question in terms of this dimension becomes what does employee satisfaction look like and how does it relate to Deming’s Psychology dimension?

The course goes on to describe employee satisfaction as: "People wanting to enjoy coming to work every day and know that they play a vital role in our business." (The Sabre Group, 1994 p.8). The text goes on to describe they wanted a culture that builds on a foundation of quality that promotes fun and teamwork. While the formation of the Quality Improvement Teams (QIT) was a move in that direction, the question for me became what were the long term cultural ramifications of these initiatives in promoting "employee satisfaction"?

The answer to this question in part was reflected in a 1995 Employee Satisfaction Survey (Service Strategic International, 1995) in which only 35% of TSR employees reported being satisfied with working at TSR. Based on a regression analysis nine vital areas for improvement were addressed and reflected the percentages as endorsing/favorable input for each:

(1) TSR being an effectively managed, well-run company (27%), (2) TSR being concerned with employee well-being (22%), (3) employee participation in decision making (26%), (4) people are willing to confront and solve problems (28%), (5) good teamwork between management and work force and among various departments (25%) (6) employees receive recognition for a job well done (38%), (7) job security (35%), (8) compensation/ benefits (14%), (9) advancement opportunities (33%).

While high marks were not were not given in this survey, the area of compensation and benefits at a 14% approval rating stands out a key source of dissatisfaction. This point has been addressed in Theory of Knowledge dimension as skill-based pay program issue, and will be addresses further as result of the interview data.

Overall, the Employee Satisfaction Survey indicates at a minimum, that this analysis was designed to look at peoples reality in the organization relative to the Psychology dimension. What I found in this document review was a gap between their espoused values as related to this dimension, and TSR's values in use with regard to

people. The interview data further validated and described these gaps through qualitative descriptions of their experience.

With regard to this dimension the last point in the analysis was their description of and distinctions between the old and new roles of managers (The Sabre Group, 1994). They described traditional managers as telling, planning and controlling. By contrast, they wanted management roles be more teaching, watching, and facilitating in their more consensus seeking roles. They saw this as necessary cultural attribute in dealing with a rapidly changing environment. I assumed at this point they viewed management and leadership as synonymous since they did not differentiate them in their literature of discourse. This was a strong indicator that they still strongly embraced the industrial paradigm and its values. Although they described several initiatives (i.e., 360 degree performance reviews, budget process improvement, variable compensation plans), they remained entrenched in their old value system when it came to people and relationships.

Psychological Interview Data

The research question related to this dimension was: What are the claims, concerns and issues relative to psychology? In other words, what does the human dynamic look like in this organization, specifically addressing leadership and followership? The analysis following Tables 11, 12 and 13 provides a review of the major characteristics in presenting and analyzing the data associated with the Psychological dimension.

Strategic Level Psychology Claims.

1. About the best thing the strategic level representatives could come to consensus about in this dimension was that they realize that they operate out of and respond to the "fear factor." While relationships are cordial and professional, they are always waiting for the other "shoe to drop." They blame their reactive posture as leaders on the atmosphere created and culture set by the parent corporation. The bottom line is

that they were intimidated and wouldn't take the risks necessary to create their own destiny. This posture had its ramifications throughout the organization. While people were doing their best for the most part, there was a definite leadership void.

Strategic Level Psychology Data.

Table 11.

Prioritized Claims and Concerns for Psychology at the Strategic Level

Claims	Concerns
1. Leadership realizes that a "fear factor" exists, they experience it from above (AMR)	1. Need better evaluation process, both design and implementation 2. While extrinsic incentives are critical, people want to be intrinsically motivated (they want to be part of and contribute to a team.

Strategic Psychology Concerns.

1. They identified that there is a "need for a better evaluation process, both design and implementation." The present system does not provide a continuous dialogue or periodic feedback on how people are doing. There were too many surprises on the annual and semi-annual reviews of evaluations. Performance standards are based on "good numbers", and those metrics don't always translate to individual performance. In short, they don't have good performance standards. In terms recognizing contribution and performance they could make great gains in morale by better correlating performance with desired outcomes.

2. Being recognized by intrinsic, as well as extrinsic, motivators was acknowledged as a critical awareness factor for several reasons. First, good people wanted to be recognized for their efforts. Secondly, “they wanted to be part of and contribute to the team.” In most cases, it would have taken only a simple acknowledgment to provide such recognition.

Tactical Level Psychology Data.

Table 12.

Prioritized Claims and Concerns for Psychology at the Tactical Level

Claims	Concerns
1. People are becoming more self-motivated in terms of finding their own “winning formula”, could lead to self-directed work teams	<p>1. Leadership needs to better understand the realities of their business by getting more involved with day to day operations</p> <p>2. We don’t screen people coming in the door (too much wet the mirror, cast a shadow criteria)</p> <p>3. Turnover and longevity are good indicators that we don’t have the winning formula down</p>

Tactical Level Psychology Claims.

1. The acknowledgment that people are becoming more self-motivated in terms of finding their “winning formula...” is a positive indication that people have the

confidence to take more control over their destiny. The other positive aspect to this proactive posture is TSR's desire to initiate self-directed work teams. People know what to do, but they needed the support and confidence that they'll be backed up no matter what happens.

Tactical Psychology Concerns.

1. The concern that "leadership needs to better understand the realities of this business by getting more involved with the day to day operations" was a courageous and insightful finding. This concern identified a wide gap in management's understanding of business realities in the trenches. How could management reduce "common cause" variation if they had little or no understanding of the system itself? This lack of involvement and isolation mentality was more the rule than the exception.

2. The screening criteria for new agents was a big problem. Their employees were not given a clear idea of what their responsibilities would be. If they were hired without basic skills or motivation, it became the responsibility of active agents and supervisors to accomplish through on the job training. Deming advised against worker training worker because of the probability that bad habits would be further embedded into the system. The solution was better screening and initial training of employees.

3. The concern for turnover and attrition was well founded. With the attrition rate over 50% in some campaigns, a great deal of instability was created in an already dynamic environment. People either bonded together in a sort of self-protection mode or they simply bailed out. Whichever people choose, the environment was characterized by fear more than empowerment.

Operational Psychology Claims.

1. The first claim noted a positive movement on the part of leadership to create a more empowering environment. The fact that people are trying to develop better professional relationships is in itself a motivational factor. "Proper environment" in this case, means that worker contributions need to be both recognized and rewarded.

2. Recognizing that middle management was both the problem and the solution indicated in a constructive sense that they could make the difference. As the “absorbing layer” or conduit through which information must flow, this group was the key to making things happen and influencing an openness to change.

Operational Level Psychology Data.

Table 13.

Claims and Concerns for Psychology at the Operational Level

Claims	Concerns
1. Leadership is taking strides to set conditions and create a proper environment	1. Need more leadership and less management, reassess the layers of management and their value added
2. Middle management is very much of the problem but they are also the solution	2. Compensation is the number one challenge before TSR
3. We have good followers in this organization, but our espoused values are the triad (internal and external customer, finance), but our actual values seem to be finance, finance, finance	3. Need more long term career planning
	4. Still a great deal of FEAR in the organization, whether perceived or real
	5. People feel beaten down
	6. Bosses are not necessarily leaders

3. This claim was an enabler because it recognized that there was a difference between espoused values and operating values. Everyone knows that the dollar ruled in

this environment and that the internal customer was expendable. Their quality triad was a facade when it came to people being a priority, in actuality external customers and financial goals were. The dominant value was the almighty dollar, but at least they knew that.

Operational Psychology Concerns.

1. The number one concern expressed by agents was that the organization needed more leadership and less management. They were over-managed and under-led. They wanted leaders that would make substantive and transforming change. Business as usual was the order of the day in their minds.

2. The concern over compensation had many ramifications at TSR. However, to the employees it was a reflection of the degree to which TSR valued them directly and indirectly. Essentially, as minimum wage workers they did not feel extrinsically valued, which in turn caused low morale and high attrition rates. A Quality Improvement Team (QIT) was actively employed to structure wage and benefit alternatives. The fact that they more than doubled the supervisor to agent ratio under the pretense of stay competitive further suggested that success would be achieved on the backs of TSR employees.

3. The concern for "more long term career planning" reflected the fact that agent who wanted to see themselves on a career path, or at least think long term, didn't see obvious progressions. While the Management Development Program (MDP) was designed to provide an upward mobile pathway, it was always in a state of flux as to whether it was really endorsed by upper management as a viable and legitimate program. Agents in general had very limited access to MDP, even if it was a legitimate program. The bottom line was that it didn't appear to function as advertised and employee questioned whether career planning was an option. As a result, they felt quite expendable in the overall scheme of things at TSR.

4. The almost unanimous perception that there was “still a great deal of fear in the organization, whether perceived or real” it was a very serious reflection on TSR’s environment and the culture overall. As Deming (1993) strongly professed in this dimension, the role of management was the optimization of everyone’s abilities and differences. In an atmosphere of uncertainty and even outright fear of the unknown, TSR was not optimizing that potential. Most people tended to be “me” centered in terms of watching out for themselves first and last. If they did identify with the collective it was more out of a sense of protection than a desire to contribute to the overall goals of the organization, and even the individual campaigns they worked on.

5. The comment that “people feel beaten down” again reflects the perception of a suppressive environment in which people would, and could not, fully vest their energies. While it was intentional, the fact was that TSR spent very little time and energy to address employee hopes and fears. They allowed internal competition to prevail over a spirit and context of cooperation. There was predominately an I, or at best we, versus them mentality. They felt like they weren’t being heard and that nobody really cared.

6. When specifically asked about leadership at TSR, comments like “bosses are not necessarily leaders” was a common perspective. While they didn’t have a definitive idea or collective understanding of what leadership was, or should be, they knew that what they were getting was not it. The culture definitely fostered the idea that management’s job was to plan, delegate and control, and not collaborate with stakeholders in creating the future.

Psychology Dimension Observations.

My observations supported the data in generally thinking that these were good people trapped in a bad system. A system that grossly sub-optimized the collective potential of its human resources. Most people were generally putting forth their best efforts, but they were not empowered to create an environment where trust prevailed over

fear, and cooperation supplanted competition as the resident mind set. People seemed very willing to make that shift if given the opportunity to create such a culture.

Conclusion

This chapter coupled the presentation of collected research data with a first-cut analysis of the findings in evaluating of the practice of TQM at TeleService Resources using Deming's System of Profound Knowledge as an evaluation framework. By way of introduction to that evaluation, this chapter described the criteria that was used to identify the case study subject, the selection process, the contractual arrangements and the selected interviewee population. Following a background description of TSR's operation, progress in the implementation of their TQM program to date was provided as a starting point for the data collection process.

Following this introduction, the prioritized interview data from the strategic, tactical and operational levels for each dimension of the System of Profound Knowledge was presented in Tables 2 thru 13. This interview data were triangulated with document review and observation data to describe TSR's culture in the context of TQM. This qualitative data formed a data-driven information base ultimately used to answer the five research questions in Chapter V, Conclusions and Recommendations.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to evaluate the practice of Total Quality Management (TQM) in an organizational culture using Deming's System of Profound Knowledge as an evaluation framework. This purpose was accomplished at TeleService Resources (TSR) Group, a division of American Airlines Corporation. Deming's System of Profound Knowledge (1993), with its four dimensions as described in Chapter II, was used as a contextual guide and template for evaluating the impact that TQM had on changing and shaping the culture of TSR. These four dimensions of the System of Profound Knowledge were combined with Guba and Lincoln's (1989) Fourth Generation Evaluation Methodology, described in Chapter III, to establish the data collection and analysis process. This process of naturalistic inquiry led to a consensus among each of three designated groups of stakeholders who identified and agreed upon "claims" and "concerns" as presented in Chapter IV, Tables 2 through 13. The following conclusions and recommendations were drawn from a synthesis and analysis of the three data sources presented in Chapter IV. Following the conclusions and recommendations associated with each of the research questions, this chapter concludes with perspectives on The Future and the System of Profound Knowledge, a Critique of the Methodology, the Significance of this Study to Leadership, and finally, Future Research.

Conclusions and Recommendations

Figure 3 is a graphic representation of this research study. It initially depicts

FIGURE 3. Overview of the research process that led to final conclusions and recommendations

the four constructs that conceptually framed this work: TQM, organizational culture, leadership, and change. The next part represents the four lenses of the System of Profound Knowledge through which the culture of TSR was evaluated using the Fourth Generation Evaluation Methodology. Finally, the last part represents conclusions, recommendations, and excerpts from the Executive Summary (Appendix B).

The individual elements of Figure 3. come together in the following discussion. Based on the Chapter IV Findings, derived from the triangulation of document review information, personal observations and interview data, this Chapter V discussion addresses the purpose of the study as the four dimensions of the System of Profound Knowledge came together to portray how TQM influenced the culture at TSR. These conclusions and recommendations are organized around the five research questions presented in Chapter I. In combination, the conclusions and recommendations come together to address the research purpose and objectives of this study.

Appreciation for a System

The research question asked relative to this dimension was, “ To what extent is Systems Theory used to define and optimize the efforts of all human and material resources to accomplish specific objectives and the organization’s mission overall?” The Appreciation for a System Dimension addressed the attributes and values associated with organizational structure at TSR. The following conclusions and recommendations were drawn from the descriptions in Tables 2 through 4 (pp. 90-100) and the other two data sources; document review and personal observation.

Conclusions.

It appeared that TSR’s structure sub-optimized human and material resources in accomplishing specific organizational objectives. They did not clearly define their strategic focus or communicate that focus and associated business objectives with members of the organization. While they were continually struggling for the right organizational format, as evidenced by four major organization restructuring in as many

years, they still hadn't found the optimal fit between structure, desired performance and outcomes. This evolution in structure was due in part to making adjustments based on certain outside pressures and internal realities. However, the root cause for the sub-optimization was primarily due to executive management's lack of strategic vision and focus. A clear vision and focus as to who they wanted to be in the market place would have created a clearer path for the alignment and synergy of organizational resources, both human and material. Instead, their focus was primarily, if not exclusively, on short term financial performance, or what corporate termed "making plan", a corporate euphemism for meeting financial projections and goals.

The data acknowledged that there was a structure in place, however, employees didn't understand the rationale behind it. As a result, they as a group were not particularly committed to making it work in terms of optimizing the allocation of resources across functional lines and boundaries in a systems context. Functional managers were more inclined to create economies and efficiencies based on their own limited perspectives as to what was in the best interest of the corporation. As the document data reflected, TSR's matrix structure was organized around functional groups where hand-offs of information and taskings were less than efficient or effective. As in "form follows function", TSR had not defined or communicated the strategic direction and function of the organization. It was apparent in the data that there was not a common understanding of TSR's strategic focus, or what Deming would describe as the "AIM" of the system. This lack of focus and sense of a common purpose resulted in each entity within the organization defining what they thought should be the strategic direction of TSR. The data reflected the systemic impact these multiple perspectives had on all levels of functioning; from change initiatives, to management's and leadership's approach, to organizational infrastructure, and finally the culture in general. For example, the dialogue that occurred between investment in new technology as a priority, versus providing more training and training resources for personnel.

Although, strategic focus and clarity of direction do not alone guarantee the optimal allocation of an organization's limited resources, they do provide the best starting point. Without such a starting point and direction, pursuing the aim of system becomes a "random walk" type pursuit at best. Defining what business TSR was in and strategically determining where they wanted to be in the future are critical prerequisites in determining the structure and generally deriving the benefits of systemic thinking as Deming advocated in his Appreciation for a System dimension. In trying to be "all things to all customers", TSR was not systematically focused. Their focus was on achieving corporate financial goals and commitments, commonly known as "making plan", and not on what they wanted to become. This situation was analogous to driving a car by viewing the road through the rear view mirror. The fact was, that as long as TSR had this relationship with corporate sponsors based exclusively on financial performance, they would continue to be driven by "bottom line" financial commitments and not by opportunities in the market place. Therefore, that exclusive focus limited the organization's resident potential to act on identified opportunities as they arose. This was exemplified in their analysis, or lack analysis, and creativity in targeting and penetrating new domestic and foreign markets.

As reflected in the data, this lack of strategic focus had a number of systemic ramifications. First, by not defining the target market, they tried to be all things to all people in the field of telemarketing. It stretched the capacity of its infrastructure and frustrated people trying desperately to meet the demands. Second, there was confusion about certain lines of authority and accountability in their matrix structure and arrangements. Last, TQM proponents throughout the organization saw that the balancing of internal and external customer satisfaction with financial performance as depicted in the Quality Triangle was totally skewed to financial performance. This financial performance focus, more than any other characteristic, defined the culture at TSR.

The reality was that the whole reason for TSR's existence was near-term financial performance in satisfying the shareholders. Organizational structure and everything else were primarily, if not exclusively, driven by that reality. Systemic thinking and any form of strategic visioning as to where the company might go in terms of expanding markets was largely degraded by short term reactive and action biased responses to internal corporate financial demands.

The irony was that American Airlines had been very successful in operating under a financially autocratic regime. However the question is, will it continue to thrive under such conditions? In terms of TSR specifically, financial reports revealed that revenue streams and market share were starting to flatten when compared to selected competitors in the industry. Competitive pressures were in fact stimulating alternative thought within TSR, particularly in the executive ranks, but they didn't act on them for the most part. Executive management realized and commented to me in our interviews, and in other conversations, that TSR needed to move away from their "stove pipe" structure and integrate across functional lines to better serve customers, both internal and external. They needed to be more structurally flexible.

Recommendations.

The recommendations related to the Appreciation for a System dimension and supported by the associated data have both structural and cultural ramifications. In light of TSR's major reorganizations over the past few years, a period of relative stability would provide the time to create the conditions necessary to better define internal processes. This period of stability would create the time to go to the next level to reduce undesired variation in selected production processes and the total system.

While TSR's structural matrix interfaces provided necessary economies to scale and leveraging of resources, these interfaces introduced a degree of organizational complexity. A complexity cut across hierarchical boundaries and challenged management to stabilize, replicate and continuously improve individual processes and the

system. A period of stabilization would facilitate better definition of the processes currently in place. Based on a more collective view and comprehensive definition of business practices as they existed, TSR could selectively and systematically target certain practices for major re-engineering efforts.

This recommendation to stabilize does not suggest that the financial priorities imposed be ignored or minimized. Rather, it brings attention to the time delay necessary to use financial data to indicate actual current capability and capacity. Financial metrics and parameters should be used as threshold or base-line objectives instead of performance targets. In a TQM environment, quotas and targets of any kind may limit or mask the true capability of a process or system. The alternative any targeted objectives would be continuous process and product improvement. While I observed pockets of such proactive and progressive thinking, the organization maintained a very reactive and conservative posture along these lines. TQM helped create the awareness of such an alternative approach. However, the question remains to be asked, what would trigger or act as a catalyst for change? In other words, how much random change, not systemic, would have to be experienced before TQM principles, such as continuous improvement and structural alignment of the system around the defined work processes, would take hold in the organization?

I would recommend that the need for stability be balanced against the need for rapid adaptation to emerging demands by visibly trading-off a bias for action with the long term benefits derived from reconfirming objectives, and by stabilizing and reducing the sources of undesired variation. The perceived need for micro-management and the resulting rework at TSR from time to time may not have been from a lack of honest intention, but rather, from a lack of clarity and prioritization of objectives stemming from trying to be "all things to all people and customers."

During this recommended hiatus on structural change and period of relative stability, certain cultural realities could be addressed. I would recommend that executive

management, along with some representation of functional and cross-functional expertise, go on a retreat and envision the future of TSR. This process would draw selected stakeholders, such as those interviewed in this research, into a strategic conversation and collaborative dialogue about the future of TSR, thus taking advantage of their experience and expertise as the process evolves. Conversations that reflect Deming's (1993) call for cooperation and the transformation to a new style of leadership that is more inclusive and collaborative in optimizing the human and material potential of the organization. These conversations, dialogue and involvement would be among a "critical mass" of people. They would be constantly scanning the environment for opportunities while continuously integrating their collective experience and intuition in not only planning for TSR's future, but creating it. In this scenario, it is strategic leadership's primary responsibility to address future uncertainties and translate them into organizational opportunity.

In conclusion, a period of relative stability would create the conditions necessary to address the systemic structural and cultural issues before TSR. A strategic planning process and envisioning of the future would provide the framework, or macro picture, for the comprehensive analysis and the integration of multiple factors that could potentially impact the organization. In addition to providing a bridge to TSR's defined future state, this process would be used to integrate the data from all four of the dimensions of the System of Profound Knowledge used in this research.

Theory of Variation

The research question involving this dimension asked, "To what extent is the Theory of Variation overall and specifically Statistical Process Control (SPC) and associated methods used to define process capability, remove undesired variation and ultimately make processes and the overall system "stable and predictable"? As described in Chapter II and referenced throughout this study, The Theory of Variation is the foundation dimension to the System of Profound Knowledge and for TQM overall.

Deming intended that managers and workers alike understand, at least conceptually, the statistical theories that underlie Deming's philosophy. "The important part of the System of Profound Knowledge is an understanding of variation, common causes, special causes, and the losses that result from treating common causes and special causes inappropriately: (Haequebord, 1993, p. 7). Tables 5 through 7 (pp.108-112) reflect the consensus of thought on the three levels with respect to this dimension.

Conclusions.

The data overwhelming reflected a serious lack of knowledge, or even exposure, to the Theory of Variation in concept or practice. Training in Statistical Process Control (SPC) and the associated tools and methods was for all intent and purposes non-existent. While there was some information and data bases established, little was done with them to determine the capability of a process, much less used to predict performance. This was in part a statement of and reflection on TSR's reactive posture.

Once again, the only meaningful measurement and metric at TSR was the bottom line dollar, earnings and return on capital investment. This deterministic orientation denied the probabilistic nature of the business environment at TSR. Therefore, an analysis using trends, patterns, samplings or probability distributions was avoided in identifying process capability, making projections or implanting continuous improvement techniques using the Scientific Method of PLAN-DO-CHECK & ACT. The bottom line was that TSR was a data "wasteland" based on the fact that meaningful data were available, but TSR didn't have the resident capability or inclination to take advantage of it. The resultant of this reality was that they had become single data point managers that tended to react only to special cause variation. Management didn't work on reducing common cause variation to continuously improve process capabilities at TSR as called for in TQM. They were too caught up in reacting to special cause situations. In a TQM environment, dealing with special cause variation is the worker's job.

Recommendations.

The recommendation is that TSR should become more aware of the benefits associated with the Theory of Variation, SPC, and the associated tools and methods associated with this dimension. In determining the capability of organizational processes and the system, the benefits of this dimension are that it provides the tools and methods used to derive quantitative metrics to make data driven decisions, to address cause and effect relationships, and to focus on continuous process improvement. This dimension represents some fertile territory for TSR in terms of sustainable competitive advantages. The tools and methods represented in this dimension could provide quantitative metrics for real time analysis and continuous improvement efforts. They would also allow workers and management to make data driven decisions in reducing undesired common cause and special cause variations.

In addition, this dimension would provide a framework to systematically address cause and effect relationships in dealing with the root-cause analysis of situations by comparing the predicted capability of a process to its actual performance. Ultimately, this dimension would provide the tools to help management and workers focus on continuous process improvement capability by reducing or eliminating undesired variation of any kind. In a culture heavily vested in TQM, management's job would be continuous improvement. At TSR, managers appeared to be predominately reactive trouble shooters and after-the-fact crisis interveners.

Consistent with the findings of this study and the probabilistic nature of TSR's business, I recommend initially identifying metrics that would first measure process capability, and second, establish a model for the way work is done by better defining processes and the system. Once these processes are in place, SPC methods could be used to begin the cycle of continuous process improvement. A cycle that would fundamentally change the way work is accomplished and reviewed at TSR. This in turn would have a significant impact on the culture in terms of who is accountable and responsible for what

in their daily actions and long range responsibilities. Such an orientation would yield significant results and have a major impact on the culture in providing a more appropriate balance between the quantitative and qualitative analysis of TSR's capability and potential.

Theory of Knowledge

The research question asked in this dimension was, "To what extent does the organization use grounded theory, experience, training and education to create a 'learning organization'?" As described in Chapter II, the Theory of Knowledge promotes theory-based learning as a competitive strategy for optimizing resources and creating the future of an organization. The current situation at TSR relative to this dimension is reflected in Tables 8 through 10 (pp. 118-122) presented in Chapter IV. These findings are additionally supported by document analysis and observations.

Conclusions.

In the context of this dimension, the data reflected that TSR had not optimized its' individual and organizational learning capacity. In terms of organizational learning, TSR did not routinely capture its lessons learned through reflection and review of their campaigns. Mistakes and perturbations were generally not reviewed as learning experiences in an open and reflective environment. This orientation helped to perpetuate the reactive and "fear-based" characteristics of TSR's culture, a culture that didn't actively promote and encourage learning as a participative and collective phenomenon.

Recommendations.

The four recommendations for the Theory of Knowledge dimension address: (1) an increased investment in individual training, (2) instituting organizational learning initiatives, (3) activating the creative energies that reside within the organization, and (4) establishing an audit and continuous review of their values and assumptions around doing business. On the individual level, training should be tailored to employee needs analysis and delivered in a "just in time" scenario. This training and delivery would accelerate

professional self-esteem by identifying and supporting individual needs. A training and education continuum should start with skills-based preparations to ensure immediate on the job success and evolve into a long term professional development plan. The Management Development Program (MDP) was supposed to provide this type of upward mobility guidance. However, that program was suffering from lack of emphasis and direction. The result was a loss of confidence in management's espoused value of endorsing career development opportunities and providing the commensurate training and education. This program needed to be rejuvenated or replaced by something that would make upward mobility possible, career advancement a reality and making internal development an operating value once again within TSR.

In terms of organizational learning, TSR should foster an environment in which meaningful work related experiences are captured and reflected upon. An atmosphere should be fostered where people talk about being part of something larger than themselves, of being connected and of being generative. In Senge's (1990) terms, a learning organization is one that continually expands its capacity to create its own future. In contrast, TSR's reactive nature and reluctance to reflect on and learn from experiences of the past, perpetuated a survival mentality or adaptive learning posture at best.

By developing a capacity to capture their own lessons learned and steepening their learning curve, they could use these learning's as mental models to take complex situations and break them down into simple generalizations that could be shared across the organization. They could stop treating all situations as if they were first time events. In addition to steepening the learning curve, revisiting learned lessons would help counter the "not invented here" syndrome that appeared to focus more on the differences than on the similarities involved in like events. Having an orientation that focused mostly on differences put TSR in a situation where they seemed to be continuously "reinventing the wheel" in their well meaning efforts to enhance their capacity to create the future of the organization. The bottom line is that they should to open up channels of communication

across functional boundaries and foster linkages that would continuously press the boundaries in building a learning organization. An organization in which the primary goal is to teach people to learn how to learn together, collective learning. This would in fact run counter to the entrepreneurial mind sets and hero based culture that characterized TSR's past. They need to move away from that individualist approach and foster a culture where learning based teams could have an impact and make the autonomous changes necessary to keep TSR moving forward in out distancing their competition.

This learning orientation coupled with an increased investment in training would build the organization's capacity for learning to learn faster than their competition. To this end, I recommend an in-depth audit of TSR's values and assumptions around training and education as it relates to doing business. This review would fully recognize the ramifications of the financially driven corporate culture and treat this reality as a threshold requirement only in recreating the future at TSR. At the same time, I strongly recommend going beyond their quarterly campaign reviews to further internalize the realities of their business and elevate lessons learned across the full spectrum of their efforts to better serve both internal and external customers. This continuous review could in fact help create their desired and espoused value of balancing financial performance with customer satisfaction.

This in-depth audit and review process described above would tap into the organization's creative and intellectual energy by inculcating a continuous process of discovery and rediscovery. A process that analyzes lessons learned by mitigating their down side while at the same time regenerating their successes. Such a process would provide employees the opportunities to build on their corporate memory and to proactively, not reactively, create more meaningful internal standards with their fellow employees and customers alike. A process would help define and create new competitive space.

In summary, based on an overall analysis of the data, I recommend that TSR make a concerted effort to employ the creative energies and learning capacities that reside within the organization. This emphasis would in turn help to maximize their investment in training by emphasizing the capacity of learning to learn as an organizational value. Therefore, training would become an investment instead of an expense, and learning to learn would become an organizational value and a strategic competitive advantage.

Psychology

The fourth research question was, "how do the principles and concepts of TQM manifest themselves in terms of individual behaviors, group relationships and the leadership dynamic among stakeholders?" Deming (1993) simply referred to this dimension as the one that captures the relationship between human dignity and work. From the presentation of interview data related to this dimension, Tables 11 through 13 (pp. 128-131), and the other sources of information, observations and document review, there appeared to be numerous opportunities to fully engage people at TSR in the pursuit of common objectives.

Conclusions.

Most of the opportunities to engage people individually, in groups or in the leadership process had been sub-optimized for two reasons: (1) the divide between espoused values and actual operating values of TSR, and (2) a lack of communication about TSR's vision. These two reasons seemed to be at the root of the schisms between groups, within groups and among individuals in the organization. The data showed that TSR executives acknowledged employees in a people-to-people service-based business as their most important resource. However, what the employees knew were that they were treated as expendable assets. This reality created a decided divide between espoused values and actual operating values. Under the actual operating values where people were treated more like an expendable commodity than a valued resource, it was a

wonder that employees brought the emotional and intellectual energies they did to the work place. From my observations, this divide was not so much what management did to create this schism, but rather, it was more about what they didn't do. Everyone in the organization was busy doing their job, or what they perceived to be their job, but few were reaching out to, listening and capturing the inputs and ideas of the agents. Deming (1993) called the potential of such an interface as the "optimization of everybody's abilities and inclinations" (p. 11).

Virtually every "concern" addressed by the three levels in Tables 11 through 13 could be turned into an opportunity, if not a "claim", by getting people involved in addressing the identified issues. The old adage that people don't mind change, they just don't like being changed applies here. Based on the sampling of TSR's population that I interviewed and observed, what employees at TSR wanted most, in terms of their profession or work life, were two opportunities. First, they wanted to contribute to an effort that had meaning and value. Second, and most important, people wanted input into TSR's journey. They wanted their voices heard and acknowledged in a way that they felt valued as stakeholders in helping to create the future of TSR. This was the intrinsic motivation that employees longed for at TSR and was called for in the last of Deming's 14th Points for Management. "Put everybody in the company to work to accomplish the transformation" (Deming, 1986, p.24). The key to finding what Deming (1993) refers to as "the joy in work" in any given situation or environment is to engage the employees in creating the future of the organization (p. 112). Unfortunately, this key to Deming's "joy in work" is often lost in the programmatic of implementing TQM. Because TQM is so pervasive in its content, the full capability and potential of the people to address the challenges of any situation are too often lost or minimized in our desire for instant gratification.

Due to their perceived lack of individual worthiness in contributing to TSR's long term success, employees felt undervalued. There was a pervasive sense of expendability

throughout the ranks. While there were several initiatives directed at this dilemma, fear pervaded the culture at TSR. With fear characterized as intimidation, people perceived that they were being told to “sit down, shut up and just do their job.” People responded in the context of personal survival and not out of a willingness to contribute to the collective good of the organization. Collaborative leadership would be an appropriate process to re-engage the employees of TSR as collaborators by acknowledging their individual and collective contributions.

While there were some initiatives underway at the Dallas location, the organization had a long way to go in countering a pervasive sense of distrust and fear in their culture. An example of these seeds of mistrust was the implementation of the 50 to 1 supervisor to agent ratio. Supervisors were not asked how to make it happen, they were told. These factors might not be any more or less prominent than what exists across corporate America, but in my opinion it is the number one factor inhibiting TSR from becoming even close to realizing its full potential. Based on this discovery and confirmation of a known cultural anomaly, this research could have focused on this one aspect alone. However, to identify it in the context of the System of Profound Knowledge added to the credibility in that this conclusion was based on extensive data gathering and analysis utilizing a comprehensive framework.

Recommendations

Before TSR gives up on the merits of TQM and joins the ranks of the “been there, done that” crowd in corporate America, I make three recommendations: (1) that TSR reassess their investment in TQM, (2) that TSR focus on optimizing their human potential, and (3) that TSR embrace a collaborative model of leadership. The propensity in many organizations is to move on to the next popular reinvention concept and start anew, because the old concept didn’t seem to quite measure up or meet the mark. While in some cases this might be an appropriate course of action, I would suggest that TSR revisit and reflect on actions and accomplishments of TQM in the past first.

TSR had started to adopt a couple of new initiatives in forging their future. One involved the Covey Leadership training program and the other was a re-engineering effort titled "Mapping to the Future." I perceived these as being value-added efforts that were totally compatible with their TQM program. The first was an adult development effort that totally fit the Psychology dimension. The other effort was designed to define processes and the systems which is the thrust of an Appreciation for a System dimension. TSR had an investment in the grounded theory and practice of TQM, and they should capitalize on that foundation by building off what was already in place. In my estimation, the inculcation of TQM has arrived when you don't refer to it as program, but rather, a way doing business. TSR was not there yet, but not because their TQM program hadn't worked in addressing the areas it had focused on. It was being passed over because executive management, the leadership of TSR, had never really embraced it and/or understood its potential. It was a "sunk cost" from which they will only derive marginal return on their investment. It is my sincere desire and hope that this study might influence TSR in reviewing TQM and particularly the System of Profound Knowledge in acknowledging the cultural inroads that they have made in creating their future.

Building on the conclusions for this dimension, the data reflected, and I am convinced, that the concerns and claims embedded in this dimension are the most important and critical in determining TSR's future. Optimizing the human potential at TSR is the number one challenge before leadership and the organization. It could be viewed as allowing people to become stakeholders in every sense of the term causing the unleashing of latent potential. Where there are several initiatives that reflect TSR's valuation of people as their most important resource, there is a significant gap in realizing a sense of partnership, if not ownership, in forging the destiny of TSR.

TSR was ensconced in the industrial paradigm of leadership that advocates hierarchical top-down command and control kinds of relationships. In countering that

cultural paradigm, I recommend that TSR embrace a more collaborative model of leadership as described by Rost (1991), a model Deming (1993) indirectly endorsed in his System of Profound Knowledge. Rost's (1991) model of collaborative leadership addresses the postindustrial context. A context in which collaboration among all levels at TSR is the key to building a culture of trust. A culture in which people can speak their minds and be heard in a context of constructive contributions to a consensus derived and focused set of objectives and outcomes. People want to know that their perspectives are valued, and that they are engaged in a meaningful dialogue that can lead to real and meaningful change.

Going beyond my recommendations to making a prediction, that is, if TSR would fully engage in the collaborative dialogue described above they could leverage their potential many times over. My less conservative estimate would be that they could dominate the market world-wide by capitalizing on the competitive advantage derived from unleashing the human potential that resides in TSR's ranks. This can only be derived by vesting in a truly collaborative process. A process that will prevail in changing and shaping the culture at TSR. A renewal process that involves the valuing of TSR employees and engaging them as stakeholders would begin with a continued emphasis on communication, that is, an open dialogue addressing the issues that are impacting them, both personally and professionally. Based on the data, this renewal process would lead three immediate possibilities: (1) to a compensation system more oriented to performance based pay, (2) addressing attrition issues in terms of attracting and retaining employees that are most beneficial to the organization, and (3) driving out a sense of distrust and fear in their culture by getting everyone on the same "sheet of music" as far as the direction of TSR's journey. By addressing these possibilities, TSR can begin to shape the culture and meet the challenges of future by putting their espoused values to work.

System of Profound Knowledge

The fifth research question that was asked was, “How do the four preceding dimensions of the System of Profound Knowledge come together to influence, change and shape the organization’s culture?” This last research question was intended to address how the four dimensions of the System of Profound Knowledge came together to define the culture at TSR. The synthesis of conclusions and recommendations associated with each of the dimensions reflects and characterizes not only the effects TQM has had on TSR, but their composite describes the current state of the culture as well.

Conclusions.

The four dimensions individually and collectively evaluated the nature of TQM in changing, influencing and shaping the culture at TSR. When compared to Deming’s description of the System of Profound Knowledge, it appeared that TQM had little impact in changing, influencing and shaping the culture of TSR. As compared against its potential, it appeared that TSR’s structure sub-optimized their human and material resources in accomplishing specific objectives, Appreciation for a System, lacked knowledge and exposure to the Theory of Variation concepts, did not optimize its individual and organizational learning capacity, Theory of Knowledge, and did not engage people individually, or collectively in the leadership process, Psychology.

While the TQM program began in the early 1990’s as a major emphasis in bolstering TSR’s competitive position, it was losing its emphasis in inculcating the organization with TQM capabilities and values. In terms of influencing and creating a new company culture, the conclusion was that TQM had some initial impact, but limited sustainable effects in the long term. The facts were that it had little impact on changing organizational structure, establishing performance metrics outside of financial parameters, creating a learning organization, or optimizing employee contributions through their own self-actualization. The traditional culture at TSR had for the most part remained intact.

I attribute management's lack of involvement as the primary reason for TQM having little influence in shaping the culture of TSR. They didn't get trained and for the most part didn't get involved in the efforts to break away from its traditional business culture and establish a culture that reflected TQM principles and practices. A culture based on Deming's 14 Management Principles and framed by his System of Profound Knowledge.

The Future and the System of Profound Knowledge

Following my conclusions and recommendations in each dimension to TSR on how they might use the System of Profound Knowledge, I would like to make some comments that I believe are generalizable to any collective endeavor. Based on this research experience, I believe that TQM brought a great deal to the table in terms of creating organizational cultures that will flourish in a spirit of cooperation and collaboration. An environment in which all stakeholders win. For this reason, I advocate that individuals, groups and organizations look once again at the contributions and potential of TQM as defined by the System of Profound Knowledge.

One way to revisit that potential is through Deming's System of Profound Knowledge. Because it was formally described in Deming's book (1993) and published a year before his death, it is my contention that it did not receive the notice and acknowledgment consistent with its potential. In my reading of the TQM literature, it was unique in that it framed TQM as a pervasive, balanced and holistic phenomenon. A phenomenon that integrated the qualitative aspects with the quantitative aspects in organizational development to create the System of Profound Knowledge. I see the legacy of the System of Profound Knowledge as being a set of lens or template through which group or organizational cultures can be viewed and analyzed. It presents a theory-based foundation in which espoused values and values in use can be contextual identified.

These operating values in turn define the culture of an organization. A culture defined and created by the daily decisions and behaviors of the stakeholders.

The System of Profound Knowledge takes TQM beyond the traditional core practices of measuring, controlling, and reducing variability and begins to look at the cultural ramifications. A culture in which the values and beliefs of the organization serve and support customers, both internal and external. A culture in which cooperation and collaboration pervade in how the organization treats people and how people expect to treat one another. This to me is the foundation of a TQM organization. From this foundation, an organization can use the System of Profound Knowledge to evaluate and change its culture. This study hopefully presented some viable possibilities and strategies to that end.

Critique of Methodology

Guba and Lincoln's (1989) Fourth Generation Evaluation process was an extraordinary fit for this study in a number of ways. It was consistent with my view of the world and reality as I know it. This congruence of views was best captured in their premise that qualitative and quantitative paradigms of evaluation and research are based on incompatible epistemological assumptions (Guba & Lincoln, 1981). They broke the mold on evaluation as a scientific process and moved it toward a fundamentally more social, political and value-oriented approach. This orientation was consistent with the purpose and objectives of this research.

The emergent nature of their methodology allowed me to move beyond just getting the facts. It gave me the latitude and degrees of freedom to flow with the stakeholder participant's energy and focus as they evolved. This maneuvering space gave me the ability to include a myriad of human, political, social, cultural and contextual issues as they came up in the formal interviews, or as a result of my just being there to feel and sense what was going on in the organization.

The down side of this emergent process in recreating or creating the meaningful constructions depicted in the Chapter IV presentation of data, was in focusing the breadth of information available and provided into joint constructions of reality. I allowed the process and the stakeholders themselves to construct these realities in a series of interviews, reviews and negotiations outlined in the steps of the evaluation model itself, Chapter III, and finally presented in Chapter IV, Tables 2 through 13. Making up these tables entailed capturing the interview data, organizing it into matrices for review and negotiation. It was a consuming process that required a great deal of interpretation and analysis on my part to confirm and validate the data.

While such interpretation might be suspect under a more quantitative scientific paradigm, Guba and Lincoln (1989) saw it differently. Their entering assumption was that realities are constructed by people, often under the influence of a variety of social and cultural factors that lead to shared construction. Therefore, my role as a participant observer was to make sense of these socially constructed realities. Therefore, the process was absolutely dependent on my role as "constructor." While this was a pervasive task in terms of incorporating the innuendoes inherent in qualitative data, I perceived that I had earned the credibility of the participants and the organization by being a fair, but not impartial, broker as to my interpretation as to what was going on in the organization. I used my position as a full partner in this process to declare my biases and to influence what was going on through what Guba and Lincoln (1989) recognized as the evaluators own emic construction.

In building on the principle of hermeneutic dialectic circles in developing consensus among stakeholders, executing the methodology was time consuming and laborious. I questioned the "time to results" ratio in carrying out the 10 step methodology of naturalistic inquiry as outlined and described in Chapter III. In other words, it seemed to have a high "pain to gain" ratio. While "proper" execution of the model is inordinately time consuming, the reward was personal credibility and the acknowledgment by the

participants that I had indeed captured their constructed realities. Some had expectations about what I was going to do with them and were disappointed that I was not chartered to move into an action phase with them. However, I took this as a personal compliment and a testament to the process. The last session in which the three groups presented and negotiated their constructed realities could be metaphorically described as taking them to the water and providing an opportunity to partake. It was their decision on where to go from that point. My sense at the last meeting was that they were ready to roll up their sleeves and start the transformation process right then.

Having articulated just some of the reasons this methodology was for me a perfect fit, I would fully endorse it for any open systems study of organizational phenomena. My experience with the methodology left me convinced that this process of negotiation leads to informed and sophisticated constructions of reality that may in fact be generalizable to other situations and organizations. My experience as a "reality shaper" in the context of this study was a rewarding one.

Significance of Research to Leadership

As first suggested in Chapter I, there are at least two significant aspects of the research that directly relate to leadership and identify its potential impact on this study. The first is recognizing the leadership demonstrated by Deming himself, and second, to address his call for leadership as a significant, if not critical, dynamic in the creation of organizations and institutions that can best serve themselves, society and world at large. Leadership is the indispensable catalyst in the transformation called for in the System of Profound Knowledge.

The first significance is that Deming emulated the leadership characteristic necessary to create the individual mind-set shifts required to formulate the changes demanded by customers, both internal and external. He was a modern illustration of the biblical truth that a prophet is without honor in his own land. His contributions to the industrial efforts during World War II in this country were largely ignored in a thriving

postwar economy. In taking his message in the 1950 to Japan's postwar efforts, they credited his management theories for becoming a world economic power (Quality Progress, 1994). His ideas finally took root in the U.S. in the 1980's when the Detroit auto industry asked for his help in competing with the very Japanese he had inspired. For a man who had only minor influence and marginal success in his own country until age 80, Deming will long have a profound influence on the way United States and the world conducts business (Shriberg et al, 1993).

In addition to Deming's acclaimed contributions around the world, the System of Profound Knowledge reflects what Burns (1978) and Rost (1991) called for in transformational leaders. Leadership that has the potential to create substantive and transforming change in organizations and institutions. While Deming's Fourteen Points for Management point out what was needed to turn around the traditional practices of management, the System of Profound Knowledge laid out a blueprint or template for transformational change to take place. However, this systemic approach must be fueled by a dynamic of leadership that not only presents viable quantitative methodologies and analysis, but encourages buy-in and commitment from everyone in the organization.

Deming's understanding about people and work created a new vision of our world (Backaitis, 1994). His humanitarianism called for leaders to create conditions in which people could be treated with dignity and respect. Conditions in which people could learn, have fun and make a difference. While many thought of Deming's philosophy as being heavily based on quantitative statistical methods, people are at the center of his transformational vision. "He was a revolutionary and will be judged to have as much influence on the second half of the 20th century as Sigmond Freud and Albert Einstein had on the first." (Brecka, 1994, p. 17)

Rost (1994) describes leadership in an industrial and postindustrial context. Much of Deming's work and his contributions could be viewed as mechanistic and reductionistic in the sense that they reflected and perpetuated the industrial paradigm. It

was not until he described and articulated the System of Profound Knowledge did I see the transformational vision and possibilities for the future. It is in this context that I see Deming as a transformational, postindustrial leader. Deming, I purport, was a vanguard in the evolution of the postindustrial paradigm and model of leadership. He understood the rapid and complex change organizations are faced with and he knew that it would take the collective and collaborative involvement of all the members of the organization to meet those challenges.

The System of Profound Knowledge with its integrated quantitative and qualitative dimensions provided the postindustrial context in which transformational leadership can take place. A way in which leadership is described as a relationship instead of a person or position, as a process versus an outcome, and as something that can be performed by anyone and everyone in an organization (Shriberg et al, 1997). As in the postindustrial perspective, Deming's strong process orientation envisioned leadership as a process accomplished by both leaders and collaborators. A process in which the System of Profound Knowledge brings diverse minds together in a collaborative effort to create substantive and transforming change. A process through which people make meaning of their experience. Or paraphrasing Deming (1993), he advocated that the route to transformation is to understand and apply profound knowledge in such a way that people find joy in work. For Deming these few words had profound meaning in terms of his life's work and his legacy as not only a great leader for his time, but as a teacher and leader for the 21st Century.

Future Research

The conclusions and recommendations addressed in this chapter represent a number of possibilities for research that would build on the content and process of this evaluation. There is a clear need for more precise and insightful investigation of the constructs presented in this work and their potential to create necessary and desired change for the future. Change that will instill organizations with the capacity to

draw and build on the resident potential of their individual and collective efforts to meet collaboratively defined strategic objectives. In a priori sense, the two areas that I think represent the most potential for continued research agendas are: (1) the application of Rost's collaborative leadership construct to Deming's Psychology dimension, and the use of the System of Profound Knowledge as a lens, or template, to analyze, describe, understand and evaluate an organization's culture.

The agenda for this first possibility would focus on the type of leadership that is necessary to take organizations into the next millennium and beyond. A leadership dynamic very different from the concepts and models that have predominated the postindustrial era: great man/woman theory, behavior theory, trait theory, situation/contingency theory, and excellence theory. The concern is that they won't work in the future. I have referenced and cited Deming's work as establishing a foundation for addressing alternative assumptions to the traditional hierarchical model. A model in which he figuratively turned the organization upside down. This inversion put the extended customer at the top interfacing with first line workers and supervisors. That left the remaining organizational infrastructure with one purpose, to support this customer-worker interface. This represented a significant shift from traditional thinking about organizational hierarchy and functioning.

How this customer-worker interface is supported could be the focus of future research efforts. As I have previously suggested in the Significance for Leadership section of this chapter, I strongly encourage starting with Rost's work on postindustrial leadership. His model of collaborative leadership challenges the assumptions of leadership in the past and opened the dialogue in addressing a whole new set of possibilities. Possibilities that included defining leadership as a unique phenomena, distinctly different from other professional relationships. These distinctions are embedded in Rost's (1993) definition itself, "Leadership is an influence relationship among leaders and followers who intend real change and reflect their mutual purposes"

(p. 102). Rost (1995) later changed the word followers to collaborators, additionally reinforcing a move away from the traditional context of leadership. The four elements of this succinct, yet profoundly different concept are: relationship, influence, intended changes, and mutual purposes. Each one of these elements could be researched and explored in the context of the human condition and organizational reality. In addition to these four elements, I think the most significant work could be to explore them in the context of collaboration. Collaboration as a communication dynamic that supersedes all other forms of interface, such as negotiation, cooperation or dialogue, in creating unexpected possibilities. This would challenge many of our traditional notions and assumptions about how organizations communicate and operate. These expected possibilities are the subject of my second future research recommendation.

The second area that I strongly recommend for continued investigation, is the use of the System of Profound Knowledge as a lens to analyze, describe, understand and evaluate an organization's culture. A description with which an organization could hold a proverbial mirror up to themselves and reflect on who they are as an organization. An image that would initially define operating values and in turn characterizes differences between those stated values and values in use. The key premise is that to change an organization's culture, there first must be a comprehensive and collective understanding of the organizational culture. Otherwise, change efforts would be working at the margins where the possibilities for systemic change are greatly reduced. The System of Profound Knowledge is one possibility for establishing a frame of reference that begins to define an organization's culture. However, due to the ubiquitous nature of cultures, I don't believe that one definitive and absolute framework exists in pursuing this objective. However, it is the process and the validation of establishing such a framework that creates organizational understanding and a sense of what Rost calls "mutual purpose" and what Deming referred to as "constancy of purpose." Perhaps the desired outcome of such

investigation would concentrate more on the process of creating constructed reality than in creating a definitive model.

These two research agendas, coupled with a blending of the deterministic and constructivistic methodological paradigms, could lead to constructed realities that provide shared meaning and understanding to stakeholders within an organization. A research agenda on which grounded theory can help to further probe the art and science of creating organizational cultures that work. The definition of “work” would be derived by the organizational stakeholders themselves, thus establishing buy-in and ownership. This would be an ambitious task at best, but one that I am personally committed to in making a difference. Accordingly, this study was designed and carried out to provide a basis for my future work with leaders, collaborators and organizations. I sincerely hope that this work will stimulate other research in pursuing congruent agendas in exploring the envelope of human endeavor and organizational potential.

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Appendix A

Protection of Human Subjects Request

Participant Consent Form

Participant Interview Form

From: Richard R. Brydges, Doctoral Candidate, USD, Department of Education

To: The Protection of Human Subjects Committee

Subject: Expedited Review

Enclosures: (1) Participant Consent Form

(2) Participant Interview Form

TOTAL QUALITY MANAGEMENT: BRIDGING THEORY TO PRACTICE

I. Background and Purpose

A. Background

One of the most viable strategies in keeping up with the ever increasing pace of change as this country moves into a global economy has been America's quality revolution. A revolution that can be best characterized in the emergence and practice of Total Quality Management (TQM). It is a pervasive concept that is much more than a prescription for delivering better products and services; it is a way of changing how we think, work and relate to others (Main, 1994). TQM in practice is the subject of this research.

There are many notable contributors to the quality revolution. However, this research will focus on the contributions of Dr. W. Edwards Deming (1993) to the quality revolution in general and specifically to the practice of TQM. He has been acclaimed as "The Father of the Third Wave of the Industrial Revolution" based on his contributions to Japan's phenomenal economic success since World War II (Neave, 1991). Deming's philosophy is best reflected in his System of Profound Knowledge. A system that shifts the foundational premise from an environment of competition to one of cooperation. It creates an atmosphere where everyone works together as a system to transform the present style of management to one of optimization (Deming, 1993).

B. Purpose

The purpose of this research is to examine the bridging of TQM theory to practice. It will use the System of Profound Knowledge with its four dimensions, Appreciation of System, Knowledge about Variation, Theory of Knowledge, and Psychology, as a framework or template through which to assess the implementation of TQM. In a effort to accomplish this purpose the following five questions will form the framework for this research:

1. To what degree is the Theory of Variation being used to assess process and system variation, and to bring it under control (stable and predictable)?
2. To what extent is Systems Theory used optimize the efforts of all components toward the achievement of a specific aim?
3. In terms of the Theory of Knowledge, to what degree does experience and the interpretation of experience manifest itself as a "learning organization"?
4. How do the principles and concepts of Total Quality Management manifest themselves in individuals and in cultural dynamics?
5. How do the four dimensions of the System of Profound Knowledge collectively manifest themselves in terms of cultural transformation (paradigm shift)?

Using a case study methodology, this research will address and focus on the benefits and issues associated with implementing TQM in an organization defined as the TeleResources Service Division of American Airlines.

2. Research Methodology

A. Subject population

The subject population will be managers and workers internal to this division. Subjects' ages will range from late teens to pre-retirement employees. The inclusion criteria will be that they have received some background training in TQM and will have been involved in its implementation. During the process of interviewing subjects, I will seek out participants who have differing and opposing perspectives in accordance with the research process identified with the Fourth Generation Research Evaluation (Guba &

Lincoln, 1989). In addition to being informed as to the purpose and scope of this study, participants will be asked to read and sign a consent form (ENCL. 1).

B. Facilities where research will be conducted

Data collection will take place at the central facilities where subjects to be interviewed report to work. Scheduled interviews will be conducted in a private office or space to honor anonymity and to encourage candid responses to interviewers questions.

C. Research procedure and protocol

The methodology for this research is a qualitative case study. It is a formative evaluation that uses naturalistic inquiry to assess the implementation of Total Quality Management (TQM) in an organization. The research process will use a constructivist methodology invoking what Guba and Lincoln (1989) refer to as a fourth generation evaluation. Interviews, document review and observation will used to triangulate data.

The methodology for selecting subjects will include two different strategies. First, the President of the division and her six Vice Presidents or direct reports, will be interviewed using the enclosed interview outline (ENCL 2). Their collective responses will provide a strategic perspective on where the organization is relative to quality initiatives as part of their business strategy.

The second phase of data gathering will involve getting a vertical, or hierarchical, slice of the organization. This will involve interviewing members from selected Quality Improvement Teams (QIT). The teams have been trained and chartered to address specific quality initiatives. In this second phase, the selection of participants will be random in that participants themselves will be asked to refer other co-workers who might have a different perspectives regarding the implementation of TQM in this division. This emergent design will continuously form and define constructs relative to TQM and the organization. After collating and analyzing the data, constructs in terms of their claims, concerns and issues will be presented back to their respective teams. They will then

negotiate the findings for clarity and consensus around joint construction (a common view of the world).

D. Estimated duration of subject participation and of study

The overall site intervention involving the data gathering phase will take six months or less. Selected participants will be involved in a one hour or less interview and then a group discussion lasting a couple of hours based on the desire and ability of the group to reach consensus around constructs.

3. Subjects risks and benefits

A. Potential risks

There are no risks to subjects participating in this research study. All names and responses will be treated anonymously in the data collection, feedback phases and final written study. It is my intention that participants will favorably view this process as an opportunity to individually and collectively influence the organization.

B. Risk management procedures

The design of participant involvement will follow the fourth generation evaluation guidelines described under Research Procedures and Protocol. The participants will direct the evaluator in seeking opposing or diverse perspectives. The interviewer will inform participants that their involvement is totally voluntary and that their anonymity will be honored through the data collection, analysis and presentation phases as per the consent form. At feedback sessions the data will be presented as a generic collation of inputs. Individuals can take ownership, change or deny findings as part of the evaluation process if they desire. If a particular input is sensitive and/or can be associated with an individual, I will ask that individual for permission to include such information in the feedback presentations. Participants will be informed of their right to withdraw from the project or delete any portion of their input.

All the raw data will be secured by the evaluator. The claims, concerns and issues data will be collated into one of the four dimensions of the System of Profound

Knowledge. Groups of participants will acknowledge the above constructs for consensus or non-consensus. Finally, the stakeholder group will prioritize outstanding issues for future resolution.

C. Potential benefits

The purpose of the assessment is to provide feedback to the organization as a whole and to individual stakeholders. The feedback is intended to provide value to the organization in confirming what they already know or to uncover some "blind spots" in the organization relative to TQM implementation. This process is designed to further explicate the "voice of process" and the "voice of the customer". This value-added information is intended to increase individual capability and the organizations overall capacity to meet and exceed the customer expectations. Therefore, the organization stays in business and individuals prosper by their employment. The entire process is designed to facilitate cooperation that results in a win-win proposition for all involved.

D. Risk/Benefit ratio

The ratio of potential benefits far exceeds the risks involved with participating in this research. Because of the subjective nature of the study itself and the qualitative nature of the data, a hard numerical ratio would be difficult to assess. However, the nature and intent of this assessment is designed to benefit individual stakeholders and the organization. The bottom line is that by design, intent and spirit the benefits of this research will exponentially exceed the risks.

E. Expense to subjects

There will be no direct expense to participants. Since the organization has fully sanctioned and approved this research effort, all processes that involve stakeholders will be authorized on company time and will be no expense to individual participants.

Participant Consent Form

University of San Diego
 CONSENT TO ACT AS A RESEARCH SUBJECT

Rick Brydges, a Doctoral Candidate and independent researcher, has been authorized by the President of TeleResource Services (TSR), Ms. Lauri Curtis, to conduct a research study on the implementation of Total Quality Management (TQM) at TSR.

I, a representative of TSR, have been selected to participate in this research study. My participation in the study is entirely voluntary and my participation or non-participation will not be reported to the supervisory staff. I understand that:

1. I may refuse to participate and/or withdraw at any time with no negative consequences to my employment.
2. Research records and list of interviewees will be confidential.
3. Personal anonymity will be guaranteed.
4. Results of research data will be used for presentations and publications.
5. As the data is presented I can choose to be identified as the source of that information for group discussion purposes.
6. Rick Brydges has explained this study to me and answered my questions. If I have other questions or research related issues, I can be reached through Mr. John Dewey, TSR Quality Facilitator.

There are no other agreements, written or verbal, related to this study beyond that expressed in this consent and confidentiality form.

I, the undersigned, understand the above explanation, and I give consent to my voluntary participation in this research.

 Signature of subject

 Date

 Signature of researcher

 Date

Participant Interview Form

Name _____

Position _____

As an identified stakeholder you will be asked to respond to the following interview questions and your responses will be recorded. All data will be reported in a manner that maintains individual anonymity and organizational confidentiality.

Describe organizational values around each dimension of the System of Profound Knowledge and address specific issues, claims and concerns associated with each.

1. Describe organizational structure in terms of processes and the system as a whole.
2. Describe how process and organizational capability is identified and measured.
3. Describe how experience is used and knowledge is acquired to increase organizational capability.
4. Describe human interface and dynamics. Specifically address leadership and followership.
5. How do the four descriptions above come together to define the TQM culture at TSR?
6. Additional comments.

Appendix B
Executive Summary

Richard R. Brydges
7248 Shoreline Drive #111
San Diego, California 92122-4936

Ms. Lauri L. Curtis
AMR Services Corporation
P.O. Box 619160
Mail Drop 1306
Dallas, Fort Worth Airport, Texas 75261-9160
June 24, 1996

Dear Laurie,

Thank you for your letter. I apologize for the delay in responding. Realizing that the Executive Summary was somewhat information dense and perhaps vague in some areas, I wanted to review all the information and data to date, reflect and synthesize in more directly responding to your request. I will first provide nine (9) recommendations of what I would do if I were in your position, second, suggest alternatives outlining my role in continuing to work with you and TSR, and conclude with addressing your question concerning disclosure and confidentiality.

My recommendations are made with the acknowledgment that you have initiated steps and have made significant progress in a number of these areas. Therefore, some of my comments suggest only your continued emphasis and priority. The recommendations are grouped into two categories consistent with the two major themes identified in the Executive Summary: (1) systems thinking in the present state; and (2) future state strategic architecture.

Present State

Systems thinking in the present state refers to addressing in context the cause and effect relationship of issues directly related to inventing, producing and delivering services today. The systems thinking recommendations focus on six areas: (1) Valuing TSR Employees; (2) Technological Assumptions and Speed; (3) Partnering with Customers; (4) Structure and Priorities; (5) Learning Investment; and (6) Statistical Thinking and Measurement.

1. Valuing TSR Employees

My first priority would be a renewed emphasis on engaging employees as TSR stakeholders. This renewal begins with a continued emphasis on communication, a focused and open dialogue addressing issues that are impacting employees, both personally and professionally, and pursues closure in the following three areas:

- a. Compensation - I would follow up on performance based pay staff work to date and pursue resolution with the same executive priority and sense of immediacy

afforded to implementing the 50:1 ratio. Recognizing that people need to be rewarded both intrinsically and extrinsically, performance based pay begins to address extrinsic motivational needs. To meet the intrinsic needs, I would actively embrace employee's stated desire to become stakeholders in TSR's future (my data supports this finding in several ways). The mutual benefits of such an engagement would facilitate the resolution of other issues by fostering a sense of ownership and collective purpose.

b. Attrition - I would address the hiring and retention of employees in the systemic context of forecasting requirements, screening/hiring, training/mentoring and continued emphasis on establishing a long term win-win relationships with valued TSR employees. Industry attrition precedent aside, I want to attract and retain the best of the best.

c. Drive Out Fear - While addressing fear as intimidation and the suppression of participation are never ending pursuits for any organization, I would consciously promote relationships based on trust. Relationships that engage people as partner/stakeholders and builds a culture based on a collaborative model of leadership that openly clarifies values and encourages widespread participation in collective decision - making to affect real intended change. Change derived from a sense of mutual purpose as articulated in the organization's Mission and Vision Statements.

2. Technological Assumptions and Speed

To compliment a renewed emphasis on TSR stakeholder employees as the primary competitive advantage, I would continue to push the technological capacity and upgrades necessary to meet customer demands and to command a reputation as market innovators/leaders. While technology breakthroughs can rapidly change our assumptions about doing business, there is the enticing risk of becoming "too strategic" (i.e. over investing). Therefore, I would challenge forecasting assumptions and scenario options involving technology with two criteria: (1) its use as a resource multiplier, and (2) its ability to decrease time between the technology expenditure and return on investment via marketplace revenues. These two screening factors are based the realizations that investment in technology can lock you into the wrong competitive strategy mix and that in business today "speed is life."

3. Partnering with Customers

My next priority would be to build on marketing and client services initiatives in partnering with customers. This focus would build off and go beyond being customer led based on their demands for quality, to partnerships that collaboratively define value in the

long term . I would augment their efforts and facilitate this not so subtle shift in focus with the induction of Quality Function Deployment (QFD). QFD is a process that builds on initial contract specifications by identifying attributes and associated metrics that establishes a framework for the continuous improvement of services aimed at creating value and surpassing customer expectations. It is a mechanism to deploy customer desires vertically and horizontally throughout the company as a reflection of its culture and leaderships' vision.

4. Structure and Priorities

In light of TSR's major reorganizations over the past couple of years, a period of relative structural stability would provide the conditions necessary to define internal processes and go to the next level of reducing undesired variation (i.e. the Mapping and the QIT Measurements Projects). While TSR's structural matrix interfaces provide necessary economies and leveraging of resources, these interfaces introduce a degree of complexity in cutting across hierarchical boundaries which challenge management to stabilize, replicate and continuously improve individual processes and the system overall. Based on a realization of that dynamic, I would balance the need for stability against the need for rapid adaptation to emerging demands by visibly trading off a bias for action (the ready, fire, aim syndrome) with the longer term benefits derived from reconfirming objectives, stabilizing and reducing the source of undesired variation. In this environment, it is incumbent upon management to set clear guidelines and priorities so that those working "in" the system can balance both responsiveness and continuity in the long term. This all comes down to leadership providing focused guidance, then literally getting out of the way and finally trusting the process they created. The perceived need for micro-management and resulting rework at TSR may not be from lack of resources or honest intention, but from lack of clarity and too many priorities (trying to be all things to all people). In a simultaneous loose-tight condition, prioritization does not mean trading-off or satisfying. This flexible condition means working the problem until all objectives are met.

5. Learning Investment

To build in an organizational capacity of learning-to-learn faster than your competition, I would sponsor an in-depth audit of TSR's values and assumptions for doing business. This review would recognize the financially driven realities imposed by the AMR culture and treat them as threshold requirement, while at the same time going well beyond quarterly campaign reviews to really internalize lesson learned and leverage them across a spectrum of efforts. This in-depth review process would tap into the organization's creative and intellectual energy by inculcating the Scientific Method (Plan-Do-Study-Act cycle) as a continuous process of discovery in regenerating success. Such a process provides

employees the opportunity to build in corporate memory and to proactively, not reactively, rewrite industry standards and create new competitive space. In short, I would make a concerted effort employ the creative energies that reside within TSR by maximizing the ratio of learning over the investment of time and energy in undertaking such efforts. When training becomes an investment instead of an expense, learning to learn will have arrived as an organizational value and strategic competitive advantage. I have submitted an outline to your Training Department covering more specific possibilities for proceeding in this direction.

6. Statistical Thinking and Measurement

Consistent with my premise that business operations, as in life events itself, are probabilistic vice deterministic in nature, I would establish methods for measuring and analyzing variation based on that orientation. Methods that first, would establish quantifiable objectives and secondarily, would provide the parameters for data driven and consensus endorsed actions and strategies. To me, this is the essence of Total Quality Management (TQM). This is where systems thinking, statistical orientation and the methodologies of continuous improvement merge to not only provide a realistic picture of present capability (i.e. core competencies), but to predict how that capability will influence and shape the future. I would use this merged combination as a framework for: (1) assessing real-time events, (2) periodically reviewing systemic progress (i.e. quarterly reviews), and (3) as a foundation from which to predict and plan the future. Your quality program and associated initiatives have brought much to TSR's table. I would continue to recognize and support these efforts, while systematically integrating them with other initiatives and operations overall until QIT/TQM is no longer a program but rather an integral part of the way TSR does business.

Future State

These next three initiatives systematically build off present realities to focus on creating the future, (7) Envisioning TSR's Future, (8) A Planning Process, and (9) High Performing Team.

7. Envisioning TSR's Future

The first initiative in this category requires me to envision TSR's future. An articulation of which I would use to draw stakeholders into strategic conversations. Conversations that will be constantly scanning the environment for opportunity while continuously integrating collective experience and intuition in not only planning for, but creating the future of TSR. With strategic leadership as my primary responsibility, my priority would be to address future uncertainties and translate them to opportunity.

8. A Planning Process

Building on the previous recommendation, I describe the following as a “master mapping process.” A process of strategic architecture that clarifies the present state, uses collective wisdom and forecasting to formulate future possibilities and provides a transition framework to bridge from present realities to the desired future state. To formalize this process, I would use the Integrated Operational Planning Process (IOPP) model that I have developed. A model I shared with Matt Ancil during my last visit. This model and process is based on two foundational assumptions: (1) that the future is not an extrapolation of the past, and (2) that there is no way to create the future if you can’t imagine it. It is an open-systems model that draws from traditional linear Business Planning, Strategic Planning/Management, and Hoshin Kanri (TQM Policy Deployment) planning schemas to tailor a process that uniquely fits TSR’s planning agenda and needs. Strategic architecture is basically a high-level transition state blueprint that considers and prioritizes options in the formulation of strategies that culminate into an opportunity matrix. Strategic opportunities that integrate present capability with the acquisition of desired competencies to reconfigure and invent new interfaces with customers and suppliers, both internal and external.

9. High Performing Team

My final recommendation for the creation of TSR’s future has two dimensions. First, I would designate a senior management team that can paint an enticing picture of new industry space that TSR hopes to stake out moving into the next century. The qualifying criteria for such strategic responsibility is that you can’t have a stake in the future if you can’t imagine it.

For the second dimension, I would use the process to mold this select group of strategic stakeholder into a high performing team. A team that reflects and models to the rest of the organization the attributes of foresight, breadth, uniqueness, consensus and collaboration, for starters, in formulating competence acquisition and opportunity approach strategies. It is an opportunity for you and your executive team to literally “walk the talk.” I would like to talk to you specifically about processes I have put together and used to develop, track and facilitate the emergence and progress of such a team. I might further recommend that this teaming process begin with a collective critique of my Executive Summary. It could be triangulated with other perspectives, i.e. Customer and Employee Surveys, to achieve consensus on what-is-so for TSR as a starting point for both strategic planning and team collaboration. This high performance team would be capable of addressing and working through its own dynamics in formulating and executing the plan.

Conclusion

It is my intent that these nine recommendations stimulate your thinking in some areas, and generally augment your efforts overall. I don't have any magic formulas or "silver bullets", wish I did! However, my experience has been that the resolutions are in the process of assimilating the collective foresight of all stakeholders. A daunting proposition at best. A challenge in which most companies are over managed and under led. What is needed is a process, such as the planning process I have described, through which this collective foresight and intellect of TSR stakeholders can be captured and woven into a prioritized and actionable tapestry of strategies. A tapestry that escapes the orthodoxy's of the current corporate culture, AMR's in this case, and builds a culture uniquely suited to the opportunities and challenges before TSR. Leaders in this context distinguish themselves by uniquely imagining what could be and then going about building consensus and ownership around a deeply shared and comprehensively formulated plan for the future.

The proceeding is offered only as a conceptual frame of reference and starting point to begin addressing the challenges before you. To further address the enclosed recommendations and other possibilities, I would like to continue to work with you and TSR on a retainer or specific project proposal basis. I can build on interventions that have worked in addressing similar issues, or we can design processes tailored to your specific vision and TSR's mission. I have found that partnering on projects with an organization's key personnel benefits ownership and internalizes ongoing capabilities. Whatever your choice, I will continue my research and provide you with a copy of the completed work in September.

Before closing, let me briefly address your confidentiality concerns. I started with the premise that this project for research purposes would disclose TSR as an organizational entity, and that the confidentiality and anonymity of individuals would be maintained throughout as stated in their disclosure agreement with me. My present thoughts are that, on balance, TSR reflects favorably in my research based on the numerous positive strides that are being taken and for its willingness to reflect and be involved in a open/constructive dialogue. I would like to discuss your specific concerns and reservations and then address whatever alternative best meets your need or desire.

Once again, thank you for the opportunity to respond to your challenges based on my experience and perception of the realities facing TSR. Your leadership, as I've observed and as described to me by your people, reflects your openness to search for unexpected possibilities. Your leadership and openness confirms my willingness to pursue a continued relationship with TSR and its emerging future. Whatever our relationship, I trust that my involvement to date has been of value to you and your organization.

Appendix C
Initial Findings

Richard R. Brydges
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Ms. Laurie L Curtis
Teleservices Resources (TSR) Group President
PO Box 61916, Mail Drop 1306
Dallas/Fort Worth Airport
Texas, 75261-9160

28 April 1996

Dear Laurie,

As we initially agreed, I am providing, in advance of my formal dissertation, an Executive Summary and an Addendum describing my research design. Relative to each of the four dimensions of Dr. W. Edwards Deming's System of Profound Knowledge used to analyze TSR's culture, this summary includes: (1) a brief description of each dimension; (2) findings/recommendations; (3) Force Field representation of observations; and (4) remarks relative to that dimension. Concluding comments address the dimensions coming together as a reflection of TSR's culture.

The intent of this work to date is to analyze and draw comparisons between Total Quality Management (TQM) theory and organization practice described and observed at TSR. The Force-Field Analysis describes enabling issues and challenges relative to each dimension that emerged from collaboration among and between representatives from the Operational, Tactical and Strategic levels of the organization. Overall, this analysis is designed to provide you with an independent perspective and objective analysis that can be used to corroborate other sources and your own experience. I am available for clarification, discussion or feedback.

Let me also mention some deserving and heart felt acknowledgments. Again, I want to thank you personally and all the members of your organization that contributed to this project. Every minute of my time in your organization was a pleasurable and productive experience. As an invited guest, I was well received and I appreciated every one's candid and constructive exchange. I also want to thank John Dewey for all his continued collegial support and for his personal time and efforts.

In addition to a rewarding personal experience, the data gathering process met all my research design objectives and methodological criteria. Building on this summary feedback, I will continue to analyze the data while writing my formal findings and conclusions. Any additional feedback from you will serve to further my research, benefit TSR and other potential organizational applications.

After reviewing the enclosed summary, I offer one caveat. In my attempt to be succinct, much of the interview dialogue that puts these observations and findings into context is not included for reasons of brevity. My final research report will address these findings and conclusions in a more complete text. Therefore, this Executive Summary will address only thematic conclusions and general recommendations relative to TSR for your consideration. Again, I am available for clarity and discussion.

Addressing future possibilities, I have had discussions with key members of your staff concerning follow-on actions, and my potential role in further serving you and TSR. I have some ideas in working with your Executive Team in terms of assessing management/leadership skills, team effectiveness and tracking organizational climate over time. In addition, Matt Anctil and I have specifically explored possibilities relative to your new planning emphasis and my experience with strategic architecture. I left him with a planning model, and we discussed its application relative to his initiatives as the new planning coordinator. I would welcome the opportunity to discuss these possibilities with you and members of your staff at your earliest convenience.

Respectfully,

Richard Brydges

To: Ms. Laurie L. Curtis, President TSR Group

From: Richard R. Brydges

Subject: Executive Summary

Enclosure: Executive Summary Addendum

This summary looks at TeleServices Resource (TSR) Group through each of the four dimensions of Dr. W. Edwards Deming's System of Profound Knowledge. A brief description of each dimension is followed by Finding/Recommendations, a Force-Field Analysis and Concluding Remarks relative to each dimension. The Force-Field display reflects enabling and challenging data points addressed by representatives from respective levels at the concluding negotiation. The attached addendum provides a description of the research design and methodologies. The concluding summary brings all the dimensions together in recommending that TSR treat change with systemic thinking and get more involved in strategic architecture. The following analysis supports these over arching conclusions and addresses more specific areas of consideration.

APPRECIATION FOR A SYSTEM (STRUCTURE)

Description of Dimension

This dimension addresses the attributes and values associated with organizational structure. A system is a network of interdependent components that work together (alignment, synergy and optimization) to accomplish the aim of the system (TSR's triad: internal and external customer satisfaction, sound financial posture).

Findings/ Recommendations

Trend

As part of moving from an entrepreneurial phase into a more mature steady state condition, TSR is structurally moving in the right direction. This evolution has resulted in putting "the right people in the right places." In addition, the reintroduction of client services provides a more focused customer orientation and opens the door to further reengineering to end user requirements.

Down Side

On the down side of restructuring is the uncertainty and ambiguity it has created in some factions of the organization. While everyone recognizes the need for change in a competitive

environment, nobody wants to “be” changed. People want to become stakeholders in this organization knowing that they have some influence, or at least a say, in creating its future. Parenthetically, this is the reason my interviews were so well received. People saw this as an opportunity to get their voices heard and expectations have been raised accordingly.

Definition

Lesson learned from a systems perspective is that change entails a cause and effect interaction. The degree that such ramifications can be anticipated and dealt with will help minimize, or at least anticipate, systemic turbulence. Another way to stabilize and move into the continuous improvement mode is to better define processes and individual responsibility. If you stop treating each campaign as a new start-up, the slope on the learning curve will steepen over time. The alternative is to keep “reinventing the wheel.” TSR’s Mapping for the Future Project is a positive step identifying the systemic relationship of processes and systems.

Systemic Thinking

This Appreciation for a System Dimension embodies multiple issues and opportunities. A more disciplined and systemic oriented approach would help reduce fear in the organization by creating alignment based on a common vision for the future. The resultants are synergy, economies-to-scale, and optimization of resources, both human and material. While slowing down might not be an option, pause long enough to make sure your sights are focused in the right direction and capture lessons learned as they arise and promote collaboration on all levels and between levels (horizontal and vertical integration).

Force Field Analysis

Enablers

Challenges

OPERATIONAL LEVEL

• there is a structure and a plan in place	• MDP always in a constant state of flux
• management is doing more inquiring as to what’s going on (walk a mile)	• vision (where we’re going is not clear)
• matrix structure and support is working	• lack of alignment with customer (both internal and external)
• President is accessible, provides information and listens	• not aware of specific customer requirements (contract is not good source)
	• limited forecasting
	• Better job description, people are “puffed into” jobs

TACTICAL LEVEL

- present organization structure is better than “CHAOS”, has a long ways to go to optimizing resources
- with client services we are getting more customer focused
- organizational restructuring is moving in right direction
- we are defining roles better
- pay more attention to the implementation of change (i.e. roll out of 50:1)
- recognize the clash between entrepreneurial culture of the past and a more mature/ stable situation now.
- we need a structure that will listen to and better respond to the customers needs (both internal and external)

STRATEGIC LEVEL

- closing on FEAR vs TRUST ratio with structure and role clarification
- structure does respond to anomalies and crisis well
- investments in new technologies helping streamline the system and makes TSR more competitive
- DWF too big, satellites better structured for business (more flexible)
- executive management still too involved in day to day operations (they are not dealing with strategic issues)
- structure should better serve the unique aspects of our business (not for control and compliance)
- need more strategic planning and focus (can't be all things to all people)

Concluding Remarks

There are many more structural and systems associated issues. They are embedded in the other dimensions and endemic to the overall organization. As you “peel back the layers” and analyze the data points in context, the systemic interrelationships of issues, as they relate to structure and re-engineering, become more obvious.

THEORY OF VARIATION (MEASUREMENT)

This dimension is based on the premise that there is variation in everything. It uses an array of tools and methodologies to graphically display and statistically characterize variation using Statistical Process Control (SPC). Its management's primary responsibility is to continuously improve capability by reducing undesired variation. It is management's job to work "on" the system while workers work "in" the system. Then, both work together to continuously improve individual processes and the overall system.

Findings and Recommendations

Sub-optimize

TSR has sub-optimized its use of available information and data in assessing process capability and in putting methods and techniques in place to continuously improve those same processes and the system overall. It reflects a reactive vice preventive culture.

Prototype

I recommend setting up a prototype using Statistical Process Control (SPC) techniques and methods to analyze and project capability. Once appropriate applications have been put into place in one campaign, it should then be tailored to and applied to other campaigns. However, before this can be accomplished, processes and systems must be defined in accordance with recommendations made under the previous dimension, Systems Theory.

Financial Orientation

At present, the only metrics given any kind of significant attention are financial. While finance systems are important, they tell you how you've done after the fact and provide limited forecasting capability as it applies to customer satisfaction. These good financial tracking systems should only reflect threshold requirement relative to project/market viability. From that threshold you build in systems that will actually track quality and improve capability relative to customer specifications. This could begin by partnering with the customer using Quality Function Deployment (QFD) analysis. A system that identifies and tracks what is really important to the customer not just the bottom line. The present contracting process is thorough, but does not identify parameters and associated metrics with which stakeholders (internal and external) in the system can build on and improve. Doing it better and faster is not always the answer, because you run the risk of getting "real good at doing the wrong things." You must be able to back off and assess the system as a whole (systemic thinking).

First-Things-First

Management and leadership must first have the exposure and desire to conceptualize what I call “statistical thinking.” Such thinking acknowledges that the business environment is probabilistic vice deterministic in nature. Therefore, analysis using trends, patterns, sampling and probability distributions are critical to identifying process capability and to project on future capacity.

Bottom Line

The bottom line is that management needs to spend more time in setting up systems and identifying metrics that would reduce unwanted variation and allow for continuous improvement using Deming’s PLAN-DO-STUDY-ACT cycle. It would require more investment on the front-end, but would pay multiple dividends in the long run by doing it right the first time.

Force Field Analysis

Enablers

Challenges

STRATEGIC LEVEL

• some data is used and plotted, but doesn't paint full picture. • quarterly quality reviews use this data, but more data and expert interpretation is needed • what little data we have gives us a starting point, a history	• measurements or statistics are not used to guide and/or forecasts • don't measure for long term capability • we don't measure over the long term, little trend data • we don't use reliable data/information to forecast with • contract specification are not set up into measurable parameters

TACTICAL LEVEL

- there are some metrics/performance measurements in place (need more)
- QIT projects are doing some of this but need more training in SPC and related tools
- no postmortem on campaigns to capture information and reflect
- MBO more a hindrance than a help because most criteria is not measurable
- everything depends on dollars, this is a financially driven company

OPERATIONAL LEVEL

- some measurements are in place
- while there are some measurements taken, we're not sure how realistic they are
- measurements are used to react on a short term basis, not used to improve
- evaluations need to reflect more quantitative data for consistency and reliability
- "we don't think outside the box" in terms of customer and industry standards
- contract specifications should reflect quantitative data that can be tracked by all stakeholders, "read off the same sheet of music"
- we don't have much to check progress against

Remarks

This dimension represents some fertile territory for TSR in terms of competitive advantage. A system that can provide quantitative parameters for real time analysis and continuous improvement would allow workers and management to make data driven decision. In addition, it provides the framework to systematically address cause and effect relationships in dealing with the root-cause analysis of situations, comparing the predicted to the actual. Ultimately, this dimension provides the tools to help management focus on continually improving process capability by eliminating undesired variation.

THE THEORY OF KNOWLEDGE (and LEARNING)

Description of Dimension

This dimension promotes theory based learning for individuals and organizations. Theory as a proposed explanation is based on experience. Informed predictions are made based on that experience and knowledge is gleaned by comparing the observed to the predictions made. This forms the basis for the PLAN-DO-STUDY -ACT CYCLE aimed at the continuous improvement of products and services. It instills and promotes the "learning-to-learn" capacity as a competitive strategy used in creating the future.

Findings/Recommendations

Individual Training

TSR has not optimized individual and organizational learning. For individuals the issue involve the type of training and timing. Training should be tailored to the individual's needs and timed accordingly. Training should start with the realities associated with telephone "sales" and progress to a long term professional development plan. This coupled with a consistent mentoring program would accelerate professional self-esteem and contribution.

Organization Learning

In terms of organizational learning, TSR does not capture its lessons learned. As part of a fear based culture (a culture of intimidation), mistakes are punished and not used as learning experiences in an open and reflective environment. There should be a concerted effort to capture the lessons learned from one project and apply those lessons to other relevant campaigns. This would then become a formal part of the continuous improvement cycle in recreating the future.

Strategic Focus

The training department has been addressing individual training needs. with a strategic training focus now in place, they can build off individual training programs and address future campaign needs and requirement. In terms of creating a competitive advantage, training will be looked at as a necessary investment rather than an expense.

Force Field Analysis

Enablers

Challenges

OPERATIONAL

• we are known as the industry leaders, but the competition is closing fast • initial training is good, but needs to be more oriented to sales	• training needs to be more “needs based,” what skills and support do agents really need? • we don’t learn from our experience, we’re too busy, reflection needs to be valued • need more “being on the phone” sales training • ongoing professional development is not there

TACTICAL

• we get some good training, but it’s not optimized or utilized to the extent it could be	• need more real time review of performance and train accordingly • need to use training as a way to standardize operations • we don’t allow for mistakes as a necessary part of the learning experience

STRATEGIC

• training department is working hard to meet agent needs, but hasn’t got the formula or resources yet	• hiring policies need serious review, training can’t perform miracles • bring lead agents into the hiring process • agents need stable mentoring process to augment training

Concluding Remarks

The Theory of Knowledge is a pervasive concept that addresses individual and collective abilities to “learn to learn” as a competitive strategy . With a vision and strategic framework mapping where TSR is going, project managers and trainers can optimize training dollars in developing professional telemarketers and creating competitive advantages.

PSYCHOLOGY (PEOPLE)

Description of Dimension

This dimension addresses the interaction between people and the system in which they work. It calls for a post-industrial model of leadership that acknowledges diversity in the workplace and optimizes individual and collective abilities to contribute to a common goal through collaboration. It emphasizes a win-win approach and recognizes the balance of intrinsic and extrinsic motivates in building personal and professional self-actualization and affording the opportunity to discover "joy in work."

Findings/ Recommendations

This dimension that Deming termed Psychology addresses the human factors, dynamics and interfaces that exist in an organization. This in combination with the Theory of Knowledge address the qualitative dimensions of the System of Profound Knowledge. The human condition and resulting contribution is especially critical to telemarketing as a service based people- to- people enterprise. The interview data reflects the way people on all levels of the organization think, feel and act. The following highlights some strengths, challenges and themes relative to this dimension.

Resources Are People

First of all, based on the nature and realities of the business, the people are TSR's most important resource. Agents are the direct link to the customer and all systems and processes should support that exchange (inverted structure and alignment). In quality this is referred to as the inverted triangle with the customer-agent interface symbolically at the top. Based on the TSR Triad (internal customer, external customer, financial strength) people are told they are a valued, if not the most valued asset. However, what they know is that they are TSR's most expendable asset. Under that perceived reality, it is a wonder that employees bring the emotional and intellectual energies they do bring to the workplace. This perception, or reality, needs to be rectified or changed.

Sense of Expendability

A sense of expendability is reflected in hiring practices that are primarily, if not solely, based on a supply and demand. While this may be the reality, the consequences are that many agents feel like they are in a transient state and vest their energies accordingly. The challenge of leadership is to fully engage this population in a way that

they feel truly valued, take ownership and see long term win-win reciprocity. That is going to take communication and collaboration in building an environment based on trust. While there are many initiatives directed at relationships (i.e. brown bag lunches, personal interviews with supervisors/directors, sessions with the President), fear pervades in this culture. Fear of being characterized as intimidation, people perceive they are being told to “sit down, shut up and just do their job.” People respond in the context of survival more than contribution. The trend in moving from a fear based organization to a culture of trust at TSR is moving in a positive direction, but the organization has a long way to go in countering a pervasive sense distrust and fear. This is the number one challenge before leadership.

Culture of Trust

The way to continue to build a culture that promotes the dignity of all stakeholders is to work with and listen to people on all levels of the organization. If leadership is purposeful and honest with their intentions to build an organization based on trust and collaboration, it is my experience that people will respond accordingly. This may be interpreted as a simplistic generalization, but as an outsider reviewing “the state of human psyche” at TSR, the key to building an organization based on trust is in the relationship between leaders and stakeholders on all levels of the organization.

Walk the Talk

A good place to pick up from would be to follow through in working with constituents of the compensation policy and alternatives QIT. The process of addressing the volatile issues associated with compensation is a perfect opportunity “to walk the talk” in terms of investing in people for the long term. This, in connection with training people as an investment, would send a message that employees are a truly valued and trusted partner.

Forecasting

Better forecasting would allow lead time in hiring or reshuffling to a campaign’s needs. Then once you get people on board, more attention should be paid to taking care of new agents in terms of supervision oversight consistency in the critical first few weeks and in longer term mentoring relationships.

Ownership

While there are many initiatives that reflect TSR’s valuation of people as their most important asset, those same people need to be constantly reassured - actions speak louder than words. With an atmosphere of trust in place “the sky is the limit.” People will take ownership in building a team that will provide a competitive edge because they will see it in their self-interest, while being rewarded both intrinsically and extrinsically.

Definition of Leadership

I would like to close this part of the summary by referencing my post-industrial model and definition of leadership. Leadership is a relationship among leaders and stakeholders, based upon mutually derived purpose and values, to create real intended change. Continuing to support such a definition in practice would in fact create a cultural framework based on common purpose and values. A foundation upon which leadership can envision the future and align all its resources, including human commitment, to make that vision a reality.

Force Field Analysis

Enablers

Challenges

OPERATIONAL

• leadership is taking strides to set conditions and create a proper environment • middle management is very much of the problem but they are also the solution • we have good followers in this organization, but our espoused values are the triad (internal and external customers, finance), but our actual values seem to be finance, finance, finance	• need more leadership and less management, reassess the layers of management and their value added • compensation is the number one challenge before TSR • need more long term career planning • still a great deal of FEAR in the organization, whether perceived or real • people “feel” beaten down • bosses are not necessarily leaders

TACTICAL

- people are becoming more self-motivated in terms of finding their own “winning formula”, could lead to self-directed work teams
- leadership needs to better understand the realities of this business by getting more involved with day to day operations
- we don’t screen people coming in the door (too much wet the mirror, cast a shadow criteria)
- turnover and longevity are good indicators that we don’t have the winning formula down

STRATEGIC

- leadership realizes that the “fear factor” exists, they experience it from above (AMR)
- need better evaluation process, both design and implementation
- while extrinsic incentives are critical, people want to be intrinsically motivated (they want to be part of and contribute to the team)

Concluding Remarks

The people in TSR are truly the strength of the enterprise. A resource that if taken for granted could lead to an insidious undermining of competitive advantage and strength in the market place. People want to know that their perspectives are valued and that they are engaged in a meaningful dialogue that can lead to real and meaningful change. In addition, they want to be recognized both extrinsically and intrinsically for their contributions.

Tapping into the collective experience and wisdom that resides in TSR is leadership primary, if not only, responsibility. Collaboration is the key to building a culture of trust. A culture in which people can speak their minds in contributing to a focused set of objectives and outcomes.

EXECUTIVE SUMMARY CONCLUSION

The four dimensions come together to paint a picture of TSR as it exists today. The Systems and Variations dimensions reflect the more quantitative aspects of the culture, while Knowledge and People address the qualitative side. As Deming's System of Profound Knowledge, they represent a systemic construct from which to reflect on the overall posture and culture of an organization.

With that in mind, I would like to conclude this summary with a bottom line comments in each of the dimensions. These concluding comments can in turn be considered as a starting point leading to the opening for systems thinking and strategic architecture.

Systems - stabilize the structure until you have clarity and consensus on where your going. Then get customers (partners) and stakeholders on all levels of the organization to tell you "how" get there. The "process of becoming" is more important than the end state itself. How you get there formulates the enduring culture and becomes the leadership legacy. It begins with addressing fear and building trust.

Variation - Once strategies are in place, define processes and set up metrics with stakeholders (both internal and external) that will not only monitor progress, but build in continuous improvement capabilities. The new "mapping" project is a good start.

Knowledge - As the lead competitive strategy, build in a capacity to learn-to-learn. Being able to internalize lessons faster than your competition. This not only will enable TSR to create its future, but would influence the entire industry.

People - TSR's number one competitive advantage, bar-none, is its people. First, value them by making them stakeholders in the most literal sense. Then, create an environment of trust and mutual respect in which they can fully realize their need and desire to contribute, while being acknowledged with both intrinsic and extrinsic rewards.

Based on these conclusions and all others sources of information available to you, the bottom line is that the answers and resolutions reside in the individual and collective experience and wisdom of your employees/stakeholders. You can't wait for customer or employee surveys to tell you what's going on. That is managing through the rear view mirror. Such historical reflection has marginal benefit and it is in fact time late. Being proactive is about dealing in the present and creating the future. So, the only remaining question is how to tap into that "collective knowing" on a real time/future focused basis? There are no singular or easy answers.

The answers are embedded in the culture itself. This summary provided some possible insights in shaping a culture that is based on trust and clarity of purpose.

Possibilities that were derived from indicators and symptoms, but together systemically provide insight into the core of the organization to deal with root-causes. However, root-cause analysis and systems thinking only bring clarity to the present. Strategic architecture builds off this clarity to create a future.

As I asked members of your organization to imagine the future and describe TSR as ideal place to work in, they knew exactly what it would be like. The descriptors had many similarities, but they all included being an active and valued member of the organization. Deming described this as “finding joy in the workplace.” However you describe it, the stakeholders at TSR have the resident willingness and capability to embrace and create their ideals. As their leader, it is your job to continue to provide such opportunity. But the question is not what’s been done, what else can and needs to happen? The collective leadership more than ever before must “walk the talk.” The executive management team must model and reflect the norms and values that will create TSR’s future. These primary values include collaboration and teaming in an atmosphere of mutual respect and trust. Such collaboration and resultant team building should immediately focus on creating TSR future strategic architecture. TSR is in a position to dominate the telemarketing industry. It must begin not only with a process that imagines the future, but one that is continuously informed by those creating it with an open system dialogue. A proactive transformational agenda that fundamentally allows TSR to reconceive itself, regenerate core strategies and reinvent the industry. A process that shapes competitive forces through open-ended discovery. A process where traditional planning is constantly informed by discovery and learning.

I end with this possibility. While it may seem ideal in the midst fighting off alligators, it is where the real money lies. It is my opinion that TSR has the resident capacity to not only create its future but to influence the entire industry.

Executive Summary Addendum

Overview of Methodology

To help frame this summary, I want to briefly review the research design relative to purpose, methodology and the data gathering. The process in terms of how outcomes were derived is more important than the content itself. It represent a collaborative dialogue that as a prototype can be revisited as part of TSR's ongoing evaluation process to reflect on progress and address future challenges.

The purpose of the research is to evaluate the practice to Total Quality Management (TQM) in influencing and shaping TSR's culture. It uses the four dimensions of Dr. W. Edward Deming's System of Profound Knowledge as an assessment framework. The four dimensions are: (1) Appreciation for a System (Structure); (2) Theory of Variation (Measurement); (3) The Theory of Knowledge (Learning); and (4) Psychology (People). Each dimension serves as unique lens through which to analyze the organizational. The first two are quantitative and the second two more qualitative in nature. They combine to form a holistic and systemic concept. The System of Profound Knowledge was Deming's final contribution and was used in this research project to capture and analyze TSR's current state.

The methodology used to address this purpose combined the System of Profound Knowledge with a Fourth Generation Evaluation Model. The combination was used to address CLAIMS (favorable assessments), CONCERNS (unfavorable assertions), and ISSUES (undecided assessments) associated with each dimension. Another category called OTHER was used for data that didn't fit into one of Deming's four dimensions. This created a 3X5 matrix used to organize and structure the data derived from 83 interview's an extensive document review and continuous ongoing observation. The interview population was stratified into the Strategic Level (President and Direct Reports, 7 total), Tactical Level (Middle Managers, 27 total), and Operational Level (Team Leads and Agents, 49 total).

That data were formatted into the above described matrices by stratified level for a "first cut" analysis of the enculturation of TQM at TSR. That formatted data were presented to randomly selected representatives from each level for clarification and validation of CLAIMS, CONCERNS, and ISSUES as a "second cut" analysis of the data. In addition, the respective groups were asked to identify priority claims and concerns that they would want to have addressed in a collaborative negotiation/discussion with representative from all three levels in a three hour session on 2 April 1996. An involved and spirited dialogue took place at that

sessions. In the discussion of each dimension a Force Field Analysis was constructed to visualize forces working for and against progress in each of the dimensions.

The process represents and demonstrates a method to tap into the collective experience and knowledge within the organization. If you acknowledge that the “answers” reside in the “collective wisdom” of the organization, then this process should yield significant value-added contributions. Not only does this process provide consensus derived perspectives, it further empowers stakeholders to get involved.

From this review of method and process, I want to start with two overarching themes—strategic architecture and systemic thinking. While, these thematic reference points are not panaceas, they do underlie the context in which the issues and challenges before TSR can be constructively addressed.

Another point I want to make before reviewing the data is that TSR is in “good shape.” My experience, as supported by the data, is that TSR is definitely moving in the right direction. The question is at what speed and efficiencies can it further optimize its resources in creating its’ future. I offer that proposition in its most literal sense and that ties back to strategic architecture and systemic thinking. In my estimation, TSR can continue to move forward and prosper with its present posture and initiatives, or it can reinvent the future of telemarketing. All the ingredients are there. It is a question of vision, alignment and synergy on all levels of the organization. The formula begins with leadership’s strategic vision and includes the organization’s ability to “learn to learn” faster than its competition. If this premise is accurate, or at least a testable proposition, then the question is how do you best tap into the “collective experience and wisdom” of the organization. There are no quick or easy answers to this proposition. However, it is my intention that this summary and research will provide options and alternatives for your reflection. Based on attempts to make this a focused summary, these observations may appear to be general in nature or even a “flash of the blinding obvious.” However, the fact that they came from employee stakeholders representing all levels and factions of the organization affirms their significance. In a cause and effect scenario, data points (symptoms) stand up to root-cause analysis by auditing back to the source and checking for consensus.

Starting with the end in mind based on the two over arching themes, the summary addresses the findings in each of the four dimensions comprising Dr. Deming’s’ holistic System of Profound Knowledge. Certain “quality criteria” will be referenced in each dimension to provide a comparative framework. This referenced framework was used in the interviews and as summary points for reflection. This quality bias does not suggest that “quality thinking” is the only approach to addressing the challenges before TSR. However, I will suggest that the quality movement in general, specific initiatives within AMR overall did bring many viable and

enduring strategies worthy of review and continued emphasis. While corporate America has closed on the initial "pain" made prominent by Japan's Quality Revolution in a global marketplace, don't throw out proven strategies and initiatives until value added alternatives are rolled out and readied for implementation (i.e., self-directed work teams).

One last point, in some cases the source of challenge comes from not "what " is done, but rather "how" it is done, or at least perceived. The move to a 50:1 ratio of team leader to agents is a poignant reminder of this fact. While competitive realities may have indeed supported this move, it was not "perceived" by those most impacted to be in their or the customers best interest. While part of that reluctance is overcoming resistance to change and organizational inertia, there are critical lessons to be learned in terms of introducing new initiatives and forecasting stakeholders reactions. If people feel that they are being told to simply "sit down and do their jobs", they will resist change and in some instances, either consciously or subconsciously, sabotage important initiatives. This cuts to the heart of collaborative leadership and the involvement of stakeholders in the process. This situation will be further addressed under the People Dimension.

This summarizes the process used in collecting data. The analysis to date is reflected in the Executive Summary.

Appendix D

Identification and Assessment of TOM in TSR

From : Rick Brydges, Doctoral Candidate, University of San Diego

To: TeleService Resources (TSR) Total Quality Management (TQM) "Stakeholders"

Subject: Identification and Assessment of TQM in TSR

Enclosures: (1) The System of Profound Knowledge
(2) Interview Questions
(3) The Flow of Fourth Generation Evaluation

November, 1995

Background

Total Quality Management (TQM) has been adopted by many organizations in this country, and around the world, as a core competitive strategy to compete in a global economy. It has been described as the Third Wave of the Industrial Revolution. Despite its noted success, first in Japan post World War II and now in this country, it requires leadership and a great deal of corporate energy to institute and sustain a culture that synergistically focuses on meeting or exceeding customer requirements. TQM cuts much deeper than the formal tools, work processes, and organizational arrangements involved in that pursuit. The creation of a "quality culture" involves formulating and changing the basic mind-sets, attitudes and values of the organization.

The focus of this research is to identify issues involved in creating a TQM culture. An organizational culture that results from the learned behavior of a stable group of people as they cope with their external environment and internal issues. This inquiry will focus on internal and external issues as they relate to the organizational implementation TQM. This identification will involve describing differences between espoused TQM values and theory-in-use or actual behavior. Based on the awareness of such differences, conscious decisions can be made in terms of developing or modifying the value-system that ultimately creates the desired corporate culture.

Specific Objectives

The purpose of this research is to determine the extent to which TQM has been enculturated in an organization. The extent, or degree, of enculturation will be determined

using a case study methodology to identify inconsistencies and differences between espoused TQM values as represented by Dr. W. Edward Deming's System of Profound Knowledge (Encl. 2) and theory-in-use, actual practice at TSR. In the process of investigating the bridging of TQM theory to practice, this research will use the four dimensions of the System of Profound Knowledge as a template: Appreciation of a System, Knowledge about Variation, Theory of Knowledge, and Psychology. This framework will guide my inquiry and investigation into the utility and effectiveness of TQM as value based managerial construct to achieve TSR's operational and strategic objectives. The following research questions will ultimately be addressed:

1. To what extent are the values and characteristics of the Appreciation for a System dimension used to structure and align processes and the overall system?
2. To what extent is the Knowledge about Variation used to assess and take action on process and system variation?
3. To what extent does the Theory of Knowledge influence individual and organizational learning?
4. To what extent is the dimension of Psychology as a theoretical construct used to understand the interactions of people, circumstances, and a system of management (specifically the interrelationship of leaders and followers)?
5. How do the four dimensions of the System of Profound Knowledge come together to define and construct the organizational culture?

Significance of Research

This research is based on the premise that it is the responsibility of leadership to construct, sustain and change organizational culture. To accomplish this objective, leaders must first identify desired organizational values or lack thereof. This research defines a process to specifically identify an organization's TQM value construct using Dr. Deming's System of Profound Knowledge. It will identify the organizational realities involved in

bridging theory to practice. While the findings may not be generalizable to other organizations, the process of identifying TQM as a cultural reality will be.

Methodology

A qualitative case study methodology will be used to assess TQM as a cultural influence by surfacing issues and identifying gaps between espoused values and values in action. The System of Profound Knowledge will be used to guide observation, document review and the interview of stakeholders. Stakeholders are defined as individuals in the organization that may have a vested interest in the outcomes of this research and may have differing views on the implementation of TQM in TSR. Enclosure 2 will be used to guide the interview process.

The evaluation process will utilize a Fourth Generation Evaluation Model (Encl. 3). It has been so termed because it moves away from the positivistic approach associated with the scientific paradigm to a responsive constructivistic evaluation that builds on knowledge as it evolves from the data gathering process itself. This responsive evaluation model will seek out differing stakeholders' views by asking stakeholders' their values, issues, claims and concerns involved in implementing TQM and establishing a quality culture.

The following definitions will be used for issues, claims and concerns:

1. A VALUE is a belief that reflects individual and collective behaviors.
2. An ISSUE is any state of affairs about which reasonable persons may question.
3. A CLAIM is any assertion that a stakeholder may introduce that is favorable to the issue.
4. A CONCERN is any assertion unfavorable to the issue in question.

In the context of surfacing values and issues relative to the TQM cultural realities in TSR, stakeholders will either reach consensus or data analysis will reflect gaps between espoused and actual values based on issue identification. At that point resolved claims, concerns and issues will be reported in the case report findings and the unresolved items will also be presented to the organization for prioritization and further negotiation involving the

recycling of issues until consensus or non consensus emerges. The final report will be a vehicle for the dissemination, application and aggregation of insights and knowledge gained from this process.

Enclosure 1. System of Profound Knowledge

The System of Profound Knowledge as described by Dr. Deming (1993) in his book The New Economics for Industry, Government, Education presents a comprehensive construct and breaks it down into the following four dimensions:

1. Appreciation for a System (structure)
2. Knowledge about Variation (measurement)
3. Theory of Knowledge (acquisition of knowledge)
4. Psychology (human interface)

The following descriptions of specific attributes, characteristics and values are not meant to be all inclusive. However, they do serve to establish a common frame of reference from which to explore TSR's cultural realities.

Appreciation for a System. This dimension addresses organizational structure. The premise is that form should follow function and incorporates the following values and/or attributes:

- structural alignment based on work processes
- optimization requires cooperation
- aim (operational and strategic objectives)
- synergy (whole is greater than sum of parts)
- breaking down structural barriers (functional isolation)
- aligning Voice of the System with the Voice of the Customers
- cooperation vs competition (win-win)
- remove barriers
- constancy of purpose (the articulation of vision)

- break down barriers between departments (functional silos)

Knowledge of Variation. This dimension acknowledges that there is variation in everything. It uses a range of tools and methodologies to graphically display and statistically characterize variation using Statistical Process Control (SPC) and associated graphic tools. Its management's responsibility to continuously improve process capability by reducing undesired variation.

- 85/15 Rule
- Statistical Process Control (SPC)
- Seven Graphic Tools
- special and common cause variation
- definable capability
- prediction (management's job)
- continuous improvement
- stable and unstable states
- management works on the system, workers work in the system

Theory of Knowledge. This dimension promotes learning based on theory. Theory based on experience is proposed, predictions are made and knowledge is gleaned by comparing the observed with the prediction. This is the basis for the PLAN - DO - CHECK ACT CYCLE to promote continuous improvement of products and services. It promotes an individual and collective "learning to learn" capability in coping with rapidly changing environments.

- management is prediction
- information is not knowledge
- learning to learn capability
- institute a program of constant education and retraining

- reflection
- feedback
- transfer of knowledge

Psychology. The dimension of Psychology addresses the interaction between people and the systems in which they work. It calls for a post-industrial model of leadership that acknowledges diversity in the workplace and optimizes individual and collective ability to contribute to a common goal. This dimension recognizes the blend of intrinsic and extrinsic motivation in building self-esteem and affording an opportunity to discover "joy in work."

- put everyone to work to accomplish the transformation
- drive out fear of the workplace
- adopt the new philosophy
- intrinsic and extrinsic motivation
- the dynamics of the leader/ follower process
- "comfort zones" and influencing openness to change

Interview Questions

Name _____

Position _____

As an identified stakeholder you will be asked to respond to the following interview questions and your responses will be recorded. All data will be reported in a manner that maintains individual anonymity and organizational confidentiality.

Describe organizational values around each dimension of the System of Profound Knowledge and address specific issues, claims and concerns associated with each.

1. Describe organizational structure in terms of processes and the system as a whole.
2. Describe how process and organizational capability is identified and measured.
3. Describe how experience is used and knowledge is acquired to increase organizational capability.
4. Describe human interface and dynamics. Specifically address leadership and followership.
5. How do the four descriptions above come together to define the TQM culture at TSR?
6. Additional comments.

Enclosure 3. The Flow of Fourth Generation Evaluation

1. Establish contract with sponsor
2. Organize case study evaluation
3. Identify stakeholders
4. Develop shared constructions around TQM using the System of Profound Knowledge, specifically focusing on values, issues, claims and concerns (VI C & C)
5. Test constructions with all available information (i.e. observations, review of documentation)
6. Sort resolved and unresolved V I C & C's
7. Negotiate findings for clarity
8. Report finding and give recommendations

Appendix E
Sample of Data Matrices

Memorandum

10 December 1995

From: Rick Brydges, Intervention Facilitator

To: President TSR and Direct Reports

Subject: Interview Data Feedback Session 13 December 1995

Enclosure: Data Matrix

1. Background: The matrix enclosed is a compilation of perspectives gathered from individual interviews with the President and Direct Reports October 1995 (strategic perspective). The interviews were conducted using Dr. W. Edward Deming's four dimensions of his Theory of Profound Knowledge (structure, measurement, knowledge, psychology) to discuss and describe Total Quality Management (TQM) initiatives in TSR. Interview data were collated into one of the four dimensions and designated as a CLAIM (positive connotation), CONCERN (an unfavorable assertion), or ISSUE (any state of affairs about which stakeholder may disagree).
2. Review: Please look over and reflect upon the enclosed data sheets. In your own mind confirm, modify or question the comments/perspectives. I will facilitate a discussion of this "constructed reality" at a one hour meeting with designated stakeholders. The objective is to have a sense of consensus around TSR's present state realities as they relate to the overall culture and TQM specifically.
3. Further analysis: Along with the strategic perspective, the same interview process and review is taking place with a representative number of middle managers (tactical perspective) and on the agent/Team Leader level (operational perspective). The three perspectives will be compared and contrasted. An on going discourse about the present realities of TQM will recognize existing alignment and discrepancies in perceptions and practice.
4. Outcomes: The ultimate objective of this intervention will be to evaluate the practice of TQM in TSR's organizational culture using Deming's System of Profound Knowledge as an assessment framework. From a facilitated consensus of the "present state", TSR can change or build off present realities to formulate future competitive strategies.
5. Other Possibilities: The vision for TSR is be "number one" in the industry (THE WHAT) and to provide the best ROI to AMR and stockholders (THE WHY). This process is designed to have you individually and collectively determine the competitive strategies to achieve stated objectives and to further clarify "what getting serious about quality" means to this organization (THE HOW). This is particularly relevant for strategic management/leadership.
6. Acknowledgment: I know that time is critical and "plates are full." I thank you for your input and cooperation to date. If you have any questions or further input, please contact me through John Dewey.

STRUCTURE

Claims	Concerns	Issues
reorganizations moving in right direction in terms of aligning to the needs/desires of both internal and external customers	executive management needs to be more involved in quality as a competitive strategy (executed phase I, either move on to phase II or kill it and fully support another strategy).	we don't know the true capability of our system (haven't optimized human resources and material assets)
moving away from functional (silo) structural organization	top-down traditional organization stresses control and inhibits personal involvement and initiative	what is driving the supervisor ratio from 1:15 to 1:50 (are there known inefficiency to this magnitude or is this just the "squeeze theory" in action)
moving toward organizational structure that encourages and supports "desired behaviors"	need more cross function structure in dealing with RFQ/RFP (looking for self-directed work teams)	we appear to reorganize for the sake of reorganization (action bias, just do something) (ready, fire, aim syndrome) (see another reorganization coming)
we keep our eye on the ball as long as we <u>make plan</u>	need more involvement by upper management in the quality program and initiatives (quality needs positional/structural authority)	as we become more focused on core competencies and customer base, we need to be less entrepreneurial
IIQ initiatives, training and teams provide a quality structure	organizational charts not aligned to work (organization needs to be re-engineered around the work and the customer)	why do we even exist if our core business is travel and entertainment
we measure incidence as they occur (the anomaly or exception, measure after the fact)	don't have a systems approach to quality (everybody doing their own thing)	organization needs to identify and reflect internal management potential
satellite organizations better structured for response (smaller, closer knit)		not having a quality focus is due to two things: the nature of the organization and the industry

MEASUREMENT

Claims	Concerns	Issues
we have some measurements in place to identify capability and skill level	we are financially driven (profits and revenues) Period!	meeting specifications is or should be only a threshold requirement (we must overwhelm or delight the customer)
we've improved response to customers based feedback and measurement of certain perimeters	we don't have other measurement systems in place (other than financial)	need more quality tools and training to do measurement with (software and hardware). More investment in SPC training
QIT efforts are showing a good ROI (are they realistic?)	everything goes out the window if we don't make plan (knee jerk reaction and fire fighting prevails)	need to increase cycle time in getting products and service to market (simultaneous engineering)
operational areas track performance measures	we don't have statistical process control (SPC) methodologies in place that reflect the capability of our processes and systems	need periodic quality reviews with clients, both internal and external
do plot some data for trends but not on a systems basis (more on a project basis)		

KNOWLEDGE

Claims	Issues	Concerns
we are upgrading technology to deal with challenges and facilitate learning (i.e. interactive training videos)	this is a new business and we don't have a knowledge/experience base to build off, we need to build one	we don't do alot of forecasting based on theory derived from knowledge and experience (management's job is to predict, PDCA Cycle)
we do go outside for subject matter experts (SME'S) IIQ/QIT process is good for generally exposing people to the potential of TQM and to train people in using it as a competitive strategy	some people aren't comfortable with technology changes. They need to get out of their "comfort zone" and get onboard with new and innovative ways of meeting the customers need:	we are always defending our financial performance, we don't take time to reflect, learn and capture our experience
we do rally around problems (reactive, fire fighting after the fact)	need to make a big investment in training to upgrade skills and capabilities of our work force	we do only limited training, we rely on-the-job training
AA has provided alot of TQM training/education we learn by doing (school of hard knocks)	more interested in punishing mistakes than learning from them	our organization sees progress only as people in seats making or receiving phone calls
we try to set developmental goals and tailor training/education around them		

PSYCHOLOGY

Claims

we realize this is a "people to people" driven business

people come from all over AA and bring a wealth of talent and experience

we will jell in time, we just have to figure out how to jell faster

have had alot of "whitheadian" knowledge/information imparted to us

we are going to provide opportunity but there will be some attrition

improving communications between management team and agents

leadership is empowering people to take responsibility ands do more

we have removed the demigods from the floor

quality is a good way of getting consensus and bringing people together to solve problems

management comes together when there is a crisis

Issues

the key to leadership in this business is being able to relate to many different individuals

refuse to pump autocratic style down to our people

leadership is becoming less autocratic, less financially oriented

we are not going to tolerate a "Newtonian" approach to management

we treat people with respect

upper management needs to move away from running daily operations to a more long term perspective

need to screen people better for promotion

we have managers in this organization, not leaders

lack of respect for the individual worker in this organization

authoritative culture perpetuates fear in the organization

Concerns

autocratic style of management from above

too much micro management

we spend a great deal of time in meetings, time needed to manage our own teams

there is a perception of a lack of confidence - "we are being held hostage to endless meetings"

with the realization that we are financially driven, we need to put more of a human spin on this organization

management jumps all over exceptions

Appendix F

Project Background and Description

Memorandum

25 March, 1996

From: Rick Brydges, Project Coordinator, University of San Diego Doctoral Candidate

To: Matt Aneil (Strategic Level), Don Beschke (Tactical Level), and Curtis Lord (Operational Level).

Request distribution to designated representatives.

Subject: Project background and description of meetings 1 and 2 April 1996.

Enclosed : (1) Strategic Level Data Sheets
 (2) Tactical Level Data Sheets
 (3) Operational Level Data Sheets
 (4) Stakeholder Representatives

1. Let me first thank all stakeholders for their participation in this project to date. The process outlined in this memorandum will close out the data gathering phase of this research. Consistent with my original intent of "holding a mirror up to the organization," the culmination of this project will serve as a consensus driven reflection of the organization's "current state." A state that reflects TSR's overall culture and its Total Quality Management (TQM) value base specifically.

2. The enclosed data sheets reflect a "first cut analysis" of the enculturation of TQM using a Fourth Generation Evaluation Model. In addition, the data can be used to corroborate other sources of information (i.e. Employee and Customer Satisfaction Surveys, internal reporting information, ongoing training and consulting inputs). They can serve as a basis for "action planning" in attaining TSR's objective to become number one in the industry by further aligning and optimizing the utilization of all human and material resources in serving customers, both internal and external.

3. Based on that description of the desired outcome, let me review the process to date. Starting last October, I interviewed a cross-section of stakeholders on three organizational levels:

Strategic - President and Direct Reports

Tactical - Middle Management

Operational - Team Leaders, Lead Agents and Agents

Designated interviewees on each level were asked to comment on the four dimensions (theories) that comprise Dr. W. Edwards Deming's System of Profound Knowledge:

A. Systems Theory addresses an organizations structure and identified processes.

B. The Theory of Variation addresses measurement. The assumption is that what an organization measures is what is important to the organization and can be used as a common set of metrics for continuous improvement.

C. Theory of Knowledge addresses how individuals and the organization go about acquiring knowledge and the capacity to learn.

D. The Psychology dimension addresses how people interact with specific emphasis on the leader - follower dynamic and interface.

4. As part of the data review and collation process, responses were broken down into one of the following categories within each dimension:

Claims- any assertion that a stakeholder may introduce that is favorable to the dimension being addressed.

Concerns - is any assertion unfavorable to the dimension being addressed.

Issues - any state of affairs about which reasonable persons may question or comment on.

5. Using the proceeding parameters, transcribed interview data were organized into a series of matrices (Enclosures 1,2,3). Each matrix identifies the claims, concerns and issues associated with one of the four dimensions of the System of Profound Knowledge, or a dimension titled "others" was constructed for data that didn't fit one of the previous four System of Profound Knowledge dimensions. The enclosed data sheets for each dimension were then presented by me back to representatives from the respective levels for confirmation as a "second cut analysis." Each group level confirmed the data as representative and accurate.

6. The next step is to have the designated representative stakeholders (Encl. 4) from each level review their respective data sheets. First, review the issues to see if there "might be" consensus on whether it is a claim or concern. Then select out the 5 "most important/significant" data points you want addressed at the review sessions on 1 April (5 claims and 5 concerns associated with each dimension). Initial review meetings for each level are scheduled as follows (Operational 9-10:30 a.m., Tactical 10:30 -12:00 , Strategic 2:30 - 4:00 p.m.). In this "third cut analysis", designated representatives will first determine if issues can be moved based on a consensus basis to a claim or concern category. Then claims and concerns will be prioritized using a forced-choice pairing process on each of the dimensions. Then at 1 p.m. on the 2nd of April these same representatives from the three levels will come together to discuss and negotiate

their respective "views of the world" and priorities. The degree of consensus (alignment) or non-congruence (non-alignment) will be identified between the three levels in terms of prioritized claims and concerns.

7. The concluding step will be to use the data to construct a Force-Field Analysis. Prioritized claims will act as the forces in moving toward TSR's objectives by meeting the needs of both internal and external customers. Prioritized concerns will represent the forces working against those objectives. If representatives don't come to consensus around whether issues are claims or concerns, they will be left "hanging out there" for future evaluations and resolution.

8. This description is my attempt to succinctly describe the data gathering process to date and my design for closure. I apologize if this is more confusing than clarifying, but I did want to describe the entire data gathering evolution and negotiating process for those interested in where we've been and where we're going. Based on this background, I ask that individual participants review their respective data sheets and formulate their thinking around each of the dimensions and categories. What do you want to say individually and as a representative group? Once again, thank you for your participation and I'm looking forward to meeting with you all on the 1st and 2nd of April 1996.

Respectfully,

Rick