AN ABSTRACT OF THE DISSERTATION OF

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Title: Paradigm Shifts in Training and Development: A Naturalistic Study of Management Change During Organization Transformation

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The need for organizational transformation is a response to a larger paradigm shift occurring in science and society. It represents a shift from the mechanistic model to a systems, holistic model. The purpose of this study was to determine patterns and practices that limit training effectiveness when facilitating a major organizational paradigm shift. A literature survey identified major clashes between those values and tools of organizational models based on the new paradigm and those of bureaucracy, bureaucratic management and training relationships, domains and dynamics.

Participant observation and interviews were the methods used to collect data from a study group of 15 upper middle managers involved as a pilot management team in the first year of TQM implementation at a public university. The group was closely observed during five months of training and 10 participants were interviewed at the end of the first year of implementation.

Their stories revealed four obstacles to transformation: 1) managers were coerced into complying, change was imposed from above, there were no appropriate support systems and fear was endemic; 2) the management team had more difficulty than non-management TQM teams learning the mechanics of TQM, claiming they didn't have necessary learning skills; 3) managers protected themselves by rewriting the rules of TQM to fundamentally preserve the status quo; 4) managers defined the TQM effort a success without substantive personal change, pushing responsibility down and praise up in the organization.

These obstacles were inherent in the bureaucratic system that effectively protected the managers from substantive change. The conclusion was drawn that four conditions were missing for a major organizational paradigm shift: 1) a willingness to risk, coupled with organizational support; 2) deep learning skills that provide personal context for learning: 3) shared vision, and; 4) personal mastery. Training patterns and practices reflected the same missing conditions.

The training program was powerless in the transformation effort because: 1) it modeled and reproduced the old instead of the new wisdom, values, tools and ways of thinking and talking, during the transformation process; 2) the learning capacity implicit in the training program was limited in the same ways management was, by missing support structures, willingness and ability to change, and shared vision; 3) it depended on traditional relationships and dynamics, despite new domain, and was not seen as a credible transformation agent.

Paradigm Shifts in Training and Development: A Naturalistic Study of Management Change During Organization Transformation

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Typed by Brigitta E. Olsen

This work is dedicated to my children, Genny and Adam, who have loved me enough to dream with me.

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Paradigm Shifts in Training and Development: A Naturalistic Study of Management Change During Organization Transformation

Chapter One - Introduction

The demise of the "machine" model amidst radical new technologies has forced economic, politic and social changes upon the work organization, both by changing its conceptual framework - *paradigm* - and by threatened economic decline and demise. New models of open, living systems are replacing the older closed or mechanistic models, thereby more closely imitating scientific understanding of the natural world.

Deming states categorically that 85% of organizational performance problems are caused by traditional management systems. He has challenged management theory to redefine *its* system of beliefs and values (1992). In meeting this challenge, the transition for middle managers from bureaucratic (or mechanistic) roles and expectations to those of the new *learning organization* appears to be causing the most difficulty (Collett, 1991; F.P.& L, 1988; Geber, 1992). Indeed, many middle managers are actively sabotaging the transformation process (Pearson, 1992; Witte, 1980; Geber, 1992). Because of this dynamic, the average organization is reporting 5-7 years to complete the management transformation.

Why are middle managers resisting the new management system while top management and workers are embracing it? The difference may be understood in terms of what each group stands to gain or lose.

Ideally, executive decision-makers are not only in control of change but are leading the organization through it. They are the ones in the organization who define the new beliefs and values. Their roles may change, but their understanding of the necessities of transformation as well as their experience and ability to see a broader perspective and longer-range benefits make the transition process easier for them (Jacques, 1986). By being in control, they can minimize risk and their own losses (Bridges, 1980).

Front-line workers have little to lose and a tremendous amount to gain from new management systems and values. For the learning organization to work, they must *regain* control over what they do, continue to learn throughout their work lives, and take responsibility for what they produce (Geber, 1992). Most indications are that workers in learning organizations are out-producing traditional organizations and loving it. Morale, absenteeism and the productivity of these organizations have improved dramatically (Spector, 1986). Discipline has ceased to be a problem (Pearson, 1992).

In contrast, traditional middle managers gained their present status by functioning effectively in the patriarchal bureaucratic environment, i.e., they played the game well (Carr, 1968). However the new rules and values are not only different but in many ways they are oppositional to bureaucracy. The game itself has changed.

First, traditional middle management has served as an information conduit between workers and decision-makers (Toffler, 1990). The power-base was information, either their own specialized information or the flow of information up, down or around the organization. Computer and communications technology has altered this flow such that almost anyone can tap into it and middle managers cease to control it (Kantor, 1986; Zuboff, 1988).

A second radical change is that learning organizations acknowledge and embrace complex webs of interdependent relationships (Senge, 1990). Functioning cooperatively is one of the most important skills managers now need to survive (Morgan, 1986, 1989; Naisbitt & Aburdene, 1985; Peters, 1987; Davis, 1987, 1991; Senge, 1990). The old game, conversely, did not require managers to function cooperatively, but instead rewarded skills more appropriate to a poker game (Carr, 1968).

Third, in addition to altered values and a lost powerbase, middle managers face the task of fundamentally readjusting their core beliefs. As with other professionals, managers tend to identify with their label, such that they *are* managers, they don't just *do* managing (Covey, 1989; Jackall, 1988). When the definition of what it means to *be* a manager changes, their very definition of themselves must also change. This challenge leads to the likelihood of higher resistence.

Not only does it appear that managers have the most to lose in the transformation (their power-base), but they also do not have the skills or

experience needed to comprehend the gains. On the one hand, they were not selected or trained for entrepreneurial abilities, i.e., flexibility, macro perspectives, risk taking, or promoting innovation - all learning organization skills (Senge, 1990; Tichy and Devanna, 1986). Nor did they possess the skills to work across boundaries with peers and partners over which they had no direct control (Kanter, 1989). On the other hand, they *were* rewarded for only passing good news up the ladder while putting career goals (their own and their bosses) ahead of relationships and even organizational objectives (Jackall, 1988).

Despite these systemic handicaps, organizations cannot afford to write off the tremendous knowledge, experience and talent which managers embody (Geber, 1992), nor is the role of information conduit completely deleted (Kanter, 1989; Zuboff, 1988). During the transition period, the importance of middle management's "buy-in" of the transformation vision and goals is second only to that of top executives (Collett, 1991; Deming, 1991). Critical issues surround their transition to the new paradigm, going deep into the psychology and learning ability of each individual, the sociology of a work organization, and the ecology of that organization's place in the world at large. These issues combine to make facilitating management transformation quite complex.

This study focuses on the impact of current training practices on the learning process required of upper middle managers during organizational transformation. It examines how training facilitation effects such a transition

within the organization. It concentrates in three areas: on the scope of the organizational transformation; systemic obstacles to change inherent in the old system; and relationships, domain and dynamics of training interventions as they impact management.

Traditionally, training interventions have focused on skill-based objectives, dictated from above in the patriarchy and as necessitated by new technologies. The purpose of training interventions has been to guarantee that staff knew what was expected of them and how they were to accomplish it -- for example, how to run their section of the machine. The belief was that only top management had a view broad enough to effectively modify systems and subsystems. Trainers represented management in what was acceptable and what was not. Put another way, training interventions were the *mouthpiece* of the patriarchy (Block, 1989).

However, cultural and organizational transformations of the magnitude being experienced have not occurred since the advent of the mechanistic organizational model three hundred years ago (Prigogine, 1984; Davis, 1991). Current training techniques have never been used in a transformation either this far reaching or this radical.

Additionally, changing the management powerbase by hierarchical mandate is easier than dictating a change in either management value systems or core beliefs. The internal adjustments involved are too complex to be mandated. Time and economic pressures make it risky to leave people to muddle through by themselves. Because these changes are dynamic,

interrelating with issues of personal psychology, trust, reward systems, credibility, and corporate culture, it makes sense to question the effectiveness of the current training paradigm.

For example, not only must middle managers change the *nature* of the decisions they make, they must also change the *way* they make those decisions, i.e., who has input, who is involved, who is invested with the power to implement, and who, finally, gets rewarded or punished. Is it realistic to expect that, by training managers in the *procedural* skills of new decision-making models using current training techniques, managers will suddenly become willing and able to redefine themselves, changing their values and ways of thinking as well as behavior? Or is a change this radical so interdependent on issues like trust, willingness and ability to accommodate change, and credibility of the change agent, that the *system* of training must reflect the new paradigm also?

The new organizational paradigm may require that relationships between training functions, its customers and the organization in which it functions need to be altered. To increase effectiveness, these professionals may need to rethink and redefine not only relationships, but also their domain within the organization, and the dynamics of their interactions.

The purpose of this study is to determine if there are patterns and practices that limit the effectiveness of traditional training interventions when the purpose of the training is to facilitate major paradigm shifts in the organization. If limiting patterns and practices exist, what are they?

One group of 16 upper-middle managers was studied from the initial inception of a transformation plan through the end of the first year of implementation. Naturalistic inquiry was chosen as the appropriate methodology for uncovering patterns of complex interactions. Field observation notes were kept on five months of weekly Total Quality Management (TQM) training sessions attended by the sample management group, as well as six months of additional "pilot" team participant observation. Some members of the management team were interviewed at the end of the first year, as were consultants and trainers involved in the process. Supporting documents relating to the progress of the team were collected, as well as all training materials used during the first year.

Through the story told by this group of managers and the training professionals working with them, it is possible to determine the patterns and practices that limit training intervention effectiveness during an organizational transformation. From this, directions for the future may become apparent.

Assumptions

Certain assumptions hold throughout the study:

1. Shifts in traditional management and organizational systems have emerged from more global paradigm shifts in science and technology.

2. As TQM embodies the values of the new learning organization, it is assumed to be generic enough to represent the major trends of the paradigm toward which organizations are moving.
3. Training is a traditional practice that has principles and paradigms (conceptual frameworks) emerging from traditional management systems.
4. The technology of training, whatever form it takes within the organization, has a common theoretical foundation and principles of practice.

Limitations

As with any story, some aspects of this story are unique to its particular situation and setting. Certain limitations are acknowledged, including the following:

1. The study organization was the first academic institution known in the U.S. to adapt Total Quality Management (TQM) methods from the model developed in manufacturing to a service environment.
2. This study is limited to a single case.

Definition of Terms

Evaluation research - discerning patterns through the description of cases and the proposition of linkages between processes and outcomes that seeks to determine whether an action has the results it is meant to have (Tesch, 1990).

Human Resource Development (HRD) - organized learning experiences sponsored by an employer and designed and/or conducted for the purpose of improving work performance while emphasizing the betterment of the human condition through integration of organizational goals and individual needs (Sredl and Rothwell, 1987).

Initial states - conditions existing at the beginning of a project or cycle. In chaos theory, small differences in initial states cause large variations in outcomes.

Learning capacity - the extent to which an individual, group of individuals or organization is able to learn continously on multiple levels of awareness.

Learning organization - an organization that is continually expanding its capacity to create its future (Senge, 1990); one that is able to learn through double-loops, i.e. has the ability to remain open to changes in the environment, and the ability to challenge operating assumptions in a most fundamental way (Morgan, 1986).

Middle management - those whose traditional role has been the control of information and the performance of others, who have responsibility for

that within their unit and who are not executive decision makers (Toffler, 1990).

Naturalistic inquiry - a non-positivistic approach to research in which the researcher is the instrument, and the focus is on understanding the meaning that people under study give to their experiences (Tesch, 1990).

Qualitative evaluation - evaluation that employs the tenets of naturalistic inquiry and emphasizes the process by which outcomes are produced rather than merely judging the outcomes (Tesch, 1990).

Paradigm - a conceptual framework that provides model problems and solutions (Kuhn, 1970); a totality of thoughts, perceptions and values that forms a particular vision of reality (Capra, 1988).

Paradigm shift - a change in the fundamental conceptual framework.

Total Quality Management (TQM) - a system designed for creating the continuous improvement of management processes in order to meet or exceed customer expectations. It combines tools and models from statistical quality control theory as well as the roles, values and expectations of the learning organization.

Training paradigm - the conceptual framework within which training practices and interventions are conducted.

Training practices and interventions - a technology that includes the system of relationships, domains and dynamics within the organization and workplace that is established to facilitate the improvement of processes

and performance. The system should include needs assessment, instructional design, development, delivery and evaluation.

Transformation - the operation of changing one configuration or expression into another (Webster's Dictionary, 1983).

Transition - a movement or passage from one state, stage, subject, form or style to another (Webster's Dictionary, 1983).

The literature review in Chapter Two is divided into three sections. The first section focuses on the paradigm shift itself, i.e. why organizations need to change. According to Webster's dictionary, transformation is defined as the change from one configuration or shape to another, including values. This section presents the *shape* of organizational transformation by contrasting the old mechanistic model of patriarchal organizations with the new open-systems model of learning organizations. It includes implications of changing emphases, roles, expectations and values for managers.

Given that transformation defines the *shape* of change, transition describes the *process* of change. Section Two explores what kinds of obstacles are encountered when managers are expected to change, i.e., transform to the new paradigm. The focus is on psychological aspects involved in changing an individual's core beliefs, as evidenced in attitudes, values, thinking, and behavior, and on obstacles systemic to the old paradigm of bureaucratic management.

Section Three addresses the training paradigm, looking at its relationship to both the outgoing mechanistic model and the new learning organization model. It identifies potential conflict between the relationships, domain and dynamics inherent in each of those models for training interventions.

Chapter Three presents the study design. Included is a description of the naturalistic inquiry methodology used and its rationale.

Chapter Four tells the ethnographic story of one organization's attempts to facilitate transitions to a new management system among a pilot group of 15 upper middle managers. The story is put together from field observations, interviews and supporting documents gathered over one year. The goal in telling this story is to determine if there were issues limiting training effectiveness, and if so, what those issues were.

Chapter Five forms conclusions about the realities of training interventions as they attempt to facilitate major paradigm shifts in an organization. It includes recommendations for future shifts in the training paradigm.

Chapter Two - Literature Review

This literature review focuses first on the broader conflicts brought into play by a paradigm shift - the *why* of organizational transformation. Then it investigates consequent emergent value systems in the organization and conflicts with the existing system - the *what* of middle management transformation. Finally it focuses on the specific effects on training practices and interventions of the paradigm shift - the *how* of transformation.

Relationships, domains, and dynamics are used as organizing concepts in order to reflect the uncontrollable, potentially chaotic nature of studying a living system in its natural environment - the work organization.

An emphasis on ***relationships*** replaces the fallacy of misplaced concreteness (Whitehead, 1978), where an entity was more signficant than relationships and interdependencies (Bateson, 1979; Weick, 1979). The shift is from subject-object and causal approaches to patterns of interactive effects in narrative analysis (Abbott, 1990). Relationships define the connections that control interactions between people and their functions in the organization.

The discussion of ***domain*** moves from reductionism to a consideration of levels of wholes as understood in living systems (Miller, 1979). Bateson presented this as a discussion of "classes of classes of classes" through which we can begin to discover an ultimate unity of living systems (1979). Domains

Quantitative science relies on simple equilibrium models and the concept of detail complexity in self-reinforcing loops. The new science relies instead on *dynamic* self-organized complexity and concepts of iterative feedback loops to understand interdependencies (Senge, 1990; Weick, 1979). Dynamics identify patterns of change, growth and stability.

Shifting Paradigms

> Successful problem solving requires finding the right solution to the right problem. We fail more often because we solve the wrong problem than because we get the wrong solution to the right problem.
> Russell Ackoff (1976)

The purpose of an organization is to organize some things *in* and some things *out* (Douglas & Wildavsky, 1982). Work organizations typically reflect the dominant paradigm in science. By understanding the nature of shifts occurring now in science, we gain a broad perspective of what is on its way out and what new is being added within organizational models. Because shifts in scientific thinking are fundamental, ultimate changes in organizations are likely to be radical.

To date, in America, only 10% of new corporations survive over 20 years (Nystrom & Starbuck, 1984). Many times it is because decision-makers are focused on the wrong issues, and therefore are trying to solve the wrong problems. For example, major changes in the global economy have affected the U.S. balance of international imports and exports, reducing the sale of U.S.

goods abroad (Reich, 1987). It seems obvious that the solution does not lie in banning the import of high-quality goods from other countries, but in raising the quality of goods produced in America.

Generally increasing turbulence in global politics, economics, technology and ecology demand that we reevaluate what we define as the problem (King, 1992). In addition, sheer survival let alone forgone opportunities, dictate that "In [our] times of rapid change, it is critical to *think about how we think,* regularly, consistently, and strategically" (Lynch and Kordis, 1988). This entails moving from a paradigm of *closed systems* to one of *open systems.*

The term *paradigm,* from the Greek *paradeigma* ("pattern"), was used by Thomas Kuhn (1962) to describe a conceptual framework, shared by a community of scientists, providing them with model problems and solutions. The term has become wildly popularized outside of science as well, coming to mean a totality of thoughts, perceptions, and values that forms a particular vision of reality (Capra, 1988). From this context, prevailing paradigms form a basis for the way a society organizes itself. It is in this larger context that the terms paradigm and paradigm shift are used to discuss organizational transformations.

Stanley Davis charts the natural progression of a paradigm shift as:

> "A basic progression [which] governs the evolution of management in all market economies: fundamental properties of the universe are transformed into scientific understanding, then developed in new technologies, which are applied to create products and services for business, which then ultimately define our models of organization." (Davis, 1987, p. 5)

The current shift away from the mechanistic paradigm began in the 1920s when physicists, led by Heisenberg and Bohr, came to realize that the world is not a collection of separate objects but rather appears as a web of relations between the various parts of a unified whole. Classical notions, including metaphors, language and psychological filters derived from ordinary experience, are not adequate to describe this new view of the world. Heisenburg himself wrote, "The Cartesian partition [reductionism, dualism between spirit and matter, mechanism] has penetrated deeply into the human mind during the three centuries following Descartes, and it will take a long time for it to be replaced by a really different attitude toward the problem of reality" (1962). Einstein quipped, "The significant problems we face today cannot be solved at the level of thinking we were at when we created them."

All our sciences - humanities and social sciences as well as the natural sciences - were based on the mechanistic world view of Cartesian partition, in turn based on Aristotelian bivarient logic (Kosko, 1993). Serious limitations to this world view have become apparent to scientists in all disciplines. In field after field, scientists are providing evidence that a major paradigm shift is indeed occurring.

For instance, current western medicine is moving away from treating symptoms, toward issues of balance and harmony within the whole body system *and its subsystems* -- "wellness" (Capra, 1989). Psychology has moved from the narrow concepts of Freud to the broader ideals of humanistic and transpersonal psychology, as seen in the work of Grof, Maslow and Laing,

among others (Grof, 1992). Mathematics has gone *chaotic* and *nonlinear* with fractals, basins of attraction, and unpredictability (Gleik, 1987). In the last 100 years, technology has moved from mechanized communication, to machines that observe and record symbols, to machines that can manipulate those symbols, resulting in automated decision-making and virtual reality (Ackoff, 1974; Zuboff, 1988). Some biologists and ecologists are pointing to a need to end a 10,000 year cycle of species expansion and domination of planetary resources (Quinn, 1993).

The paradigm shift is reflected in the radical restructuring of work organizations. Technology, global competition and dwindling natural resources have changed power bases and communication channels (Zuboff, 1988). A key concept in the shift is the learning organization (Senge, 1990). Ramifications of the learning organization have radically altered roles, expectations and values, especially those of middle managers.

Underlying the new thinking is a recognition that scientific disciplines are interrelated, not independent (Capra, 1982, 1988). This view is characterized in a variety of ways, the fundamental notion being that of open-systems, a recognition that real life occurs on multiple levels which connect and interact, which are interdependent and which fluctuate.

Closed Systems vs. Open Systems

The key principle in systems theory is that an open system is greater than the sum of its parts. Additionally, each element or part in the system has an effect on the whole, and is nonindependent, i.e., the open system cannot be subdivided into independent subsystems (Morgan, 1986). Thus an open system focuses on how well its parts fit and work together in terms of interaction and interdependence (Senge, 1990).

The closed system focuses on how well each part works independently, thus explaining system behavior in terms of relations between the parts - causes and effects. It enacts its own limitations through largely self-referencing and self-justifying logics (Weick, 1979).

The open system uses *negative feedback* from the greater environment to self-regulate and maintain a steady state. The system that relies on partially or fully predetermined motions is closed and tends to atrophy and lose its complexity by insulating itself from differentiation and integration, or requisite variety (Morgan, 1986).

Closed systems are fixed structurally, while open systems have flexible patterns of organization. The open system is characterized by a continuous cycle of input, internal transformation, output and feedback.

Table I is a summary of the principles of closed and open systems, (Capra, 1982, 1988; Morgan, 1986; Weick, 1979). It is important to remember that Newtonian sciences treated the subjects of their studies as if they were

isolated and environment-free, *as if all other things were equal.* Open systems, on the other hand, recognize that matter and life are environment-full and all other things *cannot be assumed* out of the equation. Noise is part of an open-system.

Closed	to	Open
reduction	--	expansion
analysis	--	synthesis
pieces	--	patterns
cause & effect	--	interaction
linear	--	non-linear
stability	--	resilience
structure	--	process
independent	--	interdependent
mechanistic	--	living
attributes	--	relations
hierarchical	--	decentralized
determined	--	self-organizing
static	--	dynamic
environment-free	--	environment-full

Table I Contrasting Closed and Open Systems

Shape-Shifting

Revolutionary fundamental concepts about time, space and matter are changing organizations to create a better "fit" with changing scientific

understanding of the universe (Davis, 1987). Technologies spawned by the new sciences have changed the realities of *how* organizations and the people within them interact and conduct business. Organizational shape-shifting ensues through the pull of internal and external dynamics, through the shifting nature of relationships and through competing domains.

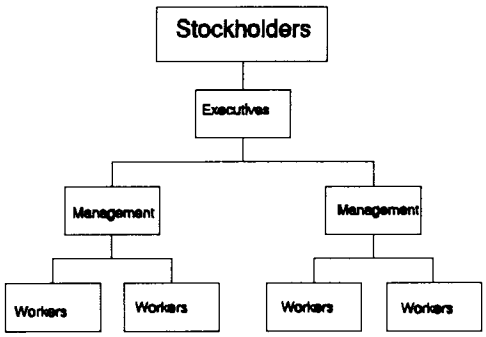

Figure 1 Linear Dynamics

1. To begin, the ***dynamics*** of traditional organizations were supposed to conform to the mechanistic model of top-down and specialized flow. The hierarchical chart in Figure 1 deliberately implies that information and energy move in a linear, unidirectional flow upward. Compare it to the chaos evident in Figure 2. This seemingly unstructured web of interactions and interdependencies is a more realistic portrayal of dynamics within and between organizations. Energy and information move between those involved in decidedly *nonlinear* patterns.

Classification according to rank and authority is no longer the primary indicator of importance. For instance, during the 1980s, many middle managers became uncomfortably aware that there is less middle now between producers and consumers. The traditional shape of the organizational chart

modeled static dynamics, relationships and domain, not implying interconnections with suppliers or customers.

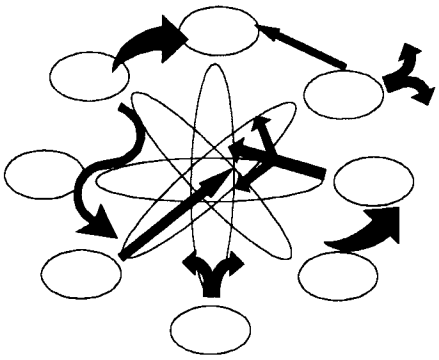

Figure 2 Complex Dynamics

New perceptions of time, space and matter have, however, radically affected the dynamics between producer and consumer, aided by emerging technologies. Power has shifted from the people who sell to the people who buy (Kantor, 1991) while every business is only one flight away from every customer. Goods and services are provided in the customers' *space* through the capabilities of E-Mail, home banking and computer software, for instance. Sellers vie for mind-space as well as "stomach-space" through media like televised marketing (Davis, 1987).

Customers receive goods and services in their own *timeframe* through products like credit cards, electronic bulletin boards and automatic teller machines (Davis, 1987). Rapid customization has moved production away from Ford's Model T mentality to the belief that we can have what we want, when we want, of the quality we want and at a price we want.

Technology has changed the relative importance of *matter* and *no-matter*. Intangible resources like mind, time, information and service are now more important than natural resources (Drucker, 1987). Perceptions of trust and

moral values are subjective intangibles -- *no-matter* that matters very much -- based on emotions, attitudes, expectations and values that are themselves *no-matter* (Davis, 1987).

2. ***Relationships*** within and between organizations were also viewed through the mechanistic model. Work organizations produced goods and services in *their* time and *their* space (Davis, 1987). Vendors provided raw materials as requested and customers received finished products when the organization was ready to deliver them. Service organizations as well as manufacturing functioned from this perspective. Each party to the process considered themselves independent and separate, as shown in Figure 3 (Davis, 1987). Although there was motion, it was perceived as linear and unidirectional, in that businesses got what the vendors provided and customers got what businesses offered. Relationships were not perceived as interactive.

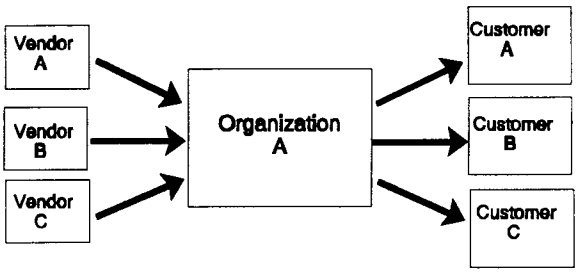

Figure 3 Static Relationships

Change focus, however, and it is apparent that these groups *are* interdependent. Each relies on the quality of its relationships and interactions with the others to survive (Davis, 1987; Davis and Davidson, 1992). As contrasted in Figure 4, each organization can wear several hats simultaneously,

in multiple relationships. It is a dynamic, nonlinear flow of information and energy between numerous organizations and individuals.

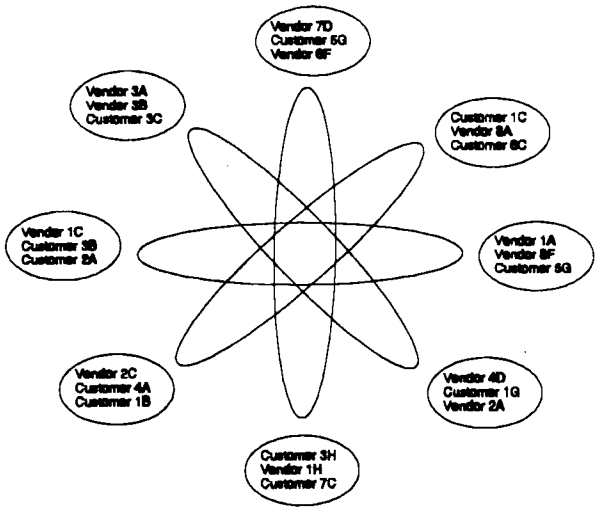

Figure 4 Interdependencies

Even a two-dimensional visual representation makes it clear that the *event* (the flow of energy within relationships) is more important than the *objects* involved, that *processes* are more important than *structures* (Senge, 1990). This change in perception is forcing organizational acknowledgement of the importance of ethical values and trust in relationships because trust is the foundation of relationships (Senge, 1990). As relationships have become more important, issues of trustworthiness have become more important (King, 1989; Mitchell, 1993).

3. ***Domains*** within the traditional organization are also dissipating. In the Newtonian model, the organization was placed in a concentric circle,

between individuals and the environment "out there" (Davis, 1987). As seen in Figure 5, the model implied that these levels can be dealt with separately and hierarchically, like layers of an onion. This model is no longer viewed as useful.

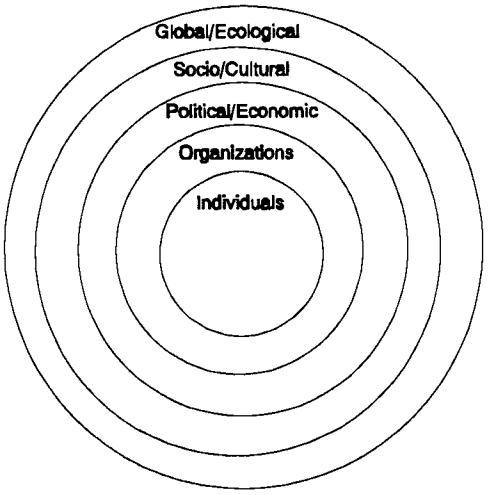

Figure 5 Traditional Domains

In the new paradigm, the destiny of every organization, whether business, agency or institution, is clearly tied into a complex dynamic web of interactions and interdependence that a two-dimensional image can only approximate (Figure 2). The strands that connect multi-nationals, globals, contractors, government agencies, small businesses and individuals are inextricably connected to families, communities, religions, societies and ecological survival as well.

While there are a number of ways to visualize the new organization, Figure 6 emphasizes two points: 1) the internal organization is a microcosm of the dynamic, interdependent flow of energy in the macrocosm as seen in Figure 2 (Morgan, 1986), and 2) hierarchical labels have given way to a recognition that there are many *interdependent stakeholders* involved with any organization (Davis, 1987). This concept has fostered new discourse on social

responsibility, including moral and ethical behavior for organizations (Senge, 1990; Morgan, 1986).

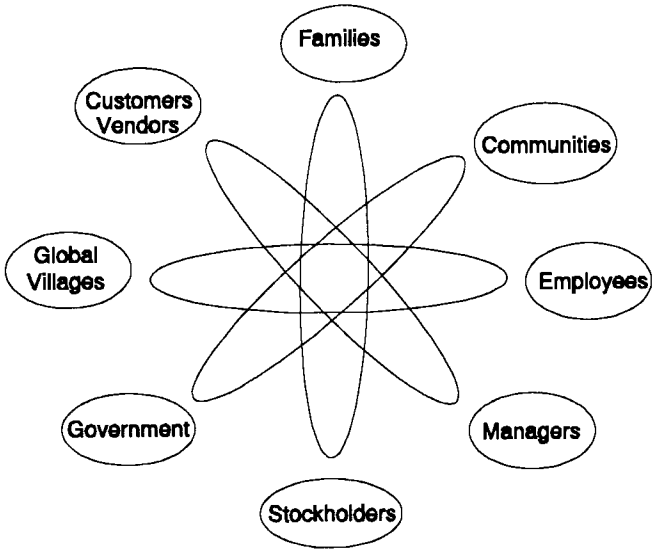

Figure 6 Multiple Stakeholders

The Learning Organization - An Open System

Many distinguished people have written about the shape of the new organization (Morgan, 1986, 1989; Naisbitt & Aburdene, 1985; Peters, 1987; Davis, 1987, 1991; Drucker; Senge, 1990; Zuboff, 1988; Michael, 1985; Covey, 1989). While numerous metaphors have been proposed - networks, webs, wheels, lattices, brains, fellowships - there is consistent use of the term *learning organization* to describe a successful transformation. A composite picture of a

generic learning organization (Table II), embodies the characteristics and values of generic open systems offered in Table I.

The learning organization views itself as an open system and incorporates systems thinking, encoding the whole in its parts (Senge, 1990). It recognizes that patterns exist across levels of increasing refinement within the system at the same time that as systems get more complex precise statements have less meaning (Kosko, 1993). It acknowledges the importance of initial conditions in determining successful conditions (Gleick, 1987). It provides a nourishing environment by resolving quality of life issues through the mutual interests of the organization and the individuals within it. It values its human resources, relying on commitment, not authority, to get the work done (Herzberg, 1987).

The learning organization is socially responsible, fostering open discourse on issues of moral and ethical behavior for itself and its stakeholders (Senge, 1990). It acknowledges shrinking natural resources and the importance of being ecologically responsible (Ainsworth, 1991).

The learning organization is self-organizing, in that it is flexible, resilient and inventive. It uses a strong common identity and sense of destiny to maintain its flexibility, as well as to build solidity (Morgan, 1986).

Bureaucratic	to	Learning
cause & effect	--	links & patterns
structures	--	processes
inertia	--	rapid response
short range	--	long range
relative values	--	transcendent values
specialization	--	cooperation
objects	--	events & relationships
pieces	--	unity
control	--	self-organization
discreet equations	--	mutual interrelationships
separation	--	interdependence
natural resources	--	human resources
stability	--	resiliency
machine	--	environment
employees	--	stakeholders

Table II Generic Contrasts of Bureaucratic and Learning Organization Orientation

As the learning organization fosters personal growth, it also requires personal responsibility (Block, 1988). It builds quality into its products and insists on quality services and interactions from and with all its stakeholders (Peters, 1987). Its mental models focus on *clarifying what really matters,* thereby serving the highest aspirations of both the organization and individuals (Senge, 1990).

Role expectations and therefore the values of ethical behavior, especially for management, have shifted so that learning organization managers transform their fundamental personal thinking patterns (Senge, 1990). Table III presents some contrasts that help define management's values transformation. The values listed on the right are obviously not new but the degree to which they are acted out and supported within the learning organization clearly distinguishes it from bureaucracy. A new configuration of management values leads to new definitions of management roles and responsibilities.

The learning organization manager develops the capacity to use change to better cope with the unknown (resiliency), rather than trying to control by anticipating risks (Kanter, 1986). The ability to bounce back, to defend against important difficulties using diversity and flexibility, are hallmarks of resilient management that determine the persistence of relationships within the system (Morgan, 1986). Developing and maintaining trustworthy relationships is a paramount skill, especially for managers (Naisbitt & Aburdene, 1985; Peters, 1987; Senge, 1990).

The *learning* manager commits to continuous learning and personal mastery, and her or his own ability to clarify what really matters (Covey, 1989; Senge, 1990). S/he learns *how to* learn, and routinely questions the relevance of operating norms. S/he learns the skills of creativity and innovation in doing the business of the organization as well as in dealing with other stakeholders (Peters, 1987).

This ideal manager embodies a global perspective while acting locally.

S/he nurtures intuition and emotions, and understands the transcendent/spiritual aspects of a holistic orientation, regardless of religious preferences (Covey, 1989).

In summary, a fundamental understanding of how the natural environment works, has changed scientific concepts about time, space and matter. These new concepts are leading to technological innovations and subsequent products and production methods which require a radical paradigm shift in the way businesses, industries and agencies structure their internal and external organizations.

Old	to	New
competition	--	cooperation
independence	--	team playing
authority	--	support
reduction	--	synergism
reaction	--	interaction
stability	--	resilience
problem-solving	--	planning
mechanism	--	holism
masculinity	--	femininity
individualism	__	globalism
bivalence	--	multivalence

Table III Evolving Managerial Values

Organizations that do not change are increasingly ineffective and will not survive. As Heisenburg noted (1962), it may take many years before these values and ways of thinking are felt throughout *all of* industrialized society, even though the new paradigm is gaining momentum. Predictably, the values and characteristics outlined above will themselves change, as the new

paradigm evolves and manifests itself. However, it is clear that we have passed a point of no return.

The issues considered in the next section focus on the fact that organizations are abstractions; it is *individual people* who must change and there exist substantial obstacles to transforming ways of thinking and valuing.

Systemic Obstacles

The profound shift in scientific thinking is filtering through all American institutions. Yet the basic nature of a closed-system institution is built on mechanisms for maintaining itself, i.e., systemic obstacles to change (Douglas, 1986). In organizational management, these obstacles are pervasive in ways of thinking and talking.

Pervasive ways of thinking and talking are internalized in the psychology of managers, along with resistence to changing those ways (Jackall, 1988). As it is individuals collectively who form the organization, transformation efforts must consider individual psychological systems. Therefore, this section examines obstacles to change systemic to personal psychology *and* bureaucratic management, arising from old paradigm beliefs and values.

Core Beliefs and Root Metaphors

Just as an organization is a complex web of interactions, so are the individuals within it. The dynamics of the individual do not exist in discreet planes or neat concentric circles as each individual is a collection of complex interdependent systems interacting in the larger system we call a person (Figure 7) (Grof, 1990; Talbot, 1991).

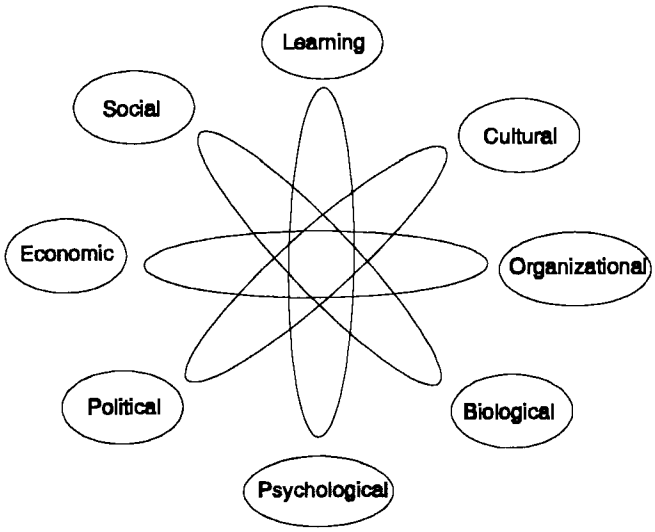

Figure 7 Forces Affecting the Individual

It is important to remember that none of these subsystems can be separated from the whole. It is the flow between them, the movement, that defines the dynamic we call human being, just as an organization is the

collective activities of the people who work there (Capra, 1982). When pervasive ways of thinking and talking become obstacles to organizational change, they need to be addressed directly (Douglas, 1986).

Psychological obstacles center around the dynamics of attitudes, values, and core beliefs. Value systems are part of the psychological system that makes up the functioning tools and schema of each individual (Simmons, 1982). Values form a screen through which core beliefs are filtered before being acted out in attitudes and behavior (Larsen, 1982), looking something like this:

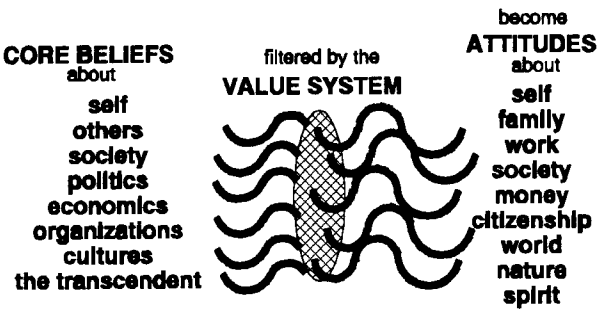

Figure 8 Psyche Subsystem

Our fundamental perception of the world is based on core beliefs, as are values and willingness to accept new information and learning (Hudson, 1992). Core beliefs exist in each individual about all the different systems of which s/he is a part. For example, if a person holds fearful beliefs about existence, then emotional reactions will be those leading to stress. This person's values include the importance of looking after his own welfare first and foremost. In

the extreme, he could become either aggressively antagonistic or dysfunctionally phobic. Physiologically, his brain will not perceive or record stimuli that contradict his need to fear the world (Roberts, 1979).

Core beliefs are not buried or unconscious, they are simply unexamined in most people (Roberts, 1979). Therein lies a major psychological obstacle to change. Since the Industrial Revolution in western culture, the idea has grown that there is little connection between objects in the world and the individual (Bateson, 1979). When man learned to categorize, number and dissect nature, he lost its living quality and no longer felt a part of it. Nature became an adversary that he had to control. Yet underneath he felt he was at the mercy of nature, because in cutting himself off from it he also cut himself off from using many of his own abilities (Roberts, 1979; Meier, 1985).

"Conscious-reasoning-mind-above-all" theories predominated (Lakoff, 1987). They advocated the use of intellect and reasoning powers, ignoring intuitive inner information also available to the conscious mind (Meier, 1985). The individual was not supposed to be aware of this information. Children were trained to trust only the conscious mind and led to believe they should only acknowledge stimuli coming from the outside physical world (Lawlor, 1989; Meier, 1985).

Concurrently, western culture propogated the tyranny (upon itself) that the conscious mind is not in touch with the fountains of its own being, it is divorced from nature, and therefore the individual is at the mercy of unconscious drives over which he has no control (Roberts, 1979). As a result,

western society lost a sense of responsibility for conscious thought. People were taught that consciousness is not what forms our lives, and that regardless of our beliefs we are terrorized by unconscious conditioning (Grof, 1992; Roberts, 1979). This "catch 22" asserts that the individual should only trust the reasoning mind - even though unconscious (negative) drives control it. What is critical here, as an obstacle to deliberate change, is the separation of self from beliefs (Roberts, 1979).

In truth, extensive research has shown that the inner material is readily available to consciousness (Grof, 1992). It takes deliberate effort, however, to move out of "normal" consciousness into enhanced states of awareness in order to cognitively isolate a core belief (Grof, 1992).

Core beliefs are just that - at the core. They are rarely changed through logical reasoning. Each belief is associated in the conscious mind with emotional reactions to situations existing when the belief was formed, reinforced or challenged. Beliefs generate the appropriate emotional response that is implied by the situation.

Many beliefs are formed very early in life, through the family of origin (Bradshaw, 1991). Children respond emotionally, rather than intellectually. As they grow, similar emotional responses form networks in the memory system (Grof, 1992). By the time a person reaches middle age, any situation triggers not only cognitive schema to enhance understanding (Piaget, 1954), but also an emotional response that carries a lifetime worth of memories of similar situations (Harley, 1987).

Put another way, humans literally have electrical grooves in the brain that are reinforced over and over again. When a new situation presents itself, well-used neuronal networks are most likely to be electrically triggered again (Harley, 1987). It takes deliberate mental/electrical energy to move out of those grooves (de Bono, 1969, 1982). Short of crises situations, most people cease to even be aware that cognitive/emotional reactions are habits that *can be* examined and changed.

The task of transforming core beliefs is further complicated by the important role played by metaphor. Metaphor provides conceptual understanding, through identifiable mental images. Metaphors are less abstract than concepts (Marsick, 1991). As a metaphor is internalized, it gains emotional content that eventually can bypass conscious reasoning. The metaphor embedded in "I'm just a cog in a wheel" expresses volumes of emotions and situations that people from all walks of life and levels of accomplishment can easily visualize and personalize. As Lakoff and Johnson put it, "[metaphor] is perhaps the key to giving an adequate account of understanding." (1980). As beliefs become understood through metaphors, they solidify and most often retreat from conscious awareness (Lakoff and Johnson, 1980).

Some metaphors are so powerful, they appear to become truth, reality and the only way things can be, as happened with the machine metaphor (Lakoff & Johnson, 1980). Only the advent of new scientific "truths" about the

universe and their implications have overturned the core beliefs on which the mechanistic metaphor rested (Capra, 1989).

Because metaphor carries potent emotional content, it can shortcircuit reasoning and become a major obstacle to change. Metaphor functions in every arena of human life, from private inner images to archtypal metaphors that are shared across cultures and history (Jung, 1954; Grof, 1992; Houston, 1992). When metaphor is reinforced throughout social institutions, as with the pervasive machine metaphor, transforming core beliefs is difficult at best. A new core belief requires new conceptual metaphors to enhance understanding as well as consistent reinforcement from the external environment (Lakoff, 1987).

In summary, two systemic psychological obstacles inhibit both the willingness and ability of an individual to change: 1) a long-standing cultural bias against examining belief systems and therefore missing skills with which to do it (Houston, 1992), and 2) the resistent nature of metaphor as conceptual understanding to change (Lakoff and Johnson, 1980).

Without changing core beliefs and their metaphors, we end up trying to transition to the new paradigm using old paradigm ways of thinking and behaving. This is like trying to build a space ship with stoneage tools and materials.

Institutionalized Bureaucratic Management

Bureaucratic management is a metaphor which effectively denies the possibility of internally generated change (King, 1992). It is a culmination of the mechanistic science of the past three centuries (Morgan, 1988). Originally proposed by Descartes and Newton in the 17th century, the mechanistic science was a valuable analog to the then "new" science, reflecting both reductionism and objectivism. The prevailing conceptual model of problem solving was that once a problem had been "chunked," it could be "fixed," like isolating a broken part of a machine and replacing it. Specialization was so integral to the metaphor that an almost metaphysical faith in expertise developed (MacIntyre, 1981).

Eventually, the machine metaphor became so powerful that whole social systems, including organizational structures and the educational system that serves them, were defined this way (Lakoff and Johnson, 1982). People were used as cogs in the larger machine. Even medical models treated the body as a machine, "fixing" one part (or symptom) at a time (Capra, 1982, 1989).

The metaphor became a reality through which the reasons and means for accomplishment were filtered. Reductionist science was operationalized as instrumental reality - a linear view which breaks everything down into its workable parts (Capra, 1982; Weick, 1979). Research, theory-building and practice was based on the world view of logical positivism (Marsick, 1990). Mechanistic science led to technologies that led to factories, that in turn led to

machine-like hierarchies, where the power to make decisions was vested in the top. Bigger was better, and centralized control was best (Morgan, 1988).

The overriding obstacle to change in this (positivist) paradigm is the power inherent in the values of management as they have become institutionalized in the ideal of Weberian bureaucracy (Marsick, 1990). Mary Douglas (1986) maintains that *institutions think* and that values become institutionalized through the power structures, patterns of interaction, and ways of talking that represent the organizational model. The values of bureaucratic management have become institutionalized through *patriarchal* power structures, *politicized* patterns of interaction, and *closed-system* ways of talking.

According to Morgan and Douglas, these values are not "just" inside managers heads; they are institutionalized as ways of surviving within the organization. In a sense, the "hardware" is out there in the organization, while the "software" is inside the heads of its members. Expectations, roles and self-images are programmed by institutional thinking.

Patriarchal power structures, using top-down decision making, support narrow specialization which in turn narrowly limits responsibility (Bella and King, 1989). When people are relieved of decision-making, they are also relieved from responsibility, even though they may take the "rap" for consequences. No one ends up in charge (King and Bella, 1988).

In addition, hierarchies systemically distort information as those below desire to send only favorable information up the chain of command (Jackall,

1988; Bella and King, 1989; Weick, 1979). Disguise and concealment become modes of survival.

Communication is linear and non-circular (information goes up, commands come down), so feedback critical for an open-system is cut off. The system does evolve and solutions do emerge but 90% evolve into stable forms that are *unfit*, i.e., they die out. Ten percent of the solutions that emerge from within the actual problem-context are fit and survivable (Morgan, 1988; Nystrom and Starbuck, 1984; Weick, 1979).

The ability to make decisions implies the ability to effect change. Within a hierarchy, emergent change is blocked by the hierarchical system itself. In other words, the power structure protects itself from change (Douglas, 1986).

Politicized patterns of interaction become self-legitimizing as a result of the agendas and intent implicit in the tools, methods and measures in use. They become institutionalized as *taken-for-granted* social practices within the organization (King, 1992).

Tools have politics that "cause mutations in societal arrangements" (Weizenbaum, 1976). They dictate the nature of problems by reconstructing our imaginative images of the world. Because each tool embodies a value-based definition of its function, it shapes intentions through implicit assumptions about what is important.

For example, a computer can answer certain questions and not others. The politics of the computer therefore determine which questions will be

asked. Currently, efficiency and competitiveness are measured by how fast systems can process large amounts of information and then react to it (Zuboff, 1988; Brand, 1987). Knowledge that doesn't fit into the fact-based "information-technology" format is filtered out. The computer has become both an obstacle and limiting factor in an organization's ability to understand problems facing it, at the same time it is an essential tool for economic survival (Bella and King, 1989).

When a tool is looked at *objectively*, i.e., placed outside a social context independent of its interpretive framework, consequences are potentially disastrous (Weick, 1979). The tool, method or measure comes to define what is rational and reasonable, as well as the social practices and expectations associated with its use (Bella and King, 1989). Again, no one ends up being responsible. For example, the politics of certain accounting measures seek to minimize variable (labor) costs, implying that low-skill, low-cost workers are more cost-effective. Consequently, the U.S. has a lower-quality workforce than many other industrialized nations, with fewer options for upgrading skills, given current accounting methods and measures (Kuttner, 1985).

These tools, objectified as external, nonetheless become part of internal schemas, which then are viewed as apparently external forces. Weick (1979) labels this phenomenon "enactment" - when people in organizations repeatedly impose that which they later claim imposes on them. Thus, organizations create their environments in a significant way through the tools, methods and measures they institutionalize.

In addition, the very mechanisms of reductionist science and bureaucratic management, including specialized vocabularies, limited (specialized) levels of understanding and control, and lack of strategies for coping with what is not understood (King, 1989), have led to a high probability for "normal" accidents (Perrow, 1984). Normal accidents have the potential to be highly catastrophic. They are caused by the combination of two systems variables: 1) complexity - the inherently unpredictable interaction among and between component levels and 2) tight coupling - the incapacity to intervene to keep minor component failures from interactively escalating to a major systems failure (Perrow, 1984).

Basic definitions of what constitutes risk are themselves culturally (politically) determined. For example, Americans *choose* to see environmental problems as more risky to society than poverty, socio-technical systems or "normal" accidents (Douglas & Wildavsky, 1982).

Learning to live with these kinds of tools (technologies) and methods requires unprecedented degrees of trust and cooperation among groups and groups of groups. At the same time, there is a declining supply of trust within the bureaucracies (King, 1989). The threat of systems out of control and an on-going probability for normal accidents are barriers to trust, as are rapid scientific, economic and social changes. We do not, unfortunately, understand what it means to establish the kind of trust which is imperative for the levels of cooperation that must be reached within and between organizations (King, 1989).

The change agent is now confronted with an institutionalized bureaucratic management that has reduced personal responsibility and erected barriers to trust, both of which directly impact training relationships and dynamics (Senge, 1990; Peters, 1987; Block, 1987).

Closed-system ways of talking have become the norm. Douglas maintains that organizations *must lock into* a metaphor and its subsequent value system, by their very nature:

> "Any institution that is going to keep its shape needs to gain legitimacy by distinctive grounding in nature and in reason: then it affords to its members a set of analogies with which to explore the world and with which to justify the naturalness and reasonableness of the instituted rules, and it can keep its identifiable continuing form.
> "Any institution then starts to control the memory of its members; it causes them to forget experiences incompatible with its righteous image, and it brings to their minds events which sustain the view of nature that is complementary to itself. It provides the categories of their thought, sets the terms for self-knowledge, and fixes identities. All of this is not enough. It must secure the social edifice by sacralizing the principles of justice." (1986)

The value system of the bureaucratic management metaphor legitimizes organizational, "taken-for-granted" practices so well that it controls the very nature of what is acceptable thinking, and what is held sacred (Douglas, 1986). What constitutes *justice* is fabricated by the institution precisely for the purpose of justifying and stabilizing itself. Once legitimized, organizations then make the big decisions - definitions of moral and ethical philosophy.

Individual moral dilemmas are subsumed under institutionalized legitimations of what is right and good and trustworthy (King, 1989).

"Managers rules for survival and success are at the heart of what might be called the bureaucratic ethic, a moral code that guides managers through all the dilemmas and vicissitudes that confront them." (Jackall, 1988)

Scott and Hart propose that management is not about controlling behavior, it is about *controlling values.* Bureaucratic management is guided by no principles more noble than maintaining the organization itself (Scott and Hart, 1990). This means maintaining the machine metaphor and the double-filters that legitimize *not* noticing, such as taken-for-granted social practices and expectations (measures, models and tools) as well as systemic distortions of information. As R.D. Laing put it:

> "The range of what we think and do
> Is limited by what we fail to notice.
> And because we fail to notice
> ***That*** we fail to notice
> There is little we can do to change
> Until we notice how failing to notice
> Shapes our thoughts and deeds." (R.D. Laing)

The metaphors and filters of bureaucratic management are the most powerful obstacles to change that exist today. The values they embody have become *the* dominant influence in American society. Bureaucracy has become a more powerful reality than family, community, religion or politics (Scott and Hart, 1990). The managerial elite has become unaccountable to the public it serves, that public now feeling they have no recourse when affected by its enormous power (Nisbet, 1975).

At the same time, few managers understand that their actions are *value laden*, and even fewer understand the origins of their moral choices. Few

consider the values upon which their actions and decisions are based. Yet most also feel trapped by "organizational determinism" (Jackall, 1988). In truth, they *are* trapped, by ignorance, laziness, inertia, or the absence of belief that they can change their condition (Scott and Hart, 1990).

Bureaucratic management has effectively controlled training relationships and dynamics through institutionalized practices (Block, 1988). It has effectively controlled the domain of training by limiting (or banning) *talk* of individual moral intentionality, character and value systems outside of tightly defined bureaucratic boundaries.

To summarize, bureaucratic management has become institutionalized through patriarchal power structures, politicized patterns of interaction, and closed-system ways of talking (Morgan, 1986). These values are maintained through pervasive metaphors and double-filters which have effectively closed the individual manager's mind to other ways of perceiving (King and Bella, 1989; Jackall, 1988).

Not only is the new paradigm in direct conflict with the values of bureaucratic management, affecting the manager's *willingness* to change, but it also inhibits his/her *ability* to change by prohibiting the learning of tools necessary for change. Managers have not been prepared philosophically, metaphorically, methodologically, intellectually or spiritually to think in any other than mechanistic terms. As Jean Houston puts it, "We are uneducated to live in the world we are living in." (1992).

Currently, TQM "gurus" recommend allowing 5-7 years for the new ethic to take hold, even though TQM processes, such as statistical process control and Hoshin planning, can be learned in a few hours (Huge, 1990; Crosby, 1989; Peters, 1987; Juran, 1989; Walton, 1986). This doesn't make sense until we understand that failure to transform the underlying (bureaucratic) value system confounds attempts to implement transformation (King, 1992). We will only effectively transform the value system when we confront the conceptual metaphors and core beliefs that initially formed the value system.

The processes needed to practically and effectively facilitate such a transformation are discussed next in the context of shifts in the training paradigm itself.

Training Paradigm

In Chapter One, training practices were defined as a technology that includes a system of relationships, domains and dynamics established to facilitate the improvement of processes and performance in organizations. In truth there are a number of different definitions that characterize the training paradigm as it is currently practiced.

This diverse field is alternately called human performance technology, human performance development, training and development, and adult education in business and industry. Each term focuses on a different aspect of the relationship. Over time, however, the term *training* has given way to

training and development and, finally, to *human resource development*, reflecting a shifting emphasis over the last ten years from activity or process (training) to the function of developing human beings in such a way that they will be enhanced resources for the organization (human resource development) (Watkins, 1989).

Most traditional definitions include the following components:

- organized learning or developmental activities
- with the goal of improved performance or growth
- within the context of the job, the individual and the organization (Chalofsky, 1992).

Whatever title professionals choose to use, the technology employed to accomplish these goals has a common theoretical foundation, perspective and practices that have emerged from a spectrum of disciplines, including psychology, economics, management, organizational development and adult education (Sredl and Rothwell, 1987).

For the sake of simplicity, *training* is used here to imply those traditional practices and interventions within the organization whose goal is improved individual and group performance or growth within the organization.

Because training is an *applied* field, it reflects the conceptual framework, the working paradigm, of the organizational model. In a sense, its mandate is to guarantee that the current paradigm is perpetuated daily throughout the organization. Training manifests a paradigm in three ways: through its relationships and the roles it plays vertically and horizontally throughout the

organization; through its content domain or sphere of influence; and through its dynamic functioning expressed in the methodology it uses.

Old	vs	New
training as peripheral	--	training as integral
labor as expense	--	labor as asset
authoritative	--	trustworthy
segmented	--	cohesive
control	--	ad hoc action
objective, predictable reality	--	multiple ambiguous perspectives
specialization	--	systemic understanding
short-term reactive	--	long-term interactive
fact-based knowledge	--	intuitive, creative strategies
stability	--	resiliency
behaviorism	--	performance management
hierarchies	--	synergy
extrinsic motivation	--	intrinsic motivation

Table IV Evolving Training Values and Emphases

The values of the traditional or bureaucratic paradigm, listed in the left column of Table IV, are discussed first as they are mirrored in training relationships, domains and dynamics. These are not discreet categories, as some values manifest in more than one category.

Training in the Bureaucratic Organization

Relationships define *connections* that control interactions between individuals, groups and processes in an organization. In bureaucratic organizational training, two sets of relationships predominate, those with management and those with consumers of the service. Traditionally, the values of organizational relationships have been controlled by economic and management theories. The first six values listed on the left of Table IV predominantly deal with training relationships within the organization: training itself has been a peripheral relationship, an expense rather than an asset, lacking authority and control in an environment where power is prized, separated from mainstream organization trends, and based on a belief in objective predictable reality.

To begin, in bureaucratic organizations, *training is a peripheral function* of the organization. Many times the directive to attend a training function is used as either a reward for work well done (a "perq" for status) or as a punishment for unworthy performance. As one corporate head put it "...the reputation of 'the boys with the AV equipment who take you on a three-day holiday,' may be a bit extreme, ...," while his training director said, "We had to fight to be invited to meetings and to get mailings. Training has always been viewed as fun, expendable, nice to spend money on when you have it" (Linkemer, 1987). In effect, training is strategically isolated within the organization (Kelly, 1982).

Historically, training evolved in the factory setting as the need for vocational and technical retooling followed improvements in machine technology (Cross-Durrant, 1987). By World War I, training was dominated by "Tayloristic" time-and-motion studies and considered a distinctly different field from that of the adult education from which it had emerged (Neff, 1985).

After the first world war, trainers were first and second line supervisors. When technology became more complex and the emphasis on specialization increased, trainers were drawn from within the organization - perhaps secretaries who had earned a small step up, or specialists who needed to be moved laterally, rather than up the hierarchical ladder. Even today, about 25% of the working professionals in this field report HRD/T&D as their long-term career objective, while only 8% have formal specialized education (Watkins, 1989).

Management and economic theory viewed labor as an expense and used accounting measures that sought to minimize variable (labor) costs. Low-skill, low-cost workers were viewed as more cost-effective (Kuttner, 1985; Reich, 1988) because, "It's [more] cost effective to design jobs that require minimum skills and flexibility" (Veltrop and Harrington, 1988). Because labor was tallied as an expense, training and human resource development was also an expense and not an investment (Covey, 1991).

The value of *controlling, authoritative hierarchies* and power structures is a another characteristic of bureaucracies. It is based on the premise that "behavior can and should be controlled, and that control will most efficiently

be accomplished by identifying and using predictable cause-and-effect relationships to reach one's goals." (Marsick, 1990). Taylor believed that management's job was to analyze every task done by workers to determine the most efficient work methods (Sredl and Rothwell, 1987). Training represented the need for change in output by workers as defined by management, but within this culture, training had minimal responsibility, less authority and virtually no control. Schein postulates that, as change agents within the organization, trainers have neglected the "politics of change," the need for power acquisition behaviors, to the detriment of their effectiveness as change agents (Schein, 1985).

The value of hierarchical control was based on the premise that the universe (and therefore the organization) can be understood through *objective, universal rules* that are logical and rational (Marsick, 1990), static and predictable (Meier, 1988). When belief in control by universal rules became a bureaucratic value it spawned the patriarchy itself and its right/responsibility to control decision-making (MacIntyre, 1981). As Meier said "...Traditional territory [of] management styles are designed to maintain control over people, usually through some combination of top-down power and roles and rules." (1988). Moreover, Scott and Hart maintain that management is not about controlling behavior, but about controlling values (1990).

The belief in hierarchies and objective rules produced relationships throughout the organization that were *segmented.* Because training has been strategically isolated and peripheral, its relationships also traditionally lack

cohesion with overall organizational goals (Frame and Nielsen, 1988). In addition, within its own realm, training professionals have vied for territory, resulting in fragmented interactions with each other and with 'customers' (Jamieson, 1985).

To reiterate, training has traditionally been viewed as a peripheral expense, lacking authority and control, strategically isolated, fragmented, and governed by objective rules.

Domain defines a sphere of influence or activity. This section discusses the values of the training domain, in a traditional organization, as they are reflected in the *content* of its training interventions, i.e., what people are being trained to do. These values, listed in Table IV, have resulted in an emphasis on specialized training consisting of short-term reactive interventions, grounded in fact-based knowledge, leading to stable behavior. The goal has been to manage the "big machine" (the organization) by specialized "measurable-skills" training for various sub-machines (people), in order to keep the whole stable.

The first value in this section, *specialization*, is a hallmark characteristic of the mechanistic organization (Capra, 1982; Morgan, 1986). From factory line workers to highly-skilled professionals to top management, the value placed on specialization was a product of the reductionist science that originally built the machine model. The mechanisms of reductionist science include specialized vocabularies and limited levels of understanding and control, thus narrowly limiting responsibility (King, 1989; Bella and King, 1989).

Mimicing the prevailing model, training also specialized. Jamieson remarked that each speciality within the larger training discipline needed to make a mark, build an identity, talk its preferred turf, unique contribution and essentialness. "The drive for differentiation was strong." (Jamieson, 1985). Today, trainees in organizations need more integration. Jack Stack, while talking about a small factory he salvaged from the demise of International Harvester, stressed that *each member of the organization* has to "look at the totality. You can't focus your attention on one job, one department, or one function.... there is no security in ignorance." (Stack, 1992).

Specialization within training programs and interventions, with narrowly limited responsibilities, led to a far reaching lack of accountability that included not only financial but also educational goals (Watkins, 1989). In 1982, Fortune 500 executives reported that only 10% of their organization's training resulted in actual performance improvement on the job (Georgenson, 1982).

The next item from Table IV highlights the value placed on *short-term reactive* fixes in the mechanistic organization. They predominate in an environment based on belief in objective reality and reductionist science. Each request for training expresses the decision to *fix a discreet piece* of the machine, to the exclusion of further-reaching proactive solutions to problems. As Veltrop put it, "The traditional approach to organizational change is problem driven; the focus is on the current state and what's wrong with it." (Veltrop, 1988).

The value placed on *fact-based knowledge* within bureaucratic management and therefore traditional training, is a result of a Cartesian reliance on conscious mind and objective, external reality (Meier, 1985; Marsick, 1992), as well as Taylor's preoccupation with determining the most efficient work methods (Sredl and Rothwell, 1987). Fact-based knowledge became a commodity of power within the bureaucracy, and its dissemination was tightly controlled by management (Zuboff, 1988). The content of training has almost exclusively been fact-based, presented as either motor-skills or cognitive skills organized as lists or steps (Sredl and Rothwell, 1987).

The emphasis on *stability* as a value is also an outgrowth of reliance on an objective, external reality. The desire for stability is a natural result of the belief in a predictable universe. "The aim of education and training in the Industrial Age, after all, was to produce standard, replaceable parts for the machinery of culture" (Meier, 1985). It required a dulling of consciousness, until narrowly-defined external behavior could be brought in line with routine production and thinking. Even managers were expected to force-fit themselves into the models of the bureaucratic culture, "so they spent their energy conforming, fitting, blending with the background" (Meier, 1985). Stability was highly prized, but could only be maintained through predictability. As bureaucratic organizations became larger and more complex, management's main task became damage control, putting out all the small (unpredictable) fires that arose within the organization (Kantor, 1986).

To recapitulate, specialization within the patriarchy has led to specialized training and subdomains of training. A belief in universal objective rules of reality evolved as short-term training solutions focused on fact-based knowledge, with the goal of stable, predictable production.

Dynamics identifies movement as patterns of change and growth. In training it is the "how-to" or methodology, different from the "who" of training relationships or the "what" of training domains. Traditionally, training defined itself by its methodology. A tally of approximately 100 recent articles in professional training journals showed that fully two-thirds were devoted to "how-to" tips for professionals, while the remaining third were divided almost evenly between a focus on relationships and domains. This bias is consistent with bureaucratic management's "fix-it-now" approach.

Training theory and practices have emerged from a variety of interdisciplinary sources. Sredl and Rothwell summarized the major influences as follows (1987):

Education	-	humanistic or behavior techniques
Communication	-	behavioral and mathematical models
Psychology	-	behavioralists and Third Wave
Economics	-	human capital theory
Management	-	human resources school and systems school
Organization development	-	large system change over time

Drawing from Table IV, the values of traditional training methodologies can be summarized as behavioristic, relying on hierarchical models of learning (reductionism) and extrinsic motivators. Traditional training methodology evolved from these values.

Behaviorism in training dynamics is a direct descendent of Taylorism, Pavlov's salivating dogs, and Skinnerian psychology - the belief that there is a direct cause and effect relationship in all behavior. Traditional emphasis in the training profession has been on improving the *delivery* of (fact-based) knowledge, on the premise that the quality of delivery - cause - determines the quality of learning - effect (Meier, 1985). "Training departments think in terms of *teaching* people to do procedures" (Cram, 1992).

After World War II, the American Society for Training and Development (ASTD) was formed as the first professional training organization. It responded to the need for communication among trainers and training directors following the intense training stage set by the war (Miller, 1981).

During the 1950's and 1960's, there also developed a new technology of instructional design for course and curriculum development - instructional systems design (ISD). It aligned with systems thinking then emerging out of engineering and education (Johnson, Cast & Rosensweig, 1962). A natural outgrowth of the mechanistic model of reality, scientific management and behaviorism, this technology was based on the perceived need to measure learning. Robert Mager proposed using performance objectives as a way to define instructional objectives (1960, 1975). Thomas Gilbert pushed a performance engineering model that focused on results, rather than teaching methods (Gilbert, 1962). The National Society for Performance and Instruction (NSPI) was formed in 1961 to reflect this performance orientation.

Benjamin Bloom and his coworkers were instrumental in identifying a *hierarchy* of learning objectives that met this need for measurable learning objectives (Bloom, 1956). Bloom advocated the formation of learning objectives in three distinct areas - affective, cognitive and psycho-motor. He subdivided the cognitive domain, ascending hierarchically, into six sub-domains - knowledge, comprehension, application, analysis, synthesis and evaluation. He classified the affective domain in five hierarchical sub-domains - receiving, responding, valuing, organization and characterization.

Humanistic psychology contributed Maslow's hierarchy of needs (1965) and Rogers' attention to individual development and fulfillment (1961). Information processing theories grew out of cognitive psychology following the work of Bloom, Bruner (1966) and Anderson (1976).

According to Percival and Ellington (1984), research has cast doubt on the validity of some of Bloom's basic assumptions about the cognitive domain, while virtually no research has been carried out on the affective domain. Nonetheless, Bloom's Taxonomy, along with Mager's performance objectives continue to be taught in academic programs and used widely within training technology for setting instructional objectives, designing curriculum and developing evaluation instruments. The emphasis remains almost exclusively on cognitive and psycho-motor behavior.

In the 1960's, training began to develop a technology of its own when it separated from pedagogical (child-oriented) learning theory to form a theory for adult learners - andragogy. This movement, led by Knowles, emerged

from adult education and stressed self-directed learning with trainer as facilitator (Knowles, 1970).

Training practices remain predominantly behavioristic, influenced strongly by psychology, communication and education. Cram states:

> "There is an amazing resistance to changing the way training traditionally has been handled. We are accustomed to a pattern based on the dissemination of knowledge, in which the teacher is the hoser and the student the hosee." (Cram, 1992)

The result of creating taxonomies of hierarchical, measurable learning objectives is short-term change that tends to end with the completion of the learning program (Hertzberg, 1987; Covey, 1989). Because all tools have politics, we must notice that measurable "objectives tend to trivialize important matters while elevating unimportant ones" (Sredl and Rothwell, 1987).

In addition to mechanistic learning objectives, linear age learning, with its left-brain, rational consciousness, attempted to get at the whole by sequentially studying its parts (Meier, 1985). What got dubbed "the unconscious mind" (the bulk of our mental powers), was denigrated as having little value for learning and was even looked upon by many as taboo. People were taught, as Nietzsche said, "to distrust their complete natures."

In 1990, Gagne and Merrill, still leaders in ISD, agreed on a nucleus instructional design theory based on cognitive structures (remembering, using and finding as primary cognitive skills and strategies) and content structures (facts, concepts, procedures and principles) as unifying dynamics in the learning experience (Twitchell, 1990), both behavioristic and hierarchical.

Merrill however noted the preoccupation with microscopic views of learning processes and training methodologies, and the need for more 'macro' thinking within ISD theory and practice (Twitchell, 1990).

The last item in the left column of Table IV, is motivation. Motivation to work, as well as to learn, has been an issue in the workplace throughout the industrial age. In line with the machine model, certain assumptions were made about workers - that they were basically unwilling or unable to do a good job without either pressure or reward (Hertzberg, 1987). Thus formed the value of *extrinsic motivation* as a way of maintaining control. It was continually reinforced by the belief in a supremacy of external objective reality. Rewards, most often financial, were dangled as a motivator for those who were "important" while punishment was threatened, sometimes physically, for those who were not (Ainsworth, 1991).

As psychological theories gained some influence and humanist forces in society gained power, physical abuse was outlawed (Hertzberg, 1987). It was replaced by psychological punishment, fear, as the prime motivator in bureaucratic management (Jackall, 1988). Hertzberg maintains that this is not really motivation but rather a typical procedure used in animal training and behavioral science interventions which he calls movement, because at best it produces only short-term results and requires constant reinforcement.

Management is strongly influenced by the abstract fields of finance and marketing, both more conducive to movement than to motivation (Hertzberg, 1987). Bureaucratic organizations are fixated on the "bottom line" and have

assumed that individuals and work groups are also (Ainsworth, 1991). As a result, training methods have adopted a strong belief in the carrot or the stick approach, the belief that productivity can only be improved when money is the prime motivator (Senge, 1990).

Thus the dynamics of training, its methodology, are predominantly behavioristic, based on hierarchical cognitive learning objectives and relying on extrinsic (monetary) rewards to motivate employees.

To summarize, training in the traditional organization has been typified as an expense peripheral to the organization, with segmented relationships based on authority but no real control. The abiding belief in objective predictable reality has led to specialization, and short-term reactive solutions to learning and productivity problems. Training domains have been controlled by a fixation on fact-based knowledge, with a goal of predictable stability. Behaviorism, a belief in hierarchical learning taxonomies and extrinsic motivation have shaped the development of training methodologies.

Evolving Training Values

As the values of the organization shift, so do the relationships, domain and dynamics of individuals and groups within it. Continuous learning in the learning organization, and therefore in training practices, becomes critical. Training practitioners must not only make all the changes required of the paradigm shift, but must also, at the same time, embody, model and teach the

new values and skills at multiple levels in the organization (Veltrop, 1988). Meanwhile the new paradigm itself is evolving and shifting. The need to develop effective strategies for continuous learning is paramount.

The new training paradigm reflects those values of the new science, from chaos theory, quantum physics, holistic psychology, wellness medicine, and more, that are being translated into a model of the learning organization. They are characterized by two guiding principles: systems thinking and attention to issues of trust (King, 1992). The values listed in the right column of Table IV are not as neatly categorized into relationships, domains and dynamics as were the old values, because they reflect the new holistic paradigm and it's break from reductionism: they permeate horizontally and vertically within the learning organization (Senge, 1990). In addition, some values have shifted in emphasis from one category to another. All are represented in the new training paradigm by practitioners who are applying them in their relationships, domain and methodology.

Relationships, the connections that control training interactions, are shifting in three important ways. The first is an acknowledgement of and consequent development with the organizational *system*. The second is training's relationship with the hierarchy or "powers that be" within the learning organization. The third is training's connections and responsibilities to its *customers*. These shifts are expressed in the initial four values listed in the right column of Table IV.

The first major shift is an escalated attention to the organizational systems within which training plays out its roles (Senge, 1990; Gordon, 1992). Changes in economic as well as management theory have effected the perceived importance of the training function within the organization. A lengthy special report in Business Week stressed to the business community that "America ... has been scrimping on human capital...[while] The evidence is overwhelming that people, not machines, are the driving force behind economic growth." (Nussbaum, 1988).

For this reason, labor and the development of human resources are evolving into valued *assets*, while training moves into the power structure of the organization and is *integrated* into its strategic goals (Linkemer, 1987). It is no longer a "nice-to-have" but an important "must-have" (Ferketish and Hayden, 1992).

Job performance is viewed within the larger *system* of goals, measurements, incentives, skills, consequences, and feedback (Gordon, 1992). Training is a strategy, not an event (Ferketish and Hayden, 1992). A concern with *return-on-training-investment* accentuates the move from process to function as the primary focus of activity; from training interventions as discreet activities to training as a systemic function integrated at all levels (Senge, 1990).

Secondly, *trust* and *cohesion* underlie relationships between training and the hierarchy. Training becomes credible to the hierarchy by proving a business-like concern with both the "big picture" and the "bottom line" and by

showing evidence that it understands the real issues facing business organizations (Linkemer, 1987). The hierarchy trusts that training is cohesive, functioning in concert with the systems and goals of the organization (Senge, 1990), and is accountable as it takes responsibility for its actions and provides proven results (Linkemer, 1987).

In turn, as the mouthpiece for organizational visions and goals, training must be able to trust in the value or *relative importance* of what it is being asked to represent (Block, 1988; King, 1992). Training must also trust that the hierarchy is placing value on training interventions and acknowledges this value in its processes and priorities (Linkemer, 1987; Senge, 1990).

Similar issues exist in the relationship between training and its customers, i.e., in the need for mutually trusting relationships. As the mouthpiece, training is responsible for developing learning capacity, a visionary term that defines a capacity for enhanced learning or *learning-how-to-learn* that exists within individuals, groups and organizations (Watkins, 1989). Learning capacity, as used by Senge (1990) and Watkins, has quickly become equally a right, a necessity and a responsibility for all members of the organization, and is seen as the key to improved performance.

However, learning is internalization, the only level at which fundamental and long-lasting changes occur. Internalization depends on a trustworthy and credible change agent (Katz and Kelman, 1960). Ash, a social psychologist, demonstrated that it is the reputation and trustworthiness of the communicator, not the appeal of the content, which determines meaning itself

(1977). Osgood and Tannenbaum argued empirically that meaning is determined by the value attributed to a concept, and that value is determined by the credibility of the communication agent (1955). Credibility is determined by trust. In essence then, meaning and trust are irrevocably tied to one another. People will not internalize change or learning if they do not trust the change agent.

In addition, key issues in creating credibility and trustworthiness, according to Barber (1984), are belief in: 1) the technical expertise of change agents, 2) the responsibility of their actions (both economic and personal advocacy), and 3) their commitment to maintaining a shared common affective, as well as technical experience (Mitchell, 1993).

Therefore, effective new training interventions, including the key development of learning capacity, are built on a foundation of trust. However, current pressures and obstacles make it difficult for people to know what and whom to trust (King, 1989). One expert's facts are different from another's. The media show distorts a person's ability to sense if someone is trustworthy (Moyers, 1989). Institutional leaders ask for our trust while disastrous ("normal") accidents happen continually somewhere in the world (Perrow, 1984). Trust becomes both an issue and a solution.

Training itself is more trustworthy when it models cohesion within its subdomains. Most agree that traditional classroom training should be the last solution offered rather than the first, as often happens in fragmented, competition-based cultures (Gordon, 1992; Ferketish and Hayden, 1992).

According to Frame and Nielsen, careful integration between management/employee development, organization development and transformation, and instructional development as well as all personnel functions is the only road to effective performance improvement (1988).

The next two values from Table IV have affected training relationships in similar ways. The first is a movement from tightly controlled activity to increasingly prized *ad hoc action.* The second reflects a shift from believing in a predictable reality and universal objective rules to a recognition of the validity of *multiple ambiguous perspectives.* Both have changed the way people within the organization relate to one another.

Cultures formed around bureaucratic values and the Cartesian partition are based on control over people. The new culture is based on commitment, where the organization is seen as a living system and people function in "flow states" of guided autonomy (Csikszentmihalyi, 1990; Veltrop and Harrington, 1988). Senior executives bring coffee to key people during crises, while traditional pecking orders are turned upside down (Kanter, 1986). Multi-cultural and bi-gender voices are heard in places and in ways they have traditionally been denied a platform (Mize, 1992) while everyone needs skills to deal with complexity, ambiguity, and uncertainty (Tichy and Devanna, 1986). Because these two values are relationship issues, they have also become part of the new content of training.

Training domains, while traditionally limited to specialized, fact-based knowledge, have exploded into radically different areas of focus, requiring

new ways of thinking about training's role in the learning process. Domain, relationships and methodologies interconnect in increasingly dynamic ways, reflecting customers' demand for rapid turnaround, customization and zero defects.

To do this, training first needs to understand the new values and their significance to training, before it can take joint responsibility with management for implementing them throughout the organization (Veltrop, 1988). Second, training is being forced to renegotiate its roles and responsibilities in relation to management because skills like cohesion, ad hoc action, systems thinking, intuitive strategies, resiliency and multiple ambiguous perspectives require a new degree of trust between management and training. These skills are so new and so different for managers raised in bureaucratic traditions that they are difficult to grasp, especially while working within that tradition. Fundamental management roles and responsibilities are being redefined (Kanter, 1989; Senge, 1990; Peters, 1987).

However, learning and learning capacity emerge from within a context of understanding. With knowledge-based content, when the facts are agreed upon, it is easy to agree on what is important. But to adequately learn strategies (or learning how to learn), it is critical to have agreement on the *relative importance* of difference bodies of knowledge (King, 1992). To do that, an individual or group places relative "value" on them. Values, explicit, overt and adhered to, provide definition and direction for *learning how to learn what is important* (King, 1989). Once the skills for deciding what is important are in

place (deep learning skills like examining one's core beliefs and root metaphors, as well as figuring out right questions), strategies for learning emerge (*learning capacity*), which in turn provide context for fact-based knowledge and learning skills (Senge, 1990). A model expressing a relationship between levels of learning and levels of knowing or thinking is presented in Figure 9.

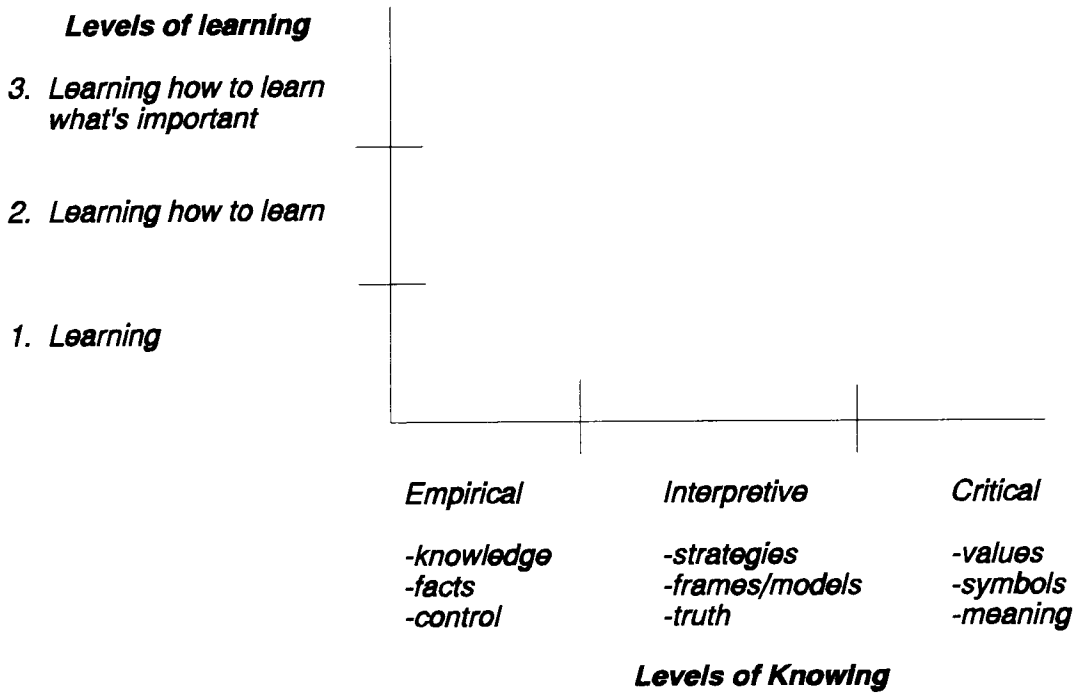

Figure 9 Learning Capacity

We make decisions based on three levels of learning continuously, whether conscious of it or not. However, when core beliefs and root metaphors remain unexamined, learning defaults to possibly outmoded values and definitions of what is important. For example, the demise of factory jobs

and the need for computer-literate workers has changed the basic context of what a common education means, as has with refined communication technology. Strategies for learning how to learn are different. By understanding the changing core beliefs and values surrounding education, appropriate strategies and content can be developed.

Training is mostly geared to fact-based knowledge and therefore teaching learning skills that address strategic and symbolic issues as if they were rule-like facts that exist outside of a context. However, fact-based learning is not sufficient in a turbulent and chaotic world. Fully developed learning capacity is the ability to learn at all three levels continuously (Senge, 1990).

Deep learning skills, those that create context for examining core beliefs and root metaphors, have traditionally been banned from the workplace, relegated instead to the domain of religion, family and "hard knocks." Consistent with the Cartesian split, inner ways of knowing were considered invalid ways of knowing both in science and in commerce. However, learning capacity may be a prerequisite to play in the new paradigm, while deep learning skills are a prerequisite to thrive.

According to Senge, responsibility for developing people within organizational subsystems who continuously learn and self-correct must reside at the highest executive level. Training shares that responsibility.

Taking a closer look at the values of the new domain, it is apparent that some are directly opposite those of the bureaucracy. For example, the move is

from tightly controlled activity to a belief that individuals who clearly hold in mind the vision, as well as a broad understanding of the organization, are capable and even compelled to *act ad hoc*, seizing initiative without waiting for formal direction from above (Kanter, 1986; Stack, 1992). Competence is what counts, not control (Lynch and Kordis, 1991). Kanter calls these people "change masters." Stack calls them "owners," but warns that it takes time and education to create people who think and act like owners.

In fact, many companies are reporting great difficulty training people to take on responsibilities they aren't used to while embracing a different way of thinking and acting (Braccini, 1992). It requires judgment to interpret situations and act under nonroutine circumstances (Marsick, 1990). Willingness to rely on one's own judgment depends on the amount an individual believes s/he controls the work environment (Spector, 1986). It also requires a self-confidence that one knows what is important, is aligned with organizational values and strategies, and can trust that the hierarchy will support any action taken, even after the fact - in other words, the freedom to fail. In the traditional organization, this is the stuff of either legends and heroes, or of fools.

Another example is the shift away from the objective rules of a predictable reality to an acknowledgement that there are *multiple ambiguous perspectives* in a world in flux. Every individual increasingly relies on her/his own unique gifts of reason, intuition, feeling and creativity while learning to tolerate that which is merely different, not better or worse (Meier, 1985). It is

interesting to note that a recently compiled profile of the ideal manager as defined by both men and women employees and senior management, embodies predominantly female traits (Mize, 1992).

Multiple cultural perspectives that are often ambiguous emerge when attention is put on diversity issues. Handling that ambiguity becomes part of both the process and outcome of management ethics and values training (Kirrane, 1990; Williams, 1990).

Resiliency has become more important than stability (Senge, 1990; Morgan, 1986) while solving problems using intuitive and creative strategies is becoming common place in offices and boardrooms (DeBono, 1985, 1991; Hequet, 1992; Lahiry, 1991). Coaching and mentoring skills have replaced control issues in management discussions (Naisbitt, 1985). Basic psychological issues like self-efficacy, mental health and quality of life have become more prominent topics in many training programs (Mager, 1992). Organizational transformation is driven by "visions" (Veltrop and Harrinton, 1988) and training faces the task, with leadership, of showing people how to create effective visions reaching back to the organization from the future (Davis, 1987, 1991; Meier, 1985).

Quality of worklife as well as integrating work with the *whole* of an employee's life has replaced job security as the measure of an organization's attractiveness. Training is responsible, throughout its subdomains, for listening and figuring out what the different voices mean and how to create a

high quality of worklife for *all* organization members (Cram, 1992; Meier, 1985).

All of the skills emerging from the new values have one thing in common. In the traditional organization, reality was defined as external and fact-based. Now internal realities and the strengths they bring to the individual are a large part of the new territory of the learning organization, and therefore of training (Covey, 1989, 1991). For example, not only must training build trust as a critical prerequisite for people emerging from bureaucracies in order to explore deep learning skills, but it must also facilitate individuals learning *the skills of* trusting and being trustworthy on the job.

Beneath the new training values lies a foundational understanding of systems behavior in organizations (Gordon, 1992; Ferketish and Hayden, 1992; Linkemer, 1987). Training's challenge is to turn that understanding into strategic interventions which provide *long-term proactive and interactive solutions* to organizational challenges (Lynch and Kordis, 1991; Cram, 1992).

These issues and values represent the need for a greater learning capacity among individuals, groups and organizations. The learning organization relies on negative feedback and constant correction, not rote strategies, by which to set its course (Senge, 1990; Covey, 1989). The next question is how training is going to meet these challenges.

Dynamically, several trends are emerging in the new training paradigm. First, performance must ultimately become *personally motivated and managed* (Covey, 1989; Senge, 1990), thus emphasis has shifted from teaching to learning

as the primary activity (Gordon, 1992; Senge, 1990). Second, because the new values are largely driven by character development and inner consciousness, traditional training methodologies are less effective in the new domain. Third, the learning organization needs *synergistic* relationships between and among people and systems to fulfill its visions and goals, thus the training focus shifts from outcomes to systemic processes (Ferketish & Hayden, 1992).

To begin, performance management is the responsibility of all members in the learning organization. Training can impact people through the transition period while they learn to "empower" themselves and be in control of their own performance (Block, 1988). Instead of no one taking responsibility, everyone is encouraged to do so. Training methods mirror an emphasis on active inner-development. For example, the use of myth as self-discovery (Campbell, 1988; Estes, 1992) or games as the work of learning (Carse, 1986; Thiagi, 1989) reflect the belief that real change comes from the inside out (Covey, 1989).

From the outside in, organizations influence performance in four ways: 1) through selection and assignment; 2) through information (training, feedback, job aids, etc.); 3) through the environment (tools, systems, relationships) and finally; 4) through motivation and incentives (Gordon, 1992).

The second major trend is not discussed in the literature per se. Traditional training practices are being challenged by experimental techniques, seen in the number of "how-to" articles appearing in professional training journals suggesting new techniques. They can be placed along a spectrum that

ranges from very theoretical to very esoteric. At one end of the spectrum is instructional design theory. Merrill suggests that learner control based on a series of transactions may be part of the answer to improving performance (Twitchell, 1990). In the other direction, the use of myths, games and storytelling are proving effective (Thiagi, 1989; Houston, 1992; Bolin, 1992; Estes, 1992). DeBono has managers wearing different colored hats and shoes (1991) while others stage plays (Hequet, 1992), create rituals and myths (Deal, 1987), vision (Senge, 1990) and travel (Galagan, 1990). Learner control, intrinsic motivation and emergent learning are the key threads, reflecting Buckminster Fuller's statement that "The only real learning is self-learning."

The final major trend is a belief in the existence and value of synergism - defined by Webster's (1983) as "combined action or operation such that the total effect is greater than the sum of the individual efforts." It is a key concept for learning organizations that occurs when the other values are in place, when there exists systemic and cohesive understanding, integrated as well as ad hoc interactions, resilient, intuitive and creative strategies, and finally trustworthy relationships emerging from multiple perspectives. Synergism can most often be identified when something "takes on a life of its own," developing its own motivation and direction (Bolin, 1967).

The tools for deliberately producing synergistic systems emerge from multiple disciplines and worldviews. For example, Senge's five disciplines for organizations - team learning, shared vision, personal mastery, mental models and systems thinking (1990) - reflect psychology, engineering, education, and

organizational development as well as eastern and native traditions. Covey's seven habits for developing personal character - be proactive, begin with the end in mind, put first things first, think win/win, seek first to understand then to be understood, synergize, sharpen the saw (balanced self-renewal) (1989) - are radically new kinds of management proscriptions. These five disciplines and seven habits require the full spectrum of learning skills outlined in Figure 9, not only knowledge and strategies but also values and symbolic understanding, in order to be fully integrated.

In summary, workplace training has traditionally been viewed as a peripheral expense, lacking authority and control, strategically isolated, territorial and governed by belief in objective reality. Training's content has emphasized specialized knowledge based on facts, immediate solutions to problems, and the intent to create predictable, replaceable workers. Methodology has been chiefly behavioristic, based on hierarchical cognitive learning objectives and relying on external motivational systems.

In the new learning/high-performance organization, developing learning capacity is training's new mandate. In order to do this effectively, training must first reshape itself by understanding and participating consciously in the shift. Then it must redefine its relationships within the organization, develop new training dynamics that are more effective with higher levels of learning and therefore meet the need for deeper and broader understanding at all levels.

This can be accomplished by adopting the values of the larger emerging paradigm: create integrated, systemic training that is trustworthy and synergistic, that encourages and supports responsible, resilient and creative individuals and groups, and that promotes cohesive diversity.

Chapter Three - Design and Method

Introduction

> "Organizational life is messy, complex, and characterized by multiple causes and effects" (Marsick, 1990)

The purpose of this study was to determine if there are patterns and practices that limit the effectiveness of training interventions when the purpose of the training is to facilitate major paradigm shifts in the organization. The research methodology selected was a naturalistic inquiry process studying a select group of upper middle managers. This chapter describes the methodology used, population studied, data gathered and analytic procedures employed.

Methodology

It became apparent after reviewing relevant literature, that the issues faced during a major organizational transformation cannot be adequately addressed by simply judging the outcomes of transition efforts. In order to discern facilitation patterns and practices and their relative effectiveness, it was

necessary to investigate the *processes* by which those outcomes are produced within the cultural context of the organization itself.

Process is best understood through the ethnographic techniques of data gathering, including interviewing, documentary analysis, investigator diaries, and participant observation (Merriam, 1988; Tesch, 1990). The result of such work is a recreation of the shared beliefs, practices, artifacts, folk knowledge, and behaviors of the group (Goetz and LeCompte, 1984).

Naturalistic evaluation is a non-positivist approach to research with a focus on understanding the meaning people under study give to their experiences (Glaser and Strauss, 1990). It originally emerged from educational evaluation in the 1970's as an alternative to conventional methods. Naturalistic evaluation is formative in that it seeks to discern patterns that can link processes and outcomes. In addition, it asks if the results are those that were desired (Merriam, 1988, Tesch, 1990).

Guba and Lincoln (1981) maintain that naturalistic inquiry is an ideal form of evaluation because it provides "thick description," is grounded, holistic and life-like, simplifies data, illuminates meanings, and can communicate tacit knowledge.

In addition, according to Merriam (1988), naturalistic inquiry is a particularly good means of educational evaluation for four reasons: 1) it can explain causal links in real-life interventions that may be too complex for the survey of experimental strategies; 2) it describes the real-life context in which an intervention has occurred; 3) it provides an illustrative account of the

intervention itself; 4) it can be used to explore those situations in which the intervention being evaluated has no clear, single set of outcomes.

To date only a small number of social scientists have pursued such sensitive, highly intrusive and time intensive field work with an "elite" group because of substantial obstacles to gaining access and completing the research (Yeager and Kram, 1990). Sociologists have tended to study "trivial" organizations and avoid offending "elite" groups. Educators and trainers have studied what happens in the "classrooms." Corporate and management researchers have focused on statistical examinations relating to the "bottom line," or surveys of executive and management attitudes and behaviors (Yeager and Kram, 1990).

While there is a large imbalance in organizational research, there are a few noteworthy studies that have usefully applied naturalistic inquiry methods in relatively powerful corporate organizations (Kanter, 1977; Useem, 1984; and Jackall, 1988). A number of studies have focused on white-collar deviancy and the social control of business, using case studies of specific illegal events or surveys (Hawkins, 1983, 1984; Yeager, 1987, 1990; Grabosky and Braithwaite, 1986; and Fisse and Braithwaite, 1983, as cited in Yeager and Kram, 1990).

Researchers in schools of business have a greater record of success in mounting field work in corporate settings, presumably because they contract with managers and organizations for research work of mutual benefit (i.e. for both scholarly and applied purposes). While these studies demonstrate the potential for meaningful access to corporate settings for such research (Toffler,

1986; Waters and Bird, 1987; Derry, 1987, as cited in Yeager and Kram, 1990), they generally have been conducted with samples of "disconnected" managers from different organizations, or with a quite limited subset of managers (e.g. lower level personnel).

Most research in HRD/T&D has been driven by an implicit belief in the traditional philosophy of science - logical positivism. However, many theorists in HRD are reevaluating the ways in which they study organizational life, (Marsick, 1987; Mitroff, 1985; Guba, 1985; Gradous, 1989; Morgan, 1986), possibly because, "As a whole, research in HRD is often criticized for being more descriptive than predictive, more oriented to the specific case than to the general, more applied than theoretical, and more in the service of advocacy than of analysis" (Marsick, 1990).

According to Marsick, this criticism stems from the dominance of the positivist paradigm in mainstream research and theory building, and HRD's attempt to align with the natural sciences. Capra maintains that the overemphasis

> "on the Cartesian method has led to [a] fragmentation that is characteristic of both our general thinking and our academic disciplines, and to the widespread attitude of reductionism in science - the belief that all aspects of complex phenomena can be understood by reducing them to their constituent parts."

This is one of several assumptions of the positivist paradigm (Capra, 1982).

The primary criterion for development and implementation of a research model is "whether the design allows the researcher to address effectively the research goals and questions posed" (Goetz and LeCompte, 1984). This study

was conducted within the broader context of a shift from the Newtonian mechanistic model of bureaucratic organizations to the new learning organization. It is appropriate to use methods that match the transformation from reductionist science to new holistic approaches. Therefore, naturalistic inquiry methodology appeared best suited for the "messy, complex" interactions that characterize a group of upper middle managers during transformation interventions.

To summarize, the purpose of naturalistic research is to understand the world view of the participants in the study, as well as patterns and links between processes and outcomes (Bogdan & Taylor, 1975; Lofland & Lofland, 1984; Merriam, 1988). However, as Lofland and Lofland point out, naturalist inquiry is first and foremost emergent and therefore the context is constantly changing for each participant within the study (1984).

During this study, examples of changing contexts included a national recession and organization-wide budget replanning with 20% reductions, as well as changes in personnel and participants. Changing contexts within the personal lives of the participants were not tracked.

Population

Nonprobability criterion-based sampling was used to determine the participant sample of managers for this study. Selection was based on the unique attribute of the organization from which the study population was

drawn, in that it was the first of its kind (a public-sector university) to publicly announce its intention to engage in a TQM transformation. It began that transformation in one pilot division - Finance and Administration (F&A). The sample population consisted of upper middle managers in this division who participated in the first year of training interventions as the university began its TQM transformation.

The participants in this study constituted variety in such areas as age, gender, income, years in the organization, educational level and discipline. The original group included in the training intervention consisted of eight directors and five project managers (reporting directly to the vice president of F&A), the vice president, the director of staff development, a consultant and occasional assistants. Meeting size varied from 12 to 20 people. Ages ranged from mid-thirties to early sixties. Besides the researcher, two women participants were in regular attendance, one an assistant vice president and one a director.

About half of the members held academic appointments and therefore faculty status in their respective disciplines. All but one group member had been at the university for over five years. That one person, as well as the staff development director (who also served as trainer and team facilitator), had been at the university for less than two years.

Data Collection

Participant observation, intensive depth interviews and field notes were the dominant strategies used for data collected in this study, the goal being to gather descriptive data in the words of the subjects. Approximately 150 hours were spent by the researcher in participant observation, during which time field notes were taken. In addition, 10 interviews were conducted, averaging two hours each in length. Audio-tape recordings were made during the interviews.

Field notes and interview audio tapes were transcribed and entered into a qualitative data analysis software program for the formal analysis phase of the research (Tesch, 1990).

Table V is a chronology of the data collection process. During the first phase of the project, the researcher gained permission to conduct the research, attended initial TQM leader and facilitator training, and began facilitating one of the ten pilot teams from Finance and Administration (F&A).

During the second phase, the researcher collected data on the Directors Team as a participant-observer. In the beginning, three-hour weekly meetings consisted mainly of training sessions about TQM methods and were conducted by the staff development director and a consultant. By the second month, the group was declared a TQM "team" and enacted the TQM methods as they learned them. Eventually each three-hour session was divided into two parts - training led by the staff development director, then a team meeting also led by

Year One - Phase 1		
	January	Executives began 10 week TQM course.
	February	Pilot team started in Finance & Administration.
	March	Executive training, initial Hoshin planning.
	April	10 pilot teams formed, researcher attended 1st leader & facilitator training & facilitated AB Team weekly.
Phase 2	May	Directors Team formed, researcher attended weekly.
	July	10 more teams started, researcher facilitated CD Team weekly, V.P. published 1st paper on TQM implementation.
	September	Some pilot teams began implementing solutions, Directors team completed discussion of initial cause and solution.
	October	Directors retreat, "team" discontinued, AB Team completed.
	November	CD Team completed.
Year Two - Phase 3		
	January	Potential interviewees contacted.
	February	Interviews conducted.

Table V Data Collection Chronology

the staff development director as team facilitator with the vice president as team leader. The vice president also regularly added one or two small items of university business to the agenda.

When the Directors TQM Team was first formed, it replaced on-going weekly meetings in the executive boardroom. Many times attendance was "fluid" in that one never knew who would show up. By the second month of meetings, the vice president had culled most "assistants" from the room while reinforcing his desire that all directors and project leaders attend regularly and in person. Attendance stabalized at fifteen people. This team ran for 21 weeks.

Also in the second phase, the researcher participated and collected data as team facilitator/trainer for two other teams: AB, an F&A group and CD, the first team from outside F&A to attempt TQM. Each of these teams met weekly for 15-20 weeks. The AB Team was led by an F&A director who had participated in both executive and team leader training. All of the team members reported directly to him. The CD Team leader had received no specialized training, nor did this team have any connections to the Directors Team or the vice president except through the researcher.

In the third phase, data were collected from ten in-depth interviews conducted one year after the initiation of the TQM training project. Interviewees included the staff development director, the vice president, one of the outside consultants, six directors, and one member of the CD Team.

Instrumentation

Theory-building researchers typically combine multiple data collection methods, with interviews, observations and archival sources being the most common. To understand if there are patterns and practices that limit the effectiveness of training interventions, this researcher used all three methods.

Participant observation involves social interaction between the researcher and informants in the milieu of the latter, during which data are systematically and unobtrusively collected (Taylor and Bogden, 1984). The purpose is to establish and sustain a many-sided and relatively long-term relationship with the sample population (Lofland and Lofland, 1984). "Classic participant observation, then, always involves the interweaving of looking and listening, of watching and asking" (Lofland and Lofland, 1984).

Detailed field notes were kept throughout the process. The field notes consisted of a more or less chronological log of what was happening to and in the setting and the observer (Lofland and Lofland, 1984). They included the following:

- a running description (concrete and as verbatim as possible) of events, people, things heard and overheard, conversations among people, conversations with people
- remembered items of information not previously entered into the notes, triggered by a current incident or situation
- analytic ideas and inferences triggered by the observations

- the researcher's impressions and feelings
- questions raised by current observations, and the call for notes for further information (Lofland and Lofland, 1984; Taylor and Bogdan, 1984; Merriam, 1988; Eisenhardt, 1989).

The overall goal of the naturalistic field work was to collect the richest possible data. The central tenets of this theory are first that face-to-face interaction is the fullest condition of participating in the mind of another human beings, and second, the researcher must participate in the mind of another human being (in sociological terms, "take the role of the other") in order to acquire social knowledge (Lofland and Lofland, 1984).

To further enrich the field note data, depth interviewing, also known as "unstructured interviewing," was used as a guided conversation whose goal was to elicit from the interviewee rich, detailed materials that were used in the analysis (Lofland and Lofland, 1984). The researcher sought to discover the informant's experience of the TQM implementation as well as the longer-term learning effectiveness of training interventions. This is in contrast to the structured interview where the goal is to elicit choices between alternative answers to preformed questions on a topic or situation (Guba and Lincoln, 1985).

An interview guide was prepared and used by the researcher, to facilitate the interview process (Appendix A). It included the following categories of questions, as recommended by Patton for intensive interviews (1980): experience/behavior, opinion/value, feeling and knowledge questions.

Sensory and background/demographic questions were not considered appropriate in this situation.

The interviewer/respondent interaction is a complex phenomenon. Both parties bring biases, predispositions, and attitudes that color the interaction and the data elicited (Merriam, 1988). This researcher relied on professional experience in interview techniques to be non-judgmental, sensitive to verbal and nonverbal messages being conveyed, a good, reflective listener and respectful of the respondent.

All interviews were audio-taped. In addition, the researcher kept field notes made during and after the interviews.

Reliability and Validity

The purpose of research is to provide valid and reliable knowledge. Reliability and validity are significant aspects of traditional research endeavors. While it can be difficult to talk about the validity or reliability of a naturalistic inquiry as a whole, researchers can talk about the validity and reliability of the instrumentation, the appropriateness of the data analysis techniques, and the degree of relationship between the conclusions drawn and the data upon which they presumably rest (Merriam, 1988).

Internal validity addresses the question of how one's findings match reality. However, a tenet of naturalistic inquiry is that reality is "holistic, multi-dimensional and ever-changing" (Merriam, 1988), therefore assessing the

similarities between the data collected and the reality from which they were derived is an inappropriate determinant of validity.

Since one goal of naturalistic inquiry is to portray the world as it appears to the people who are in it, what *seems* true is more important than what *is* true (Lincoln and Guba, 1985). When reality is viewed in this manner, internal validity is a definite strength of naturalistic inquiry, as long as the investigator presents honestly how the informants actually view themselves and their experiences (Merriam, 1988).

In order to provide internal validity, i.e., cross-check that interpretations were "honest," this researcher used the technique of triangulation - the use of multiple sources of data (Merriam, 1988). In this study, the researcher conducted a triple comparison of participant observation of the directors team for five months, five months of participant observation of the two additional pilot teams, and 10 two hour interviews. Field notes from all three phases of data gathering were used for cross-checking purposes. In addition, archival documents were consulted regularly.

To further cross-check for internal validity, field notes and verbatim transcripts were entered into a qualitative data analysis software program, THE ETHNOGRAPH (Seidel, 1988). The use of this program guaranteed that the data analyzed consisted of participants own words, and, given the quantity of data collected over a year's period, all data was available to be analyzed.

Reliability refers to the extent to which one's findings can be replicated (Merriam, 1988). Reliability and validity are inextricably linked in the conduct

of research. Lincoln and Guba make a case for side-stepping reliability in favor of internal validity since " ... it is impossible to have internal validity without reliability, a demonstration of internal validity amounts to a simultaneous demonstration of reliability" (1985). Additionally, Merriam suggests that reliability can be ensured through the use of triangulation, despite the fact that human instruments are imperfect and human behavior is not static (1988).

External validity measures to what extent the findings of one study can be applied to other situations, or its generalizability. This aspect of validity is a subject of considerable debate within naturalistic inquiry in that many argue that external validity as it refers to correlational or experimental design is inappropriate in qualitative or naturalistic research (Merriam, 1988; Patton, 1980). The researcher can, however, improve the generalizability of his or her findings by "providing a rich, thick description so that anyone else interested in transferability has a base of information appropriate to the judgment" (Lincoln and Guba, 1985).

Data Analysis

Naturalistic inquirers and educational ethnographers speak of their analyses as inductive, generative, and constructive (Tesch, 1990). Rather than verifying given notions or hypotheses, the work of these researchers is

generative in that it seeks to discover constructs and propositions (Goetz and LeCompte, 1981).

There are no fewer than 26 distinct methods for qualitative data analysis. Tesch (1990) however, applied qualitative analysis techniques to describe qualitative analysis principles and procedures and derived the following list:

1. "Analysis is not the last phase in the research process; it is concurrent with data collection or cyclic.
2. The analysis process is systematic and comprehensive, but not rigid.
3. Attending to data includes a reflective activity that results in a set of analytical notes that guide the process.
4. Data are 'segmented,' i.e., divided into relevant and meaningful 'units.'
5. The data segments are categorized according to an organizing system that is predominantly derived from the data themselves.
6. The main intellectual tool is comparison.
7. Categories for sorting segments are tentative and preliminary in the beginning; they remain flexible.
8. Manipulating qualitative data during analysis is an eclectic activity; there is no one 'right' way.
9. The procedures are neither 'scientific' nor 'mechanistic.'
10. The result of the analysis is some type of higher-level synthesis."

Throughout the phases of participant observation and depth interviewing, this researcher tracked emerging themes, read through field notes and transcripts, and developed concepts and propositions to begin to make sense out of the data (Taylor and Bogdan, 1984).

This researcher used the principles and strategic procedures as outlined by Tesch for the identification of regularities in the form of patterns. The first step involved thorough reading of the data, looking for topics that occurred

and reoccurred as well as emerging themes or patterns. This step was accompanied by copious note taking.

The second step employed was *segmenting*, or the process of dividing the data into the smallest piece[s] of information about something that can stand by itself (Tesch, 1990).

In the third step, categories were applied to the segments, commonly called codes. As with all analysis, coding was an interactive process in that the organization system - the codes - had to be continually refined. As codes were developed, they were carefully defined in a codebook generated by the computer software, in order to maintain some clarity during this iterative reorganization step (Tesch, 1990).

In the fourth step, all incidents described by each code were extracted from the entire data body and studied as a group. This step was facilitated by the "search" procedures available in THE ETHNOGRAPH software program. The researcher looked for configurations within each category, and for linkages across categories. In addition, the researcher looked to see whether any interesting patterns could be identified; whether anything stood out as surprising or puzzling; how the data related to what was expected on the basis of common-sense knowledge, official accounts, or previous theory; and whether there were apparent inconsistencies or contradictions (Tesch, 1990). Recoding and extracting were repeated as indicated by discoveries in the data.

Movement from data to concept was seen as a movement across levels of abstraction. Incidents categorized under a label (code) were used later to

develop a statement of the concept's nominal definition, theoretical meaning, or substantive content (Martin and Turner, 1986). As analysis continued, this researcher sought higher and higher levels of abstraction, combining categories of codes until they were neither too abstract nor to general.

There is a danger that investigators will reach premature and even false conclusions as a result of information-processing biases (leaping to conclusions based on limited data, being overly influenced by vividness or more elite respondents, or dropping disconfirming evidence) (Eisenhardt, 1989). This researcher worked to counteract these tendencies by looking at the data in the following divergent ways:

1. selecting categories or dimensions, then looking for within-case (participant) similarities coupled with intercase differences,
2. selecting pairs of cases and listing the similarities and differences between each pair,
3. dividing the data by data source (observation, interviews, field notes, supporting documents), then comparing each group of data (Eisenhardt, 1989).

To summarize, in order to determine if there are patterns and practices that limit training intervention effectiveness during organization transformations, naturalistic inquiry methods were used to observe and interview a select group of upper middle managers. The participant observation and interviewing occurred during and after extensive training

interventions aimed at transforming the organization. Data were analyzed and issues identified.

Chapter Four - The Story

"True intention is demonstrated by attainment." Anonymous

Introduction

I was excited and a little nervous as I rode the elevator to the executive floor of the administration building for the first Directors Team TQM meeting. Total Quality Management was a philosophy new to this group of upper middle managers. I'd been working with a line staff TQM team for about a month and was intrigued to see how these managers would react to the process.

I first learned of TQM in January when the staff development officer, Sam Teacher, told me the president and vice presidents of the university were enrolled in an eight-week class on the subject at a nearby high-tech plant. Within days, Teacher was told to take the class with them. His boss, Fred Thrust, was vice president for Finance and Administration (F&A) and had became a devotee of the process within the first three classes. Thrust initiated a pilot team in his division as part of his homework, then moved to have his division pilot TQM implementation for the whole university.

Thrust was incredibly enthusiastic about TQM. By March he had brought in consultants to train his administrative directors. In April he

designated ten new pilot teams, arranging for team leaders and facilitators to be trained. By May he had formed his directors into a formal TQM team. In July ten more teams were started and Thrust was publishing papers on TQM implementation. Within a year, TQM was credentialed by Thrust as *the* problem-solving method for middle and lower ranks at the university. Two years from the start, Thrust moved on to another institution.

This is the story of Thrust, his directors, and the trainers who participated in the first year of the TQM implementation. Because I was facilitating two staff teams at the same time I was observing the Directors Team, I was able to compare staff and management reactions. The first major response from staff was, "Management will *never* go for this!" The directors were immediately lost, commenting repeatedly, "What's this all about?", "It's too nebulous," and "What does this *mean* for us?"

It didn't make sense that management couldn't grasp the same basic concepts staff seemed to understand. It became clearer to me as time passed that TQM *represented deep shifts* in the underlying management paradigm and management instinctively resisted it. Their resistence and pain were symptoms of the broader clash between old and new systems, not of the difficulty of the material nor the intelligence of the people involved. As the directors talked about what they were experiencing, their talk clustered around four themes, emerging in the order presented.

First, the directors had no choice about participating - they were told by Thrust to get on the bandwagon ... or else. This colored their views about

what the TQM philosophy really meant, as well as Thrust's own internalization of it. It affected how willing they were to learn and accommodate Thrust's push for change.

Second, the directors continually got lost within the TQM process. They didn't have the context and skills to know what was important in relation to TQM. They had attempted to *learn* TQM by using its techniques to improve TQM implementation throughout Finance and Administration and it was confusing them.

Third, the tools of TQM have politics that are in conflict with those of the bureaucracy. The magnitude of dissonance was unexpected as it triggered a self-protective response from these upper level managers, including Thrust, that ultimately served to reaffirm their status quo.

Fourth, the directors and Thrust muddled along until the next step in defining success for themselves would have required real *personal* change. Led by Thrust, they agreed to shelve the TQM tools for themselves but push team formation and responsibility down the ranks.

All four issues coexisted throughout the team meetings, but each emerged as a theme in their talk as they became conscious of its implications. For example, the directors talked about fear and enforced compliance from the first meeting until the last. About half way through, they became conscious of the larger clashes with their existing ways of doing things and began acknowledging the need to change the whole system if they truly intended to

succeed at TQM. While they redefined success at the end to exclude their personal change, the outcome was inherent in the way the process unfolded.

Compliance

Fear was the directors' first major response. As early as the second meeting the directors were "on the carpet," defining their critical processes so they could be quantified. Thrust wanted them to present monthly progress charts to the team, threatening punishment if the graph didn't show improvement. Several factors led the directors to accommodate Thrust by outwardly complying with his demands. Those same factors hampered their willingness to internalize or take responsibility for TQM implementation.

First, Thrust used his position as vice president to move through initial implementation stages rapidly, making decisions that left his directors no choice but to comply. Few people had Thrust's understanding of or enthusiasm for changing over to a new management style and philosophy. Second, while Thrust pushed constantly for more and more teams, there was little systemic support or motivation for change. Training was literally developed on the run. No one could model what was being proposed, so people heard "do as I say, not as I do" messages. Outcomes were largely unknowable and unpredictable.

The speed with which Thrust attempted to transform his division had a direct impact on the level of conformity by his directors, compliance being the

least stable of all classes of conformity. Compliance occurs when people seek approval or escape from punishment, from either an individual or group. Compliance can only be enforced by constant supervision (Katz & Kelman, 1960). Thrust found this to be true.

The off-campus course had started in January. During this course, Thrust formed a team within one of his problem units, using its progress to fulfill his homework assignments. In February, he arranged with one of the course leaders to act as consultant to the university. By early March the primary consultant, Carol Walker, presented a three-day executive workshop for the directors. Each unit was told to start one pilot team. By late March, formal training began for team facilitators. In April, the directors were formed into a team in order, Thrust said, to help them understand the team process better and manage TQM "team roll-out."

As staff development officer, Teacher was put in charge of training for team roll-out in the VP's division. Teacher had no background in TQM and learned as he went. A year later, everyone except Thrust would say they had moved too fast.

Imposed Change

The speed with which TQM was pushed caused many to believe it was another passing fad without lasting institutional support, much less the religious fervor Thrust seemed to demonstrate. Because the desire and need

for change was dictated from above, few had any opportunity to consider the issues involved and decide for themselves. Without understanding what TQM might offer management, directors were motivated only by Thrust's commands, not from an intrinsic desire to change. As a result, while outwardly complying, they retreated into a self-protective mode, covertly defending the status quo.

As one director said, "I don't think that the majority of the campus feels that this is a real hot thing. They think it's just another flash in the pan going by." Another director pointed out, "A lot of folks have been at the university for 20 or 30 years, and they think this is just another one of those 'as the willow blows in the wind, so will I.'" One dubious participant commented, "I don't like the way we're pushing ahead, just hit or miss."

The directors felt forced into something they didn't feel they were given time to understand. A staunch supporter of Thrust even said, "We're doing TQM for the sake of TQM." The directors, and most everyone else, saw TQM as Thrust's new religion. Thrust clearly saw himself as the champion, commenting, "If I left, TQM would stop tomorrow."

Thrust said the only way he could succeed was by pushing. He believed that "These managers don't see any payoff. They need a cliff to make them move. There's not a champion or entreprenuer in the group." He decided to trust that if he made them do it long enough, they would come to understand why it was good for them. Thrust said, "In my mind the process

is pretty well figured out. [So] I'm finding myself not so much teaching as I am pushing."

Both privately and at the weekly meetings, directors continually asked Teacher for assurances about what was going to happen next. He said in private, on several occasions, "They're looking for certainty somewhere in this process and I can't give it to them." The directors were cautious about voicing their concerns when Thrust was present. Most often, they waited until he left the room or confronted Teacher in private with questions about the "bigger picture on this team and time commitments," believing they needed to know "more of the game plan - longer agenda - with clearer expectations." They were especially interested in "more information and definition of our role as managers and sponsors of other teams."

Some of this information unfolded as the team proceeded. Yet they felt hampered in their efforts to satisfy Thrust and really form a team, because "We feel fear. We're afraid to tell each other how we feel." When Thrust challenged that viewpoint, wanting them to be more proactive and entrepreneurial, one director responded, "We don't know how to be proactive without hurting people." Another maintained that ".. it's normal to see things from different perspectives." Teacher questioned that, "If there are different perspectives, why are there not arguments?" He was told "We don't know enough to argue yet," six months after TQM implementation started and fully three months after the formation of their team. By the last team meeting, they understood enough about TQM for one director to say, when Thrust had

temporarily left the room, "Until we change this culture from one of blaming, fear and territoriality, it won't work."

Also at the last meeting, Thrust asked Teacher why the directors team had not succeeded as well as other teams. Teacher ventured, "Because management didn't learn fast enough? What I mean is that [staff] groups moved beyond the directors, and they felt they needed to continually play catch-up with their own groups?" Teacher had concluded that the problem lay with the directors *inability* to learn TQM.

However, without time or opportunity to study the new philosophy before Thrust had them running teams in their units, they were not intrinsically motivated to learn, only to pacify Thrust. This *unwillingness* could be seen in the ways they withheld their attention and covertly resisted.

By the seventh team meeting, Teacher, as team facilitator, was so frustrated with them for not staying involved in the process or remembering what they had already done that he finally asked the group what was going on. One brave person muttered it was because of "our lack of vested interest, emotional draw. This stuff is nebulous." Following a lengthy monologue by Thrust about the difference between constructive and destructive dissent, another director said to Teacher, "It's a response to the individual holding the vice president's position. We're uncomfortable. We don't know how Thrust will react."

The directors reacted to uncertainty and fear by becoming self-protective. They didn't know what they could question without being viewed

as obstructionists, a position Thrust had made clear would not be tolerated. At an early meeting, field notes read "..consensus all will support it at least verbally outside of this room. More discussion and eventual half-hearted commitment."

Later, one participant claimed that TQM itself generated fear of being criticized because it focused attention on problems and if TQM "hadn't come along, that particular mistake or error, or process wouldn't have come to light and been criticized." He said TQM makes it especially important that management adopt a very supportive, non-punitive posture of "where do we go from here" rather than "what the hell happened." Because TQM focuses on policies and procedures, traditionally a management domain, this same director believed that being supported was even more important for directors than line staff. When asked how he thought the directors had reacted to the "basic fear" he saw as part of the process, he said they were "protecting themselves, not so much sabotaging TQM as holding back."

He ended the thought by saying, "It is interesting to see the threatening ... or fear that people throughout all strata had for shaking up or amending the existing order, rather than accepting it and looking for change, figuring that you're going to be healthier as a result of it." He himself saw TQM as somewhat redundant to what he was already doing personally but offering line staff a chance to be heard in decision-making.

It was clear that Thrust and many of his directors believed fear was the only way they could change people's behavior because "the reasons for change,

at any level, have got to be threat perceived." This conflicted with TQM philosophy which states, according to Deming, "Eliminate fear!" The directors saw the contradiction between what Thrust told them to do and what he himself did - "The administration may not believe that what they're doing is reserving fear, as a system of the old way, but the bottom line is, it's in there." Thrust believed it wasn't fear ... "I won't call it a fear factor - but it's a bread and butter issue." His directors clearly disagreed. Toward the end of team meetings, they were told to cooperate with a consultant who would facilitate their impending retreat. One director who knew the consultant was asked, "Can we tell the truth about how we feel?" "No, tell Thrust" he responded. "I'm no dummy!" she answered.

It was also evident to the directors from early in the process that Thrust had his own agenda. Their perception was that he was pushing team roll-out so he could publish papers and the university could be the first to win the Baldridge Award. One director said,

> "We mouthed that we were going to eliminate fear and it's a five-year thing, but the sense was that there is no fear being eliminated, fear is present - fear is going to stay present, and the only thing that's going to happen in five years is we're going to be so good that we win the Baldridge Award. That was almost from the outset."

The directors sensed that it didn't really matter if they internalized TQM, as long as Thrust could use their efforts to fulfill his private goals. Early, when Thrust was "getting religion," directors bet among themselves he would move on in 18 months.

Thrust released his first paper in July. It offered a sanitized and glorified view of an implementation plan *as if* it had unfolded that way at the university. When compared with actuality, most of what he proposed *other* universities do, had not happened here. For instance, he said in his implementation model that cross-functional pilot teams were initiated in Phase Seven. In truth, he had a cross-functional pilot team (the directors team) scrambling to figure out what to do next almost from the beginning. Those directors who read the paper looked at each other and shrugged. "What did you expect?" they said. Some were offended, feeling they couldn't even take credit for what they *had* done because it was now buried under what *should have happened*, according to Thrust.

Teacher was as aware of Thrust's private agenda as the directors. Like them, he answered to Thrust and had to do what he could to make it work - despite their self-protective attitudes, lack of motivation for or holistic understanding of the goals. As he looked back on the first year, Teacher said, "We had no idea it would work, so we couldn't speak from experience, and I think they could read that. I mean, we kept saying it was an experiment, and there was a lot of things that increased their anxiety."

When interviewed a year after the process started, the directors tended to talk about it in terms of what had gone wrong, and what (or who) was to blame. Training was blamed most often - it wasn't right, it happened too fast, it wasn't enough. Even Teacher, in charge of training, said, "I think the speed of implementation was a real problem. We were too fast. I agree with critical

mass like everyone else, but I really think we should have run a couple of pilots."

Thrust, on the other hand, felt it was better to do something quickly than to wait around until things were "just perfect." In the beginning, according to the first team leader, "... he'd come back from his class, and the next day he and I would meet, and he would say 'this is what I learned, and this is what we're going to have to do. This is how you do it', and 'Go do it.' And he didn't even understand."

Thrust believed that critical mass meant the number of teams he had running throughout his division. He continually pushed Teacher to start more and more teams, putting tremendous pressure on Teacher to train team leaders, facilitators, and team members - without additional resources and without relief from his regular responsibilities in Staff Development. One participant described it this way: "[Teacher] had been given the directive just to get teams up, and he's running around, just, 'would you get a team?', 'hey, would you like to have a team?', 'would you do this?' and 'would you do that?' and I think we've diminished the thought process a whole lot. It's now sort of a monkey see-monkey do trick."

Even a year later, directors talked about the cost to them and their people from moving too fast without adequate preparation. "The survivors will have to do it [laughter]. Those that are left [laughter]." One director solved the problem in his unit by

> " ... having one or two key people spending a lot of time trying to fill out some forms and some plastic charts that will end up in a TQM display book, and it isn't going to do us a bit of good (laughter). It's a losing battle, actually."

Most staff involved in the teams believed that TQM really could change the culture if its values were adhered to in management practices, but they also knew that to succeed at the goal would require a lot more groundwork, starting with the top. The second most common blame was placed on the decision not to start,

> "with top management and work with them until it works all the way down, and everybody understands what's happening, what's coming, what's important, how to do it - everything. So that you get that uniform support across the board before you proceed to the layer below."

The decision to run staff teams before management learned to use the executive tools was made somewhere quietly in the executive suite. It left the directors feeling out on the proverbial limb.

Thrust, as TQM champion, had tremendous influence over implementation, but only within his division. Most directors questioned the president's commitment. "I don't think that [he] was really super hot on this," "the President will pat people on the head nicely for doing it, but he doesn't think this way," and "I don't see, nor sense, how the president is involved on any ongoing basis."

It was hard not to doubt the credibility of commitment at the highest levels. People could see Thrust "out preaching" but "he may be out preaching elsewhere more than he's preaching it to his colleagues on the top floor."

Since he was the only executive pushing TQM, and none of his peers seemed interested in getting involved, he would have had to be champion for the whole university. Several directors commented, "I'm not sure that he, frankly, has the credibility ... to carry that through," as well as, "Thrust doesn't have that much influence on the body of the whole here."

The message ultimately received within the division was - "it's fine for the troops, but the folks on the [top] floor of the Admin building don't have to live by it." This attitude, a lack of choice, understanding or intrinsic motivation, and the belief that TQM was a passing fad, engendered covert resistence and a real hussle by the directors to protect themselves. In addition to these problems, missing support systems created even more unwillingness to change. Many people discovered that the push for change translated personally into negative rewards and sometimes outright punishment.

Support

Two major obstacles stood in Thrust's way of providing systemic support for change. First, management believed they didn't know what such support would look like in a public-sector service organization. Second, like all bureaucratic organizations, the systems in place were designed to protect themselves from change.

Efforts to overcome these two obstacles were very slow. The organization was hampered primarily by missing structures that could

motivate people to make the intense effort required. In addition, it was handicapped by the perceived need to develop a training program from scratch. Finally, the absence of effective TQM managers left them without any models. These shortages created an atmosphere that translated into negative rewards for the directors. For many of them, the situation was perceived as no-win because uncertainty about executive commitment to transformation made personal change risky, while not getting on Thrust's bandwagon was even riskier.

Systemic support was the first major issue. In some organizational situations, a lack of intrinsic motivation on the part of an individual can be overcome by the organization through extrinsic reward structures. However, within a bureaucracy, "...there's no reward" for managers to change.

> "I could be a great manager, but there's no measurement. Other than me feeling good about myself, who else would care? Talk to managers in the public sector who are over 50, seen as impediments and burned out. But the truth is they've learned you don't get credit by making yourself sick."

At the university, structures governing motivation were further impaired by the tenure system. Most of the directors were tenured faculty and procedures for removing them were cumbersome, lengthy and difficult. In private meetings with Teacher and me, Thrust often said about different directors, "Boy, this guy is worthless and I'd like to get rid of him, but I can't do it." He felt that because he couldn't fire them, he had no real control over them. "Since the guy can't lose, why would he want to change?"

In addition, Thrust repeatedly said that because this was a public-sector, service-sector organization, he couldn't offer any *real*, i.e., monetary rewards. Budgets were fixed and there was no profit to be divied up. Also, he believed that the end result of his efforts with TQM, improving processes, should be enough motivation and reward. He preferred to push.

Thrust used traditional motivators. He announced at the second team meeting that performance reviews for directors would henceforth be tied to TQM measures. Enthusiastic TQM supporters would receive a 2% raise. Thrust said, "You've got to put pressure on them. I've said they've got to have teams going on every process, within two years, or they will be judged unsatisfactory in that 2% part of their salary" and "that's not fear, but it's certainly pressure." While the threat was not large (2% being minimal at their wage scale), neither were the rewards. Participants on staff teams eventually received coffee mugs and certificates, but only after the directors and Teacher repeatedly insisted Thrust "had to do *something*" to reward their TQM work.

Despite Thrust's 2% carrot, the directors felt unrewarded for being guinea pigs in this process. Their people were told to take on increased workloads without compensation. All teams were told TQM could not cost either additional personnel or overtime, nor could their problem-solving solutions cost anything. People were asked to take on the time commitment (three to eight hours a week for 15 weeks) in addition to all their regular responsibilities.

In some units this produced grumbling but no real problems because, as Teacher put it, "they're only working at 60% anyhow." In other units, ".. you've got people screaming at you for report deadlines and then somebody says 'time out - you've got to spend 20 hours in meetings this month.' Who's going to do the work?" "We're working 60 hours a week and can't keep up with it. I spend most of my time trying to get people to stay with us. Burn out."

Talented people interested in TQM were at a premium. If someone showed enthusiasm, they were immediately snatched, becoming facilitators for other teams, an additional eight hours (average) a week. Their duties were either picked up by their unit mates or left undone, putting additional stress on those units and their directors. As is common in this type of situation, the best people overburdened themselves.

Despite these dilemmas, several directors thought there were ways to reward managers that could be effective in the public sector. One suggested, "Say 'these are the heroes, these guys did this and they are going to set the world right.' Build them up so high they can't afford to fail." Another proposed, "There's fear, pressure and physical pain. Or turn it around and make it so great they get sucked in with the reward system and all the badges, and the crown, and the other things." [Midway through the second year, Thrust did institute a TQM fair, modeled after that of Xerox].

Even without structural support for management to change, the directors believed their people benefited from TQM. First, most directors said

at the end of the first year that TQM had improved employees' relationships with each other, other units and their customers. According to these directors, employees "started really seeing each other's role more clearly." Employees perceived they could "communicate about ownership and problems without costs." Also, the TQM structure helped "break down some of these barriers and territorial boundaries." Directors believed their people felt "more vested in it, and as a result take greater pride in what they do ... I've seen some people blossom."

Second, TQM people seemed to feel more ownership and control of the decision-making process within the bureaucratic system. Again from directors, "They liked the idea of being able to think about what this place might be doing ten years from now, and how we could shape our own destiny." "In a bureaucratic system, it offers us the first hope of some input from the workforce." Employees felt they were getting a "chance to add input that's meaningful, that's listened to, directed towards a solution rather than just a bitch or a gripe." One observer noted among staff TQMers, a "much greater tendency to offer and require - demand - the ability to comment about projects and how they are being formulated throughout the organization."

Staff saw TQM as a way to increase their empowerment. The directors saw TQM as more threats and fear than rewards. However, they *blamed lack of adequate training* for the failure of TQM to "take hold" at their level.

Training took the brunt of blame. For one reason, Thrust and Teacher determined that existing programs were from private-sector manufacturing and therefore not suitable to a university setting. This meant they needed to develop a training program specifically geared to a public-sector, service-based university. Because teams were being started very quickly, there was no analysis or design phase in developing the training materials. Teacher improvised as he went, rewriting Deming's 14 Points to suit Thrust, and using whatever he could glean from the literature he thought the university environment would listen to.

Training content focused around the mechanical tools of TQM that lead to customer-driven, continuous process improvement using statistical process control methods or total quality control (TQC). Training for the directors team was the same as staff teams. It ignored specifically management/executive issues and tools originally introduced in their three-day executive training. This was a deliberate decision made between the first and second team meetings at a conference with Thrust, Teacher, and a secondary consultant, Jill Frosh, who was originally trainer for this team. Thrust wanted the directors team to use TQM to improve the implementation process itself. He concluded they needed to experience the seven-step process first-hand, as they investigated ways to improve it. He set three goals for the directors team at this conference: "1) for the directors to develop a big-picture view through understanding critical processes throughout Finance and Administration; 2) for

the directors to improve team process training and experience and finally 3) to revise the big picture plan."

As an issue, improving TQM implementation was a huge process to choose. Later, even Thrust admitted that, "We took a calculated risk, now we are paying the price; I wish we could have hired someone who had done it before." And, "[teams have] to learn the TQM process on simple easy issues; we shouldn't start cross-functional teams until we know the process."

Teacher tried to "reduce TQM to a common understanding and common cause and effect...to make sure everybody in the room agrees" what needed to be done. Four months later he was asking the directors to trust in the larger aim of TQM. Eight months after that, one director said "I didn't know where we were going until clear at the end," while another contended that, "I still don't have a clear sense of what this will look like six months from now."

Teacher was as new to it as Thrust; Frosh was an ex-school teacher without much credibility with the directors, Thrust or Teacher. At one point in an early private meeting, Thrust outright told her she didn't know what she was doing. He compensated for the lack of experienced advisors by attempting to customize TQM as he went, to accommodate what they had agreed were the unique characteristics of managing in a public-sector academic institution. For instance, he changed "no fear" to "some fear is necessary," and pushed "team development" before "executive (Hoshin) planning."

It backfired on him to the extent that participants felt no consistency between TQM theory and Thrust's own behavior or demands of them. Many felt they were getting mixed messages. One director complained,

> "...by saying we're going to establish our own system that takes pieces of TQM and whatever else, under the guise of 'we'll find our own way to do it' .. the administration may not believe that what they're doing is reserving fear as a system of the old way, but ... it's in there."

Another commented,

> "My feeling was that the rules kept changing. We were given a book by Deming to read which says 'do away with evaluations.' Thrust says we're going to follow the Deming book. And then he began tinkering with it, and pretty soon everybody's evaluation was to be derived from the TQM files. It felt like the ground kept changing. What rules are we going to play by today? If you don't like the rules, well ... [laughter] go find a new rule [laughter]."

Training methodology was traditional stand-up lecturing with some short practices before they had to do the "real thing" by which they would be evaluated. Training included some reading materials and videos. Teacher recognized early that he would need more than statistical process control tools to change directors' behavior. He started by giving each director a book about the Deming method, encouraging them to read it. At the fourth meeting, he offered them a video-tape on TQM to preview that he thought they could use with new teams, but cautioned them to be present when staff viewed it so the directors would clarify how TQM was being customized at the university. By the ninth meeting, he was handing out photocopied chapters from a book on empowerment and what it means for managers. At the thirteenth meeting, he

showed a video about (internal) customer service. He also tried using a dynamic Tom Peters video to motivate them.

He said privately he couldn't directly address shifting management value systems with training because Thrust wanted him to focus on the TQM problem-solving process. He also said he knew the directors really had no idea of the changes being asked of them.

Training relationships are either supportive or destructive of a project because the power of the change agent has such a dominant effect on the level of conformity. If the agent has the power to reward or punish, compliance is the most likely response. If the agent has power in the form of attractiveness, identification is the level of conformity. If the agent is credible and can be believed and trusted, then conformity takes the form of internalization (Katz & Kelman, 1960).

The directors viewed Teacher "like he was kind of the errand boy," the mouthpiece of the hierarchy. It was safer for the directors to blame him than confront Thrust directly, even though they recognized the position Teacher was in, he had the same restriction they did - no additional resources. "I understand there was pressure from Thrust to pursue this, but I'm not sure Teacher fully thought out the impact of this approach real well" and "[Teacher] didn't assign enough resources." The directors needed culture-changing interventions and learning experiences, but Teacher could only provide training tools originally developed to *maintain* the bureaucracy.

Training credibility suffered quickly, centering on Teacher. Not only was Teacher not the real change agent, Thrust was, but what trust they had in him was filtered through his relationship with Thrust. Eventually, they challenged Teacher's credibility even to present this material to them. The directors maintained that Teacher "has never really gone through the fire ... he's never been a manager" and "he lacks the power." In addition, "he doesn't have the credentials that I do, so he's not a worry." His credibility, and therefore his ability to influence change, was seriously compromised. Teacher knew he didn't have any real clout or influence and in private expressed intense frustration, stating that he needed at least equal status with the directors before they would listen to him. When he talked to Thrust about this, Thrust discounted it as a non-issue.

This situation reflects a traditional peripheral relationship between training and the organization. When Teacher tried to improve his own status so he could be more effective, he was perceived as "uppity." "He's got a real problem ... he thinks he should be a director along with the rest of the people, and the rest of the people don't view it as that."

He worked at building supportive relations with the directors individually and helping them with their teams. Even so, toward the end of the weekly meetings, directors increasingly questioned his expertise as well as his right to have input that would affect them. Shortly before the retreat that ended the directors team, Teacher left a weekly meeting to confer with the consultant hired by Thrust to do a team building session at the retreat. When

he returned, he was attacked (politely), "Why did you spend time with [the consultant] about *our* retreat?" A week later, he made a recommendation and the team disagreed with him, firmly voicing their intention to do something else.

Although the directors and Thrust knew I was conducting research, they had consistently treated me as a working member of the team, sort of an assistant "human resources type." As Teacher's credibility waned, the team's acceptance of my presence also diminished. When the directors started talking about themselves to each other during the ninth meeting, the atmosphere surrounding Teacher and I changed dramatically. I began to get comments like, "Don't you have enough data yet?", "When's this research going to be done?" and "Do you really need to be here?" Thrust seemed uncomfortable having me record what was happening. I continued to collect data but made my presence as unobtrusive as possible.

By this time, it was apparent that as they intended to discount TQM personally, they could also afford to discount any training efforts directed at them. They went through the motions of finishing the team project, but they focused their attention on control issues and their own teams. One well-placed observer remarked in September, "I have to tell you, my experience with the director bunch now is that they've tuned out about everything. They're listening to their own song."

The directors repeatedly talked about how inadequate the training had been. But what did they mean by adequate? If they meant pursuasive enough

to make them change personally, then the training system - relationships, methods and allowable content - were definitely inadequate, even as Teacher used acceptable patterns and practices based on his heretofore trusted expertise.

Lack of management models was the third factor influencing support for the directors. Bureaucratic models were prevalent and familiar while TQM models were unfamiliar or absent. Teacher continued to duplicate traditional bureaucratic relations. Directors had no one they could point to who modeled and personified the new management philosophy, Thrust being as much a product of bureaucratic molding as they were.

The directors were well aware of the conflicting messages. Included among Deming's 14 Points are "Create constancy of purpose" and "Drive out fear." As mentioned before, fear was not only not abolished but the directors saw no intention to do so. They could not reconcile Deming's constancy of purpose with Thrust continuously changing the rules. Also, while Thrust maintained they had used a *voluntary implementation model* (rather than "top-down which industry uses"), he also spoke several times about "not caring whether they agree with it or not, [as long as] they're doing what I want them to do."

In one planning session with Teacher and Thrust in the middle of August, discussion centered around the directors team's ineffectiveness to date. Teacher and I had repeatedly discussed *team development* as an issue among the staff teams. Without thinking, I commented that the directors weren't

developing like a team. Vehemently and without warning, Thrust yelled, "I don't give a damn if they ever form a team, just as long as they do what I tell them to do!" Teacher and I looked at each other, deciding not to pursue the subject with him. We agreed later that Thrust *truly did not understand* what changes TQM represented for him as a manager.

Later he said, "We tried to identify the values that we had, then we tried to identify the values that I want to see." Whatever he believed privately, publicly he maintained that by introducing TQM to his directors, he had created a process that allowed them to feel empowered and to become entrepreneurial.

Despite his championship of TQM, Thrust did not use the tools himself. He said during the final interview, "...we teach it but we don't practice it, to the best of my knowledge" and "we don't go to church on it ... except every once in a while when my guilt feels right."

When asked during the interviews if they thought Thrust had changed his own behavior in any way, none of the directors believed he had. Thrust, however, thought he had really changed and that his people recognized it.

> "Intuitively I want to be a participatory manager as opposed to a benevolent dictator... by using TQM I've been able to reinforce the part of my management style that wants that. If you ask them [the directors], they'll say 'Before TQM, I thought he really wanted to do it all himself.'"

The directors, however, said just the opposite, claiming at the end of the first year, "I haven't seen any change", "I think it's, you know, somewhat the same" and "I can't really say that I do [see change]." "Thrust knows it all now,

and we are here to just implement his direction. However, that direction is wrong because [he] isn't listening to his people." "He doesn't want to hear something negative." From the directors perspective, they could not integrate TQM into their own management styles until they could trust Thrust to accept direction from them as a team.

Often, Thrust would read a report or the newpaper during the weekly meetings. He frequently left the room for short periods. The directors used this time to seek clarity and assurances, and to actually get something done. It was obvious to those in the room that "when Thrust wasn't there, there was a much more open, frank involvement." Field notes from the ninth week read, "Whenever Thrust leaves the room (often), everyone talks more and visibily relaxes." At the 14th meeting, both Thrust and Teacher were absent for the first time and the group appeared more involved and less contentious than at any other meeting. They punctuated their work with comments like "Let's just get this done and go home while no one is watching."

Directors weren't sure if they could trust his commitment to TQM. One said, "I'm not sure whether he has a global perception or whether it's strictly a personal, self-gratifying thing." Several openly voiced skepticism - "I expect Thrust to be gone within 18 months; he's publishing as fast as possible, looking for a larger position." Without any change in his style to copy from, they assumed that, "... as long as he doesn't receive any complaints about us ..." management style could remain as it had been. Requirements for real change were pushed lower down in the organization.

The directors in turn modeled to their own people what was being done to them. One participant noted about a director that "..he didn't grasp or understand the reasoning behind the program, and as a result ... had an extreme influence on [his unit]. There was fear in his group about what they could do."

The directors' unwillingness to accept TQM was determined when they were told to adapt this new philosophy without the time to absorb it, without models, without training and without structural support or additional resources. They protected their turf and their status through gestures of compliance, coupled with inattention to the process, and covert unwillingness to buy-in to TQM. They justified their compliance by casting doubt on the credibility of the champion, the process and the training. Fear and missing trust were openly acknowledged at team meetings. They reverted to a standard escape of management - pushing responsibility down and praise up.

Missing Skills

Willingness to change, manifested by the participants and influenced by the organization, is only part of the equation. This section looks at the participants *ability* to learn and change within the situational context.

What struck me first about the directors team was how often they got lost within the TQM process. No other team had to backtrack as much as this team. On the surface, it appeared they didn't have the skills to know or figure

out what was important. The process couldn't hold their attention through a three hour meeting.

The new philosophy was so dissonant with established bureaucratic management methods that it could not be easily assimilated. Thrust and the directors focused on learning the mechanics of TQM without creating an integrated context for themselves. Without context, they couldn't internalize and make meaning out of what they supposedly were trying to accomplish. Their bureaucratic education and training didn't prepare them to deal with conflicting contexts.

Other factors also affected their ability to change. First, their learning capacity was impaired by unwillingness to learn. Second, from the directors perspective, they really did know what was most important - protecting themselves from Thrust's enthusiasm.

These three factors together made them appear dumb, rather than obstructionist, a safer position under the circumstances. They were not dumb, but neither did they have the learning skills they needed to transform management philosophy.

Learning Capacity

Field notes from the team meetings are checkered with comments like, "...lots of movement in and out of the room; staring out of windows," "...when one person talks, others seem to check out," and "...took 10 minutes to bring

themselves up to the present on what they had already done." Later in the process, they regularly forgot what they had done. "We don't know what happened last week. Why are we [doing] this stuff?" followed by "group discussion and lots of humor."

And yet, they became quite engaged in the process on the one occasion when Thrust and Teacher were both absent. Field notes state, "I perceive more ownership of these criteria without Teacher and Thrust interjecting comments. Several people expressed their own understanding of it." The primary consultant commented in private to me,

> "About the question of the innate intelligence level? I think if you can break through the years and years of tradition, you'd probably still have creative, worthy individuals, given a chance, who would produce some good things for you."

The directors were the product of a bureaucratic culture, both educationally and professionally. They had attained their status within the organization through proficiency in using *its* tools and values. The new tools and values were different enough from what they knew that to use them, directors would have had to make *new meaning* for themselves.

Yet they had not been educated to "make meaning," to balance analysis and synthesis. Their learning had centered around objective predictable reality. The ways they related to Thrust, as their boss in the bureaucratic system, clearly showed they expected him to tell them what to do, so they could then divide it up and delegate tasks to staff.

At the fifteenth team meeting, the group finally began talking about the *context* of personal change and their concerns with the threats of changing managerial roles. Prior to this session, they had never discussed their own changing roles. However, while reading through the meeting transcripts, it became apparent that the directors "rarely wore only one hat" at a time. In defining and developing TQM for the university, they functioned in multiple roles: as manager-bosses, as Thrust's directors (employees), as a peer group, as vendors to external customers, as members of the directors team, as sponsors, leaders or facilitators of other teams, and as men and women with lives outside of their work. The task Thrust had set for the group required them to wear up to six of those hats at the same time.

In addition, they needed to function on multiple levels at once; learning the content of TQM; revising the structure of TQM; dealing with the micro issues involved in implementation; and staying aware of the larger (macro) issues of the university environment and beyond. Because they were involved in a change process, they also needed to juggle past, present and future perspectives. At several points during meetings, when they got lost in the content of TQM, field notes read " ... are they capable of this?", " ... are they really prepared to function with all these different perspectives at once?" and "is there any training for these multiple roles?"

In staff teams, participants quickly understood they now had *permission* to "get into it" with each other. And they did, sometimes engaging in quite heated "discussions." In the directors team, the traditional ban on open

discussion about problems and causes held until the ninth meeting at which point they took their first overt push at Thrust, relative to TQM.

The directors had consistently talked only to Teacher or Thrust, not to each other except during breaks. By chance, I was sitting next to Thrust at the conference table during a particularly difficult "teacher, may I?" question session. This was the first meeting following Thrust's private comment that he didn't care if they were a team or not. I observed under my breath that the group was still not talking to each other, only to Thrust and Teacher.

Without hesitating, he broke into the discussion and repeated my comment to the group, adding that the group wasn't forming up as a team. They all began commenting at once - "I felt like I was in a student/teacher role ... as student", "It's easier that way" and "I feel fear." They voiced concerns about the meaning of what they were doing: "We need a better vision for where our groups fit in", "We need a cohesive group rather than competing interests" and "We need to feel the support of this group to help accomplish our goals together."

Thrust responded by agreeing that vision must be cohesive, and with that vision, he "can tell them where he is taking them." At Thrust's urging, Teacher tried to return the group to the next agenda task. Within minutes, many were again saying they didn't understand what they were being asked to do.

Thrust and Teacher both wanted to drop "the interpersonal stuff," saying "let's drop it as a topic but do more of it." But the directors did not

want to drop it. They branched into a lengthy discussion about other concerns they had, including "Most teams still think management is not committed, that this is all flavor of the month," "...support is not coming from the top" and even from Thrust "...the [other vice presidents] have been a real disappointment."

This meeting was important because it was the first evidence of reflective thinking as individuals and as a group. They all got actively involved and risked exposing their personal concerns.

Despite this breakthrough, they did not have the skills to deal with deep reflective thinking, especially the ability to learn how to learn what is important. For example, a comment from one director - "There's really no change in our managers working together to go a certain direction" - indicated they hadn't understood the benefits of cohesive behavior. Teacher fed them articles and books that defined the new role for management as, "vision, resource allocation, strategic direction, values, mission." But, as Teacher put it, "It's a problem because you hire managers who are technically experts. So, what are they going to work on? Whatever is most comfortable to them." He continued, "You're talking about lifetime value processes, and it's a long process [to change them]... The way I attempted to do it was to give them stimulation .. when they start asking for it."

Teacher noted that ideally they would ask for help when "they found out the teams, once started, don't die easily." Feeling less in control later, Teacher hoped the managers would ask, "Well, if my job isn't to walk about

and make sure everybody else is doing theirs, then what is it?" However, at the end of the first year, no one had asked yet.

Thrust said he wanted them to become more entrepreneurial. One director recognized "TQM is all about breaking down barriers," but the barriers to creating entrepreneurial managers are ingrained in the bureaucratic system, in ways of talking, acting and thinking. This team, for example, spent quite a bit of time discussing what to call the TQM program: the directors reacted negatively to "total" and "quality" while faculty reacted negatively to "quality" and "management." At one point, it was called System Improvement Program or SIP. Later they dropped it and returned to TQM. Most dissension occurred around the concept of "experimental." The directors definitely did not want to be associated with a program that was called "experimental." The very language threatened their status quo.

Experimental ad hoc action and intuitive creative strategies are all part of the new values and oppositional to bureaucracy. Learning to think in these ways intimidated the directors - "This is a culture shift because historically we haven't supported risk-taking behavior; it will take time." Thrust responded, "I say the directors are TOO involved. I want you to empower, guide and coach instead!" He assumed they feared loss of control most and attempted to reassure them - "You are not losing your veto power. You can still put feet to the fire." At a later meeting, however, Teacher voiced their biggest fear for them again - "...failure is inherent in taking risks; management must provide ways to risk and survive."

No one talked about being skilled at handling multiple, contradictory and/or ambiguous perspectives. Traditional bureaucracy expects managers to be skilled at wearing more than one hat at a time, but the emphasis on objective reality negates the validity of listening to multiple perspectives. That same emphasis also negates the importance of reflective thinking as a part of learning capacity. The directors therefore had no background from which to consider the absence or presence of these skills.

Self-Protection

From one perspective, it is unfair to say that the directors, Thrust or Teacher did not know what was important about TQM. For the directors, protecting themselves from Thrust was most important. For Thrust, the appearance of many teams engaged in a lot of activity seemed most important. For Teacher, giving Thrust what he wanted meant survival. (However, he moved on to a better position before even Thrust.)

However, the directors team could not look at the TQM process or theory and say, "These pieces are what is most important to us as managers and decision-makers, therefore we will learn them first. Then we will ..." They knew what was important to *survive* implementation, but they didn't know how to *succeed* at it.

Thrust initially relied on experts to tell him what was important by hiring his TQM teacher as a consultant, but then he rejected her priorities and

emphases, substituting his own. Since the directors at the early team meetings had consistently turned to him to clarify what the consultant was saying anyhow, he felt justified in deciding for himself what was important.

Having said as a group that they needed to rewrite TQM to fit the academic culture, they had given up any real guidelines that could tell them what they ought to keep and what could be revised. In rereading the materials presented at the executive training, it is clear now that they did most things specifically recommended against. For example, one guideline advises, "People don't resist change, they resist *being* changed. Allow people to deal with the need for change and the planning of change. Help people to let go of the old way as gracefully as possible." Instead, Thrust imposed change. Another guideline reads, "If some facet represents a very different way of behaving, allow people time to be inelegant and make mistakes. Plan change in increments of gradually increased risk or adjustment." Instead Thrust tied their performance evaluations to TQM within two weeks of starting the team. The primary consultant, Walker, remarked privately, "[Thrust's] imposing on those people the very expectations you're not supposed to impose on them in the first year or two out of the shoot."

Not knowing what was important about TQM and getting lost within the process evolved into not knowing what they could question without being considered obstructionist by Thrust. Again from the original workshop materials, "Coercive methods of introducing change reinforce the chain-of-command concept of the organization. The implicit message is, thus, 'All ye

who enter, take off your brains and put on fear.'" Directors feared asking questions that could have provided context and clarified fundamental issues of meaning and priorities during organizational transitions.

The fact that the directors felt Thrust was inconsistent in his own behavior and in his revisions of TQM, contributed greatly to their confusion. Fear in the room grew when evaluations were tied to TQM measures, compounding attention problems. When Teacher brought it up to them, they attributed it to "our lack of vested interest or emotional draw." Teacher then asked, " .. why doesn't TQM get to where you live, like budget does?" In truth it had, in that it was now tied to performance and salary reviews. Because they felt no control over the change process, they faded out rather than paying more attention.

Staying out of Thrust's way was definitely more important than understanding TQM. For this reason, their unwillingness to delve deeply into the foundations of "quality management" hindered their ability to understand its values.

The directors' apparent inability to handle the TQM material was in fact caused by skill deficiencies in learning capacity, originating in traditional management education. In addition, TQM required management training Teacher was not prepared to handle nor allowed to present. Dissonance between old and new philosophies, as well as perceived powerlessness, reduced their willingness to change, in turn limiting their ability to learn.

Politics

If the directors had been both willing and able to embrace the new paradigm, they still would have had to confront the larger clash between megasystems - machine-age thinking versus systems-age thinking.

Systems are represented in the tools people use. Tools have politics inherent in the agendas and intent implicit in their use. The politics of bureaucratic management tools are well documented. Those of the new paradigm, represented by TQM, are still emerging and less well understood. The process of adjustment during a transition period from one set of tools to another is characterized by both accommodation/assimilation and clashes. At the university, the rules of TQM were constantly "adjusted" to cause less clashing and more assimilation. Practical considerations, like managers unfamiliar with customer or process improvement concepts, were visible and addressed by the group. Less apparent was the clash that occurred when training tried to change its relationship to the hierarchy. These three factors together produced more accommodation than assimilation and at the directors level and above, reinforced traditional ways of doing business at the university.

Shifting Rules and Roles

Why was Thrust compelled to continually change the rules? The rationale he used was that this public sector university was so different from the environment out of which TQM had sprung - manufacturing - that he needed to keep adjusting it. However, by rejecting available models and constantly adjusting the rules, Thrust and his directors could remove or ignore what was most threatening to them, making TQM more palatable.

In the beginning, the group saw TQM originally presented by Walker, the primary consultant, as too removed from their work environment. "Private sector, basically manufacturing techniques, to not only a service organization, but a public service organization! And a university public service organization, which makes it sort of three levels removed!" Different issues concerned different participants throughout the initial year, although all agreed that TQM as initially presented would not fit in this culture.

Thrust perceived his power base as significantly different from equivalent positions in the private sector. He felt that business and industry didn't need to make programs voluntary, a president could just say "do it" and people would do it. At a university, "you have to get them to do it by the sheer magnitude of your personality, or the rightness of the issue." At the same time, he believed that a president in a commercial venture "is sort of like God. The force of a vice president in the university is sort of like, you know, a clown."

Teacher shared some of Thrust's frustration with this power issue, but was more concerned about a missing customer orientation among the directors. He said,

> "...being real heavily focused on the customer - now that's a real push from private sector, because by a customer you live or die - well, that's not true in public. In public, you have funding whether you please your customers or not."

He believed the shift to a customer-service orientation, both internal and external, was a critical value the directors needed to acquire.

Teacher was particularly sensitive to language differences. Whenever he presented material from outside the university, he would comment "..don't get distracted by private sector language" and would then "translate" that material. In early team meetings, when the consultant Frosh was introducing new material, field notes read, "directors team then spent five minutes getting clarification of Frosh's instructions." "Thrust continues to question Frosh constantly, asking for clarification" and from one planning session with Thrust, Teacher and Frosh, "..feeling very very strong need for consistent language and model!! Spent 3 1/2 hours and most of the time on semantics."

For some directors, a profitability orientation presented the biggest difference. "... and that's the ultimate measure for private industry. If a company isn't profitable it goes out of business. We're non-profit. We're not efficient. Weren't meant to be typically efficient. I say that half in jest."

On the other hand, Walker, who led the workshop that originally inspired Thrust, believed there were far fewer differences than there were

similarities. She said that while, "... you truly are not building a consumable commodity kind of thing," the argument against a profitability motive was spurious because "the administrative side has to ultimately communicate quality products and services to the funding sources. And they're having to bridge over into private sector terms now to do that." From her point of view, having consulted in both sectors, not only does the private sector report the same problems, "getting rid of deadwood," but also the public sector security of, "I'll always have my job," is shrinking along with protection from competition because the public sector, "had the only game in town."

Walker maintained, "The techniques are basically very applicable from private to public sector." Both must deal with trust issues as well as "the prima donnas who think they don't have a process, and they're different. Here it's professors, somewhere else it's the doctors or judges or other elite." She wondered if organizational size might be a more pertinant issue than public or private sector. However, Walker ended this discussion with, "Now, you know one thing that may still be different - public to private - is the sense of personal accountability."

Whatever the "truth" about private vs. public sector, Thrust and his directors used it as a reason to remodel TQM to be more palatable to them. Management control over the teams generated the most discussion and dissension.

The TQM team is a group of people who come together around an issue or process ("owners"), who then use statistical process control tools to carefully

measure cause and effect in order to improve the process. The relative merit of improving one process over another is determined by carefully surveying customers of that process. When obstacles (causes) are identified, the team agrees upon solution criteria, then tests solutions to find which ones meet all the criteria.

These upper-level managers had no experience with participatory management and were uncomfortable with the idea of "ordinary" employees choosing what problems to work on and solutions to apply, so a hierarchy of decision-making was overlaid on the teams from the beginning. Director-level managers would be the "sponsors" of teams. Sponsors would choose team members and the team leader (most often the supervisor of the process). Thrust provided the rationale for having sponsors - "to make sure each team fits with the critical processes and needs of the president and vice president." Their role as link in the communication chain reinforced the traditional belief that employees couldn't understand this information without sponsor (management) involvement. In addition, sponsors would "sign-off" on each step of the team process on a special form so that when teams presented solutions, the sponsors couldn't say they hadn't understood or known about them and therefore refuse to implement them. The rationale was to protect teams from a sponsor's lack of trust in staff ability.

Thrust originally assigned issues to the teams, creating multiple logistic and control problems. After surveying their customers, some teams found Thrust's issue wasn't the important one. Others found they had the right issue

but the wrong people on the team to deal with it. Many resented having the issue imposed upon them.

More than anything else, the directors team spent time trying to figure out what the sponsor's role should be and how much control over a team s/he should ideally exert. They agreed that Thrust shouldn't impose an issue on a team, but they didn't want to *release their own control* over the choice of issue. They couldn't agree on anything else. For example, from the first meeting, they disagreed about how much communication with a team sponsors should have. Teacher held that "the place to get information is during sign-off, otherwise the groups will clam up." Thrust claimed he needed to find a better balance "between the manager's need to have information" and the team's right to be autonomous. By the seventh meeting, they were still discussing what to do if the sponsor and team disagreed on the importance of an issue. One lone voice cried, "But we can't shoot down a team if we once tell them they can control the process!"

Teacher tried to teach them "enabling instead of control," that value should be added by every person in the process, including managers. The directors team feared "losing control by giving power to those below us." Thrust left it to the directors to decide when to "put pressure on the teams to accomplish and when to let them know they can quit."

By the thirteenth week, serious problems had arisen in some teams. Sponsors who were out of touch with the everyday workings of their units were putting the wrong people on teams and the teams couldn't move forward

because the owners weren't present. In two situations, sponsors left for several weeks, delegating someone else to sign-off for them. When the sponsors returned, they refused to honor the team solutions, at a high cost of resentment and disillusionment.

Thrust insisted on personally approving solutions for the first 11 teams, at the same time he yelled at the directors, "I say the directors are TOO involved. I want you to empower, guide and coach instead!" One staff team member, having embraced TQM and read as much as she could about it, felt the sponsor role definitely reinforced bureaucracy and undercut employee empowerment.

> "I'm not sure whose bureaucracy it was, but the process of having to go to all these people, in writing ... seemed like this stretched out bureaucracy. They said that what we came up with they had to agree to, but whatever they didn't like got nixed anyway. So that really killed the ownership."

Directors had different management styles and levels of involvement with their people as well as with TQM. Some directors were sponsors, some were team leaders, and some were neither. Those whose units were highly stratified seemed most interested in maintaining control through the role of sponsor. Those with fewer people reporting to them and less hierarchy wanted to give the teams more autonomy.

Yet Teacher would say at the end of a year, "What are they fearful about? Are they fearful of losing control? ... They certainly had a tremendous amount of control of a process as a sponsor. *Which they don't use.*" Teacher closed the discussion on this issue at the final team meeting:

"Smith: I feel conflict between walking around management and empowerment.
Jones: Isn't it the way we walk around? Our attitude and their perception of why we are there?
Olsen: Whether we are seen as helpful or seen as investigative and controlling?
Jones: I see fear taking away the empowerment of middle managers. It's an issue of truly delegating or interfering.
Teacher: You need to be a cheerleader, a coach. Most staff don't know what is happening one or two levels above or desks away from them. You can be the one to communicate the appropriate information."

Teacher had effectively given them permission to hold onto their traditional management role - information conduit - even in the new team environment.

Practical Considerations

Some very practical differences in philosophy became factors of conflict as the directors team attempted to implement TQM. First, this academic culture was no more customer-oriented on the administrative side than on the academic side. Each perceived the other as prima-donnas and therefore causing the problems. Communication had broken down in several areas and open hostility declared. Some directors felt the deans, their academic equivalent, wouldn't see any viewpoint but their own.

As part of the process, directors as well as their teams spent several weeks figuring out who their customers were and learning the concept of serving an internal customer. For many the very idea of having internal customers required a radical shift in thinking.

Second, most of the directors were geared to short-term "fixes" to problems usually blamed on employees. The TQM philosophy proposed a reorientation to long-term thinking and development of solutions to systemic problems, i.e., those caused by faulty processes. Deming explicitly and repeatedly states that 85% of all problems are within the systemic processes and are the responsibility of management, while only 15% lie with the worker; it is management's responsibility to know the difference. The directors and Thrust wanted staff teams to "fix" faulty processes but without control over them, traditionally a management perogative.

The directors team looked initially for big issues that could be solved once and for all. They found out "issues should have been less complex, more focused and capable of being solved in one pass" while still being driven by global "executive" concerns. As Thrust said, "We need to say that in the [new] manual; issue complexity is due to lack of training and our inexperience."

Third, the directors were not comfortable talking about what was wrong in their processes. In a bureaucracy, middle managers are rewarded for passing good news up the ladder and dispensing orders and punishment down the ladder. Field notes from the seventh meeting read, "Told to use flow charting to begin looking at causal issues. Thrust willing to tell the truth about what happened while the rest of them tried to present the flow ('as it is') a little cleaner than actually happened." This was very different from traditional roles, because directors assumed Thrust didn't "want to know

anything negative." Now he was asking them to lay out all the problems (causes) buried in their processes.

Finally, the directors were not accustomed to the level and types of communication required by the new program. According to Deming,

> "Western management, having abandoned the responsibility of leadership, depends on reports. Too late! Retroactive management reports on people...[one] of America's homegrown fads" (Walton, 1986).

Deming sees performance ratings as a disease that is devastating western management but "they don't know anything else." TQM required that directors learn to listen to their people *talk about processes*, not results, but it was threatening to them. Thrust had tied their performance reviews to team performance charts. They experienced contradictory messages about what was important - "empowering, guiding and coaching," or making the process performance measurements acceptable to Thrust.

Maintaining the Status Quo

People often use blame to justify maintaining the status quo. The directors team blamed training, the public vs. private sector issue, their own uniqueness, that they were already doing something similar, top management's lack of involvement, TQM itself, and personalities (especially Thrust and Teacher's) for their unwillingness and inability to internalize the new program.

Training's basic relationship to these managers exemplified the larger clash between bureaucracy and the new values. In essence, training remained the mouthpiece of the hierarchy while still peripheral to policy decisions. It took the brunt of all blame for implementation problems.

Teacher's perceived need to increase his status and credibility with the directors characterizes this traditional peripheral relationship. He learned that TQM required training to handle new content areas. To effectively facilitate their learning, he needed to help them step outside of their current ways of thinking, i.e., outside of existing core beliefs and metaphors about themselves in the organizational world. They needed to clarify the larger paradigm shift if they truly intended to succeed at transformation. For a traditional organization, this verges suspiciously on the "touchy-feely" or "soft-systems" and is considered inappropriate and too personal.

When the directors arrived at the point where they recognized the need to do this internal rethinking, they were not willing to have someone of lower rank guide them into it - whether or not s/he was qualified. This was clear in their comments about Teacher 'getting uppity' and not being of the same status.

As long as training, "those human resource types", remained peripheral and down in the hierarchy, management did not have to internalize the material. It was apparent that without changing the relationship, training could have no effect on management performance.

Credibility of the presenter (Teacher) and of the content (TQM) both depended on the level of trust in existing relationships. However, while TQM required change in their fundamental management style, Thrust controlled facilitation tools and training. And everyone knew it. They had ample evidence that Thrust wasn't going to change his own style. He didn't think it was important that space was made in the training plan for these managers to explore the long-term implications and psychological impact of TQM on them personally.

Thrust was confronted with his own bureaucratic programming. He knew he had to do more "empowering, guiding and coaching" and he said he truly wanted his directors to be more entrepreneurial. Yet there was no one of equal status inside the organization with whom he could step outside his role as vice president/boss and be vulnerable. He said he needed objective and professional feedback from someone he trusted and respected. He rejected the consultants he had hired as being too out of touch with his problems, and rejected Teacher as too far down in the organization. He rationalized the relative advantages of using outside consultants. Teacher said, "Thrust has made the decision that it's okay for them [the consultants] to come in, because if they're bad he can pull them out and get rid of them... If I make a mistake, it's a higher cost to him."

Shortly before the end of team meetings, Thrust distanced himself from Teacher even more. Teacher lost his regular access to Thrust through the addition of a new director in Human Resources. He had to start passing team

updates and rollout plans through her. Almost immediately he felt "caught in the middle" between Thrust's drive and the new director's vision. He felt strongly, "It's all getting very weird... it's rough when you go up to come down."

All these factors contributed to reaffirming the status quo. By picking and choosing which pieces of the new program they felt comfortable with and rejecting or ignoring what threatened them, the team didn't "create a paradigm shift and a total change in culture; it just sort of steered the boat, maybe five degrees north or south, but not in the other direction."

By changing the rules surrounding when, where, how and by whom the tools of TQM would be used, the directors team effectively protected themselves from confronting the dissonance between bureaucratic management and quality management, especially concerning control issues. Team control of which systemic dilemmas were addressed clashed with the directors need to control decision-making. They needed new skills, but the process of new learning techniques threatened them. The impact of training was diminished by its low-status, peripheral relationship to the hierarchy.

Defining Success

In chaos theory, small differences in initial states profoundly affect the outcome of a process. How the directors and Thrust defined success and

when they quit was controlled by the initial bureaucratic values, motivations, abilities, core beliefs and root metaphors of its people.

Different people had different perspectives on the relative success of the project. Besides measurable criteria, like number of teams running or decreased lag time on a process, many spoke of less tangible improvements in trust and communication as measures of success. Some had personal achievements. However, the directors team quit working on TQM at the point at which they had finally achieved initial mastery of the tools. While praising TQM's effectiveness for their staff, they chose not to take the next step, using the tools themselves. This section explores what they defined as success and why they stopped when they did.

Different Perspectives

At the end of the first year, Thrust proudly announced that, "It's been a great success," measured by the number of running teams and their performance improvement charts. He was especially proud of his original "problem" group, because their improved customer service was the talk of the campus. "People are standing up giving testimonials about [the unit] and how much better things are." He also maintained that a major achievement of the first year had been to "...learn from our own mistakes," so they wouldn't be repeated.

Thrust had made an impact outside of the university that he took pride in. By the end of the year he had published two papers on TQM implementation at the university and was receiving upwards of four calls a day from other academic institutions seeking more information about what was happening here. He was out presenting at conferences and consulting several times a month. He had succeeded at removing two directors, through early retirement, whom he was happy to see go. As the directors had predicted, by the end of the next year, he took a position at another university and moved on.

For Thrust, TQM provided a means to feel he had accomplished something at this university as well as the means to move upward. He believed he had also improved his own management skills.

Teacher also called TQM implementation "...very, very good! What we've done is come up with a problem-solving process that works. It's incredibly effective," especially "the terrific tools" of the (now) eight step process. He cited "True customer reports ... that people are working together now," saying, "This has fundamentally succeeded in outcome measurement changes."

On the other hand, "the conversion from short-term brushfire management to long-term management" was not as effective. As proud of the teams as Teacher was, he said,

> "I don't think we did near enough work with 'what do you want to accomplish?' in terms of the managers. But I think at that level of management that's what's really necessary

> ... people who are proud of what they've accomplished. And that's not present here."

He believed that external pressures, including extensive legislative budget cuts announced shortly before the end of the first year, had added pressure on management so they didn't have the opportunity to fully apply TQM principles. "It's really tough not to look just a week down the road. Even vice presidents are having a hard time visually long-term planning at this point."

Teacher, as second-in-command of implementation, also became the second in line for consulting contacts. Thrust passed on those he didn't want to handle himself. Teacher made contacts around the country and within six months of the last interview accepted a position at a larger institution also involved in TQM. Teacher's role in implementation as well as Thrust's publications, had proven lucrative for them both.

The directors said that TQM benefited the organization. They defined success in two ways, first for their people, and second for themselves.

Some directors reported that TQM was a success because the workers "felt more involved," "they are empowered by it," and "are taking more ownership of their processes." In addition, directors perceived improved relations within and between units because of the TQM focus on customer service, and because the team process allowed people to "...talk about problems without being accusatory, or finger pointing." The process aired "hostility from years gone by" and "territorial problems," by getting people "to come

together and break down some of these barriers and territorial boundaries and things."

A few directors mentioned the benefit to employees of learning new skills. No directors mentioned improved performance, cost or time savings as a benefit, but a few did feel "people are more receptive to changing their output in response to my needs" as well as being "more responsive to the requests of the user."

Every director interviewed mentioned improved communication with each other as the primary personal benefit. Comments ranged from ... "by virtue of the fact that we were simply meeting together more often we got to know each other better, and there were more opportunities to talk and exchange ideas," and "I sense that there's more cooperation between the directors now" to "I think there's more of a group relationship than there was before," and "I think there's measurably improved interactions between the directors ... as we got looking at each other's activities," and finally, "For the first time, I think, in any meeting of the directors ... they began vocalizing a lot of their thoughts."

Some directors thought communication between management and staff had also improved because "people felt freer to confront me" and "I'm convinced that the shops learned that across the tracks more than pushing a few papers takes place." A few felt their management skills had improved as "... [staff] are getting better vibes and feedback, which is reinforcing, gives [everyone] more self-assurance, and it's just going to get better."

Pulling Back

What became the last official directors team meeting was held the week before the directors and Thrust left on a three-day retreat. A week after that I ran into two directors at an unrelated event. I asked them how the retreat had gone:

Rusk: It was okay, the weather held.
Samson: We decided to announce at the next TQM meeting that we won, and call it quits.
Me: What do you mean?
Samson: So we can go back to having staff meetings.
Me: Was Thrust there?
Rusk: Yeah, I think he was the one who suggested it. I'm not into this team stuff. At a staff meeting, if you can't make it, you send someone else. With the team, you have to be there. Some of these guys came up under [the previous president]. He had 30 people reporting to him, so they could pretty much run their own ship. They don't want to do this stuff.
Me: But I thought you guys decided a few weeks ago that the most important thing you wanted from the retreat was team development?
Samson: We couldn't even agree on taking a walk together, much less making decisions together [Laughter]. The staff meetings will be better. You can call up and get on the agenda and there will be more control of time. If you have something you want to discuss, you can do it. I just don't know about this team stuff.

I do not know what actually happened at the retreat. When interviewed four months later, all the participants agreed that the new meeting format was working well for them, without using any of the TQM tools they had struggled with for five months. In reviewing transcripts from the three meetings before the retreat (13th, 14th and 15th), several clues surfaced that

might have influenced their decision to pull back from TQM in their own processes.

At the 13th meeting, both Thrust and Teacher were absent and the directors finally took control of the process. They joked about "getting this done while no one is looking," yet they were genuinely involved in the tasks at hand and appeared to enjoy being in control for the first time.

The 14th meeting was spent initially discussing the need for all managers to add value to a process, not cost. Then they talked about potential solutions to the *cause* of the problem they identified as most critical. Thrust was in and out of the room. When he returned towards the end, he took control of the exchange about solutions, even dictating specific words to use. My notes read, "Energy level in the room dropped dramatically when Thrust started dictating his point of view." Their sense of empowerment within the process had again been destroyed by Thrust's drive to control outcomes.

At the 15th meeting, after taking care of minor business and one director's performance charts, the directors again spent time with "more general questioning of Thrust on what in truth he wants." Thrust was in and out of the room. Notes read, "Thrust returned during laughter, but didn't ask what was going on. Buried his head in newspaper. Very little talk from others after that. Thrust continued to read newspaper." He left again shortly thereafter. While he was gone, the group watched a dynamic video by Tom Peters, highlighting four public sector institutions that had succeeded in turning their organizations around using similar new paradigm programs.

Thrust returned at the end of the video. The team discussed their fears about empowering staff and their perceived loss of control. They spoke of having completed one pass through the TQM process and discussed the next step - developing solutions for the second critical cause of their identified problems (training).

Thrust left during the break and didn't return until after the team decided what they really needed for themselves and their teams was a "short-term problem solving emergency process" - not the long process they had just engaged in. Teacher said he would develop a model for them. The meeting ended with the following comments:

> Teacher: Do we want to give each team a set of communication tools?
> Jackson: Until we change the culture from one of blaming, fear and territoriality, it won't work.
> Smith: Teams may be the best thing to help the change. I want to wait and see what happens at the retreat.

What was significant about these last meetings was that the directors team had achieved initial mastery of the tools and they believed TQM had benefited them and their people. Yet they were still protecting themselves by "waiting to see what happens at the retreat" before committing to change *their own thinking and behavior.* They knew enough about TQM to understand what the next step required - the kind of courage, resolution and personal committment they had seen in the Tom Peters video. They chose to measure themselves against how much real change Thrust intended to pursue and it was apparent in the last three meetings he had not changed his own need to control.

None of the directors or Thrust spoke of the retreat during the interviews, but maybe they were justified in waiting to see what happened. If Thrust did suggest they stop acting as a TQM team, as reported, he had finally given them the clear message they were looking for - that he did not intend himself nor expect them to make intense personal changes.

One director believed that any big improvement by the directors would be an admission of poor management skills. He felt,

> "If you're running a program that's well managed - and anybody would find this - then there shouldn't be a whole lot of big areas that you're going to find that you have been goofing off in. If you, all of a sudden, come to this realization 'My God, we can do twice as much work,' well, you aren't doing a very good job as a manager."

When asked, most directors said the new meeting format served their needs better. One director explained that Thrust was holding the meetings sporadically, only as needed, and this lifted the time pressure of weekly meetings. However one executive close to Thrust complained,

> "He keeps changing the dates and he is not real forgiving when people say they can't come. It's hard, you know, because he does it over and over again. It keeps people from being able to feel totally in control ..."

To summarize, Thrust and Teacher officially defined success as numbers of running teams and measurable process improvement. The directors said TQM implementation was a success to the extent they could see improved communication and empowerment among employees, and measure customer satisfaction. None of them, except Thrust, spoke of feeling changed as managers, in roles, skills or interactions, by TQM.

The starting point for Thrust and his division was a conglomeration of their willingness, ability, internalized beliefs and metaphors, their initial state. They "danced" with the new values until they could rationalize and legitimize calling implementation a success and quit.

Chapter Five - Conclusions and Recommendations

> "Where the world ceases to be the scene of our personal hopes and wishes, where we face it as free beings, admiring, asking and observing, there we enter the realm of Art and Science." Albert Einstein

Introduction

I remained hopeful and excited about TQM until the directors took their retreat in October. I wasn't sure of the implications of that retreat until the interviews followed in February. I believed Thrust and his directors had an opportunity to fundamentally change the meaning of work for themselves. Like many people throughout Thrust's division and beyond in the university, I had worked very hard, hoping TQM would help the directors and Thrust crack open bureaucratic strangleholds on management processes. When it didn't work out that way, I felt betrayed, wanting to blame some basic failure in the people who controlled the transformation.

TQM, while theoretically embodying the values of the new holistic paradigm in science, was in reality seen by the directors as a *technique*, a fad used by Thrust to manipulate others and aggrandize top management. It did not represent a larger paradigm shift to these managers, but rather they

described it as the latest "flavor of the month," wanting only to survive Thrust's enthusiasm for it.

The purpose of this study was to determine if there were patterns and practices that limit the effectiveness of training interventions when the purpose of the training is to facilitate major paradigm shifts in the organization. I learned it was essential to first answer the question, **what were the missing conditions and/or obstacles to transformation inherent in the bureaucratic systems, that effectively protected these managers from substantive personal change?**

The directors made it clear that, from the chosen starting point, their preparation for transformation was insufficient. Through their stories, they identified the *tasks and challenges facing them and their processes* that needed to be overcome before they could create synergy.

Synergy

When I hear the word synergy, I see a large petrie dish filled with just the right combination of chemicals, set in just the right environment, percolating along. Organizations are like the petrie dish. When the right environment is created, people percolate along, goods and services are produced and the whole becomes greater than the sum of its parts.

There is a constant interplay between individuals and the organization in needs, wants, and ability to respond. The obstacles directors confronted in

their transition effort reflect both individual *and* organizational perspectives. This interconnectedness creates and bolsters organizational structures and systems. The more flexible and resilient the interaction, the more flexible and resilient the organization.

I concluded, based on the four major obstacles the directors team reported, that there were essential preconditions to management transformation that did not exist. These missing conditions were: 1) a willingness to risk, coupled with organizational support; 2) deep learning skills that provide personal context for transformation; 3) shared organizational vision; 4) a committment to personal mastery and continuous learning. They are inherent in the stories discussed in Chapter Four.

First, the managers believed that change was imposed from above, fear was endemic, and there were no institutional systems supporting risk-taking. Their compliance, being coerced, did not lead to substantive changes in behavior, underscoring the importance of willingness and support in the transformation process.

Second, the managers had more difficulty than staff teams staying focused on and learning the mechanics of TQM. Their competency as bureaucratic managers precluded the capacity to learn the values of the new paradigm, highlighting the need for a learning capacity that includes deep learning skills that realign personal and professional core beliefs and root metaphors.

Third, the political clash between bureaucratic traditions and the new paradigm created so much dissonance that the managers rewrote the rules of TQM to fundamentally preserve the status quo and preclude substantive personal change. This result stressed the important strength a shared vision can provide bureaucratic managers during the chaos of organizational transformation.

Fourth, the managers effectively stopped using TQM when the pressure to change threatened them personally. They defined their efforts successful, pushing responsibility for change downward and praise upward. I concluded that the personal mastery of creative tension and a commitment to continuous learning are necessary transformation skills for managers.

At the university, the decision-makers had insufficient learning capacity to start transforming themselves from the point they chose. They needed to back up and develop the identified skills and structures before attempting it. Because initial states have far-reaching consequences on outcomes, and because learning capacity is an initial state, the organization must begin factoring *learning capacity* into its basic resource equations.

Training reflected the same situation. Limitations in its patterns and practices precluded the training program from promoting synthesis between and among individuals and systems, in the transition to the new paradigm.

Synthesis

Through their stories, participants identified the gap between what training could offer them in *its* initial state, and what they needed in order to change. This gap represents limitations in training patterns and practices. The training program at the university was inadequate for narrowing this gap during the first year. Based on the stories presented in Chapter Four, I reached the following conclusions about why training was powerless:

1. The most limiting pattern and practice of training, as a change agent, was that it modeled and reproduced the *old* instead of the *new* (wisdom, values, tools, ways of thinking and talking), *during* the transformation process.
2. The learning capacity implicit in the training program was limited in the same ways management was, by missing support structures, willingness and ability to change, and shared vision.
3. The training program was not seen as a credible transformation agent because it depended on traditional relationships and dynamics, despite its new domain.

The relative ineffectiveness of training patterns and practices with the management group used in this study, reflects the larger clash between organizational bureaucracy and paradigm shifts in science and society. That clash explains the resistence of the directors team to participation in a transformation emerging from a chaotic, disruptive emotional process, as

Harari put it, that "rips open the guts" of any organization and rebuilds it from the bottom up (1993). The university management in this study took itself off the hook by *supporting a discrete program,* one that was divorced from any requirement for substantive change in their personal habits.

Methods of synthesis provide a framework for building recommendations from these conclusions:

1. Take the thing you want to understand as part of a larger whole.
2. Explain the behavior of the containing whole.
3. Disaggregate the understanding of the containing whole into the role or function of the parts (Ackoff, 1981; King and Acklin, 1993).

Understanding the gap between what management participants said they needed and what training could provide helps "disaggregate" the role of training in organizational transformation. What can be done? For training to be effective, there must be at least the following conditions:

1. Training professionals must develop individual learning capacity by stepping outside of their bureaucratic context to understand the root metaphors and core beliefs that formed traditional training practices.
2. Training professionals must educate themselves to the new paradigm, understanding the scientific concepts that are changing fundamental knowledge about the world, as well as its root metaphors and core beliefs.
3. Training professionals must learn the languages of the new paradigm, including their values and wisdom.

4. Training programs must evaluate and create new relationships, domains and dynamics to reflect organizational models based on the new scientific principles.
5. Training professionals must use their understanding of the old and new systems to build bridges that aid transformation for other people in the organization.
6. Training programs must work with management in restructuring the organization to support the whole human being, filling the four preconditions for management and organization structures.
7. Training professionals must study further questions concerning the generalizability of these results within and across types of work organizations and the relative effectiveness of differing *new* forms of relationships, domains and dynamics.

Training can *represent* the "human" in human resources to organizational structures and systems, and can contribute to a shared vision that incorporates personal visions. Gone are the days when a boss could say to anyone, "Leave your brains at the door." For the future, the goal of a work organization is to create synergy, facilitated by the ability of training interventions to promote synthesis among people and systems.

There is a theory among biologists that proposes life on this planet starting in the foam on an ocean beach, in the chaotic collision of two ecological systems. Life did not evolve neatly, this theory proposes, but in the gritty turbulent foamy confluence of two organizational systems. Nor did life

emerge gradually, linearly, incrementally, but in erratic and sometimes huge leaps. Opportunities exist in the chaos of an organizational transformation to take huge leaps in learning capacity and quality of life.

BIBLIOGRAPHY

Ackoff, Russell, 1981: Creating the corporate future: Plan or be planned for (John Wiley & Sons, New York).

Ainsworth, David, 1991: Beneath the bottom line. Performance and Instruction, Oct. 1991, pp. 7-8.

Anderson, J.R., 1976: Language, memory and thought (Erlbaum, New Jersey).

Bateson, Gregory, 1979: Mind and nature: A necessary unity (Bantam Books, New York).

Bellah et al., 1985: Habits of the heart (Harper & Row, New York).

Berg, D.N. & Smith, K.K. (eds.) 1985: Exploring clinical methods for social research (Sage, Beverly Hills, Ca.).

Blackler, F. & Brown, C., 1983: Qualitative research and paradigms of practice. The Journal of Management Studies, V20(3), pp. 349-365.

Block, Peter, 1987: The empowered manager (Jossey-Bass, San Francisco).

Block, Peter, 1988: Keynote address at Training and Development conference.

Bloom, Alan, 1986: The Closing of the American Mind (Simon & Schuster/Touchstone, New York).

Bloom, B. (Ed.) 1956: Taxonomy of Educational objectives, the classification of educational goals (David McKay, New York).

Bolin, Jean S. 1979: The tao of psychology: Synchronicity and the self (Harper, San Francisco).

Brand, Stewart. 1987: The media lab: Inventing the future at MIT (Viking Penguin, Inc., New York).

Bridges, William, 1980: Transitions: Making sense of life's changes (Addison-Wesley Publishing, New York).

Briggs, Gustafson and Tillman, eds., 1991: Instructional design principles and applications (Educational Technology Publications, Englewood Cliffs, N.J.).

Bruner, J.S., Olver, R.R., & Greenfield, P.M., 1966: Studies in cognitive growth (Wiley, New York).

Bruns, W.J. Jr. & McFarlan, E.W., 1987: Information technology puts power in control systems. Harvard Business Review, Sept.-Oct. pp. 89-94.

Byrne, John. 1986. Business fads: What's in--and out. Business Week, Jan. 20, 1986.

Campbell, Joseph, 1972: Myths to live by (Bantam Books, New York).

Capra, F., 1982: The Turning Point (Bantan Books, New York).

Capra, F., 1989: Uncommon wisdom (Bantam Books, New York).

Carr, A., 1968: Is business bluffing ethical? Harvard Business Review, V29(4).

Carse, James A., 1986: Finite and Infinite Games (Ballantine Books, New York).

Case, John, 1992: Quality with tears. Inc., June, 1992, pp. 83-95.

Chalofsky, Neal and Reinhard, Carlene, 1988: Effective human resource development: How to build a strong and responsive HRD function (Jossey-Bass, San Francisco).

Chalofsky, Neal, 1992: A unifying definition for the human resource profession. Human Resource Development Quarterly, V3(2).

Charmaz, K., 1983: The grounded theory method: An explication and interpretation, in Emerson, R.M. (ed.), Contemporary field research: A collection of readings (Little, Brown and Co., Boston).

Collet, Casey, 1991: private conversion.

Covey, Stephen R., 1989: The 7 habits of highly effective people (Summit Books, New York).

Covey, Stephen R., 1990: Principle-Centered Leadership (Summitt Books, New York).

Cram, David, 1992: If I were king: Reflections on how I'd set up training in my corporation. Training, April, 1992, pp. 55-59.

Csikszentmihalyi, Mihaly, 1990: Flow: The psychology of optimal experience (Harper Perennial, New York).

Daft, R.L., 1983: Learning the craft of organizational research. Academy of Management Review, V8(4), pp. 539-546.

Davis, Stanley, 1987: Future perfect (Addison-Wesley, New York).

Davis, S. & Davidson, B., 1992: 2020 Vision (Simon & Schuster, New York).

Deal, Terrence, 1987: Keynote address, Encounter '87; Oregon State University.

De Bono, Edward, 1969: The mechanism of mind (Penguin Books, London).

De Bono, Edward, 1982: de Bono's thinking course (Facts on File Publications, New York).

De Bono, Edward, 1985: Six thinking hats (Penguin Books, London).

Deming, W. Edward, 1992: The Deming of America (PBS Video).

Douglas, Mary, 1986: How institutions think (Syracuse University Press, New York).

Douglas, Mary & Wildavsky, Aaron, 1982: Risk and culture (University of California Press, Berkeley, CA).

Drucker, Peter F., 1987: The changing world economy. Foreign Affairs, June, 1987 pp. 769-791.

Ebrahimpour, M. 1986. An empirical study of the implementation of the Japanese approach to quality management and its impact on product quality in U.S. manufacturing firms. Diss. University of Nebraska.

Eisenhardt, K.M., 1989: Building theories from case study research: Academy of Management Review, V14(4), pp. 532-550.

Elliot, Jacques, 1986: The development of intellectual capacity: A discussion of stratified systems theory, Journal of Applied Behaviorial Science, V22(4), pp. 361-383.

Estes, Clarissa P., 1992: Women who run with the wolves (Ballantine Books, N.Y.).

Ferketish, B.J. & Hayden, J.W., 1992: HRD & quality: The chicken or the egg? Training and Development Journal, Jan. 1992, pp. 39-42.

Florida Power and Light, 1988. Building a quality improvement program at Florida, Power and Light. Target (FP&L, Florida).

Frame R.M. and Nielsen, W.R., 1988: Excellence according to plan. Training and Development Journal, Oct. 1988, pp. 37-40.

Gagne, R.M. Editor, 1987: Instructional technology: Foundations (LEA, Publishers, New Jersey).

Garvin, D. 1986. Quality problems, policies, and attitudes in the United States and Japan: An exploratory study. Academy of Management Review, V29(4), pp. 653-673.

Georgenson, David L., 1982: The problem of transfer calls for partnership, Traning and Development Journal, Nov. 1982, pp. 74-78.

Glaser, B.G., and Strauss, A.L. 1967: The discovery of grounded theory: Strategies for qualitative research (Aldine, Chicago).

Glasser, William, 1985: Discipline has never been the problem and isn't the problem now. Theory into Practice, V24(4), pp. 241-246.

Gleick, James, 1987: Chaos: Making a new science (Penguin Books, New York).

Goetz, J.P. & LeCompte, M.D., 1984: Ethnography and qualitative design in educational research (Academic Press, Orlando, FL.).

Goleman, D., 1985: Vital lies, simple truths: The psychology of self-deception (Simon & Schuster, New York).

Gordon, Jack, 1992: Performance technology: Blueprint for the Learning Organization? Training, May 1992, pp. 27-36.

Gradous, D.B., 1989: Systems theory applied to human resource development (American Society for Training and Development, Alexandria, VA.).

Grof, Stanislav, 1992: The holotropic mind (Harper San Francisco).

Guba, E.G., 1985: The context of emergent paradigm research. In Y.S. Lincoln (ed.), Organizational theory and inquiry: The paradigm revolution (Sage, Newbury Park, CA.).

Harley, Carolyn W.: 1987, A role for norepinephrine in arousal, emotion and learning?: Limbic modulation by NE and the Kety hypothesis. Progressive Neuro-Psychopharmacology and Biological Psychiatry, V11(6), pp 419-548.

Hart, Leslie A., 1983: Human Brain and Human Learning (Longman, New York).

Harvey, Jerry, 1986: The Abilene paradox and other meditations on management (Lexington Books, Lexington, MA.).

Heisenberg, 1962 as quoted in Capra, 1989.

Hequet, Marc, 1992: Creativity training gets creative. Training, Feb. 1992, pp. 41-45.

Herzberg, Frederick, 1987: One more time: How do you motivate employees? Harvard Business Review - Harvard Classic, Sept.-Oct. 1987, pp. 109-120.

Houston, Jean, 1992: Hero and the goddess (Ballantine Books, New York).

Hudson, Frederic M., 1991: The adult years (Jossey-Bass, San Francisco).

HRD Futures Task Force, 1984: HRD tomorrow. Training and Development Journal, Nov. 1988, pp. 58-65.

Huge, E.C., ed., 1990: Total quality: An executive's guide for the 1990's (Dow Jones-Irwin: Homewood, Ill.).

Huszczo, Gregory, 1990: Training for team building. Training and Development Journal, Feb. 1990, pp. 37-42.

Jackall, Robert. 1988. Moral mazes: The world of corporate management (Oxford University Press. New York).

Jamieson, David, 1985: Improving organizations is not for lone rangers. Training and Development Journal, May 1985, pp. 56-71.

Jarvis, Peter, 1987: Twentieth century thinkers in adult education (Croom Helm, London).

Jung, Carl, 1954: Man and his symbols (Doubleday, New York).

Juran, J.M., 1989: Juran on leadership for quality (The Free Press, New York).

Kanter, R.M., 1977: Men and women of the organization (Basic Books, New York).

Kanter, R.M. 1986. The reshaping of middle management. Management Review, V75(1), pp. 19-20.

Kanter, R.M., 1989: When giants learn to dance (Simon & Schuster, New York).

Katz, Dan, 1960: The functional approach to study of attitudes. Public Opinion Quarterly, V24, pp. 163-204.

Kelly, Helen B., 1982: A primer on transfer of training. Training and Development Journal, V36(11), pp. 102-106.

Kinchen, K.M. 1986. Organizational values, group behaviors, outcomes and satisfactions associated with quality circles. Diss. Colorado State University.

King & Bella, 1988; Decision by default. n.p.

King, Jonathan, 1989: Confronting chaos. Journal of Business Ethics, V7(1989).

King, Jonathan, 1992: Tools-R-Us. (n.p.)

King, J. & Acklin, D., 1993: Creating common ground: a lesson from the past. Oregon State University.

Knowles, Malcolm, 1970, 1980: The modern practice of adult education: Andragogy versus pedagogy, revised edition (Association Press, New York).

Kosko, Bart, 1993: Fuzzy thinking (Hyperion, New York).

Kuhn, Thomas, 1962: The Structure of scientific revolutions (The University of Chicago Press).

Kuttner, Rober, 1985: The poverty of economics, The Atlantic, V255, pp. 74-84.

Lakoff, G. and Johnson, M. 1980: Metaphors we live by (University of Chicago Press, ILL).

Lakoff, George, 1987: Women, fire, and dangerous things: What categories reveal about the mind (The University of Chicago Press).

Lane, Miki and Mangin, Christian, 1991: Affective training for bottom line results. Performance & Instruction, Oct. 1991, pp. 1-6.

Lawlor, Robert, 1991: Voices of the first day (Inner Traditions, Rochester, VT.)

Linkemer, Bobbi, 1987: The critical connection. Training, Nov. 1987, pp.55-58.

Lippett, Lippett and Lafferty, 1984: Cutting edge trends in organization development. Training and Development Journal, July 1984, pp. 63-74.

Lofland, J. & Lofland, L.H., 1984: Analyzing social settings: A guide to qualitative observation and analysis (Wadsworth Publishing, Belmont, CA.).

MacIntyre, A., 1981: After Virtue (University of Notre Dame Press, Notre Dame, Ind.).

Mager, Robert, 1962, 1975: Preparing instructional objectives (Fearon Publishers, Palo Alto, CA).

Mager, Robert, 1992: No self-efficacy, no performance. Training, April 1992, pp. 32-36.

Margulies, N. and Raia, Anthony, 1984: The politics of organization development. Training and Development Journal, Aug. 1984, pp. 20-23.

Marsick, V.J. (ed.) 1987: Learning in the workplace (Croom Helm, London).

Marsick, V.J., 1990: Altering the paradigm for theory building and research in human resource development. Human Resource Development Quarterly, V1(1), pp. 5-25.

Martin, P.Y., & Turner, B.A., 1986: Grounded theory and organizational research, in The Journal of Applied Behavioral Science, V22(2), pp. 141-157.

Maslow, A.H., 1965: The farther reaches of human nature (Viking, New York).

Meier, David, 1985: New age learning: From linear to geodesic. Training and Development Journal, May 1985, pp. 40-43.

Merriam, Charan B.: 1987, Adult learning and theory building: A review. Adult Education Quarterly, V37(4), pp. 187-198.

Merriam, Charan B., 1988: Case study research in education (Jossey-Bass Publishers, San Francisco.

Mitchell, R., 1993: Secrecy and field work, (Sage Publications, San Francisco).

Mitroff, I.A., 1985: Why our old pictures of the world do not work anymore. In Lawler, Mohrman, Mohrman, Ledford, Cummings and Assoc. (eds.), Doing research that is useful for theory and practice (Jossey-Bass, San Francisco).

Mize, Sue, 1992: Shattering the glass ceiling. Training and Development, Jan. 1992, pp. 60-62.

Morgan, Gareth, 1988: Images of Organization (Sage Publications, Newbury Park, CA).

Morrow, Lance. 1991. Old paradigm, new paradigm. Time Magazine. Jan. 14, 1991.

Moyers, Wm. 1989: Part One: Consuming Images; The Public Mind (Journal Graphics, New York).

Naisbitt, J., 1985: Challenge for the 80's: Retraining Managers. Management Review, April 1985, pp.33-35.

Naisbitt, J. & Aburdene, P. 1985: Re-inventing the corporation (Warner Books, New York).

Neff, Walter S., 1985: Work and human behavior (Aldine Publishing Company, New York).

Nisbet, Robert, 1964: The impact of technology on ethical decision-making. From Lee & Marty, eds., Religion and social conflict (Oxford University Press, Inc., New York).

Nussbaum, Bruce, 1988: Needed: Human capital. Business Week, Sept. 19, 1988, pp. 100-103.

Nystrom, Paul & Starbuck, Wm., 1984: To avoid organizational crises, unlearn. Organizational Dynamics, Spring 1984, pp. 53-65.

Osgood and Tannenbaum, 1955: The principle of congruity and the prediction of attitude change. Psychological Review V62, pp. 42-55.

Paul, Frederic. 1991. E-Mail comes of age. Omni, V13(7), pp. 35-37.

Pearson, C.A.L., 1992: Autonomous workgroups: An evaluation at an industrial worksite. Human Relations, V45, 9, pp. 905-936.

Perrow, Charles, 1984: Normal Accidents: Living with high-risk technologies (Basic Books, New York).

Percival, Fred and Ellington, Henry, 1984: A handbook of educational technology (Kogan Page).

Peters, Tom. 1987. Thriving on chaos (Alfrd A. Knopf, New York).

Piaget, Jean, 1984: Intelligence and affectivity (Annual Review, Inc., Palo Alto).

Prigogine and Stengers, 1984: Order out of chaos (Bantam Books, New York).

Quinn, Daniel, 1992: Ishmael (Bantam/Turner Books, New York).

Reich, Robert B., 1988: Corporation and nation. The Atlantic, May 1988, pp. 57-78.

Reigeluth, C.M. Editor, 1983: Instructional-design theories and models: An overview of their current status (LEA, New Jersey).

Rice, Dan and Dreilinger, Craig, 1990: Rights and wrongs of ethics training. Training and Development Journal, May 1990, pp. 103-108.

Rifkin, Jeremy, 1987: Time wars; The primary conflict in human history (Henry Holt & Co., New York).

Roberts, Jane, 1979: The nature of personal reality (Bantam Books, New York).

Rogers, Carl, 1961: On becoming a person (Houghton Mifflin, Boston).

Schein, E.H., 1988: The clinical perspective in fieldwork (Sage, Newbury Park, Ca).

Schein, Virginia, 1985: Organizational realities: The politics of change. Training and Development Journal, Feb. 1985, pp. 37-41.

Schwartz, A.: 1987, Drives, affects, behaviors-and learning: Approaches to a psychobiology of emotion and to an integration of psycholanalytic and neurobiological thought. Journal of the American Psychoanalytic Association, V35(2), pp. 467-506.

Scott, W.G. & Hart, D.K., 1990: Organizational values in America (Transaction Publishers: New Brunswick, N.J.).

Seidel, John, 1988: The ethnograph (Qualis Research).

Senge, Peter M., 1990: The Fifth Discipline (Doubleday/Currency, New York).

Simmons, Dale, 1982: Personal valuing; An introduction (Nelson-Hall, Chicago).

Spector, Paul E., 1986: Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. Human Relations, V39(11), pp.1005-1016.

Sredl, Henry J. and Rothwell, William J., 1987: The ASTD reference guide to professional training roles and competencies (HRD Press/Amherst, MA.).

Stack, Jack, 1992: The great game of business, or, how I learned to stop worrying and teach people how to make money. Inc., June 1992, pp. 53-66.

Stewart, Doug, 1991: Interview with Shoshana Zuboff. Omni, V13(7), pp. 66-94.

Stowell, Steven, 1988: Coaching: A commitment to leadership. Training and Development Journal June 1988, pp. 34-38.

Talbot, Michael, 1991: The holographic universe (Harper Perennial, New York).

Taylor, Steven and Bogdan, Robert, 1984: Introduction to qualitative research methods (John Wiley & Sons, New York).

Tesch, Renata, 1990: Qualitative Research: Analysis types and software tools (The Falmer Press, New York).

Thiagarajan, Sviasaila: Roleplays.

Tichy & Devanna, 1986: The tranformational leader. Training and Development Journal, April 1986, pp. 27-32.

Toffler, Alvin. 1970: Future Shock (Bantam Books, New York).

Toffler, Alvin, 1990: Power Shift (Bantam Books, New York).

Turner, B.A., 1983: The use of grounded theory for the qualitative analysis of organizational behavior: The Journal of Management Studies, V20(3), pp. 333-348.

Twitchell, David, Ed., 1990: Robert M. Gagne and M. David Merrill: In converstion. Educational Technology, July-Oct. 1990.

Useem, M., 1984: The inner circle (Oxford University Press, New York).

Veltrop, Bill & Harrington, Karin, 1988: Roadmap to new organizational territory. Training and Development Journal, June 1988, pp. 23-33.

Walton, Mary, 1986: The Deming management method (A Perigee Book, New York).

Watkins, Karen, E.: Business and industry. Handbook of adult and continuing education, Merriam and Cunningham, eds. (Jossey-Bass Limited, London).

Weick, Carl E., 1979: The social psychology of organizing (Random House, New York).

Weizenbaum, Joseph, 1976: Computer power and human reason: From judgement to calculation (MIT Press, Boston).

Witte, J.F., 1980: Democracy, authority and alienation in work: Workers' participation in an American corporation (University of Chicago Press, Chicago).

Yeager, P.C. & Kram, K.E., 1990: Fielding hot topics in cool settings: The study of corporate ethics. Qualitative Sociology, V13(2), pp. 127-148.

Zuboff, Shoshana, 1988: In the age of the smart machine: The future of work and power (Basic Books, New York).

APPENDIX

Appendix A

Interview Guide

1. What do you think/how do you feel about TQM now, one year later?

2. What changes have you seen, subtle or pronounced, in the university, your division, other (trained) directors, or in yourself?

3. What frustrations have you felt during this year-long process?

4. What parts of the process would you keep?

5. What parts of the process would you change?

6. What obstacles to the change process do you see - built into this public-sector university, through timing, or whatever?

7. What factors do you think were most important either for making TQM work or not work here?

8. What are the three most important things you would advise someone else attempting a transformation either to definitely do, or definitely not do?