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UMI
Lessons Learned: Change Initiatives in Two Canadian Universities

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy, Department of Theory and Policy Studies, Ontario Institute for Studies in Education of the University of Toronto

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Lessons Learned: Change Initiatives in Two Canadian Universities
Elizabeth Anne Meuser, Doctor of Philosophy, 1998
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Abstract

The study was undertaken to determine how two Canadian universities are responding to the internal and external environmental conditions driving change in organizational governance and planning. Case studies were conducted at the University of Calgary in Calgary, Alberta and McMaster University in Hamilton, Ontario. The University of Calgary’s transformational activities are shown to be consistent with the values and principles of continuous quality improvement (Deming, 1986), in particular the activities of strategic quality management (Juran, 1989). McMaster University’s change initiatives are consistent with traditional strategic planning activities.

Lessons learned concerning institution-wide change initiatives in these two Canadian university settings are outlined and discussed within the following areas: creating the case for change, using a common language, working from a theoretical framework, developing plans and
strategies, instituting teamwork, encouraging organization-wide learning, restructuring the university as a cultural democracy, and engaging in principle-centered leadership. Suggested areas for future research are outlined.
Acknowledgments

The most meaningful rewards in my life have arrived only with the help of family, friends, and colleagues. I would like to extend a sincere and deeply held thank you to my advisor, Dr. Michael Skolnik who has been constant in his support and in his insight during my journey to discover and understand the themes contained in this thesis. I would also like to thank Dr. Angela Hildyard for her incisive comments and her unfailing sense of humor, and Dr. Saeed Quazi for his belief in the importance and in the direction of the work contained in the thesis.

My gratitude is extended to the University of Calgary and McMaster University and all those whose candor about the challenges facing university governance and planning and whose generosity toward me made this study possible.

Thank you to my children, Jason, Michelle, and Craig who remind me daily of all that I have yet to learn, and to my dear friends, Bernadette Gasslein, Lee Dolan, and Beverly Memme who have walked beside me through many challenges, disappointments, and triumphs. Finally, and most importantly I thank my husband, Helmut, who first introduced me to W. Edwards Deming, has been committed to my personal growth, and has actively supported all of my adventures throughout many years together.
Dedication

To Douglas Maxwell Ritchie, my father
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Introduction

The notion of organizational renewal found at the core of the ensuing study moves beyond mere concepts of change toward organizational transformation in concrete ways. Simple solutions do not adequately address the seriousness of the problems facing institutions of higher learning in Canada. Complex problems oblige cognitive complexity, and nowhere is cognitive complexity more abundant than in the Canadian university.

How does a university begin a transformative journey? How can a university learn—that is, continually increase its capabilities to understand complexity by inquiring into its own assumptions, beliefs, and formal structures (Senge, 1990a)? If the university suffers from organizational learning deficits, how then can it consider change, much less transformation or renewal?

Moreover, why does the university need to change at all? The resiliency of the university, having survived for centuries, is the material of great legend. Still, can a centuries old institution built and rebuilt upon the principles of civility, culture, knowledge, and academic freedom withstand the challenges of continuous change, financial entrenchment, and governmental encroachment
facing it at the beginning of the second millennium? These are the questions that brought me to the study of the Canadian university as a learning organization.

However, the most powerful source of inspiration came directly out of my own experience. I spent 25 years of my adult life working in the health care sector as a clinical specialist in palliative care, an educator in staff development and quality improvement, and an administrator. As a quality improvement professional in health care I spent six years engaged in institution-wide education and implementation of Quality Management (QM) as well as having acted as an external service consultant in the field of QM.

As the years and my work progressed I began to become more and more concerned about the knowledge and practical competencies that health care professionals—administrative and clinical—enacted in daily practice. Most of these individuals had spent at least four years in the university system but what had they learned about relationship?

Simply stated, in my experience people entering the health care system seemed to lack a sense of humanity—compassion, empathy, a basic concern for otherness, even a sense of civility that might have been expected from their affiliation with a center for higher learning. During my long-time affiliation with the university, as student, teacher, and researcher, I have clearly seen that poor
communication between human beings is not limited to the health care sector.

The service industry as a whole has fallen down on interpersonal relationships; on its sense of community.

To better prepare myself for the learning that I was to embark upon, I took advantage of an educational opportunity that became available through an Ontario Skills Development Grant. Course work in QM was completed with the National Demonstration Project (now known as the Institute for Healthcare Improvement) under the leadership of Donald Berwick during 1989-1991 at the Center for Executive Education, Babson College, Wellesley, Massachusetts. The National Demonstration Project was funded by the John A. Hartford Foundation and designed in conjunction with the Harvard Community Health Plan (HCHP), Brookline, Massachusetts; The Juran Institute, Wilton, Connecticut; and the Quality Resource Group from the Hospital Corporation of America.

The purpose of the collaboration was to pair engineers, statisticians, and existing health care quality experts with health care institutions to determine whether or not QM philosophy and methods were transferable to a healthcare service environment. The results showed clearly that QM is appropriate to both the managerial and clinical aspects of healthcare institutions as service
organizations. This learning formed the framework for the research undertaken to complete my Masters thesis.

As I moved between my work in health care and my university studies, it seemed to me that whether in health care or other professional fields of study, the university itself was in some measure responsible for the quality of learning, and perhaps, in part, the formation of the beliefs and attitudes of its graduates. These questions led to the notion of accountability but not just in the limited financial "protect the public purse" way. I came to see accountability as much greater, taking into account the contractual, professional, and moral (Goddard & Leask, 1992) obligations of faculty, administrators, staff, and students.

In particular, my questions concerned the aspects of moral accountability within the university: that is, the organization's responsibility to its clients (Goddard & Leask, 1992) both internal and external to the university. Moral accountability is thus discovered within the dynamic movement of concepts and values between and among the university's stakeholders: from the university to the individual to society and back again.

Leadership, culture, and values hold the promise for moral accountability to become actionable and these three elements working in concert seemed to me to be the foundation for the university to be or become a truly inclusive
community wherein all forms of discovery could be prized. The university as the ivory tower dominated by research while indifferent to teaching, distant from its learners, and removed from its community and society, no longer seemed to suffice.

I found solace in Boyer’s (1990) *Scholarship Reconsidered* and in Rice’s (1990) work on the meaning of scholarship within contemporary realities. I was compelled by each theorist’s acceptance of alternative ways of knowing.

According to the conventional view only one way of knowing is fully recognized and honored [by the university]. Scholarship is narrowly defined as the advancement of knowledge—the discovery and creation of new knowledge in a disciplinary specialization. This is a limited view. We contend that knowledge is utilized in a variety of ways and that these other forms of scholarship—these other ways of knowing—are as legitimate, significant and needed as the dominant mode. (Rice, 1990, p. 1)

I began to question the very idea of a university. What are its mission and vision; what does it value? How is a university held publicly accountable for its transmission of culture and for the “cause of good citizenship” (Gabelnick, 1997, p. 30): that is, for its promise of excellence in learning, knowledge, and cultural acquisition imparted to its students, community, and ultimately society. How do universities in Canada assure quality in scholarship? Could the university have failed to inform professional practice with a curriculum so narrow as to offer
fundamental knowledge or technical knowledge void of any implication for its influence on society?

What knowledge informs the professional aspects of university administrators and faculty? These individuals are spending a lifetime within the culture and norms of the university. Could faculty really not comprehend that a different scholarship is necessary for daily administration that is as legitimate as academic scholarship; that administration involves other tasks, other ways of knowing? Faculty and administration are merely two differing communities of inquiry, but acting at odds with each other rather than working interdependently as a learning system (Green, 1981).

To answer these questions I recognized the need to penetrate the heart of the university--its leadership and culture’s capability for self-reflection and learning. Without leadership and a cultural capacity for learning, the university cannot respond to its new economic, social, and political surround. It can paint over, it can restructure, but it cannot substantively change to the degree required to transform or to renew.

Senge (1990a) is probably the foremost theoretician of the learning organization and Schon (1983) of the relationship between theory and practice and of reflection in and on practice, i.e. learning while doing. However, neither
speak, in a comprehensive way, to the process by which organizations actually learn: in a university context, the “how” to inquire into the underlying assumptions and practices of university governance and planning. If the creation of a learning organization is to be a goal, then what is the method by which to achieve that goal? Where to begin?

It was necessary to take a step backwards to question the current models and principles that support university governance and planning that determine the university’s capacity for survival during rapid and continuing change in Canada’s economic, political, and social conditions. The framework that was chosen to accomplish the task of studying university governance in current and on-going times of constant change is Deming’s (1982;1986) 14 points or principles of continuous quality improvement (CQI).

It seemed to me that learning within a service atmosphere, such as a university committed to quality and according to the methods of Deming (1986), could provide the environmental and cultural conditions wherein professional attitudes, administrators’ and faculty’s, may be shaped outward toward the

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1 Deming’s (1982) use of continuous quality improvement (CQI) advocates very similar concepts, values, and processes as Juran’s (1989) total quality management (TQM). Deming’s (1982; 1986) 14 points or principles and Juran’s (1989) Quality Trilogy complement each other offering the study and the reader a broad overview of a new paradigm for quality management along with depth of understanding. For this reason they are used interchangeably within this study under the comprehensive title, quality management (QM).
university's internal and external community and toward organizational need rather than remaining directed inward toward self-interest.

Statement of the Problem

Many U.S. universities, including Harvard University, have begun to undertake the organizational changes necessary to implement quality management into their core structures and processes and into daily management practice (Zangwill & Roberts, 1995; Foster, Jelinek, & Sauser, 1995). As well, U.S. academic faculty have begun to see the advantages of QM in the classroom in, for example, curricular design, teaching methods, and evaluation (Englekemeyer, 1995; Helminski & Koberna, 1995).

Although much has been written concerning the U.S. university experience, little has been available from the Canadian university perspective. Therefore, this research is undertaken to understand and describe the "lessons learned" (Juran, 1989, p. 358) from Canadian universities as they initiate and work toward quality improvement in education through organization-wide quality management strategies.
By studying the decision, implementation, and evaluation processes of the Canadian experience, this research will provide valuable insight into what works and what does not. Although it is recognized that no two universities are alike in setting, organization (structure and reward systems), administrative skills, leadership style, and culture, there may arise common issues in the implementation of QM, in staying the course, and in “holding the gains” (Juran cited in HCHP, 1989, XIII-10-3). These lessons learned may influence the direction taken by other university leaders who are considering implementing a QM strategy or by those just beginning implementation.

The study will also contribute to existing knowledge about QM and its appropriateness for the management of institutions of higher learning in Canada.

Research Questions

1. Are Canadian universities involved in the implementation of a QM paradigm?
2. If so, how are Canadian universities using the framework for institution-wide change?
3. What lessons from Canadian universities which have employed QM philosophy and methods can be inferred concerning the acceptance and implementation of QM?

Background of the Problem

Creative Tension for Change

The Canadian university at the beginning of the new millennium is facing numerous issues that call into question its very survival as an institution for higher learning. In an open letter to the Memorial University community, Dr. A. W. May, Chancellor and Vice-President, wrote:

I would like to stress that there are two aspects to the [university's] new reality. One aspect is a long term fundamental change which is occurring in our society--comprised of a global phenomenon related to the rapidly evolving information age and... A second aspect is the impending impact on the university of a substantial reduction in our financial support from government. (Memorial University, 1995, p. 1)

These two macro-environmental forces can be broken down into issues that affect universities at their local, regional, and national levels. Local trends for universities across Canada are relative to their size, location, and prominence within their community and provincial surround, but one repeating trend for concern is the reduction in federal transfer
payments concurrent with shrinking provincial investments in support of each province's system of higher education.

Severe cuts to higher education by both the federal and provincial governments have had a dramatic effect on the university. Consideration is being given to rationalization of faculties, shared services, and tuition increases as means to reduce operating costs and to stabilize the university's financial position.

Paradoxically, the trend toward reduced funding comes at a time when provincial governments are demanding a response to two fundamental issues: increased university accountability in terms of how the public purse is utilized within colleges and universities, and increased accessibility to accommodate not only ever increasing student enrollment but also to include a vision of life-long learning within a diversity of cultures and cohorts.

With higher enrollments and shrinking governmental support, universities are looking more and more toward student tuition to shoulder the actual costs of education. Devolvement of funding to the private sector, to students/learners via tuition hikes, and to corporate interests through research arrangements have
significant consequences. It places universities in direct competition with each other for these funding sources.

Although competition has always been at play among Canadian universities, competition has never been as fierce as it is becoming. Under such circumstances “initiative in support of distinctiveness and quality [is] grow[ing] in importance...” (University of Toronto, 1995, p. 1). As Terry White, President of the University of Calgary states, “As the watering hole gets smaller, the animals begin to look at each other differently” (The University of Calgary, 1996f, p. 1). Healthy competition is good for everyone but the kind of dog-eat-dog competition that can arise from limited resources may be harmful to the system and to all those who comprise it.

Furthermore, the decline of external, governmental funding begs another concern for the university. “With a reduction in the availability of basic (untied) research funds and an increased focus on targeted (tied) funds, there is a risk of an excessive shift away from fundamental questions to current applied problems” (University of Waterloo, 1995, p. 1).

Research partnerships with corporations can bring increased moneys, but such alliances can raise issues concerning the university’s
role in research itself. Is the purpose of research within a university a matter of the generation of knowledge for its own sake or for the purposes of some corporate agenda? As corporate-university liaisons unfold, the underlying danger is the growing dominance of applied research and an unprecedented move by the university toward technological and, perhaps, vocational advancements as its real purpose. The image and identity of the Canadian university stand at a cross-roads.

Image and identity have much to do with university governance in that new funding sources are forcing the university to reexamine its purpose. Strategic planning has become the norm for Canadian universities. Mission, vision, and core values are being reassessed while each university tries to come to terms with the fact that it cannot be all things to all people. Internally, faculty and staff are being asked to do more with less, to make sacrifices, to downsize, and restructure. Externally, discussions of rationalization and regionalization continue to crop up but with renewed vigor.

In short, the Canadian university is being faced with serious changes, swept along with the power of societal change and global economic realities as they impact on national, provincial, and finally local
socioeconomic conditions. Change is inevitable. The depth and breadth of necessary change can be daunting. Will the university change for the sake of change alone, or transform, renew itself for the sake of higher learning in Canada and for Canada’s citizenry?

Prerequisites for Transformation

The Canadian university is both dazed and challenged by its need for and the magnitude of change in structures, processes, and outcomes. However, substantive change rarely happens willy-nilly. Three basic, but requisite conditions are vital to any change process whether individual, societal, or organizational in nature. First, there is a perception that something is disconcerting, a sense of uneasiness about present circumstances and arrangements within the context of the prevailing realities facing higher education--internally and externally. The organization’s stakeholders perceive their discomfort as being so unsettling that they are compelled to ask the question, “What is the current condition of the university and what are some of the factors challenging the current state?”

Second, for change to be initiated, there must exist a vision of some future state that is somehow better: a vision that compels the institution forward and
sustains both plans and processes for change over the long term. The gap between current and future states is referred to by Senge (1990a; 1990b) as a “creative tension for change”, and according to Senge (1990b, p. 9), “The principle of creative tension teaches individuals that an accurate picture of current reality is just as important as a compelling picture of a desired future... (p. 9)”. In addition, Senge (1990b) continues that, “creative tension can be resolved in two basic ways: by raising current reality toward the vision, or by lowering the vision toward current reality” (p. 9).

Based in its tradition of excellence and its hope for a future, lowering the vision is not an option for the Canadian university. In short, the university’s renewal depends on its leadership and its capacity for uncompromising truth-telling about the current circumstances of its inner life and outer world while simultaneously building a shared vision of some desired future.

Senge (1990b) believes that the vision is the basic intrinsic motivator for change. When intrinsic motivation is informed by vision, organizational energy is increased. It is the increased energy that generates renewal and makes generative learning possible. Adaptive learning takes place in response to environmental changes but generative learning moves the learner beyond merely adapting and responding alone. Generative learning arises from the intrinsic love of learning...
for its own sake, from a desire to expand one’s capabilities. “This is why leading corporations are focusing on generative learning which is about creating, as well as adaptive learning, which is about coping” (Senge, 1990b, p. 8).

A third ingredient for successful change is the requirement that there is confidence in those identified as organizational change agents in terms of their knowledge and skills-base. At the heart of identifying change agents is an institutional leadership which not only allows change champions to arise from anywhere within the organization, but also accepts and values committed individuals’ contributions through rewards, recognition, and encouragement.

Further, the change agents must have confidence in the commitment and support of the organization’s leadership (Gibson, 1994; Harvard Community Health Plan (HCHP), 1989). The leaders of the future have a responsibility to inspire learning, both generative and adaptive.

In a learning organization...leaders are designers, teachers, and stewards. These roles require new skills: the ability to build shared vision, to bring to the surface and challenge prevailing mental models, and to foster more systematic patterns of thinking. In short, leaders in learning organizations are responsible for building organizations where people are continually expanding their capabilities to shape their future—that is, leaders are responsible for learning. (Senge, 1990b, p. 9)

These three elements--honesty about the current reality, a shared vision of a desired future, confidence that the vision is attainable--create the intrinsic
energy demanded for intentional action toward renewal. Knowledge as the basis for effective action is derived from continuous generative and adaptive learning.

**Delimitations and Scope**

The study was limited to two Canadian universities, the University of Calgary in Calgary, Alberta and McMaster University in Hamilton, Ontario. As complex organizations and parts of the Canadian university system at large, each university offered its own distinct culture and approach to its change initiatives. In fact, the depth and breadth of change necessary for rapidly changing socioeconomic environments is considered to be transformational as opposed to simply “changed”. One university clearly understood transformation and was systematically working to regenerate the institution while the other worked within less specific parameters within a traditional strategic planning framework.

Because the two major forces driving continuous quality improvement are customer service/satisfaction and leadership, emphasis was placed on these two concepts throughout the study. In recognition that
all change begins with the individual, data was gathered to better understand each University’s cultural system defined by Conway, 1985 as:

The way in which beliefs and values are ordered, arranged and linked. [In this context, system is] concerned with the interrelationships of the beliefs and values no matter how logical or illogical. If an organization is to reconstruct itself, it needs to be aware of the cultural system (Conway, 1985, p. 11).

Outline of the Remainder of the Document

Chapter 2 has been divided into two parts. In Part I the reader is introduced to the concept of quality, a word often used but not well understood even within the context of the university. The notion of quality underpins both Deming’s (1982, 1986) and Juran’s (1989) management theories.

To fully understand the study’s underlying theoretical framework, in Part II the reader is introduced to Deming’s 14 Points, Seven Deadly Diseases, and System of Profound Knowledge. Examples of how Deming’s (1986) 14 Points can be applied to a university setting are provided within the overall discussion. The 14 Points as the theoretical framework for the study extends the notion of Deming’s (1982, 1986, 1993) theory and philosophy and establishes Deming (1982, 1986, 1993)
as a new paradigm management pedagogue. His philosophy and theory are at the root of Senge’s (1990a) concept of learning organizations and serve as the linchpin for managing in continuously changing times and complex environments.

In Chapter 3, the principles, concepts, and values of QM as compared and contrasted with reengineering have been concretized. The contrast and comparison between QM and reengineering is placed within Chapter 3 because of its significance to the research method. The comparison was essential so that an informed distinction could be made between a university engaged in the philosophy and actions that support the values of QM and a university engaged in reengineering.

The research design outlines the values found in QM as well as describes the research method. The QM values come directly from the philosophy, theory, and practice of W. Edwards Deming (1982, 1986, 1993) and are best understood within the necessary circumstances for quality outlined in the Malcolm Baldrige National Award for Quality in the United States, and in Canada, the National Quality Institute’s Quality Principles.
In Chapter 4, the research analysis and findings are presented together as case studies of two Canadian universities, the University of Calgary and McMaster University. Presented separately and then compared and contrasted with each other, Chapter 4 is intended to integrate the research, analysis and findings into a comprehensive picture of QM philosophy and methods at work. A summary of the lessons learned from studying the two Canadian universities and their change initiatives is provided in Chapter 5.
CHAPTER TWO: THEORETICAL BASES FOR
QUALITY MANAGEMENT

Introduction

Juran (1989) and Deming (1986) have been generally thought of as industrial manufacturing quality gurus. However, their quality theories and philosophies are equally relevant to the service sector (Berwick, Godfrey, & Roessner, 1990; Deming, 1986; Juran, 1989; Seymour, 1993; Sims & Sims, 1995). For example, the Canadian health care system became actively involved in quality management in the late 1980s and early 1990s.

The United States committed earlier to QM in their service industries, notably Florida Power & Light (Walton, 1991), the health care industry (Berwick, et al., 1990; Walton, 1991) and higher education (Roberts, 1995; Seymour, 1993; Sims & Sims, 1995). While the application of Deming (1986) and Juran (1989) has taken hold in U.S. higher education (Gibson, 1994; Seymour, 1994), few Canadian universities have embraced QM in such a way as to translate quality approaches into comprehensive, structured plans and actions for transformation in a higher education environment, and, in particular, its
corporate culture. To understand an organization’s culture is to apprehend the invisible made manifest in the visible—in actions and in words. The strength of culture is captured by Kilmann (1989): “Every organization has an invisible quality—a certain style, a character, a way of doing things—that ultimately determines whether success will be achieved” (p. 49).

In view of the difficulties in defining the word “quality”, Chapter 2 is divided into two sections: Part I establishes the definitions that support quality as a principle, as a measureable outcome, as a way to think about management, and as an organizing principle for accountability. Part II uses Deming’s (1986) 14 Points/Principles, his System of Profound Knowledge and his Seven Deadly Diseases as a framework to give direction to the study. Deming’s 14 Points have been included in Appendix A while his Seven Deadly Diseases are listed as follows: 1) lack of constancy of purpose; 2) emphasis on short-term profit; 3) evaluation of performance (merit rating); 4) mobility of management; 5) management by visible numbers only; 6) excessive medical costs; and, 7) excessive costs of liability.

In Part II it will also be argued that Deming’s (1986) 14 Points, System of Profound Knowledge and Seven Deadly Diseases, and Juran’s
Quality Trilogy are managerial theories for creating substantive change in structure, process, and organizational culture. Indeed, QM is not only a means by which to continuously change and improve, it also serves as a robust method for strategic planning and execution whether in a single department/unit or organization-wide. As such, QM can be viewed as a complete package enveloping strategic planning along with a process for implementation that, I believe, far out performs any traditional strategic planning exercise (Mintzberg, 1994b) or activities.

Deming (1982;1986) and Juran (1989; 1992) move organizations toward substantive restructuring for the purpose of customer satisfaction, quality improvement, innovation, and job creation. These aims are for the betterment of the organization and lead to meaningful, positive gains in organizational culture. Restructuring--breakthrough in organization--is not enough because without simultaneous breakthroughs in attitudes, knowledge, and culture, tangible change cannot be achieved. Moreover, any breakthrough in organization alone cannot be sustained over time (Harvard Community Health Plan, hereafter, HCHP, 1989; Juran Institute, 1989a).
The Canadian university is at a critical juncture in its development.

"Change is required. There is a process of change, just as there is a process of manufacturing, or for growing wheat. How to change is the problem" (Deming, as cited in Scholtes, 1988, p. iv).

Part I

Quality as a Principle

The conundrum for organizations in the quality era (Juran, 1995) comes from attempts to meet the expectation of quality from both a professional/technical--"quality in fact"--approach and a public/consumer perspective--"quality in perception". As well, Barnett (1992a) and Deming (1986) make compelling arguments for quality as derived from purpose.

Although there are diverse definitions for quality, this study proposes a co-definition based on the idea of quality as flowing out of purpose. Therefore, quality from purpose is co-defined as "fitness for purpose" (Ball, 1985 as cited in Barnett, 1992a, p. 30), or "fitness for use" (Juran, 1989, p. 15), and the notion of goodness of fit from the user’s perspective. Deming (1986) agrees stating that "quality can be defined
only in terms of the agent” (p. 168), and, in Shewart’s words, “...The difficulty in defining quality is to translate future needs of the user into measurable characteristics, so that a product can be designed and turned out to give satisfaction at a price that the user will pay” (as cited in Deming, 1986, p. 169).

The professional, technical, and consumer elements of quality are implicit within the co-definition—“fitness for purpose and goodness of fit.” To demonstrate the applicability of the co-definition, the following questions are raised: “Is the university in all its processes and policies (academic and administrative) capable (fit) to fulfill its mission and vision (constancy of purpose)? How well do the processes and policies presently fulfill purpose (goodness of fit) and how can improvements be made for the future (strategic quality management)?

Implicit within the co-definition—fitness for purpose and goodness of fit—is the understanding that purposes change with societal demands and expectations. In a global economy, marketplace needs and expectations are moving targets.

Conversely, the university is a traditional institution with its own claim to purpose that is defined best by faculty, the academic culture, and
the communication of culture through the advancement of knowledge. The assumption is that much about the university should remain unchanged. Consequently, the tension between these two realities remains embedded in the poles between the business of the university and the university as a business (Pelikan, 1992). An ever-widening chasm exists between academic faculty who prize tradition and university administrators trying to survive the rate of change and the turbulence of unstable markets that threaten higher education’s very survival.

Further, the university must contend with many competing purposes described by diverse customer\(^2\) (Deming, 1986; Juran, 1989) groups who have identified particular needs and expectations: academic professionals expect an environment that supports academic freedom, technocrats such as governmental and administrative professionals expect institutional transparency by way of accountability (University Accountability: A Strengthened Framework, 1993), and the marketplace expects value for dollars invested. In short, consumers (employers and learners) of the university’s product (knowledge) expect to enhance their quality of life because of their engagement with and in institutions of higher learning.

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\(^2\)The usage of the word customer is explained more fully later in the text. The definition used in this study for customer is “anyone who is impacted by the product or process” (Juran, 1989, p. 357).
Each of these approaches carries its own underlying assumptions about the requirements for quality and its measurement (Barnett, 1992a, 1992b). For example: the state, determined to increase access at reduced costs, will connect institutional quality with efficiency; academics determined to uphold the values of the academy will link a process of peer review with quality; and, consumers in the marketplace holding an expectation of value for dollars invested will attach their final judgment about the quality of higher education to whether or not they, or their children, find employment.

Hodgkinson (1991) also establishes a diverse set of purposes for higher education such as: economic (learning to earn), aesthetic (self-fulfillment), and ideological (the transmission of culture). Both theorists, Barnett (1992a) and Hodgkinson (1991) view all the foregoing purposes as legitimate in the contexts of the instrumental demands of society and of the communicative demands of higher learning.

Quality as an Outcome: Understanding “Customer” Satisfaction

Although many (Gibson, 1994; Hardney, 1995; Scott, 1996) have recognized the problematic nature of what some call “jargon” in theories of
quality management, they also understand the benefits. For example, Gibson (1994) reports that:

Overall, while the vocabulary of total quality has proven to be a serious obstacle to acceptance of the ideas, it has also been a means of opening the door to innovation by providing new ways of thinking about long-standing relationships and behaviours. (p. 2)

In the Conference Board of Canada’s Report, Continuous Improvement on a Tradition of Excellence: Lessons from the Study Tour on Total Quality in a University Setting, Gibson (1994) further implies that a willingness to learn and to use QM “jargon” may be beneficial in other ways:

At the same time the benefits of having a common vocabulary for what [the universities under study] were attempting were considerable. And although terms such as “customer” have been serious barriers to acceptance of total quality concepts, they wove through the conversations of tour hosts as an easy shorthand for the ideas being discussed. (p. 2)

Specifically, in higher education the use of the word “customer” is thought to be particularly offensive. In her study of the Houston Community College System (HCCS), Hardney (1995) states that, “according to one HCCS staffer, community colleges seem to have an aversion to the term ‘customer’ and the connotation of ‘selling’ as if knowledge could be bought and sold” (p. 90). Rollin (1989) concurs stating that when such “modes of thinking [the language of business he calls ‘bizspeak’] become current, it is only a short step toward
perceiving faculty as ‘employees’, and students as ‘customers’ at best, at worst as mere revenue producers” (p. 17). Others, like Hollis at Belmont University, see that “customer” has come to mean being “mindful of the people we serve” (Hollis, as cited in Gibson, 1994, p. 2).

Customers have suppliers and both are part of the total university system. Also, customers and suppliers share roles as each becomes the customer and supplier of the other through intentional action and continuous communication. There are two types of customers, internal and external:

The customer is anyone who receives or is affected by the product or process...External customers are affected by the product [service] but are not a part of the company that produces the product [service]. ...Internal customers are affected by the product [service] and are also members of the company that produces the product [service]. (Juran, 1989, p. 17)

“Customer” tends to place the user of products and services on equal footing with those who provide commodities. “Delighting” (Scholtes & Hacquebord, 1988, p. 28) as opposed to merely satisfying the customer is the aim of quality, productivity, and competitive positioning. In this

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3The use of the word “system” throughout this study is in keeping with Deming’s (1994) definition. “A system is a network of interdependent components that work together to try to accomplish the aim of the system. A system must have an aim. Without an aim, there is no system” (p. 50).
context, meeting the customer’s need and expectations necessitates partnership. Figure 1 demonstrates the interrelatedness and interdependencies within customer-supplier relationships.

Thus, the word “customer” stands as a concept about empowerment. Within partnership, mission and vision can be explicitly enacted. When vision is alive, it is explicitly enacted through interrelationships that include empathy and compassion (Senge, 1990a). True partnership is underscored by the notions of reciprocity and mutuality, siblings of compassion and empathy.

The relationship between customer and supplier is one of mutuality in both direct and indirect ways. A customer depends on his/her suppliers to meet needs and expectations. The customer is also a supplier to his/her own suppliers and to other customers. The relationship of mutuality is evidenced in the requirement for continuous communication so that each party can understand the other’s underlying goals and capabilities. Within the center of Figure 1, the concept of mutuality is represented by a 360 degree feed-back loop.
Figure 1. The customer-supplier relationship. The connecting arrows demonstrate opportunities for continuous communication and negotiation.
When the concept of customer is eliminated from product and service transactions, consumers are rarely satisfied. The absence of a customer mind-set has proven to be a grave error in quality assurance programs. In quality assurance, the tendency is to plan and implement a service in the absence of customer input. In quality assurance, the skills and competencies of the professional are seen as most important. This results in a “we know best” attitude that tends to rob service recipients of their sense of power within a non-professional-professional relationship.

For example, a professor may design and execute a brilliant lecture, but, if the learners fail to understand his/her lesson, he/she has failed to meet the needs and expectations of his/her customers, let alone delight them. His/her lecture has not passed the quality test; it is neither fit for his/her purpose--teaching--nor is there a goodness of fit for his/her students’ purpose--learning. “A goal of high quality means choosing target features based on the needs, wants, and capabilities of intended customers” (Scholtes, 1988, p. 2-6).

In fact, within the context of meeting customer needs and expectations, many would question whether the lecture style of teaching has any real impact on learning (Boyer, 1990; Hodgkinson, 1991; Schon,
Quality improvement asks, "Are we doing the right things?" and, "Are we doing those things right?" Quality assurance asks only, "Are we doing things right?". Table 1 will provide the reader with a fuller accounting of the differences between quality assurance and quality improvement.

Doing the right things and doing those things right are significant issues in the heart of university life, teaching and learning. Are faculty within universities expected to use the lecture style or are professors allowed the freedom to create novel teaching and learning methods? How would the expectations of a stand and deliver lecture style versus novelty in teaching methods impact a university’s grading system?

Seymour (1995) finds that while a stand and deliver mode is degrading for students, few attempts are made to improve teaching as opposed to other faculty interests. "Left to our own devices, we pay too much attention to things of too little importance" (p. 25). "Teaching occurs when I show you how to solve a problem. Learning occurs when you figure out how to solve your problem. Quality management in education must be concerned with the improvement of both processes, teaching and learning" (Tribus, 1995, p. 22).
Table 1

A Comparison Between Quality Assurance and Quality Improvement

<table>
<thead>
<tr>
<th>Quality Assurance (QA)</th>
<th>Quality Improvement (QI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internally driven:</td>
<td>Customer driven:</td>
</tr>
<tr>
<td>Management by objectives; work to standards (predetermined numbers and quotas)</td>
<td>Internal and external customers. Please the customer—work to needs and expectations of the customer and of professional principles and practice</td>
</tr>
<tr>
<td>Standards established by service providers</td>
<td>Standards established in partnerships with service providers and customers.</td>
</tr>
<tr>
<td>Organizational Structure</td>
<td>Organizational structure</td>
</tr>
<tr>
<td>Hierarchical, authoritarian, disempowering.</td>
<td>Cooperative, collaborative, empowering.</td>
</tr>
<tr>
<td>Decreases morale and innovation.</td>
<td>Stimulates innovation and increases morale. Provides time, space, and resources for reflection.</td>
</tr>
<tr>
<td>Fails to mandate responsibility for identification and resolution of chronic problems.</td>
<td>Resolution of chronic problems is priority. Teams are mandated responsibility for resolution.</td>
</tr>
<tr>
<td>Offers no way to prioritize organization’s concerns.</td>
<td>Prioritizes organization’s concerns (Purpose directs strategies) according to quality and its improvement.</td>
</tr>
<tr>
<td>No way to rationally allocate resources.</td>
<td>Resources allocated according to priorities set via strategic “quality” planning (SQP).</td>
</tr>
<tr>
<td>Optimizes subsystems</td>
<td>Optimizes the whole</td>
</tr>
<tr>
<td>Fails to deal with interdepartmental issues. (i.e., departments disciplines, functional areas, programs)</td>
<td>Sees the organization as a dynamic whole: uses systemic thinking, cognizant of interrelationships, interactions, interconnectedness, ripple effects.</td>
</tr>
<tr>
<td>Contributes to fragmentation.</td>
<td>Contributes to integration.</td>
</tr>
</tbody>
</table>

(Table continues)
### Quality Assurance (QA) vs. Quality Improvement (QI)

<table>
<thead>
<tr>
<th>Problem-solcing (Isolated)</th>
<th>Problem-solcing (Systemic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>...is by department or individual responsibility.</td>
<td>...is a team effort: cross-functional cross-disciplinary, inter-disciplinary, cross- and inter-hierarchical.</td>
</tr>
<tr>
<td>Problem-solving tends to be assumption-driven. The danger is that information may be outdated and/or untested, incomplete and/or inaccurate.</td>
<td>Problem-solving is data-driven. It is based on scientific method and uses tools and techniques for collection/analysis. Assumptions are tested; data are accurate. Information is complete and timely.</td>
</tr>
<tr>
<td>Study and data collection are left to the individual manager/departmental staff; adds to fragmentation of and conflict in the organization.</td>
<td>Methods for study and tools for measurement are taught to all. Problem-solving approaches are company-wide: creates common understanding in the organization.</td>
</tr>
</tbody>
</table>

#### Outcomes

- Identify problem areas, but too late to impact outcomes. Outcomes are considered most important. Emphasizes ends.

- Poor outcomes are blamed on a department or individual. “Who’s responsible?”

- Individuals and departments are held accountable for outcomes; fosters blame and conflict.

- Attainment of numerical standards/thresholds are used as a measure for reward or punishment.

- Expectation that the standards/thresholds can be met despite the system

<table>
<thead>
<tr>
<th>Process and Systems Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify problem areas early in process before the outcome is produced. Outcomes are of primary importance. Emphasizes means-methods as well as results. The process produces the outcome: process held accountable for outcomes, good or bad. “What went wrong in the process?”</td>
</tr>
</tbody>
</table>

| Methods, system design, and process capabilities are accountable; removes blame and conflict. |
| When results differ from expectations, managers and staff work together to analyze, understand, and improve the system. |
| Working cooperatively toward improvement of the system takes precedence and is |

(Table continues)
<table>
<thead>
<tr>
<th>Quality Assurance (QA)</th>
<th>Quality Improvement (QI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>leads to conflict within and between departments and may harm the organization.</td>
<td>considered essential; the standard is continuous improvement.</td>
</tr>
<tr>
<td>Because the commitment is toward meeting standards/thresholds, review may cease when</td>
<td>Even when targets are met, there is on-going work toward process improvements. The</td>
</tr>
<tr>
<td>the standards/thresholds have been met. There may be missed opportunities for more</td>
<td>commitment to continuous improvement capitalizes on opportunities to reduce costs by</td>
</tr>
<tr>
<td>cost reductions. Waste and rework may still remain a problem.</td>
<td>eliminating waste and rework. Reduces process complexity. Thus waste or rework is</td>
</tr>
<tr>
<td></td>
<td>reduced/eliminated.</td>
</tr>
<tr>
<td>Non-Value Added Work</td>
<td>Value Added Work</td>
</tr>
<tr>
<td>The work of QA is non-value added because it is incapable of addressing the chronic</td>
<td>The work of quality improvement is value added because it tackles the chronic systems</td>
</tr>
<tr>
<td>systems problems (i.e., ineffectiveness and inefficiencies).</td>
<td>problems thus resulting in financial gains. More effective and efficient approach.</td>
</tr>
<tr>
<td>Efforts are added-on...treated as a program, something extra and increases costs,</td>
<td>Efforts are built-in...treated as organization-wide quality management strategy. Initially</td>
</tr>
<tr>
<td>short- and long-term.</td>
<td>may increase costs, but long-term decreases costs.</td>
</tr>
<tr>
<td>Cannot capture all errors; cannot prevent errors from occurring, cannot determine</td>
<td>Captures errors before output by acting to prevent errors. Works to find and eliminate</td>
</tr>
<tr>
<td>root causes. Encourages monitoring versus improvement.</td>
<td>root causes.</td>
</tr>
<tr>
<td>Quality assurance requires excessive paperwork and a narrative format. It also favors</td>
<td>Encourages continuous improvement.</td>
</tr>
<tr>
<td>simple counts (i.e., number of library holdings). Performance indicators do not</td>
<td>Quality improvement generates limited paperwork and uses charts and graphs. It favors</td>
</tr>
<tr>
<td>necessarily reveal useful information.</td>
<td>knowledge about library holdings (i.e., are they the correct holdings for the learning</td>
</tr>
<tr>
<td>Quality assurance, risk management, utilization are kept as separate, distinct</td>
<td>at hand, are there enough volumes available to meet student need, what is the turn-around</td>
</tr>
<tr>
<td>functions.</td>
<td>time for interlibrary requests, etc.?).</td>
</tr>
<tr>
<td></td>
<td>Integrates quality assurance, risk management, and utilization under one management</td>
</tr>
<tr>
<td></td>
<td>system—CQI/TQM.</td>
</tr>
</tbody>
</table>
Before quality can be planned into service, it is obligatory to listen to the voice of the customer. Each customer and customer group have diverse needs and expectations, all with distinct measurement requirements that converge to address questions relevant to higher education’s purpose. Barnett (1992a) states that, “quality can be seen as a metaphor for the aims of higher education” (pp. 5-6). Like Barnett (1992a) and Deming (1982, 1986) the foregoing study on QM in Canadian universities accepts that constancy of purpose: that is, the value of customer satisfaction, is the major driving force behind higher education’s quality and its improvement.

Ultimately, what we mean by, and intend by, “quality” in the context of higher education is bound up with our values and fundamental aims in higher education... . So if we want to offer a particular view on quality we should be prepared to declare where we stand on the purposes of higher education. (Barnett, 1992a, p. 16)

The dimensions of quality, “quality in fact” and “quality in perception” (HCHP, 1990, p. 3) offer a number of ways in which the university is called upon to consider the magnitude of quality within the context of realizing purpose. In the 1990 course syllabus, Putting Theory into Action, HCHP lists the dimensions of quality as shown in Table 2.
Table 2

The Dimensions of Quality

<table>
<thead>
<tr>
<th>Technical/professional (Quality in Fact)</th>
<th>Customer (Quality in Perception)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance--Primary basic operating characteristics of a product or service.</td>
<td>Responsiveness--The willingness to help customers.</td>
</tr>
<tr>
<td>Features--Characteristics of a product or service that add to its basic functioning.</td>
<td>Aesthetics--How a product or service sounds, looks or feels.</td>
</tr>
<tr>
<td>Conformance--Accuracy Degree to which product or service matches established standards and any promises made to [a] customer.</td>
<td>Tangibles--Physical facilities equipment and credentials of people.</td>
</tr>
<tr>
<td>Durability--Useful life -Up-to-date-ness.</td>
<td>Assurance--Ability to make the customers feel that they can put their trust in you.</td>
</tr>
<tr>
<td>Serviceability--Speed and ease in resolution of problems and complaints. -Flexibility</td>
<td>Empathy--The caring, individual attention provided to customer[s].</td>
</tr>
</tbody>
</table>

(HCHP, 1990, p. 2 - 8)  
(HCHP, 1990, p. 2 - 7)
Quality as an Outcome: Measurement

All of the dimensions of quality, whether "quality in fact" or "quality in perception" (HCHP, 1990, pp. 2-7 and 2-8), are applicable to the multipurposes of higher education, and all are measurable. Measurement requires the development of process performance measures as well as outcome indicators.

Outcomes alert administrators and academics to problems in process. In other words, the outcome is determined for the most part by the process that produced it (Deming, 1986; HCHP, 1989; Juran, 1989). For better or worse, the potential for quality outcomes is already built in before the end result is observed or measured. Structure is an input to process that, in part, shares the responsibility for outcomes. Therefore, process performance measures appropriate for the dimensions of quality and based on customer satisfaction are the major driving force behind higher education's quality and its improvement.

Performance measures appropriate for the dimensions of quality include: competency (administrative, academic, and organizational) as determined by accreditation and/or credentialling bodies; appropriateness including issues of accessibility; efficiency in the utilization of resources;
effectiveness (the gap between now and some desired future state as related to purpose at both the organizational and faculty/unit levels); measures of internal and external customer satisfaction (the employer-employee, public, and marketplace component); the health and safety of the environment (risk management).

Quality as a Management Paradigm (Managing by Methods for Results)

Performance indicators when process-focused can serve as proactive information sources. When process is tracked through mapping (Hammer & Champy, 1993) or flow charting (Deming, 1986; Juran, 1989) and measured using statistical methods (Deming, 1986; Juran, 1989; Walton, 1991), action can be taken on process to prevent errors. Attention to process as a means toward improved outcomes necessitates a fundamental change in managerial strategy: management by process/method for results as opposed to management by objectives (by control for predictability) to reach pre-established goals. Each looks for improved outcomes, but from quite different philosophical perspectives. Table 3 illustrates a comparison between the two philosophical arguments.
Table 3

Organizational Management Pathway: A Comparison between the Traditional Strategic Planning and Strategic Quality Management (SQM) Approaches to Goal Attainment

<table>
<thead>
<tr>
<th>TRADITIONAL ORGANIZATION (Management by Objectives)</th>
<th>QM ORGANIZATION (Management by Method/Process)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MISSION</td>
<td>MISSION</td>
</tr>
<tr>
<td>What business are we in? Scholarship. Role = teaching, research, service.</td>
<td>What business are we in? For what need do we exist to fill in the first place? What do we make? For example, generating knowledge/learning via the processes of scholarship; integration, discovery, application, teaching (Boyer, 1990).</td>
</tr>
<tr>
<td>VISION (usually developed by senior managers and Board of Governors)</td>
<td>VISION (developed by senior managers and the Board of Governors in consultation with faculty, staff, and students)</td>
</tr>
<tr>
<td>What kind of education, research, service? May or may not be separate from mission. Issue = Where are we going? Where do we want to be?</td>
<td>Why do we make learning/knowledge? What need is there for what we make? Issue = Who has the need? What are their expectations? What/who do we want to become? May or may not be separate from the mission statement.</td>
</tr>
<tr>
<td>GUIDING PRINCIPLES</td>
<td>GUIDING PRINCIPLES</td>
</tr>
<tr>
<td>May or may not be included. May be implicit and/or ambiguous.</td>
<td>Values are made explicit, and included along with a statement of management philosophy. Managers' actions are expected to reflect stated values. Congruity; &quot;Walk the Talk.&quot;</td>
</tr>
<tr>
<td>ORGANIZATIONAL GOALS</td>
<td>ORGANIZATIONAL GOALS</td>
</tr>
<tr>
<td>Issue = How do we reach our goals?</td>
<td>Issue = How capable is the organization now?</td>
</tr>
</tbody>
</table>

(table continues)
| **TRADITIONAL ORGANIZATION**  
(Management by Objectives) | **QM ORGANIZATION**  
(Management by Method/Process) |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>External market focus—what does the organization need to know and do to fulfill its mission and remain viable given the external business climate?</td>
<td>External market focus is on customer needs and expectations as well as the business Internal market focus: internal customers and suppliers, organizational culture, and process capability (measures of process performance).</td>
</tr>
<tr>
<td>Internal focus: strengths and weaknesses.</td>
<td>Core processes to achieve the mission and vision, process goals, and performance targets.</td>
</tr>
<tr>
<td>Functional/operational areas each meet established goals via setting yearly objectives.</td>
<td>Goals are set for the long-range, short-term, and are consistent with constancy of purpose, vision and values.</td>
</tr>
<tr>
<td>Questions about goals tend to be short-range: medium and quarterly and/or annually.</td>
<td><strong>OBJECTIVES</strong></td>
</tr>
<tr>
<td><strong>OBJECTIVES</strong></td>
<td>How and where can we improve core processes and subprocesses to reach desired goals? How can the organization improve feedback among all customers and suppliers (service) and enhance learning and innovation through teamwork?</td>
</tr>
<tr>
<td>What are the objectives (targets) the organization needs to reach in order to attain established goals?</td>
<td><strong>ACTIVITIES ... PLANNING</strong> (at senior management level)</td>
</tr>
<tr>
<td><strong>ACTIVITIES ... PLANNING</strong> (at senior &amp; department manager level). Everyone is a planner.</td>
<td>How can everyone best increase his/her knowledge of customers (external and internal)? How can everyone best improve him/herself to enhance his/her own capability? How can core processes (institution-wide and departmental) be designed and/or redesigned for improvement?</td>
</tr>
<tr>
<td>What activities are undertaken to meet objectives?</td>
<td>(table continues)</td>
</tr>
<tr>
<td>TRADITIONAL ORGANIZATION</td>
<td>QM ORGANIZATION</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>(Management by Objectives)</td>
<td>(Management by Method/Process)</td>
</tr>
</tbody>
</table>

**ALIGNMENT WITH DEPARTMENT PLANS**

**Departments manager determines goals and develop the objectives.**

**QM ORGANIZATION**

**ALIGNMENT WITH DEPARTMENT PLANS**

Department manager and workers develop department mission, vision, values, and identify core processes, customer’s and supplier’s needs and expectations.

**EVALUATION**

Emphasizes outcome alone.

Uses principle functions, associated activities and outcome indicators as performance measures. Corrective action after outcome has been produced.

Time of actions = nonpreventative.

Focus = How well did we do?

Each department relies on compliance with an established set of standards as an indication of performance. Sum of all departmental compliance ratings indicates overall organizational performance.

**ACCOUNTABILITY**

Focus = Who is accountable?

**QM ORGANIZATION**

**ACCOUNTABILITY**

Focus = How can the organization improve the quality of what it makes?

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<th>TRADITIONAL ORGANIZATION (Management by Objectives)</th>
<th>QM ORGANIZATION (Management by Method/Process)</th>
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<td>Problems and mistakes are seen as failures.</td>
<td>Focus = process.</td>
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<td>Department manager’s and individual worker’s</td>
<td>Plan-Do-Check-Act Cycle (PDCA)</td>
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<td>performance are held accountable. Blaming is</td>
<td>Problems and mistakes are seen as</td>
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<td>common. Conflict is high.</td>
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<td>Information for improvement may be withheld.</td>
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<td>are held accountable. People work</td>
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<td>together for improvement.</td>
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<td>Information is fed back for on-going</td>
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<td>planning and continuous improvement.</td>
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Management by objectives is synonymous with management by control for predictability:

In this style of management, the emphasis is on the organizational chart, and the key control points within that structure. Each manager, beginning at the top, is given certain goals for the next year. They, in turn, set goals and impose controls on each of their subordinates. ... At the lower levels, these controls become quotas or work standards. (Joiner & Scholtes, 1985, p. 1)

The problem with management by control, work standards, and quotas is that people will work to the standard to please the boss rather than working to improve the organization by pleasing the customer (Deming, 1986; Hammer & Champy, 1993; Joiner & Scholtes, 1985; Juran, 1989, 1992). If the boss is the focal point, "workers, supervisors and managers get caught up in organizational pretense where looking good overshadows doing well" (Joiner & Scholtes, 1985, p. 1).

In order to meet standards or quotas workers may hide errors, supervisors may tend to report only the good news, managers may be tempted to tell senior executives only what the senior group wants to hear. Similar situations wherein the larger purpose of the enterprise gets displaced by managerial control occur in the manufacturing/business sector:
Many managers annually negotiate safe goals and manage to exceed them, just barely. Some managers include on their list of negotiable goals items that were already secretly accomplished prior to the negotiation. Problems are hidden from management, in hopes they will blow over and not be noticed. (Joiner & Scholtes, 1985, p. 3)

Whether manufacturing or service industries, management by objectives can become a major negative control on quality, productivity, and innovation. Management by control, by objectives, and by quotas breeds distrust and even dishonesty, and was and is no longer appropriate for an educated workforce or for the pace of change experienced as the 21st century approaches.

As a 20th century institution, the university is out of balance in its scholarly activities, invested heavily in the scientific management paradigm of Fredrick Taylor (Deming, 1986; Holt, 1993; Hummel, 1987; Juran, 1989, 1995) and the bureaucratic hierarchical structures of Max Weber’s technical and mechanistic organizations (Baldridge, Curtis, Ecker, & Riley, 1986; Bloland, 1995; Hoy & Miskel, 1987; Parkin, 1986).

While Tayloresque and Weberian management philosophies and methodologies were adequate over the last century, they no longer meet the challenges of newly emerging and continuously changing global economic and socio-political environments. What can the university offer
the 21st century? If there is an answer to this question, the next would be, “What needs to be done to prepare the university for its future?”

Drucker believes that traditional governance arrangements and academic structures within higher education are doomed (Lenzner & Johnson, 1997):

Thirty years from now the big university campuses will be relics. It’s as large a change as when we first got the printed book. ...Such totally uncontrollable expenditures, without any visible improvement in either the content or quality of education, means that the system is rapidly becoming untenable. Higher education is in deep crisis. ...Already we are beginning to deliver more lectures and classes off-campus via satellite or two-way video at a fraction of the cost. Today’s buildings are hopelessly unsuited and totally unneeded. (Drucker, as cited in Lenzner & Johnson, 1997, p. 127)

In truth, higher education is currently pressed by the same external forces and the same dysfunctional cultural systems as its confreres in other service industries. Deming (1986) sets the stage when he urges to “adopt the new philosophy” because “we are in a new economic age” (p. 23).

Juran (1995) notes the magnitude of the paradigm shift to the new quality management philosophy offered by QM when he states:

About a century ago there emerged a massive movement that came to be known as Scientific Management. Its major focus was on improving productivity, and its influence was felt throughout the twentieth century. We are similarly in the stages of a massive movement, this time in managing for quality. It
began in recent decades, but still has far to go before becoming widely effective among world economies. The likelihood is that it will require the entire twenty-first century to digest this change. As a result, the twenty-first century may well become known to historians as the Century of Quality. (Juran, 1995, p. xii)

**Quality as an Organizing Principle for Accountability**

Accountability is much broader than a mere demonstration of appropriate spending of the public purse. Goddard and Leask (1992) lend form to the professional, contractual, and moral aspects of accountability. Professional accountability arises from one’s responsibility to self and colleagues while contractual accountability is founded in the responsibilities associated with the employer-employee relationship (Goddard & Leask, 1992). Recall that moral accountability is concerned with an organization’s obligation to its clients (Goddard & Leask, 1992).

Used in a QM context, everyone in the university must feel a sense of accountability to the institution and to each other. This idea will seem foreign to the individual nature of academic work, especially to faculty who see themselves as “cosmopolitans” as opposed to “locals” (Birnbaum, 1988, pp. 19-20).

However, basic to the idea of professional and moral accountability is an understanding of the interdependencies that exist between faculty and
administration, between individual scholarship and teamwork, between and among academic faculties and units. Simply stated, without students there would be no faculty, and, without faculty, no institution. The interdependent nature of the university, its faculty, administrators, staff, and its student population has been made very clear by Bonvillian and Dennis (1995), "...it is the students [as customers] who are of primary concern, because their experiences will ultimately determine the value of what the school has to offer both them and society as a whole" (p. 41). All actors need each other and the activities of all are fundamental to the purposes of the university.

Cabal (1993) carries the notion of interdependence of the university inward from the world at large and outward to the global economy:

Universities do not exist for themselves. External forces have a tremendous impact in the life of universities. It is impossible, for example, to study the financial situations of universities in developing countries without analyzing the consequences they suffer from debt and structural adjustment policies. ...The educational system constitutes a whole: if a part of the system does not operate properly, the whole system breaks down. Higher education is responsible for training managers, experts, and researchers needed for sustainable and equitable development. (pp. xii-xv) Nevertheless, Cabal (1993) fails to transfer his notion of interdependence incisively into the university's patterns of belief and
structures when he disconnects administrative deontological authority from academic epistemological authority.

The ways of exercising authority vary because of the difference between authority based on knowledge, which is stable and can be increased by scientific mastery, and directive, administrative, or governing authority, which depends on the result of elections or appointments that invest authority for temporary, previously agreed-upon periods of time. (pp. 53-54)

A more pertinent and informed approach such as Senge’s (1990a) learning organization takes administrative functional authority to be based in organizational knowledge and continuous learning. Senge (1990a; 1990b) and others (Deming, 1986; Juran, 1989) note that administrative authority may arise through knowledge when it “is stable and can be increased by scientific mastery”, and when its formation is underpinned by action science as the basis for knowledge generation. Administrative and academic knowledge, as well as authority, can be shared simultaneously for the betterment of each faction and for the purpose of customer satisfaction.

The complex patterns of interdependency for the university, society, and the global village are never-ending. Neither do the complex patterns of interdependency end for the university’s stakeholders and actors. Batalden
(1992) refers to the “re-membering” of fragmented complex systems as “reclaiming the memory of the whole”.

That epistemological and deontological authority act concurrently suggests a paradoxical rather than a dualistic horizon. That is, function arises from idea as idea arises from function. This notion is sustained when the administrative function engages in an epistemology of practice that values internal and external customers, and by an academic faculty committed to moral duty and functional responsibility to the university’s learners in research and in teaching.

The conceptualization of idea and function as paradox seems essential to the wholeness or health of the university because it establishes a balance between administrative and faculty authority and a platform for mutual respect. For example, consider function to be designated as the yang force and idea to be designated as the yin. “Yin and yang are based on the principles of balance, and interdependence, and a perfect system is represented by both” (Secretan, 1996, p. 28). Duerk (1989) notes that:

A woman, grounded in the yin is faced with an eternal paradox. The nature of yin, receptive, is to yield. The nature of yang is to press forward, to dominate. Yet the two are forever intrinsically equal. And, like shadow and light, each needs the other to delineate and complete itself. (p. 23)
Take a critical migration to yang as science (research) and yin as art (teaching), or between the value placed on the sciences and on the humanities, and one begins to comprehend the magnitude of imbalance within the university’s cultural system. Science as yang is dominant and empirically rigid; the humanities as yin, receptive, imaginative, and soulful. The yang-personality seeks to overpower the yin-soul (Secretan, 1996; Whyte, 1994). Within most universities, science—and of late, technology—seeks to and has been successful in overpowering the arts. What is valued gets funded; what gets funded rises in stature.

The success of science within universities threatens Canada’s socially diverse culture. Discontinuity in teaching about various cultures and human values is already evidenced in the diminishment of higher education’s liberal core (Barnett, 1992a; Kaufmann, 1995). For the university’s culture, the outcome of suppressing its yin nature is prone to result in disharmony, destructive competition between and among disciplines, one-upmanship, political gamesmanship, and open conflict.

The university is distinguished by its corporate body; its prominence, size, and location. The mind of the university is witnessed in the value placed on cognitive activities in the pursuit of knowledge. The
“soul” (Secretan, 1996) or “psyche” (Kilmann, 1989) is found in the university’s culture. The university’s “soft factors [include its]...more emotional elements such as values and purposes. ...Inclusion of these soft factors is essential...” (Haynes & Stewart, 1992, p. 196). Is it possible to create a university of science and of spirit? These three elements, mind, body, and soul are not mutually exclusive.

If the university, with its science fetish, its restructuring and downsizing, cannot reclaim its soul, it may find itself within the current and advancing technological environment, a servant to applied technology as opposed to a master of higher learning. The university’s sense of humanity--in function and in idea--cannot be compromised for it is imperative that the business of the university and the university as business be in balance, each being driven by humanity in purpose; its mission and vision.

That we have a spirit, most of us feel sure. We are not incidental curiosities, mutations in the evolutionary process. It would be a waste of all our progress if we sacrificed that human spirit in the pursuit of some imagined efficiency. (Handy, 1995, p. 13)

To test the current situation one might ask, “How do decisions made within academic and administrative contexts impact the personhood of those whom each serves?”
Any good will between faculty work and administrative function can be, and has been, readily damaged by order that is either too excessive and/or clearly obstructive (Buchbinder & Newsome, 1988; Flexner, 1968) or by faculty who erect boundaries and debase the concerns of the institution. Tension remains a source of discontent between the academic faculty and the university’s administrative leadership. Consequently, the university of the 1990s can be described as academically and administratively divided and bounded, disciplinarily segmented, functionally compartmentalized, and organizationally fractionalized.

Riffel (1994) upholds the idea of fragmentation when he states that "universities in Canada face serious problems of money, morale and purpose, but their main predicament may be their limited capacity for addressing institution-wide issues...they are not well-equipped for constructive, institution-wide problem-solving" (p. 116).

Greenleaf (1991) is even more stinging in his thoughts on the university:

The contemporary university is the lineal descendant of the medieval one...What once was the goal of education, to provide continuity for a culture in which freedom and rationality would prevail, has given way to preparation for narrow professional careers. For many young people what should be a great creative experience is instead a literal incarceration of rigid, stereotyped academic programs for
which they have little aptitude and less interest. The result is enormous institutions that are an impossible meld of elitist tradition and mass education, and which cannot withstand the shattering value changes that forces are bringing to society. Colleges and universities...should be a major civilizing force, but instead they stand among their contemporary institutions as the most fragile, and the least certain of their goals as institutions. (p. 54)

How, then, does an institution build-in ownership and commitment, the necessary ingredients of accountability? The most salient way may be through “constancy of purpose” (Deming, 1986, p. 23), that is, of a clearly articulated mission and shared vision that, together, inform the actions of the enterprise and those within it (Deming, 1986; Juran, 1989; Senge, 1990a; Walton, 1986; Wheatley, 1992).

Shared mission and vision as used in this study does not mean group think. It means that vision is broad enough to encompass the visions of those within the organization. Senge (1992) believes that vision lives in all employees and that organizational leaders need only ask their people what the vision is in order to validate it in writing. Mission denotes what business the university is in: that is, for what purpose(s) does the university exist at all?

Daily rendering of vision and dedication to purpose can be accomplished through total quality leadership: a commitment to process
improvement; teamwork; a scientific approach to decisions; and an open, valued, and responsive culture. That is, a kind of leadership that interests itself in the idea of the university, its vision, shared values, organizational renewal, joy, and pride.

The dimensions of quality in fact and in perception are important pathways to cultural change. Study of the educational process, of interpersonal relationships, of ease of access to information, of attention to the physical surround, and to finding answers to the question, "What does excellence look like?" inform the other dimension of quality: vision (HCHP, 1989).

If accountability is to exist in three spheres--professional, contractual, and moral--it is imperative that quality improvement and innovation be recognized and rewarded, concealment of information by need to know and other assumptions be excavated and examined, people be informed about their work and about the corporation, and that all barriers to quality--personal (Pinchot & Pinchot, 1994; Scholtes, 1988), professional (Becher, 1989; Pinchot & Pinchot, 1994), and organizational (Deming, 1986; Juran, 1989; Kanter, 1983; Morgan, 1988; Morgan, 1993; Senge, 1990a; Wheatley, 1992)--be removed.
Part II: Deming’s (1982; 1986) 14 Points for CQI

The Research Framework

Before beginning the discussion on Deming’s (1986) 14 points individually, it is necessary to clarify the underlying composite theory supporting the 14 points. Deming (1986) introduces two statistical measurement concepts, enumerative and analytic assessment, as fundamental to his 14 points.

Enumerative studies are statistically empirical in nature and “lead to action taken on static populations: that is, a group of units that exist in a given time period and/or in a given location” (Gitlow, Gitlow, Oppenheim, & Oppenheim, 1989, p. 29). For example, data acquired through the study of only one university (the frame) provides no basis for inference to another university. Enumerative studies consider outcomes under static conditions and, although useful, are not as useful for systemic planning purposes.

Deming (1986) proposes that enumerative studies are insufficient for understanding complex systems or for managing and improving
quality: "No matter how strong be our belief, we must always bear in mind that empirical evidence is always incomplete" (pp. 132-133).

Mintzberg (1994a) concurs: "While certain repetitive patterns...may be predictable, the forecasting of discontinuities, such as technological innovation or price increase, is virtually impossible" (p. 110).

Analytic studies are "statistical investigations that lead to action on a dynamic process" (Gitlow, Gitlow, Oppenheim, & Oppenheim, 1989, p. 29) to improve future performance. The focus is on the complex system of causes and patterns that impact the frame under study. The aim of analytical studies is to improve existing processes to meet future demands with confidence (Gitlow, Gitlow, Oppenheim, & Oppenheim, 1989).

Analytic studies can break the cycle of repeated and repeatable patterns of nonconformance because these studies focus on designing or redesigning processes to improve both present and future outcomes. Analytic studies are those that measure processes and methods of work and form the basis for the concept of management by methods for results.

Enumerative and analytic studies envelop quantitative and qualitative assessments in the contexts of description and analysis through deductive and inductive thinking (Hammer & Champy, 1993, p. 84). As
well, the type of thinking required for process improvement includes both divergent and convergent thinking (Juran Institute 1989a; Merriam, 1988) which connotes a constant movement in thinking in step with the dynamic flow of process information and data. “Convergence is determining what fits together— which pieces of data converge on a single category or theme. Divergence is the task of fleshing out the categories once they have been developed” (Merriam, 1988, pp. 134-135).

Juran’s (1989) Quality Trilogy, quality planning, quality improvement, and quality control, and Deming’s 14 Points are “unifying concepts that extend company-wide” (Juran, 1992, p. 16). Each of Deming’s (1986) 14 Points and each operation in Juran’s (1989) Trilogy have “unique features, as does every product or process” (Juran, 1992, p. 16). Reengineering as a new management model also proposes a “conceptually new business model and an associated set of techniques that American executives and managers will have to use to reinvent their companies for competition in a new world” (Hammer & Champy, 1993, p. 1). However, reengineering falls gravely short of fully understanding complex systems.

The era for process focus and process measurement began in 1926 at the Bell Telephone Laboratories. Juran (1995) relates the story of how the Hawthorne Works of the Western Electric Company, the manufacturing arm of Bell Laboratories, was directed to apply statistical methods and tools (statistical process control) to control the quality of telephone products. In 1926, the tools for measurement consisted of three: the Shewhart control chart, the use of probability theory for scientific sampling, and a demerits plan for assessing quality outcomes (Juran, 1995).

Later, statistical process control (SPC) proved useful during the United States World War II mobilization and production efforts (Scholtes,
1988). However, the real worth of statistical process control was confirmed in its application to the economic reconstruction of post-war Japan. During the post-war American occupation of Japan, breakdowns in the Japanese telecommunication systems were causing frequent interruptions at the General Headquarters of the U.S. army. It was this telecommunication crisis that prompted General MacArthur to agree to recommend a training seminar that brought Bell Laboratory engineers, and later, Deming to Japan (Nonaka, 1995).

As the United States shifted its interest toward the practice of quality assurance and quality control, Japan was initiated into the philosophy and methods of quality improvement (Scholtes, 1988). In fact, the reason for Japan’s current position as a world leader is credited first to Deming and later to Juran (Nonaka, 1995).

The customary mode of U.S. management operated under a distinct set of assumptions. Management saw itself as responsible for the enterprise’s economic ends, and to those ends managers adopted a unique way of thinking about people. Customary wisdom led US managers to the conclusion that people, passive and resistant to organizational needs, required on-going active managerial intervention. Such interventions
included an array of activities--persuasion, reward, punishment, control, direction, even behavior modification techniques--any or all of which managers believed would accomplish organizational needs through people (Luthans & Thompson, 1981).

US managers conventional thinking and the resulting dehumanization were not and are not part of Deming's (1986) assumptions about people. In fact, it was his discordant beliefs that were fundamental to Japan's recovery. Deming's respect for and confidence in Japan's leaders and workers provided the impetus for unprecedented transformation (Mann, 1987, as cited in Scholtes, 1988). According to Mann, (1987 as cited in Scholtes, 1988), Deming recalled his first meeting with Japanese industrialists:

They thought they could not [compete] because they had such a terrible reputation when it came to quality...I told them, “Those days are over. You can produce quality. You have a method for doing it. You’ve learned what quality is. You must carry out consumer research, look toward the future, and produce goods that will have a market for years from now and stay in business...” (pp. 1-3)

Juran arrived in Japan in 1954 at the invitation of the Union of Japanese Scientists and Engineers (JUSE). Statistical quality control (SQC) was already well known to the Japanese due to Deming's work
since the late 1940s and early 1950s. In fact, Japan had already
established a prize in Deming’s honour: “the Deming Prize for individual
contributions in the areas of education and service to the field of quality
control; and the Deming Application Prize, for outstanding implementation
and application of statistical quality control by companies/factories”
was the first in the world to identify outstanding company-wide quality
improvement.

Juran’s (1995) mission differed from the basics of SPC and SQC.
He had arrived to hold 10-day seminars to lecture to company executives
about total quality management as an overarching concept for quality
planning, quality improvement, and quality control (Nonaka, 1995). Juran
comments about the response from Japanese executives: “I had never
before encountered so high a degree of participation on the part of upper
management. ...Never before my 1954 trip...and never since, has the
industrial leadership of a major power given me so much attention”

In 1998, the resonating theme from Deming (1986) and Juran
(1989) is organization-wide change that reshapes and transforms
traditional management beliefs and practices into required competencies for a constantly changing local market and global economy. The basic purpose for QM is organization sustainability through competitive positioning. Implicit in QM theory and practice is not only the capability to survive, but also to thrive.

**Kaizen**

Deming (1986) and Juran (1989), as evolutionists, propose customer satisfaction as basic to process improvement and adhere to both Kaizen and radical renovation of existing macroprocesses and subprocesses. Essentially, Deming (1986) and Juran (1989) see change and growth in two ways: by finding a different way (innovation) and by finding a better way (Kaizen). Kaizen suggests “continuous improvement in personal life, home life, social life, and work life, involving everyone” (Secretan, 1996, p. 49).

In addition, Deming (1986) and Juran (1989) approach change in ways that are complementary to theories of chaos and complexity (Banner, 1993; Wheatley, 1992). Many complexity theorists (Capra, 1983; Kelly, 1994; Smith, 1993; Wheatley, 1992; Zimmerman, 1993a) argue that recent
global turbulence is not so recent, just better understood through modern scientific advancements in the fields of quantum physics: quantum jumps (Wheatley, 1992); biology’s punctuated equilibrium (Smith, 1993); and in chemistry, Prigogine’s dissipative structures (Wheatley, 1992).

The world view emerging from modern physics can be characterized by the words organic, holistic, [holographic (Kilman, 1989)], and ecological. It might also be called a systems view. ... The universe is no longer seen as a machine, made up of a multiple of objects, but has to be pictured as one indivisible whole whose parts are essentially interrelated and can be understood only as patterns of a cosmic process. (Capra, 1983, p. 78)

Inherent in the Kaizen approach is an implication for chaos theory’s butterfly effect wherein “effects are disproportional to causes” (Kelly, 1994, p. 391)

In complex systems [such as universities] a small alteration in the initial conditions can amplify into wide-ranging effects throughout the rest of the system. The principle is usually illustrated by the fantasy of the flap of a butterfly’s wings in Beijing triggering a hurricane in Florida. (Kelly, 1994, p. 140)

QM identifies a tension for change then reveals, through education, teamwork, SPC, employee participation and empowerment, alternative ways that allow the system to evolve naturally, nested within the larger reality of the outside world. In natural systems, “participants share a
common interest in the survival of the system” (Haynes & Stewart, 1992).

Whether change occurs slowly, in small alterations in repeating patterns, or in patterns of chaos as in sudden, dramatic change found in quantum jumps and punctuated equilibrium, natural systems have the capacity to adapt, and to evolve. Moreover human systems have the additional capability to learn.

Deming’s (1986) notions of pride in workmanship, delighting the customer, and joy in work speak to the inner collective self, the culture of an organization as it moves toward renewal. The external environment represents the real conditions in which the organizations must survive and is indivisibly linked to the organization and its capacity for change (Zimmerman, 1993a). The outer environment continuously asks the inner organizational network of people to reflect and act together, to renew the inner organization, in concert with external conditions.

Deming’s (1986) idea of never-ending improvement--the journey, not the destination--amplifies evolution. The purpose is to mindfully watch process performance as the inner linkages of harmony and disharmony--the internal-external, self-other communication network. Process improvement allows the system time to learn and realign itself with new
information.

Throw a stone into a river and watch the ripples that ascend and move away from the point of impact, wave after wave, until the water calms: disequilibrium to equilibrium. Note too that the stone permanently transforms the conditions at the bottom of the pond until some other change is introduced. The initiation and implementation of small incremental improvements simultaneously in many areas of an organization keep it slightly off-balance, in a state of non-equilibrium, as to encourage continuous change without overwhelming the system. The resiliency of the system allows continuous dynamic movement from one state to another, shifting and changing. System-wide resiliency is found in the university’s people, in its culture.

Zimmerman (1993a) expands on the notion of system resiliency from a complexity theory viewpoint:

One of the key axioms of chaos theory is process-based stability. Chaos theory describes an order without periodicity. Stability arises from the processes which keep the parts connected, rather than from structural arrangements which impose shape. Nonequilibrium is seen as a source of order...Prigogine argues that in equilibrium molecules act as independent entities. There is no ‘inter-molecular’ communication. He refers to the molecules in this state as ‘sleepwalkers’ because they ignore the molecules around them. However, in nonequilibrium states the molecules ‘wake up’ and begin to communicate with the molecules
around them. Patterns of order are established which allow molecules to be seen to act in synchronous ways. The stability of the system in this state is due to communication or information transfer between molecules which creates and sustains new patterns of behaviour. In essence, equilibrium's stability relates to structural components, whereas in nonequilibrium stability is a function of communication or process components. This is the key—the stability of chaos is an order of different logical type than the stability of classical equilibrium theory. (Zimmerman, 1993a, p. 377)

Wheatly (1992) argues against rushing in to fix natural chaos but to allow chaos to find its way back to order. This is akin to Deming's (1986) caution concerning process tampering, the over modification of a stable process, or an adjustment of an unstable process.

Chaos as arising from order, and order from chaos as a phenomena of natural systems is also explained by Smith (1993), a biologist. Smith (1993) states that the "first defining issue of punctuated equilibria is alliopathic speciation—the rise of or differentiation of new species in relative isolation on the periphery of the parent species" (p. 142).

Unanticipated change may erupt suddenly at the fringe of an organization. "One of their distinguishing features [of self-organizing or self-renewing systems] is system resiliency rather than stability" (Wheatly 1992, p. 88).

The change management theory and practice offered through QM, valuing the dynamic whole, can, by small incremental improvements or
Kaizen, shift systems in either direction, creating movement back and forth between the two dynamic conditions, equilibrium and disequilibrium, while allowing the system to continuously reorganize itself.

Quality improvement teamwork committed to finding a better way often ends with finding a different way. However, it is the teamwork process of finding a better way (dedication to continuous improvement) that "propels organizations to excellence and builds the self-esteem of individuals and teams" (Secretan, 1996, p. 50). Kaizen teams serve as a pathway to breakthroughs not only in organization, but also in attitude, knowledge, culture, and results.

On the other hand, forced revolutionary change can create unnatural chaos, generating breakthroughs in organization while playing havoc with attitudes, knowledge, culture, and long-standing results. "People get hurt when there is extreme pressure to perform in the short term at the expense of the long term" (Secretan, 1996, p. 8).

Human beings are the sources of energy (renewable energy) in organizational systems. When retrenchment translates into downsizing or into restructuring to the point of "corporate anorexia" (Secretan, 1996, 13), energy levels drop dangerously low; levels perhaps too low to
respond to the staggering amount of continuous change information. “We have created an anorexic organization, which, like the anorexic person, is firm and solid on the outside but lacks balance and control on the inside” (Secretan, 1996, p. 13).

The notion of reunifying the whole of the organizational system through process planning, process control, and process improvement is articulated in Deming’s (1986) first principle. In this first point, Deming (1986) introduces the idea of quality as flowing from purpose. The remainder of his 14 points provide the direction for sustaining constancy of purpose: that is, for implementing and sustaining mission, vision, values, and guiding principles, all for the ultimate organizational purpose, customer satisfaction.

Deming’s 14 Points

Point 1

“Create constancy of purpose for improvement of product and service” (Deming, 1986, p. 24).

Continuous improvement in the quality of product and service takes a radical shift away from traditional management. Deming’s (1986) first
principle advocates a refocusing of efforts from profit to the provision of jobs through “innovation, research, constant improvement, and maintenance” (Walton, 1991). In this sense, financial gains come directly through quality improvement linked with quality control and quality planning. Juran (1992) concurs, noting the loss of America’s reputation as a world-wide quality leader due to “new, aggressive competition” (p. 1).

Loss of public image or reputation means loss of market share with grave consequences. For example, the public’s loss of confidence in a Provincial or Canadian-wide higher education system means a downturn in higher education’s economic base, excessive costs due to chronic wastes built into Canada’s higher educational practices, and consequently, loss of jobs for faculty, general staff, and administrators. Managing for quality rather than for profit may mean the difference between barely surviving and thriving with confidence.

For instance, Donald Schurman (1991), at the time, President and CEO of the University of Alberta Hospitals, stated that before quality management, 95% of the time he and the hospital board fussed over the bottom line, the other 5% involved questions about service quality. Since adopting QM, Schurman and the board spend 95% of their time fussing
over service quality and only 5% on the bottom line. Schurman and the hospital board noted that when quality is continuously improved, finances follow suit. When attention and efforts are directed to quality and its improvement, including quality of worklife (joy and pride in work), financial concerns no longer demand the same degree of attention.

To further underscore the importance of constancy of purpose, Deming (1986) has selected as the second of his Seven Deadly Diseases “emphasis on short term profits” (p. 97; e.g., quarterly profits at the expense of quality and productivity). Turning a blind eye to other indicators except short-term profit is viewed by Deming (1986) as a symptom of the first of his Seven Deadly Diseases, “lack of constancy of purpose” (p. 97).

A company that lacks constancy of purpose has no hope for staying in business in the long-term. Thus, the company as well as its managers and workers remain insecure (Deming, 1986). Is the university in the business of short-term profit and short-term stability, or of the long-range generation of new knowledge through the processes of teaching and learning?
Batalden (1992), the Hospital Corporation of America’s (HCA) “quality czar” (Walton, 1991, p. 88) conveys the power of clarity in purpose stated in mission and vision through the question “What do we make?” as opposed to “What do we do?” He suggests that there is an inherent danger in asking about what we do—the tendency is to go on and on naming a myriad of tasks without addressing the real question regarding service product. What is the university’s service product; what does the university make?

First, the question, “What do we make?” is powerful because it demands that service be described in tangible ways. Ultimately, it forces corporate leaders, planners, administrators, and faculty to clarify the requirements for the organization’s very existence, to answer the question “What business are we in?” That is, “For what need does the university exist to fulfill?”

Second, Batalden (1992) questions, “Why do we make what we make?” This question forms the basis for the values that are held by the institution and its constituents about why knowledge as the product of teaching and learning is important, and, even whether or not the making of knowledge remains important to those who purchase knowledge.
Batalden’s (1992) third and fourth questions “How do we make what we make?”, and “How do we improve what we make?” move directly into Juran’s Trilogy and Deming’s 14 Points beginning with constancy of purpose which assumes mission and vision as intrinsic to purpose.

Constancy of purpose is the first of Deming’s 14 Points and the first of his Seven Deadly Diseases (lack of constancy of purpose) because it is central to all else. It demands two fundamental ideals: (a) the role of leadership as essential to the quality of products and services; and (b) the clear expectation that design of processes that produce quality in products and services not only meet, but also exceed, even “delight,” the needs and expectations of internal and external customers--those who use the university’s constituents’ information, materials, knowledge, and so forth.

Leadership, commitment to constancy of purpose, sends a strong signal to the entire organization that there is a single overarching purpose (mission and vision) to guide daily action and interaction over the long term. Purpose as the embodiment of mission and vision is a force that both inspires and mobilizes. Deming’s following 13 Points manifest the way to sustain constancy of purpose.
According to Deming (1986):

There are two problems: (I) problems of today; (II) problems of tomorrow... Problems of today encompass maintenance of quality of product put out today, regulation of output so as not to exceed immediate sales by too far, budget, employment, profit, sales, service, public relations, forecasting, and so forth... Problems of the future command first and foremost constancy of purpose and dedication to improvement of competitive position to keep the company alive to provide jobs for their employees. (Deming, 1986, p. 25)

Figure 2 demonstrates Deming’s (1986) rationale for the improvement of economic and competitive position, and for the creation of jobs through QM.

Point 2

“Adopt the new philosophy. We are in a new economic age”

Deming, 1986, p. 26). It has been 15 years since Deming (1982) identified the new economic age. Today, anyone would be hard pressed to argue that the economic structures both locally and globally have not changed dramatically. The world’s financial markets aptly demonstrate the notion of interdependence. Recent radical events occurring in the Japanese and Indonesian economies seem far removed from Canada, yet, have had a dramatic affect on Canada’s economic position, especially in the devaluation of Canada’s dollar, the Loonie.
Figure 2. Deming’s Business Cycle Adapted from Deming (1986, p. 3).
Juran’s (1995) notion of a quality revolution reflects what Deming (1986) refers to as “a new economic age” (p. 26). The new economic age is two-fold; on the one hand, the reality of the new economic age is characterized by harsh economic retrenchment, and on the other hand, unprecedented and continuous change. The demand for restructuring global economies has impacted private and public, manufacturing and service sector enterprises throughout the world. Companies large and small, public and private have been simultaneously animated by a tension for change and innovation, while constrained by the realities of restructuring, downsizing, and institutional stress.

A new economic age demands a new style of management which not only recognizes the reasons behind failure to prosper, but also understands the fundamental changes in managerial philosophies: from producer to partner, from management by objectives to management by processes, from internal competition to cooperation and collaboration, from the assumption that the top thinks and the locals act to valuing employees as knowledge workers, from disconnected functional areas to interdependencies and interrelationships, from separateness to wholeness,
from seclusion to systemic thinking, from individualism to teamwork, and from self-centeredness to other-centeredness.

All of these new beliefs are counter to the old beliefs in Western style management. The challenge to transform out-dated management beliefs and practices is enormous and hard-won. In addition to his Seven Deadly Diseases, Deming (1982; 1986) identifies a number of other obstacles to quality improvement. A brief discussion of only a few of Deming's (1982; 1986) obstacles to quality improvement follows:

1. Hope for instant pudding (Deming, 1982, p. 65) or for a “quick fix” (Kilmann, 1989, p. xii): Expectations for a quick fix or that a few consultations will put an organization on the path to quality is a fallacy. Substantive change requires effort and allows time for learning and adaptation. Concern for the total organization requires top-level commitment, involvement, support, and empathy. In truth:

A president's supposition that [s]he can resign from his[her] obligation to lead improvement of quality is a glaring fallacy. And who would accept such a mandate from the head of an organization? Only someone [who] is a complete novice on quality and improvement of quality. (Deming, 1986, p. 127)
2. “Search for examples” (Deming, 1982, p. 64): “Improvement of quality is a method...it does not consist of procedures on file ready for specific application to this or that kind of product [or service]” (Deming, 1982, p. 64). The bones of continuous quality improvement and total quality management provide a structure or framework for improvement, but the flesh is particular to each organization’s culture and cultural system, chronic and acute problems, structural arrangements, conditions and circumstances. As Deming (1986) asserts, “No number of examples of success or failure [will]...indicate to the inquirer what success his company would have” (p. 128).

Deming (1986) generates organizational transformation with his 14 Points, Seven Deadly Diseases and Obstacles. Juran (1989; 1992) uses his Trilogy. Hammer and Champy (1993; Hammer & Stanton, 1995) propose reengineering for radical change, but none of these theorists offer a tailor-made solution for any company or institution. However, one might argue that adherence to Juran’s (1989) Trilogy and/or Deming’s (1986) 14 Points has the advantage of compelling the organizational leadership as well as others to inquire into long-standing assumptions about purpose and about how that purpose is articulated into daily practice.
In this regard, both Deming (1986) and Juran (1989) allude to Senge’s (1990a; 1990b) notion of a “learning organization” and to Senge, Kleiner, Roberts, Ross, & Smith (1994) concept of what it means for organizations to be learning: “Learning in organizations means the continuous testing of experience, and the transformation of that experience into knowledge--accessible to the whole organization, and relevant to its core purpose” (p. 9).

The deliberate, preventative, and all-inclusive approaches of Juran (1989) and Deming (1986) also promote Schon’s (1983) ideal of reflection in and on practice. Reflection in and on practice activates Boyer’s (1990) processes of discovery, integration, application, and teaching--teaching through collaboration and cooperation, and good will within win-win relationships. Learning based in reflection in and on practice is generative; it creates new knowledge. Moreover, in reflective practice, learning in its most ideal sense--transformation and transcendence of the self and the organization--is possible.

Deming’s (1986) Plan-Do-Check (study)-Act (PDCA) Cycle (Deming attributes the PDCA cycle to Walter Shewhart, p. 88), and Juran’s (1989) Four Steps in Problem Solving models promote reflection
in and on practice. Juran (1989) sees breakthroughs at each stage of the quality improvement cycle and discusses each breakthrough as an outcome of specific activities in his Four Phases of Problem-solving; Deming (1986) uses the Shewhart Plan-Do-Check (study)-Act (PDCA) cycle as the processes for quality improvement. As previously noted, breakthroughs occur in attitude and organization, knowledge, cultural patterns, and results. Figure 3 illustrates the cyclical nature of each cycle.

3. The belief that “our problems are different” (Deming, 1986, p. 130) that serves as an avoidance mechanism to postpone dealing with quality issues. Problems differ because purposes differ. The university’s purpose differs from that of health care, of Bell Canada, of General Motors, and so on. Problems generally arise when deficiencies occur that inhibit process performance, hence disallowing goal achievement and ultimately impeding fulfillment of purpose. Many differing types of organizations can learn from each other. Knowledge is migratory.

Seymour (1993) and others (Holt, 1993; Sherr & Lozier, 1991; Sims & Sims, 1995; Stampen, 1984) have noted the applicability of quality management to higher education in the U.S., while Canada has
1. *Deming (1986) PDCA cycle

Act 4

Check 3 (study)

2. Juran’s Four Phases in Problem-solving

1. Plan

2. Do

3. Holding the gains (results)

4. Project definition and organization (organization and attitude)

Remedial Journey (culture)

Diagnostic Journey (knowledge)

* Deming (1986) credits Walter Shewart as the originator of the PDCA cycle (p. 88). Breakthroughs are noted in italics in Juran’s Four phases of Problem-solving.

**Figure 3.** Deming’s (1986) and Juran’s (1989) Cycles for Quality Improvement.
been slower to respond to the quality movement, at least in publications, if not in fact.

Conversely, Kohn (1993) argues that a “marketplace model, even correctly applied does not belong in the classroom” (p. 58). Others (Rollin, 1989) share his belief that a business model, its metaphors, and its methods cannot be translated into the classroom.

However, Holt (1993) and Bonstingl (1993) disagree with Kohn (1993) arguing that education in its structure, division of labor and function, and outcome-based mentality has already adopted the business model of Fredrick Taylor. Holt (1993) suggests that Taylor’s theories subjugate educational questions to business considerations, and therefore, set a precedent for adoption of business practices in educational institutions including higher education. In particular, Holt (1993) points to the setting of performance outcome standards in the absence of knowledge about process capability as typical of a Tayloresque management strategy, and one that delineates current use of performance indicators in higher education. “School boards quickly picked up ideas from Taylor’s 1885 book, Shop Management, which recommended using product specification to define standards of output performance” (p. 382).
Bonstingl (1993) further argues that the Tayloresque mode of authoritarian schooling “like the environment of factories into which most of the students [of the industrial age] were headed, was rooted in fear” (p. 66). The pitfall with a belief in hierarchical authoritarian organizations and the problem with outcome specifications as an indication of quality has already been discussed. But, Deming’s (1986) argument is most compelling:

A common disease that afflicts management and government administration the world over is the impression that “Our problems are different.” They are different, to be sure, but the principles that will help to improve quality of product and of service are universal in nature. (Deming, 1986, p. 130)

For any institution of higher education to believe itself so unique as to close itself off from learning afforded from business models being implemented by other service and manufacturing sectors runs counter to higher education’s value of knowledge advancement. It is as if the university community is saying that it is all right for us to promote the skills and competencies for inquiry in our student and faculty populations, but we, as organizational stewards, are not obliged to develop those same skills and competencies within ourselves. Such reasoning also negates the notion of knowledge migration.
4. "The quality control department takes care of all our problems of quality" (Deming, 1986, p. 133).

Some universities may have created quality control or even quality improvement departments in order to pool the talents of internal consultants. Another approach could be to establish a quality steering committee or quality council. These arrangements serve as resource bases for the university at large. Believing that such arrangements represent the sole responsibility for the quality of the institution is, to Deming (1986), simply an excuse for administrators to avoid taking responsibility. If quality is left to the quality department or some other mandated group, the risk is that quality improvement will be taken away from those who are in a position to improve quality—for example faculty, administrators, purchasing departments, and front-line support staff (Deming, 1986; Walton, 1991).


Before understanding the fallacy of zero defects it is important to understand the notion of managing and measuring processes. A process can be defined as:

A set of causes and conditions that repeatedly come
together to transform inputs into outcomes. The inputs may include people, methods, materials, equipment, environment, and information. There can be several stages to a process, or each stage could be viewed as a process. The outcome is a product or service. (Moen & Nolan, 1987, p. 64).

Processes are also, "the flow of work activities...the most critical dimension of quality. The process includes the determination of who the real customer is and whom to involve in the design" (Sherr & Lozier, 1991, p. 4).

A deficiency or error is anything in structure, process, or outcome that is found to be contrary to quality requirements. Deficiencies may include rework due to mistakes, duplication, wasted time, energy, materials, or the results of assumption-driven rather than data-driven decision making. The more complex the process, the higher the probability for deficiencies and unsatisfactory outcomes in product/service.

Process complexity leads to what industrial quality experts call "cost of poor quality." This is the cost of efforts to prevent, detect, or react to quality problems and failures in processes. It is estimated that as much as 20% to 49% of every revenue dollar in industry goes to cost of poor quality. Fortunately, through a focus on quality improvement, half to three-quarters of this cost is recoverable. (HCHP, 1989, p. III-3)
Both the initial deficiency and the correction of the deficiency are financial drains on the institution. When action is taken to understand and change the processes that produce deficiencies the activity is called quality improvement. If industrial estimates of the costs of poor quality hold true for higher education then streamlining and simplification of process complexity may prove very rewarding administrative and academic activities.

Deficient- or error-free work involves the simplification of process to reduce the potential for error. The notion of error-free work is different from "zero defects" (Crosby, 1979, p. 209). The notion of zero defects was a fad in the early conceptualization of quality. Deming, (1986) explains that zero defects is a concept that infers "everything within specification is all right and all wrong outside" (p. 141).

Another faddish belief about quality is the notion, often found in work place slogans, of doing things right the first time. Doing things right the first time is simply a means by which to prod ever higher levels of performance from employees and resonates with the idea of zero defects. However, doing things right the first time negates the learning curve, frustrates individuals, and stifles innovation by establishing a climate
wherein mistakes are not tolerated. Therefore, neither of these notions placed into practice are worthwhile activities to assure or to improve quality outcomes.

"Specifications indicate the limit of acceptance or rejection of a product [or service] at inspection" (Moen & Nolan, 1987, p. 62). Just inside specification may satisfy a customer but not necessarily delight him/her. A satisfied customer may or may not return, and, according to Deming (1986), "profit in business comes from return customers, customers who boast about your product and service and that bring friends with them" (p. 141). The idea of students boasting about the excellent education received at their Alma Mater will prove an important image consideration as each university competes to attract an increasing student population as the basis for future university revenues.

If being within product/service specification is the accepted norm, the advantage of a narrow distribution of dimensions may be lost. The distribution will slide "back and forth inside the specification limits, achieving zero defects and at the same time drive losses and costs to the maximum" (Deming, p. 142). Taguchi's (cited in Deming, 1986; Moen &
Nolan, 1987) concept of loss function is an idea that differs from notions about established specifications. Essentially:

Taguchi defines loss to the customer through a quadratic function that relates financial loss to the customer with distance from the target of the quality characteristic. As the measurement of the characteristic moves away from the target, the loss increases (regardless of where the specs are). The traditional zero defects nature of being within specs would imply a loss function that is zero while inside the limits, and constant while outside the limits. (Moen & Nolan, 1987, p. 63)

For example, preventing negative educational experiences before they are detected by students and other learners will assist in retaining a narrow distribution of highly satisfied higher education consumers. Knowing the student customer group and being willing to improve their educational experience can result in two very desirable outcomes. First, learners will be more willing to stay within one university at a time when higher education is moving toward seamless and portable interuniversity and college-university access.

Second, those highly satisfied learners would more likely recommend the university to family members and friends. This is no small issue especially in the context of rising student tuition fees and the expectation of value-added education. In Deming’s (1986) view, building quality into systems and processes minimizes variance from the target and produces more satisfactory and more
predictable outcomes. "The cost of poor quality may be infinite when it causes customers to look elsewhere for products [and services] that better meet their needs" (Gunter, 1987, p. 45).

Point 3

"Cease dependence on mass inspection" (Deming, 1986, p. 28).

It would be incorrect to assume that inspection is never necessary or productive, however, higher education is called upon, in the course of improvement, to question the traditional bureaucratic tendency to inspect everything.

Consider, for example, the expense voucher submitted by a professor following his/her attendance at a conference. The professor completes the voucher with required receipts, totals his/her expenses and submits them to the chairman of the department, who inspects the expense sheet, initials it, and sends it to the Dean. The Dean in turn inspects the voucher, just in case something was missed in the past two inspections, and initials it. The voucher is forwarded to finance where it is inspected by accounting where upon it is forwarded to the person with signing authority who initials it, and who eventually gives direction to issue payment to the professor.
In the above scenario, there were five inspection points or 500% inspection as the voucher and receipts flowed through the reimbursement process. Why? Who owns the job of completing the voucher, and issuing the expense cheque? What is the cycle time between the completion of the voucher and reimbursement? “Mass inspection is essentially checking goods and services with no consideration of how to make them better, improve the process, or achieve high quality” (Gitlow & Gitlow, 1987, p. 45).

People involved in throughput of the expense voucher process attend to cause and effect at each inspection point (are the expenses legitimate, are the receipts present and in order, is the addition correct?). Each inspector concerns him/herself with doing the inspection correctly. However, the repetitive mass inspection itself may be the more serious concern or “root cause” (Berwick et al., 1990; HCHP, 1990; Juran, 1989) of poor quality. Unquestioned, mass inspection imposes bottlenecks within process, holding people back from more important work; and, what does all this inspection have to say about trust in the university?

Inefficient processes create non-value-added work and cost money even though, in the overall budget, an expense cheque may be considered a very minor item. Consider all such processes initiated by any number of faculty in a large
university such as the University of Toronto. One can readily see how the same mass inspection continuing daily, without questioning the validity of the process itself, can influence both customer satisfaction and cost. Quality cannot be inspected in; it must be built into every process (Deming, 1986; Walton, 1991).

The university faces larger issues of inspection that are far more serious than the cycle time between the completion of an expense voucher and reimbursement. The expectation of learner inspection under a “credit-by-examination process” (Seymour, 1995, p. 21) touches the very heart of scholarship. Credit-by-examination represents a 100% inspection system where standards and objectives are the only consideration for student learning. Summative assessment is goal-oriented while iterative assessment is process-oriented. In short, the system that produces the learning reproaches the student who seeks its services when that individual is not solely to blame. “...The individual can seldom control the system within which he/she must work.” (Scholtes & Hacquebord, 1988, p. 23).

Larger classes drive examination type and computers tempt faculty to multiple choice, true or false, easy to grade exams in areas such as psychology. How can students demonstrate an ability to synthesize, integrate, and express knowledge in such exams? Where is the professor’s attentions directed? What is
the process for curriculum design, teaching methods, and evaluation? What do examinations really tell faculty about the capabilities of a student? Are there other more effective ways of knowing the worth of a curriculum, of teaching processes, of learning processes? Performance objectives can produce only shallow accomplishments, not system improvements (Scholtes & Hacquebord, 1988).

Perhaps by placing examinations as the major tool for learner evaluation, faculty are looking at the superficial rather than the root causes of successes or failures in student scholarship. These questions are directly linked to the scholarship of each professor and the university’s system of reward and recognition.

Even though credit-by-examination is an integral part of the academic delivery system, how many professors are intimately involved in its design and redesigning the credit-by-examination system process or having an article accepted by a prestigious journal? Again, the culture and reward system suggest to any sane professor that his or her primary customers are other professors, not students... . (Seymour, 1995, p. 21)

Seymour (1995) suggests other examples of unnecessary complexity in university processes including, admissions and records, educational services, and liberal studies; each acting within an interdepartmental environment, in partnership positions, customers and suppliers of each other.
Unnecessary process complexity not only frustrates internal customers, it also spills over into external customer satisfaction. In the context of the admissions and records process, let me provide one example. In my first year as a graduate student, it took 11 days for my records to move three blocks up the street from one office in the university to another. Because of the delay and reported loss of documents in the system, I was required to make two 4-hour round trips from St. Catharines to Toronto.

The university’s internal problems of institutional inefficiency and ineffectiveness were highly visible to me. Who cared whether or not a problem had been created for me? Where was the staff’s attention directed? “Every time there is a hand-off, one office is benefiting from the other office’s work” (Seymour, 1995, p. 21). It is in the hand-off that most problems occur; records and other forms of information are misplaced or lost.

A further example of a mass inspection process is course evaluation by students. However, this data is essentially a customer satisfaction survey and therefore, compels faculty and administrative attention. Are student evaluations used or are they filed and eventually thrown out? If neglected, a wealth of improvement knowledge is lost.
Some faculty may disregard student evaluations assuming that student criticism is based on the personality of the professor as opposed to the professional aspects of the course--content and teaching method. The moment a teacher presents him/herself to a room full of learners, he/she is vulnerable. Vulnerability can instill fear of criticism, yet without student input, how can a professor improve; that is, learn, grow, and change? Working in partnership, an environment can be established and sustained wherein learner and teacher can embark conjointly on a learning journey. The process becomes more salient than the journey’s end; teacher as learner and learner as teacher.

It is important to scrutinize everything that students voice because that voice, tentative as it may be, is struggling to find its own courage. Whole persons create both space and place for the voice of others; labels silence it. “Ambition is not rejected but placed in the greater perspective of the soul, which again and again seems to choose a fuller experience of the here and now over a trajectory through the corporate heavens” (Whyte, 1994, p. 130). Many colleges and universities are working diligently, asking difficult questions and improving quality from the customer’s perspective (Roberts, 1995; Sims & Sims, 1995), but others are not yet ready for transformative change.
Point 4

“End the practice of awarding business on price-tag alone” (Deming, 1986, p. 31).

Price has no meaning without a measure of the quality being purchased. Without an adequate measure of quality, business drifts to the lowest bidder, low quality and high cost being the inevitable result...He [who] has a rule to give his business to the lowest bidder deserves to get hooked. (Deming, as cited in Gitlow & Gitlow, 1987, p. 52)

The policy for giving projects to the lowest bidder is set via policy from upper management, often resulting in multiple sources to attain the lowest cost. However, the policy of lowest bidder is short-sighted. The buyer’s job has been to continually survey the purchasing market for vendors that offer the lowest price. Other vendors are required to meet or better that price. “The policy of forever trying to drive down the price of anything purchased, with no regard for quality and service, can drive good vendors and good service out of business” (Deming, 1986, p. 32). Therefore, the quality of incoming purchased goods and services will eventually play a significant role in the institution’s overall costs of poor quality. Garbage purchased (inputs); garbage processed; garbage delivered.

The cost of poor quality translates into operating costs in every area that a purchase impacts, and can be demonstrated through a chain reaction. For example, many can identify with a physical work environment designed by an
architect in the absence of input from those who will have to work within the newly designed space. Eventually, the cost of reworking the area to meet work-related needs, comfort, safety, and productivity will be an added expense.

Consider the problem created for learners if the chairs that are purchased for student classrooms prove to be uncomfortable in that the height of chairs turn out to be inappropriate for the height of the table, or so ergonomically poor in design that students are uncomfortable.

During a final graduate-level examination, I and other students were forced to retrieve cushions from lounge areas in order to get ourselves to a proper height to write our comprehensives. Some cushions were piled three-high, classroom chairs were turned upside-down as foot rests, and those adult students with back or joint problems were hard-pressed to completely attend to the task at hand: two 3 hour comprehensive examinations. Learning can be directly affected by a purchase made far removed from the users of the product.

Deming (1986) offers a similar example of the folly of awarding business on price alone:

Materials and components may all be excellent, each by itself, yet not work together in production or in the finished product. It is thus necessary to follow a sample of materials through the whole production process into complex assemblies, and onward, finally, to the customer. There was nothing wrong with the glass in a large building in Boston, nor with the steel. Both met the specifications. Yet somehow they did not work well together in service. Glass
windows fell from the steel frames to the ground below. (p. 34)

If the price is low, but the design inappropriate, the workmanship shoddy, the final purchase cost becomes very high. “The price tag is still easy to read, but an understanding of quality requires education” (Deming, 1986, p. 33).

In order to guarantee quality at a reasonable price, Deming (1986) and Juran (1989) both support the notion of developing single-supplier partnerships “within a long-term relationship of loyalty and trust” (Deming, 1986, p. 43). The criteria for survival of a single-supplier partnership includes: participation in teamwork, mutual site visits, shared information, and joint planning (Juran, 1989). The rewards for partnering as claimed by Juran (1989) include: “higher market-share, longer contracts, and a more predictable basis for business planning” (p. 237).

Point 5

“Improve constantly and forever the system of production and service” (Deming, 1986, p. 48).

The system of production and service is manifested in the collective macro and microprocesses within an organization that have been established over time.
As discussed earlier, a process is “a set of causes and conditions that repeatedly come together to transform inputs into outcomes.”

What has not been discussed are the characteristics of processes and their measurement. To begin this discussion it is essential to understand statistical process control (SPC) and the concept of process variation (Deming, 1986; Juran, 1989) both of which are built upon the earlier discussion of enumerative and analytic studies. Variation is a central concept in QM theory and application.

Statistical process control (SPC) is the measurement basis for controlling process variation: determining and removing the causes of variation. Deming’s (1986; Walton, 1986) Seven Helpful Tools utilized to measure and control process variation can be found in Appendix C. Deming’s (1986; Walton, 1986) tools also augment comprehension of data, and capture the viewer’s interest in substance as opposed to methodology.

Generally, process variation is an outcome of either chance events or of assignable causes, and these causes, whether assignable or chance, can be accounted for under five input categories: manpower, machines, methods, materials, and measurements (Juran Institute, 1989a). Other categories for
consideration are information and milieu, the environment in which people are asked to undertake their daily work.

Variation is present in everything. All processes vary over time. No one person can perform a repetitive task exactly as before or after. Teachers never teach one session exactly as they taught another, even though the subject content remains the same. In teaching, some variation is anticipated and welcomed because all classes are different, and an indicator of good teaching is an ability to assess and, thus, lean toward the learners’ capability to understand and learn from course content and method. The classroom is an excellent example of continuous change and flexibility to meet the needs and expectations of the student customer.

However, if variation is so broad that a professor tends to frustrate students by wandering off on tangents, variation in teaching will have interfered with meeting teaching/learning goals and course objectives. Conversely, if little variation is allowed, teaching will be too restrictive and student interest may drift.

Some other examples of processes that vary include: admissions (registration), organization of thesis committee meetings, tenure decisional processes, student-faculty evaluation processes. Seymour (1995) writes:

People who administer...processes and systems in our colleges
and universities, do not understand that a central problem in management and leadership is the inability to understand variation or the deviation between planned goals and observed outcomes. ...We need to think very, very hard about the information that is contained in variation. (p. 113)

“Analysis of variation is used as a basis for action to improve the process” (Moen & Nolan, 1987, p. 64). There are two distinct types of process variation; “common cause and special cause” (Deming, 1986, p. 314), “chronic and sporadic causes” (HCHP, 1990, p. 1-6), or assignable and chance causes. All terms relate to the same issue in variation but use different language to express the two variation concepts. Therefore, these three terms are often used interchangeably.

Variation “that [is] inherent in the process hour after hour, day after day, and that affect[s] everyone working in the process” (Moen & Nolan, 1987, p. 64) is referred to as “common cause variation.” Variation that results from causes “that are not in the process all the time or do not affect everyone, but arise because of special circumstances” (Moen & Nolan, 1987, p. 64) is referred to as “special cause variation.”

Some researchers estimate that special variations cause 15 percent of the problems in a process, while common variations cause the remaining 85 percent. Dr. Deming believes that as much as 94 percent of all system variations are caused by common sources. (Gitlow & Gitlow, 1987, p. 74)
The distinction between common and special cause variation, and between a stable and unstable process can be made by process measurement. The acceptable approach for measuring and tracking processes relies on the use of control charts which use process knowledge--statistical and subject matter--to understand the process and predict its future behavior. “Interaction between process variables can dramatically alter process behavior depending upon the process variables that are operational at any given time” (Gitlow, Gitlow, Oppenheim & Oppenheim, 1989, p. 558). Control charts are constructed for both attributes and variables data (discussed shortly).

Furthermore, a control chart indicates process performance over time as well as process capability: that is, whether the process is stable or unstable and whether problems encountered in the process are as a result of common cause or special cause variation. In Figure 4, a fishbone or Ishikawa (after its originator) diagram has been created to recall the process variable categories, any or all of which can contribute to process variation and potential outcomes. Quality improvement teams are established to discover causes of process variation in order to reduce the degree of variability within the process and therefore narrow the gap between actual and desired outcomes.
Figure 4. A Fishbone Diagram for the purpose of assisting a team to generate theories of causes for common cause variation in a process under study.
A process is said to be “in statistical control” or “stable” when there is no indication of special cause variation, and no wide or erratic variability within common cause variation.

A stable process...[remains] essentially constant over time. A stable process implies only that the variation is predictable within statistically established bounds. ...Benefits of process stability ...the process has an identity; its performance is predictable. Costs are predictable. Regularity of output is an important byproduct. ...The effect of changes in the process can be measured quickly and reliably. (Moen & Nolan, 1987, p. 64).

Conversely, a process is said to be unstable when:

Outcomes [are] affected by both common and special causes. An unstable process does not necessarily have large variation. It means that the magnitude of variation from one time period to the next is unpredictable. As special causes are identified and removed, a process becomes stable. ...In an unstable process it is hard to separate changes in process from special causes, and therefore it’s harder to know whether a change results in improvement. (Moen & Nolan, 1987, p. 64)

Attributes and Variables

An attribute of a product is a deficiency or “failure that results in product dissatisfaction” (Juran, 1989, p. 17). A product attribute could “take the form of power outages, failures to meet delivery dates, inoperable goods. ...The major
impact is on the cost incurred to redo prior work and to respond to customer complaints” (Juran, 1989, p. 17). Attributes data classify and/or count process outcomes as conforming or nonconforming; acceptable or deficient.

Attributes control charts are used to prevent defects, hopefully before the customer sees or experiences the deficiency. Defect prevention can avoid breakdowns in product or service hand-offs. Attributes charts help an organization move toward significant reductions in defects, however, the closer to zero, the larger the sample size required to detect defects. Therefore, attributes control charts are limited to defect prevention. Product/service variables control charts can better direct an organization toward never-ending improvement.

Product variables data consist of weight, time, temperature, size, and so on. Variables data contain more information than attributes data. “Furthermore, because variables control charts deal with measurements themselves, they do not mask valuable information and therefore are more powerful than attribute charts. ...They use all information contained in the data...” (Gitlow, Gitlow, Oppenheim, & Oppenheim, 1989, p. 290).

Many people mistakenly think of only production processes when process improvement is mentioned. However, administration, sales, service, human resources, training, maintenance, paper flows, interdepartmental communication, and vendor relations are all processes that can be examined and improved using statistical methods. It is critical that we approach process improvement holistically--related to every
area of the organization. (Gitlow, Gitlow, Oppenheim, & Oppenheim, 1989, p. 39)

Most problems in process, thus outcome, occur at the process hand-offs; for example, the hand-off of secondary students to post-secondary education. An attribute of the post-secondary system’s product (learning) may be determined by student drop-out rates; variables data, the number of students ill-prepared in critical thinking skills.

High drop-out rates or a lack of critical thinking skills in students could originate from common causes relevant to the secondary system itself, or they may emanate from special causes involving only a small number of secondary schools clustered in the same region. Assignable or special causes are easily identified and quickly addressed. Common causes are much more difficult to search out and eliminate.

Deming’s (1986) demonstration of process variation in his “red bead experiment” (pp. 110-112) is a most convincing example of the requirement for process knowledge as a major force for organizational decision making.

Six people are invited to participate in a simple experiment. The experimental apparatus consist of a mixture of red and white beads contained together in a bead box, and a paddle with 50 perforations each large enough to hold one bead. Because the six participants work as a group, directions given to
all subjects are exactly the same, hence participant education is standardized.
The mission is to produce white beads; red beads are considered defective and unacceptable to the customer. Therefore, red beads are a source of waste and a financial liability.

The six subjects are asked to take turns stirring the mixture of red and white beads and then, dip the paddle into the bead mixture in such a way as to fill all 50 perforations. Red beads, errors, are counted and recorded. Each participant follows suit. Tables 4 and 5 as well as Figure 5 show the results of my experiment fashioned after Deming’s (1986) red bead experiment.

A first glance Table 4 shows that Saeed seems to be the best performer while Michael seems the worst. At first impulse, a supervisor may be inclined to praise Saeed and admonish Michael for his poor showing. The usual approach to Michael’s poor performance would be reprimand and/or additional training. However, is such a performance assumption correct? What potential for error already exists randomly within the process?

In Table 5, calculations are made to establish the mean proportion of red beads produced. Every process establishes its own mean. Calculations found within Table 5 also establish the control limits in which the process flows. The
Table 4

The results of the red bead experiment on attributes data (percent defective)
adapted from Deming (1986, p. 110).

<table>
<thead>
<tr>
<th>Subject</th>
<th>Number of red produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angela</td>
<td>8</td>
</tr>
<tr>
<td>Michael</td>
<td>15</td>
</tr>
<tr>
<td>Bill</td>
<td>10</td>
</tr>
<tr>
<td>Saeed</td>
<td>6</td>
</tr>
<tr>
<td>Elizabeth</td>
<td>11</td>
</tr>
<tr>
<td>Virginia</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>
Table 5

Calculations to establish the average proportion of red beads for a p chart

(attributes control chart):

\[ \bar{x} = \frac{60}{6} = 10 \] (average number of red beads per person)

Let 50 = the number of perforations in the paddle

\[ \bar{p} = \frac{60}{6} \times 50 = 0.20 \] (average proportion of red beads or 20%)

Calculation of the limits of variation attributable to the process:

Upper control limit (UCL) = \[ 10 + 3 \sqrt{10 (1 - \bar{p})} \]

Lower control limit (LCL) = \[ 10 - 3 \sqrt{10 (1 - \bar{p})} \]

\[ = 10 + 3 \sqrt{8.0} \]
\[ = 10 + 3 (2.83) \]
\[ = 10 + 8.49 \] (UCL = 18.49)
\[ = 10 - 8.49 \] (LCL = 1.51)
upper and lower control limits graphically illustrate the process’s capability to produce defective product (red beads).

Finally, in Figure 5, a control chart is created to establish whether the defects produced by the six workers are as a result of the process--common cause variation--or due to some special or assignable cause. Common cause variation is random and subject to being pulled out by chance and in any number of patterns from the process. Without process study and improvement, random patterns of variation will continue to produce diverse and unanticipated patterns in workers’ or students’ outcomes.

In fact, Deming (1986) deliberately placed 20% red beads into the bead box and therefore knew that the potential production of red beads could be as high as 20%: the capability for this process lies between 1.5 defects and 18.49 defects which approximates 20% error potential. Therefore, Michael’s production outcome of 15 red beads was well within what this particular process will allow. In short, Michael’s production was within process capability. The solution does not lie in chastising Michael to improve his work; he simply won a lottery worth 15 red beads. As long as the potential for 20% error remains in the

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4 The difference can be accounted for by lost beads due to usage of the bead box in training sessions.
Figure 5. Attributes Control Chart (\( \bar{p} \) Chart).
process, there is no evidence to support that these six participants will perform any differently in the future.

Simply stated, because each worker's production of red beads falls between the upper control limits (UCL) and lower control limits (LCL), the causes for red bead production are within the process, thus due to common cause variation. Common cause variation is not readily assignable. The process must be studied and action taken. Only management has the authority and responsibility to reduce, preferably eliminate, common cause variation. Worker’s are only capable of producing what is allowable within the capability of the existing processes.

Action on this process without knowledge of process capability would make the process worse and create a potential for broader variation, or throw the process out of control. “The problem for management, meanwhile, is to improve the system to make it possible for all the people to make more white beads, fewer red ones” (Deming, 1986, p. 112). Knowing what the process is capable of producing and working in a structured and systematic way to improve it allows the setting of targets for improvement; for example, to reduce the average number of red beads produced to 5% over the next 3 months.
Under a quality assurance or outcome focus, process capability is not measured before the standard is set. Arbitrary standards without process knowledge only serve to frustrate people who are trying to achieve a 5% error standard within a process capable of delivering as much as 20% error. Outcome measures alert people to problems in process, but too late. Poor quality has already been built into the process, thus the outcome. Outcome measures are worthless if process variation is not understood and process capability unknown.

The potential for poor quality under these conditions is enormous. Within a bureaucratic hierarchical institution, the usual convention is to please the boss. When workers cannot meet the institution’s or the boss’s standards, the temptation is to fudge figures, hide data and information, and tell the boss what he/she wants to hear. Problems become chronic and so does waste.

Point 6 and Point 13

"Institute training on the job." (Deming, 1986, p. 52).

"Encourage education and self-improvement for everyone" (Deming, 1986, p.86).

Points 6 and 13 have been coupled because they are related in kind, but not in magnitude. Point 6 stipulates skills development as related to task and job
performance. Point 13 is related to investment in the organization's people through education and self-improvement. For instance, until recently it has been the habit of university professors to be offered and to accept teaching positions without any previous education and skills development concerning how to teach or how others learn. Moreover, Green (1981) reports that professors are ill-prepared, if at all, for a move into managerial positions such as Department Chair or Dean. It is a fallacy to believe that people will know how to perform their jobs without learning how.

Peer programs to coach new faculty have been suggested but generate little interest from more experienced faculty. In my own experience as a newly arrived faculty, I was left to my own devices to learn the processes for photocopying, placing articles on reserve, scheduling equipment and rooms, submitting grades, preparing required paperwork, and so on. There was nowhere to go to retrieve the "how" of the established processes except to busy people who had little patience for such obvious questions. The department secretary was a godsend; seasoned faculty seemed, for the most part, uninterested in assisting me through the chaos. I became intrigued with the university's process for welcoming new staff and wondered whether faculty had not taken autonomy to the extreme.
The process for student evaluation was also perplexing. The professor was to issue the standard evaluation forms to the students, retrieve the evaluations, and place them in a sealed envelope whereupon they were given to the Director of the Department. Feedback was presumed to be forthcoming at the discretion of the Director. No guarantee or prearranged time for evaluation dialogue was in place. In fact, other faculty contended that they had never been made privy to their own student evaluations.

If the process does not work for the people working within it, change it. I collected the evaluations, photocopied them, placed the originals and the copies in separate sealed envelopes. I submitted the evaluations to the Director, and, after all grades were submitted I read my copies at my leisure as I questioned how I might improve my teaching from the students’ perspective.

Concerning the original evaluations, as anticipated I never did receive feedback. If I had not established my own process, the voice of my students would have been silenced and I would not have received valued information about how to improve. In the established process, the Director effectively silenced my voice as a teacher and my students’ voices as learners.

If faculty and students are in a partnered relationship, evaluation is ongoing; professor and students track the teaching-learning process at critical
points along the learning journey, not at the end when there is no opportunity for improvement. Every faculty member I encountered was doing his/her best to manage under the weight of his/her workload. However, Deming (1986) argues that doing one’s best is insufficient: “Best efforts are essential. Unfortunately, best efforts alone will not accomplish the purpose. Everyone is already doing his best. Best efforts to be effective, require guidance to move in the right direction” (Deming, 1982, p. 13).

“Think of the chaos that would come if everyone did his best, not knowing what to do” (Deming, 1986, p. 19). Imagine the impact on educational outcomes from a university where the majority of faculty do not know how to teach based on the principles of adult learning. Imagine the educational outcomes if faculty did know how.

The preceding represents only one small example of the need for training and education about process among the faculty, staff, and administrators of institutions of higher education. Committing to process improvement demands a long-term perspective, and a long-term perceptive highlights the requirement for rethinking staff training in such a way as to align it with Deming’s (1986) 14 Points and Juran’s (1989) Trilogy. Thus, on-the-job performance is aligned with the institution’s constancy of purpose and with each employee’s personal goals.
Deming (1982) claims that “the responsibility for change rests on management. ...Long term commitment to new learning and new philosophy is required of any management that seeks to improve quality and productivity” (p. ii). If constancy of purpose is to be upheld, university administrators will require training in methods for process measurement and improvement (e.g., Deming’s Seven Helpful Tools), but, more importantly they will require knowledge for improvement, not only about the organizational system, but also about the valuing of persons who work within the institution and those who seek its services. Who can measure the multiplying effect of a delighted customer, the joy from being freed from organizational obstacles to pride in one’s work, the sense of belonging that comes from working within a team, the experience of freedom when one realizes that there are no right answers when dealing with complexity?

“Actually, the most important figures that one needs for management are unknown or unknowable...but successful management must take account of them” (Deming, 1986, p. 121). Berwick (1992) recites a passage from the Talmud, “There is no solution. Let us seek it together, lovingly. In quality management, we think in terms of the journey, not the destination. If we really
can believe that there is no solution, we can free ourselves to try” (Cassette Recording No. 9250, Tape 3).

The term “human resources” tends to be pejorative in its labeling of persons as commodities. Senge (1992) points out that human resources are treated no differently than any other resource—energy, paper products, books and journals, lab equipment. Nearly every organization has a department of human resources. What happened to the person whose job is xyz?

Human resources is a label that tends to segment persons into requisite parts such as department head, or lead hands (Senge, 1992). Knowledge based in psychology, sociology, and philosophy is needed to see people through a lens that understands the wholeness of personhood and treats people in kind. The necessity here is to treat the provider of education within the context of the milieu in which the work of teaching and learning takes place. In this instance, the milieu takes on another source for quality improvement in the Canadian university. In a QM environment, all work spaces take on the characteristics of learning spaces.

The university is the great compartmentalizer of knowledge. Each discipline is treated as a separate functional area, independent (presumably) from any other. Segmentation or fractionalization of the whole results. Add to this
situation internal politics and gamesmanship, and the organization becomes fragmented. "Internal politics is the first of many organizational 'givens' challenged by prototype learning organizations" (Senge, 1990a, p. 274).

Internal politics and gamesmanship are most profoundly challenged in constancy of purpose (mission and shared vision) enacted through internal customer-supplier relationships, partnering, teamwork, and the creation of an environment that inspires trust and openness as opposed to fear and anxiety. Employees, especially those who deal directly with the external customer, are the strategic advantage of any organization. They are the embodiment of the philosophy of constancy of purpose and the knowledge for delighting the university's customers.

Point 7

"Adopt and institute leadership"... The required transformation of Western style of management requires that managers be leaders.

"Focus on outcome (management by numbers, MBO, work standards, meet specifications, zero defects, appraisal of performance) must be abolished, leadership put in place" (Deming, 1986, p. 54).
Taking action to improve processes is a function of leadership, but a kind of leadership whose philosophy starts with the satisfaction of internal and external customers as opposed to the bottom line. Leaders ask, “How can I help you?” The role of servant and a deeply embedded understanding of service are critical to quality leadership.

Legitimate control comes from a data-based mindset where the primary interest is a scientific approach for decision making in the name of continuous improvement. Under quality leaders, legitimate control is tempered by knowledge about and appreciation for the human dimension. Humanistic environments encourage freedom to communicate openly, to dialogue (Bohm, 1987), and collaborate as the institution inquires into its purposes, processes, and culture—freedom to discuss the undiscussables, “to drive out fear” (Deming, 1986; Ryan & Oestreich, 1991), to innovate, and to renew. Leaders bring more compassion, not less, into the lives of others (Greenleaf, 1991).

“The roots of [total] quality leadership go back to the early 1900s and its principle prophet is a Sioux City, Iowa, native named W. Edwards Deming” (Joiner & Scholtes, 1985, p. 4; Scholtes, 1988). According to Joiner and Scholtes (1985):
Total Quality Leadership [TQL] is an approach to management which focuses on giving top value to customers by building excellence into every aspect of the organization. This is done by creating an environment which allows and encourages everyone to contribute to the organization and by developing the skills which enable them to scientifically study and constantly improve every process by which work is accomplished. (p. 3)

Leadership for continuous quality improvement (total quality leadership) involves two major tasks: a "scientific approach" to decision making and problem solving and the creation of an environment of 'ALL ONE TEAM'. ...In order for all employees to be committed to the organization, the organization must be committed to its employees” (Joiner & Scholtes, 1985, p. 4).

The Servant-Leader

In a complex institution-centered society...there will be large and small concentrations of power. Sometimes it will be the servant’s power of persuasion and example. Sometimes it will be coercive power used to dominate and manipulate people. The difference is that, in the former, power is used to create opportunity and alternatives so that individuals may choose and build autonomy. In the latter, individuals are coerced into a predetermined path. Even if it is "good" for them, if they experience nothing else, ultimately their autonomy will be diminished. (Greenleaf, 1991, p. 43)

The servant-leader wants first to serve, not to lead. Greenleaf (1991) sees this as an important distinction. S/he who wishes first to lead may do so from a
need for power. Designated as “power”, Veroff (1957, as cited in Hoyenga & Hoyenga, 1984) refers to a need for power as the “disposition directing behaviour toward satisfactions contingent upon the control of the means of influencing another person(s)” (p. 252) while Winter (1973, as cited in Hoyenga & Hoyenga, 1984) describes power-motivated behaviors as those that are used “to gain influence over others or to be recognized as powerful by others or by oneself” (as cited in Hoyenga & Hoyenga, 1984, p. 252).

On-the-other-hand, the servant-leader is interested in the growth and development of people, in the welfare of the other as well as the self; “that other people’s highest priority needs are being served” (Greenleaf, 1991, p. 13). In Greenleaf’s (1991) concept, being willing to be led is a conscious, mindful decision that leads to action on the part of an individual. It is not a followership that is calculated for the aims of self-interest, blowing with the winds of changing leaders and leadership; tracking with the winning side at any price.

A new moral principle is emerging which holds that the only authority deserving one’s allegiance is that which is freely or knowingly granted by the led to the leader in response to, and in proportion to, the clearly evident servant stature of the leader. (Greenleaf, 1991, p. 10)

In a customer-supplier relationship the ongoing question is, “How can I help?” As an institution, the university is in a leadership role for society, and
thus, an example of a moral institution, is called upon to ask of its stakeholders, "How can we, as an institution, help you to manifest your vision?"; "How can we, as an institution of higher learning become 'affirmative builders of a better society?'" (Greenleaf, 1991, p. 10). Due to the stressors facing higher education, I believe that these questions are rarely asked.

In truth, change happens one person at a time, as one by one people choose to actualize their potential (Bennis, 1990). Some leaders persuade transformative thinking in one person at a time, others can persuade large numbers. In either case, leaders inspire followers to look internally into their assumptions. Moreover, Bennis (1990) states that people need the capacity to dream for "people without a dream are less easily inspired by a leader's vision" (p. xiii). For leaders and followers alike, the vision needs to be shared. In the university the dream itself is not the only important thing; it is also the genesis of the vision that matters. Management by attention is one of Bennis' (1990) four leadership competencies.

Leaders are able to draw people to them because along with their vision, they "communicate an extraordinary focus of commitment" (Bennis, 1990, p. 19). Deming (1986) believes that because Masters in Business Administration (MBA) programs produce professional managers without prerequisite managerial
experience, MBA degrees are a liability rather than an asset. “Leaders are people who do the right thing; managers are people who do things right...we teach people how to be good technicians and good staff people, but we don’t train people for leadership” (Bennis, 1990, p. 18).

The second competency, the management of meaning, requires that leaders are able to translate their vision to others in such a way that others want to align themselves with the leader (Bennis, 1990). The leader creates meaning with and through others. Third, is the management of trust which Bennis (1990) calls “constancy” (p. 21) that when coupled with focus echoes Deming’s (1986) constancy of purpose. Finally, leadership competency requires “management of the self, knowing one’s skills and deploying them effectively” (Bennis, 1990, p. 21).

From the level of leadership, anywhere in the organization, leaders can either heal or harm. “Like incompetent doctors, incompetent managers can make life worse, make people sicker and less vital” (Bennis, 1990, p. 21). Good leaders are healers, committed to creating healthy workplaces.

The professional manager is less likely to know the work that she/he is supervising. Thus, the professional manager may be completely disconnected from purpose. Consider for example, the chief executive officer (CEO) of a
hospital, and suppose that his background is in business administration, accounting, economics, and so forth. If the CEO or those people who surround him/her are never in direct contact with patients (clients/customers), on what knowledge are budgetary decisions to be made? Is a hospital in the business of making care or of making money? Greenleaf's (1991) concept of the servant-leader is well informed by the importance of knowing the work one manages.

Likewise, managers may become disconnected from purpose as they rise through the ranks of the organization. Leaders maintain their connection to purpose when they have integrated the wisdom and loving commitment of a servant and of service first mental model, before they have acquired the knowledge necessary to lead.

The inner transformation of the servant-leader as it is tied to commitment was captured by Jaworski (1996) after he had been attacked by a man who threatened him with a knife. Following his near death experience he realized that in his moment of fear his ground of being shifted; that is, his way of being in the world shifted and he was able to fend off his attacker. Afterward, he had discovered a new force within himself that exhilarated him; his sense of identity, the sense of his "I" had shifted and he became acutely aware of two distinct
kinds of commitment “necessary to actively participate in unfolding the
generative order” (p. 133). He writes:

How do you know people are committed? Because they are
taking action. They are crossing the threshold of adventure, and
this is the necessary step toward the inner transformation...This
is the kind of action we ordinarily speak of in business and in
management circles...But there is a second more subtle aspect to
commitment and will, and that is the ground of being for taking
action...The nature of my commitment shifted when my ground
of being shifted. It was a different kind of commitment, a different
base for taking action. It’s what Martin Buber called the “grand
will” as opposed to the “puny, unfree will.”(p. 133)

Within servant-leaders there exists a joy, generated from the inside; born
of self-actualization and self-knowledge. The process toward self-discovery has
involved transformations within the self so that the servant-leader understands
that problems with the world are “in here, in the servant, not out there”
(Greenleaf, 1991, p. 44). “Wanderer, there is no path. You lay a path in

Essentially, the person who understands what it means to serve has done
his/her inner work such that the quality of his/her inner life is made manifest
simply by being in his/her presence. Experiencing life through suffering, through
sorrow, joy and celebration, human beings who remain open to experience,
aware of the wholeness of life, discover the self at the core, and in the discovery
of the self are capable of change and growth (Whitbourne & Weinstock, 1979).
Through self-acceptance comes the acceptance of the other; by owning one's own gifts and flaws, individuals are able to appreciate the giftedness and the blemishes of others. Compassion and love for the other remain central to the notion of the servant-leader. Buber (1970) poetically expresses the notion of servant-leader when he writes:

Free is the man that wills without caprice. He believes in the actual, which is to say: he believes in the real association of the real duality, I and You. He believes in destiny and also that it needs him. It does not lead him, it waits for him. He must proceed toward it without knowing where it waits for him. He must go forth with his whole being: that he knows. It will not turn out the way his resolve intended it: but what wants to come will come only if he resolves to do that which he can will. He must sacrifice his little will, which is unfree and ruled by things and drives, to his great will that moves away from being determined to find destiny...He listens to that which grows, to the way of being in the world not in order to be carried along by it but rather in order to actualize it in the manner in which it, needing him, wants to be actualized by him--with human spirit and human deed, with human life and human death. ...He encounters. (pp. 108-109)

Leadership can arise from anyone, anywhere within the organization (Deming, 1994; Senge, 1990a). Whether the seeds of leadership are watered and protected within the environment of institutions of higher learning may determine the fate of the institution itself. Working as all one team requires that each person respects and encourages leadership in the other. People with the most knowledge about a situation or a problem are naturally best suited to lead the enquiry into it.
In health care, this may be the recipient of the processes of care; in education, the recipient of the processes of education. Engaging patients or students in the dialogue on how to improve our caring and helping professions may be somewhat threatening to a professional deeply entrenched in his/her own assumptions. However, the will to serve means that there is no coercion involved within the relationship, even though the provider of service may be correct in his/her assessment of what the client needs to or should do.

To introduce coercion, to get caught up in the power play is to introduce corruption into a moral arrangement. An off-the-cuff comment by a friend of Greenleaf's (1991) suggests that: "The relative quality of staff interpersonal relations is inverse to the idealistic pretensions of the institutions" (p. 169). Servant-leaders walk their talk. They commit to the actualization of institutional ideals and values because they tacitly know the devastation of unkept promises, unfulfilled visions. Acknowledgment of the potential for coercion and/or manipulation in all that servant-leaders do, and acting to ensure that the balance of power within the institution is optimized among all stakeholders are two important functions of leadership (Greenleaf, 1991).
Because of the importance of leadership in the context of organizational change it will be further expanded as a core element within the context of the lessons learned from the research journey.

Point 8 and Point 9

"Drive out fear" (Deming, 1986, p. 59).

"Breakdown barriers between staff areas" (Deming, 1986, p. 62).

Each of Deming's 14 Points is interwoven with the others to form a complex web of competencies to manage and to lead in complex institutions facing complex issues. Although repetitive, each Point has a particular overlay or fit within the total vision, philosophy, and strategy for managing in this new economic age. Thus, many of the barriers to pride in workmanship have been discussed, for example: the ongoing need for education and continued skills development so that everyone knows his/her job and how his/her jobs fits within the overall mission and vision, the need for a new kind of leadership that values the service ethos as opposed to power and control, managers as coaches and facilitators of employee development and quality improvement, the importance of joy in work through the creation of an environment of all one team, and the
stance that everyone and every position within an organization is as valued as the next because all effort is directed to the fulfillment of mission and vision.

However, the most significant barrier to pride in one's work may come as a result of fear. For example, an accepted practice in a dysfunctional organizational culture is such that if one does not accept the message, shoot the messenger. The norms of fear compel workers to remain silent. Some organizational cultural norms may include: know your place; don't speak up; do what you're told; don't ask questions; even, don't think. In a university setting, a commonly accepted fear-related norm is, publish or perish.

So vital is the need to drive out fear that McMaster University's mission statement has included it within its statement of goals under the section, Enhanced Respect: "We will support programs that ensure equal treatment, assist those with special needs, maintain a workplace that is free of fear, and provide a welcome environment for all students" (McMaster University, 1995b, p. 5).

Ryan and Oestreich (1991) conducted research in 22 companies. Their research included 260 interviews with managers and employees for
the purpose of exploring if and why people experience fear in their places of employment. The research was based on the work of Argyris and Schon (1978) who coined the phrase “discussing the undiscussables.” In fact, “the fear of speaking up can be thought of as a composite of many types of workplace anxieties, which together form a most basic human barrier to improvement” (Ryan & Oestreich, 1991, p. 4).

Ryan and Oestreich (1991) found that in 70% of 260 different people interviewed, fear in speaking up was grounded in fear of repercussion. Two factors acted as main contributors to fear in organizations. The first factor was the intimidating behavior of superordinates whether conscious or unconscious (Ryan and Oestreich, 1991, believe that most is unconscious). Secondly, traditional, authoritative hierarchies spawn their own kind of fear because of the reporting structures and the expectation that the boss must be pleased. “Because of the mistrust that typically exists between hierarchical levels, the impact of intimidation that does happen to employees is magnified” (Ryan & Oestreich, 1991, p. 6).

When Deming (1986) made the notion of driving out fear one of his 14 Points, he understood that reducing fear is a cardinal component for
organizational transformation and renewal. Within the context of a process-focused organization, managers and employees who are freed from fear are more capable to approach problems from a positive, nonblaming perspective. The idea is to solve the problem, not to blame or humiliate. However, fear that is embedded within the organization's cultural patterns or norms is very difficult to avoid. Working together to solve complex problems is offered as one potential means to drive fear out (Deming, 1986).

Process improvement teams, reengineering teams, problem-solving teams are not merely multidisciplinary groups of people meeting to discuss and remedy a problem, generally from an assumption bias. Neither are quality improvement teams committees. In traditional multidisciplinary groups and committees the tendency is for each member to bring his/her own "predominantly linear mental models" (Senge, 1990a, p. 267). Whenever people come together with diverse "paradigms" (Kuhn, 1970, p. 10) acting out of diverse assumptions about his/her part of the system, it is impossible to view the whole of the enterprise. Viewing the university by an examination of its collective parts promotes fractionalization.
Conflicts and internal political gamesmanship over whose part should receive the largest piece of the collective pie causes fragmentation. Management by control creates internal competition as opposed to cooperation, and it fractures human egos and relationships. In management by control, professional image and program status are paramount, creating an environment that exists in the material world, annihilating human spiritedness, pushing the soul into the deep recesses of the organization’s culture (Whyte, 1994).

Schon (1983) argues that practitioners fail to attend to the ways in which they construct reality. Therefore, they tend to accept their reality as a given. The construction of reality generates a frame, a tacit way of knowing that results in paradigms. The frames of knowing are, therefore, implicit, beyond the reach of everyday practice, and these are the frames or implicit assumptions that are brought to each group or committee, fragment the work of the group, and retain the status quo with watered-down collaboration and half-hearted consensus. Defensiveness in group or committee work arises from acting from, as opposed to reflecting on, one’s paradigms (Schon, 1983). Acting from untested tacit ways of knowing secures fragmentation.
Fragmentation makes it virtually impossible to understand complexity or to bring organizational stakeholders together with a common language and shared vision of the whole of the university. Segmentalism also provides the opportunity to breed power bases and power brokers who appear to have no initial desire to understand the dynamic complexity of the whole.

Like the six blind men and the elephant (Kilmann, 1989; Senge, 1990a), these individuals are able to perceive only their part of the total organizational system, believing that their discipline or part of the whole is the most immutable for administrative attention, especially in matters of funding.

If [the] six blind men do not appreciate that each has a different perspective to contribute, a close-minded argument continues without reaching the right conclusion. Only if the six blind men recognize their differences and integrate their sensory experiences into a whole image will they reach the surprising conclusion that the creature before them is indeed an elephant. (Kilmann, 1989, p. 11)

Because Senge (1990a) recognizes that the “only universal language of business is financial accounting” (p. 267), he provides some additional insight into the problem of fragmentation implying a tradition of a staccato style of management. “Accounting deals with detail complexity, not with
dynamic complexity. It offers "snapshots" of the financial conditions of a business, but it does not describe how those conditions were created" (Senge, 1990a, p. 267)

Unlike committees or groups, the work of quality improvement project teams (QIP) is built upon action research to set and to solve problems in processes. Teamwork in the Deming (1986), and Juran (1989) traditions that is process-focused, cross-representational, data-based, and analytical, creates the potential for understanding the dynamic complexity that is at work within the total organizational system.

Teamwork provides an opportunity for systemic thinking and understanding complexity from many and varied perspectives and knowledge bases. Through data-based analysis the team also serves as a safe place to raise and test assumptions. Senge (1990a) argues for a "language for complexity" that "makes it easier to discuss complex issues dispassionately and objectively" (p. 268). Objectivity is a central issue in cross-representational teamwork.

A focus on process performance removes the temptation to point fingers and seek out culprits. However, the road to objectivity demands some important inner work. Each team member must remain open to the
views of others. The team search for answers is a search for truth within the context of work processes, but, that truth is hard won. It is the intensity of the search as much as the method that separates group or committee work from teamwork.

A well-functioning team has clearly defined goals [a mission or charter] and the resources to accomplish them, and ownership of the work is conveyed to the team. In a true team environment, members are free to step out of their boundaries and exercise their other talents. ...When a team begins to function well, ...[members] are freed from their cubbyholes, hierarchy, and barriers to communication...They supplement or complement the strengths of others and make up for their weaknesses. (Scully, 1996, p. 47)

Power, or one’s need to control, must be surrendered, suspended within a shared experience. The empowerment of other team members comes with a certain ethic which tends to be embedded in QM teamwork. In essence, any search for truth comes with moral obligation so that real knowing can proceed. Palmer (1987) points out that:

Knowledge contains its own morality, that it begins not in neutrality but in a place of passion within each human soul. Depending on the nature of that passion, our knowledge will follow certain courses and head toward certain ends. From the point that originates in the soul, knowledge assumes a certain trajectory and target. ...If we are worried about the path on which our knowledge flies, we had better go back to the launching pad and deal with the passions that fuel and guide its course. (p. 7)
Further, Greenleaf (1991) writes that: “moral man must also care for institutions. We tend to criticize the impersonal system, but it is our attitude and our level of caring, not the “system,” that needs criticism and improvement” (p. 53). If the university’s stakeholders are unwilling to suspend their assumptions about how the world of higher education works, the boundaries will remain intact, turf wars will persist, problems and concerns will remain unresolved. To move beyond conflict it is useful to consider processes as opposed to people as the well-spring of problems within any organization.

Problems as System-Based

To illustrate that the majority of problems that occur in any enterprise are process rather than people problems it is helpful to look at the Pareto principle.

Vilfredo Pareto (1848-1923) was an Italian-born economist who, upon observing that wealth was maldistributed (Juran, 1992; Juran Institute, 1989b), “developed logarithmic mathematical models to describe the non-uniform distribution of wealth” (Juran Institute, 1989b, p. 1G 1). Lorenz applied a cumulative curve to graphically demonstrate the
distribution of wealth, and later, in 1950, Juran noted Pareto's work as a "universal" principle that Juran later named the "Pareto principle"; sometimes called the "80/20 rule" (Scholtes, 1988, p. 2-9).

The Pareto principle asserts that, "in any group of things that contribute to a common effect, a relative few contributors will account for the majority of the effect" (HCHP, 1990, p. VIII-2). A Pareto analysis is undertaken to separate the "vital few from the trivial many" (Juran, 1992, p. 71). As applied to publications, "a relative few authors account for most of the published books" (Juran, 1992, p. 59). The bulk of process performance deficiencies will be caused by only a few events. The majority of problems within higher education are process relevant rather than people related.

When the Pareto principle is applied to human performance it suggests an interesting phenomenon: "that at least 85% of problems can only be corrected by changing systems (which are largely determined by management) and less than 15% are under a workers control--and the split may lean even more toward the system" (Sholtes, 1988, p. 2-8).

Teamwork that is systems or process focused can more readily remove blame and begin to deconstruct the disciplinary or departmental boundaries that
alienate each one from the others. Systemic thinking can reconstruct the whole of the university as a system. Teamwork provides the framework for understanding complexity, and, according to Kilmann (1989), is the pathway to substantive cultural change. Foster, Jelinek, and Sauser (1995) predict that “in the future, team accountability will be more important than individual accountability” (p. 109).

Fear itself involves the experience of anxiety or apprehension which, emotionally, is played out in three ways: “verbal-cognitive; overt movement such as escape or struggle; and internal physiological responses” (Lang, 1968, as cited in Hoyenga & Hoyenga, 1984, p. 152). Anxiety is felt when the perceived stressor is greater than one’s perceived resources for coping with stress. Once fear is perceived, the three emotional responses interact with one another; one response activating or inhibiting another (Lang, 1968, as cited in Hoyenga & Hoyenga, 1984). Verbal abuse, facial expression, or avoidance behaviors can all be attributed to fear.

Over time, people may experience anxiety without recognizing that the root of their anxiety is fear. It is reasonable to assume then that many people may completely dissociate the notion of fear from the workplace
and may be surprised at the suggestion that fear does exist. Eisenberg (1997) refers to this phenomenon within the context of the aftermath of reengineering or "dumbsizing" (p. 57) as "dysfunctional organizational denial" (p. 61).

Organizational Denial

Denial of one's anxiety, whether as a result of downsizing and restructuring or hierarchical expectations, can manifest itself in a number of behaviors. Eisenberg (1997) offers the following: preoccupation with feelings manifested in daydreaming or gossiping; loss of energy and commitment evidenced by increased errors and inattentiveness; distrust and irritability resulting in reduced morale and deterioration in teamwork; sabotage played out in miscommunication, failure to engage in improvement projects: back-stabbing and bad-mouthing, and so forth. Ryan and Oestreich (1991) add others to the list such as: failing to accept responsibility (pass the buck); using excuses and increasing sick-time; focusing on entitlements such as rights, benefits, money; tightening controls on the part of management; and criticizing or ridiculing employees to name only a few.
Fortunately, there are ways and means for eliminating fear from the workplace. In Ryan and Oestreich’s (1991) study, the following interventions were noted. The first intervention is akin to the acceptance of dying or grieving processes and begins at the top levels of the organization. First and foremost, acknowledge the reality of fear in the workplace. Help people to disclose their fears by openly and publicly talking about them. Leaders as change agents must be willing: to listen even if what they are hearing is unpleasant; to unearth their own assumptions for examination; to construct a positive view about people and what motivates them; and finally, to model those behaviors in themselves that they wish to see in others. Only then, when fear is addressed and acted upon will the major barrier to quality improvement and pride in one’s work be accomplished.

Fear-provoking environments not only harm employees but also damage, perhaps irreparably, the reputation and/or distinctiveness of the institution. In terms of a university, allowing fear to live and grow can be tantamount to institutional suicide.

The truly exciting aspect of removing the barrier of fear is that it is the beginning of creating an inclusive community; all one team empowered
by a personal sense of significance to the institution, through team learning and individual mastery, and by collective joy in work.

Points 10, 11 and 12

"Eliminate slogans, exhortations, and targets for the work force" (Deming, 1986, p. 65).

"Eliminate numerical quotas for the work force" (Deming, 1986, p. 70).

"Remove barriers that rob people of pride in workmanship" (Deming, 1986, p. 77)

Deming refers to actions that promote slogans like, "Your work is your self-portrait" (p. 65) as counterproductive. How can one's work be an extension of oneself if the resources to perform are either not available or are available but in such limited quantity that one is frustrated with the outcome? Points 10 and 11 act as further barriers to pride in one's job. "Getting better together. Production workers have told me that this slogan makes them furious. Together! What is that when no one will listen to our problems and suggestions?" (Deming, 1986, p. 66).

Recall the parable of the red beads and it is obvious that any slogan, exhortation, quota, or target fails to address the reality that the major problem
most likely lies not in the individual workers but in the system. Work standards present a means to measure and predict costs by way of focusing on productivity usually at the expense of quality. Deming (1986) sheds further light on the outcome of a quota system under Point 11. “There are more [people] engaged in construction of work standards, and people counting production, than there are people engaged in actual production” (Deming, 1986, p. 71).

Why is it that university documents on accountability inevitably refer to outcome standards as measures? For example, in light of a systems approach, why would the University of Western Ontario (UWO) state that, “Individual performance reviews should be rigorous, and the largest portion of annual salary increments should be differential and based on performance” (UWO, 1995, p. 2). What does scholarship mean, quantity of productivity or quality of research, teaching, and service?

Because standards are developed from the average rate of production, half the faculty will perform better than average, the other half, less than average. The temptation for some is to work to the average and no more, while others are so swamped with additional work that, at best, the average is an unrealistic goal. “A quota is totally incompatible with never-ending improvement... [nor is] focus on
outcome...an effective way to improve a process or an activity” (Deming, 1986, pp. 71-76).

Consider, for example, the use of an external funding requirement, productivity, on the number of publications by faculty and researchers (Skolnik, 1996). In this circumstance, number of publications is a productivity standard or quota funding mechanism. What happens to the quality of teaching and service when faculty are forced to meet an annual publication quota? What is the quality of the publications themselves? How do students and educational processes fare in faculty’s anxiety to publish? Who cares about the students’ learning experiences? “Not only do quotas disregard quality...they put a ceiling on production” (Main, 1984, p. 41). In fact, Boyer (1990) argues that the preferential treatment afforded to the research community and the canonization of publishing has undermined teaching.

This is not to suggest that publications are not authentic teaching and research activities, rather, it is to highlight the potential for serious institution-wide problems when institutional purpose is distracted by the celebrity of a quota/standard system. In an unstable funding market and with an eye to value-added for the rapidly rising price of a university
degree, why would students apply to higher educational settings that may show less interest in or concern for their academic (teaching-learning) experience than for an institutionally driven quota system and faculty’s publish or perish obsession?

How can MacLean’s Magazine (1997) justify such measures of quality as: number of print volumes in all campus libraries, divided by the number of full-time-equivalent (FTE) students; the percentage of operating expenditures devoted to student services; the number of full-time professors, per 1,000, who have won national awards?

In regard to the foregoing measures, what has the number of volumes per FTE student have to do with the appropriateness and number of available volumes to what is being studied? How have the designated operational expenditures devoted to student services impacted students’ quality of life? How and where has the money been spent? Often full-time professors are engaged more in their research than their teaching. Sometimes their teaching load is off-set by teaching assistants. How then can this measure show added value for the student or society, each customers of the university? Such measures tell nothing of what is happening within a university as a community. Such measures
address none of Deming’s (1986) 14 Points for continuous improvement or Juran’s (1989) Quality Trilogy.

All of the above stand as barriers that rob people of pride in their work (Deming, 1986). But, perhaps the greatest barrier to pride in work within the university is the annual merit evaluation or lack thereof. It is as distressing to receive a merit-based salary increase or other reward/recognition without understanding the reason for having received it as it is to be denied an increase or promotion based solely on another’s evaluation of one’s performance.

When one of my sons worked as a grocery carry-out during his teen years, it soon became a joke to see who the next employee of the month would be. Few cashiers or carry-outs understood how or why their performance was considered outstanding enough to have their photograph taken (at the company’s expense), placed on public display, and proudly branded “employee of the month”.

Similarly, Skolnik (1998), a professor at the Ontario Institute for Studies in Education/University of Toronto (OISE/UT), was so distressed by the absence of stated performance standards or an understanding of the values against which faculty are rated that he wrote an essay that examined, Merit by Numbers (p. 16). Further, Lawton (1997) writes that the merit pay scheme recommended by
OISE/UT is "exactly the type of process condemned by quality leaders like [W. Edwards] Deming and Joiner" (p. 5).

Why would merit systems be so condemned? Again recall that every person's work is influenced by circumstances, those conditions and arrangements that are common within the system of variables. Such forces that play on one's performance could include: the materials at his disposal, available equipment, type of supervision, a climate of fear (including sexism, racism, and other forms of bias), environmental conditions such as heat, cold, light, opportunities for professional development, institutional policies, cultural norms, budgets, and so forth. When all of the potential forces are considered, how can anyone's performance be ranked? All of "these forces will produce unbelievably large differences between people" (Deming, 1986, p. 110).

Recall what the red bead experiment teaches. Performance problems are within the system of common causes, not within the individual person. When the fundamental concept of variation and its causes is not clearly understood, merit evaluations and pay increases based on merit are nothing more than lotteries. In lotteries there are winners and losers, and win or lose, people are subject to chance. In organizational processes winning or losing is dependent upon nothing
more than what each individual randomly pulls from a system fraught with forces that determine success or failure. Scholtes (1993) clarifies this sentiment:

When managers [and leaders] don’t understand the variation inherent in their systems and processes, they leave themselves vulnerable to some serious problems: they miss trends where there are trends; they see trends where there are none; they attribute to employees—individually or collectively—problems that are inherent in the system and that will continue regardless of which employees are doing the work; they won’t understand past performance or be able to predict future performance. (p. 4)

Scholtes (1993) strongly states that “TQM and performance appraisal are incompatible” for the following reasons. “Customers and their needs shape our organization and its work, not vice versa” (Scholtes, 1993, p. 3). Thus, those best able to rate performance are those who receive and use products and services. Quality outcomes result from quality systems, processes, and methods. Problems in any of these areas require teamwork and knowledge of process interdependencies. Performance appraisals undermine teamwork and ignore systemic thinking (Scholtes, 1993).

Performance appraisals focus on the wrong outcomes, attempting to reward individual performance based on professional, unit, and personal goals that may not be related to quality as perceived by customers. Safe goals build in mediocrity. Process performance is at issue, not individual performance. In the same vein, performance appraisals pit winners against losers, creating cynicism
and demoralizing people. This may produce underachievers. Consider the inherent wisdom in Scholtes (1993) statement: “when performance is at a high point in a system of common cause, it can only get worse. Similarly, performance at a low point cannot help but get better” (p. 12).

Ideally, an organization clearly articulates its constancy of purpose, is congruent between espoused values and values in use, and seeks root causes of problems for permanent solutions. Higher education take heed: rewarding the individualistic nature of academic work encourages individual performance at the expense of the institution. “Performance appraisal, particularly when tied to income and promotability, engenders posing and pretense” (Scholtes, 1993, p. 16).

In newer insights into effective leadership, leaders know and understand the customers point of view, take a systems’ view, understand statistical methods and their appropriate application, and listen and respond to the workers’ point of view (Sholtes, 1992). Performance appraisals have no place in these activities.

According to Scholtes (1993), there are two alternatives to performance appraisals but they tend to be readily rejected: “Change the way you think...[and] just stop doing [them]” (p. 15). In short, recognize the affect of complex systems
on workers and manage to improve the system so that the ultimate goal, quality, is achieved.

In the context of higher education, a university’s reputation, its distinctiveness, its ideal of excellence can come only through the quality of relationships among its stakeholders so that quality measured by fitness for use and goodness of fit is built into all processes and systems that eventually result in the true measure of its worth in such a way as to have achieved excellence.

Point 14

“Take action to accomplish the transformation” (Deming, 1986, p. 86).

This last Point supports all the others and is self-evident. The reason that many quality initiatives fail is that the organization is poor at following through. The breadth and depth of the class of transformation which Deming (1986) proposes requires both hard work and time. There are simply no short cuts in the amount of rigor and commitment that Deming’s (1986) work demands. For institutions of higher learning that are up to the task, Greenleaf’s (1991) words are wise:

This may suggest our place today. To see ourselves as responsible people at the center of an organic process of change which, at this time, may be strenuous and confused. But what is done will be more than a saving action. It will begin with the struggle to survive. However, if survival alone is the aim, it is
not likely to succeed. It will include a conserving role; there is much that is good in what we now have and it should be saved. More important, it will build anew, build something that may not yet be dreamed of. **It will be voluntary and it will raise the spirit.** (pp. 173-174)
CHAPTER THREE: DESIGN AND METHODOLOGY

Design of the Study

Introduction

Although some of Deming's (1986) terminology differs from Juran's (1989), the processes for implementation and the core values of quality improvement through customer satisfaction, management by processes to produce quality goods and services, comprehension and measurement of process variation, and democratization and integration of an organization through empowerment and teamwork account for the fundamental organizational changes behind both theorists. However, it is Deming's 14 Points that were used as the theoretical framework for the study.

The original study was constructed in two phases. Phase One undertook to design a research instrument to gather descriptive data about change in relation to a quality management paradigm in universities across Canada. However, after several months of survey construction and piloting, a decision was made jointly with my advisory committee to place the survey on hold. The decision was based on two major problems which might have affected survey validity and reliability: survey language and the difficulty of locating the appropriate recipients for the survey.
Problem #1: Survey Language

As previously discussed, the word “customer” (changed to stakeholder for the purposes of the study), at least at this point in the diffusion of quality management throughout higher education in the United States and Canada, can hold diverse meanings for many individuals. As all quality improvement efforts are directed toward satisfying the needs and expectations of the customer, understanding the theoretical meaning of the word “customer,” as well as ascertaining who the university’s customers are, are basic to quality management. Being unable to resolve who the customer is presupposes failure in implementation.

Presently, standardization of a quality management vocabulary is not complete throughout the system. Consequently, the research instrument, at this time, could not be constructed in such a way as to ensure a shared vocabulary among all potential respondents, thus, the survey failed the tests for construct validity and reliability.

One of the characteristics of institutions of higher learning may be that current quality management “jargon” may have to be tailored to the individual culture of each university. In fact, Engelkerneyer (1995) suggests that Babson College avoided the term total quality management, preferring to use continuous
quality improvement which suggests to the Babson College community a
continuous striving for excellence while weathering constant change.

Problem #2: To Whom Should the Survey be Directed?

Like other service organizations, the strategies to implement continuous
quality improvement in Canadian universities can be diverse. First, the senior
group, President and/or Provost may decide that an administrative and academic
shift into a change management paradigm is advisable and begin a top-down,
"cascading" initiative. Often, a top-down approach begins with establishing a
strategic plan that is quality-focused in mission, vision, values, and guiding
principles. Such a planning exercise is referred to as strategic quality planning
(Juran, 1989). The creation of a strategic quality plan is an act of quality
leadership while the values and concepts of the Malcolm Baldrige National
Quality Award are embodied in quality leaders’ actions and behaviours
(Brennan, 1997).

Second, a group of early quality management champions may meet to
discuss and implement QM within a department, program, or faculty unit. This

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5 For the purposes of this study "cascading" refers to an approach from the senior administrative level
that is facilitative or directive within the context of collaboration and dialogue as opposed to
mandated. The cascading of necessary education is assumed within such a context.
type of group approach is identified by Scholtes (1988) as an “onion patch” strategy. However, in such an initiative, senior leaders must be constantly informed of the work and progress of the onion patch. Education of the senior team is imperative if substantive change is to be realized. Already preoccupied with funding cuts and falling public support, a President may not exhibit a readiness or willingness to learn about a new management strategy, thus, containing QM learning and activities at a lower organizational level and confounding substantive change.

Third, some universities may have dedicated both financial resources and staff to implement quality management. An actual quality department may be created as a service-resource for faculty and administrators interested in implementation. Therefore, it may be the quality department that is most informed about QM activities.

Finally, universities tend to manage by programs and projects as well as faculties and units. The decentralization of faculties from the centralized managerial function creates two cultures: one bureaucratic and hierarchical, the other consensual and participatory. Quality improvement initiatives may arise at any place and at any time within either culture.
However, the divisions between the managerial culture and the academic culture may mean that there is little investment by faculty to learn about administrative innovations or on the part of management to inquire into the ingenuity of faculty. Many enterprising concepts and actions may be brewing within a university without any information or feedback forthcoming to inform the community at large. Because of the complex nature of quality initiatives in higher education in Canada, a survey, at this time, could not accurately describe the full scope of potential QM activities, nor identify the individuals who might be involved in/or at least aware of these activities. These circumstances made the survey method unacceptable due to a lack of internal and external validity.

Nonetheless, after my study of the University of Calgary and McMaster University, I tested each institution’s processes for transformation against the survey and believe that members of the Coordination Task Force at UCal conceivably could complete the instrument, but this does not hold true for McMaster’s change agents. In addition, using Table E2 (see Appendix E) prepared as part of survey construction and analysis, UCal’s strategic quality management activities would place it between the Novice and Intermediate levels. For these reasons, the detailed work involved in creating the survey may prove very useful in future research regarding QM change initiatives in other
Canadian universities. Because of the rigor involved within survey construction and because there is a good possibility of revisiting the instrument after the case studies, the process for survey construction with the most recent revision of the survey itself can be found in Appendix E.

Rationale for Qualitative Research: Case Study Design

Having had to place the survey instrument on hold meant having to redesign the research and the research method. Qualitative case studies within the purview of empirical research remained the method of choice, but the process for determining which universities to study was redesigned. Case studies involve a qualitative research design because the questions asked tend toward the "how" and "why." Because the nature of the university research questions begged a holistic look at change initiatives in the Canadian university along with description and interpretation of the initiatives underway, actual case study site visits seemed most appropriate.

A qualitative design offers the researcher many advantages from which the research questions can be adequately addressed. Qualitative research attends to the broad view of the phenomena under study (Janesick, 1994). In so doing, a qualitative research design is adopted first to search for an understanding of the whole. The idea of wholeness matches the move in systems theory (Senge,
1990a, 1990b) toward understanding the interdependencies and re-membering of the whole. In holographic organizational theories (Kilmann, 1989; Morgan, 1993), and in discoveries in the fractal geometry of nature (Mandlebrot, 1983), the whole is found to be contained in each of its constituent parts. Studying a part of a system may possibly provide important cultural, value-laden information about the whole of the institution.

In qualitative methods, relationships within a system or culture are investigated (Janesick, 1994). Wheatley (1992) extends the notion and importance of relationships when she writes:

The participatory nature of reality has focused scientific attention on relationships. Nothing exists at a subatomic level, or can be observed, without engagement of another energy source. This focus on relationships is also a dominant theme in today’s management advice. ...Leadership is always dependent on the context, but the context is established by the relationships we value. (p. 144)

In addition, a qualitative design brings forth or facilitates the emergence of patterns and themes by continuously reflecting upon and analyzing data throughout the research process (Merriam, 1988).

Qualitative research requires the researcher to come face-to-face with the environment under study. The personal nature of a case study seems to be the best possible choice to uncover the rich tapestry of a complex organization such as a university. However, the researcher needs to remain in the setting over time
to acquire a full understanding of the dynamics at play, and the linkages in place for organizational integration and alignment by using all his/her resources for observations and interviews. The researcher him/herself is the instrument; communication whether behavioral, oral, or written, is everything.

A general methodology for developing theory is found in grounded theory. A grounded theory approach allows the researcher to systematically gather and analyze data by concomitantly watching the continuous interplay between data collection and analysis (Strauss & Corbin, 1994).

In this study, an existing change theory, QM, introduced in Chapter 2, was seen as “appropriate to the area of investigation, [then this was] elaborated or modified as incoming data [were] meticulously played out against [the theory within the context of a university setting]” (Strauss & Corbin, 1994, p. 273). Therefore, the generation of theory and the research process evolve as parts of each other.

Other attributes of grounded theory include the process of constant comparison between data and analysis as concepts and themes arise. To this end, grounded theory uses generative, concept-relating questions to unearth the conceptual density of the research setting. Conceptual density is of more importance than descriptive density as theory is generated, elaborated, and
modified (Strauss & Corbin, 1994). Grounded theory as a choice for the research method seemed clear. Next, the research design was developed and a process to select case study sites was created. Because of the complex nature of the research process, a flow diagram has been created in Figure 6 to guide the reader through the text describing the study’s design and method.

Instead of surveying across Canada by including all universities as potential study sites, the following criteria were developed to choose two Canadian universities as case studies. The number of potential sites was collapsed by selecting a sample of Canadian universities that had previously within the last 4 years) displayed an interest in quality management. In addition, specific areas for semi-structured interview questions needed to be developed.

Criteria for the Selection of Case Studies

1. The university will be a member of the Conference Board of Canada Quality Network for Universities (CBoC/QNU). The mission statement for the CBoC/QNU is as follows:

   The Quality Network for Universities was established in the Fall of 1993 to provide a forum for senior university leaders interested in exploring the relevance for their institutions of emerging
Figure 6. Flow diagram for planning the internal structure of the study’s method and design.
experience and theory in total quality and related organizational change strategies. (Gibson, 1994, p. I)

Members of the CBoC/QNU demonstrating an interest in total quality in a university setting, and having participated in the 1994 study tour of four American universities implementing quality management include: the Universities of Alberta, British Columbia, Calgary, Regina, Western Ontario, and Montreal; Carlton University; Laurentian University; McMaster University; Queen’s University; Concordia University; and Memorial University.

2. The university will have completed and have in writing a statement of mission and vision, values and/or guiding principles, and a strategic direction that uses quality improvement as its central focus. The strategic plan will arise from and be directly linked with the university’s mission, vision, values, and guiding principles.

3. The university will have or will be working toward the implementation of the 11 concepts/values contained within the Malcolm Baldrige National Quality Award (MBNQA): customer-driven quality, leadership, continuous improvement and learning, employee participation and development, fast response to changing conditions, design of quality and prevention of error, a
long-range view of the future, management by fact, partnership between and
among customers and suppliers, corporate responsibility and good citizenship,
and an orientation toward results (Brennan, 1997). These values underpin the
philosophy and methods of Deming’s 14 Points and distinguish between
continuous quality improvement and reengineering. The MBNQA values and
concepts as related to QM and as compared with the values of reengineering
are contained in Table 6.

The MBNQA is presented each year to a company in the United States
deemed to have achieved excellence in its pursuit of quality and quality
improvement. The prestigious nature of the award is underscored by the fact that
it is presented annually by the President or Vice-President of the United States
(Bemowski, 1996).

The Canadian National Quality Institute (NQI, 1996) has also developed
principles of quality and criteria for its National Award for Excellence. The
Quality Criteria: Guide to Your Quality Journey produced by the National
Quality Institute served as another source to determine interview themes. The
NQI principles as related to QM and as compared with the values of
reengineering are contained in Table 7.
Table 6

The Malcolm Baldridge National Quality Award Values: A Comparison of the Fit with Quality Management and Reengineering Values.

<table>
<thead>
<tr>
<th>Baldridge Award</th>
<th>Quality Management</th>
<th>Reengineering</th>
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</thead>
<tbody>
<tr>
<td>1. Customer-driven quality</td>
<td>Agreement</td>
<td>Agreement</td>
</tr>
<tr>
<td>2. Leadership</td>
<td>Agreement</td>
<td>Agreement</td>
</tr>
<tr>
<td>6. Design of quality and prevention *</td>
<td>Agreement: Quality is built into all processes (macro and subprocesses).</td>
<td>Agreement: Quality is limited to macro or high order processes.</td>
</tr>
<tr>
<td>7. Long-range view of the future *</td>
<td>Agreement: Clearly articulated mission, vision, and shared values. Institutional history (tradition) is valued within transformation.</td>
<td>Agreement: Clearly articulated mission and vision. However, institutional history (tradition) tends to be of secondary importance.</td>
</tr>
<tr>
<td>8. Management by fact *</td>
<td>Agreement: All processes are measured prior to action taken. Benchmarking is both internal and external (best practice). Variation is key.</td>
<td>Agreement: Measurement in reengineering is not always completed prior to action taken. Benchmarking tends to be internal activity. Variation not mentioned.</td>
</tr>
</tbody>
</table>

*(table continues)*
### Table: Quality Management and Reengineering Comparisons

<table>
<thead>
<tr>
<th>Baldridge Award</th>
<th>Quality Management</th>
<th>Reengineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Partnership development</td>
<td>Agreement</td>
<td>Agreement</td>
</tr>
<tr>
<td>10. Corporate responsibility and citizenship</td>
<td>Agreement: Everybody is accountable. Especially leadership.</td>
<td>Agreement</td>
</tr>
<tr>
<td>11. Results orientation</td>
<td>Agreement</td>
<td>Agreement</td>
</tr>
</tbody>
</table>

* Indicates substantive differences between quality management and reengineering in the interpretation of each Malcolm Baldridge National Quality Award value.
### Table 7

**The Canadian National Quality Institute Values: A Comparison of the Fit with Quality Management and Reengineering Values.**

<table>
<thead>
<tr>
<th>National Quality Institute</th>
<th>Quality Management</th>
<th>Reengineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cooperation, teamwork and partnering. *</td>
<td>Agreement—drive out fear, remove barriers, joy in work delight the customer. <strong>Purpose: Restructure and innovate: job creation.</strong> Long-term-- 7-10 years.</td>
<td>Agreement— but, drives in fear <strong>Purpose: Restructure and innovate: job loss (downsizing)</strong> People are reluctant to join teams. because it means job loss. Short-term &quot;quick fix.&quot;</td>
</tr>
<tr>
<td>2. Leadership through involvement and by example. *</td>
<td>Agreement—flattens the bureaucracy, maintains all one team mental model, removes the trappings of power (i.e., preferred parking). Self-renewal is a precursor to organizational renewal. Everyone receives education.</td>
<td>Agreement in principle. Holds to the notion of bureaucracy as most desirable organizational model. Power brokers are those with reengineering language and know-how.</td>
</tr>
<tr>
<td>3. Primary focus on customers.</td>
<td>Agreement</td>
<td>Agreement</td>
</tr>
<tr>
<td>5. Contribution of each and every individual. *</td>
<td>Agreement in principle and in practice.</td>
<td>Agreement in principle but downsizing increases stress and impairs learning. No time for reflection or for innovation.</td>
</tr>
<tr>
<td>6. A process-oriented and prevention-based strategy. *</td>
<td>Agreement—quality is built into all processes (macro and subprocesses). Quality is built-in via statistical quality control, seven helpful tools, and seven management tools.</td>
<td>Agreement— but, quality is limited to macro, or high order processes. Concept of variation is omitted. No direction provided re how to improve or why improvement is required.</td>
</tr>
</tbody>
</table>

(table continues)
<table>
<thead>
<tr>
<th>National Quality Institute</th>
<th>Quality Management</th>
<th>Reengineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Continuous improvement of methods and outcomes.</td>
<td>Agreement—Kaizen as both incremental and quantum change is evolutionary. Provides insight into constant change in complex systems. Adaptive and generative learning. Quick response times through process and customer knowledge.</td>
<td>Agreement—but, rejects Kaizen. “Starting over” is revolutionary. No apparent insight into continuous change in complex systems. Adaptive but not generative learning.</td>
</tr>
<tr>
<td>8. Factual approach to decision making.</td>
<td>Agreement—all processes are measured prior to action. Benchmarking is both internal and external activity—”best practice.” Variation is key.</td>
<td>Agreement—measurement in reengineering is not always completed prior to action taken. Benchmarking tends to be an internal activity—an audit.</td>
</tr>
<tr>
<td>9. Obligations to stakeholders including an exemplary concern for responsibility to society.</td>
<td>Agreement—everyone is accountable. Especially leadership. Transparency via a clearly articulated mission and vision. Institutional history and traditions are valued within planned change processes.</td>
<td>Agreement—clearly articulated mission and vision. However, institutional history and traditions not valued within change processes.</td>
</tr>
</tbody>
</table>

* Indicates substantial differences in the interpretation of the National Quality Institute Principles
4. The university, faculty, and administrators will have identified the university's internal and external customer groups: that is, there is attention to the voice of the customer accompanied by initiatives for customer satisfaction.

5. Both faculty and administrators will be working on processes, and as an outcome, will be working to improve processes; that is, both institutional cultures--faculty and administrative--are attending to the voice of the process.

6. Teams will be in place and working toward the improvement of a process or processes.

7. The university will be engaged in annual quality audits, or at the very least be working to put audits into place.

The Sample for Analysis: Bounding the System

Case study sites were selected according to three processes: the first, to determine the population for sample; second, to distinguish between the concepts and values of QM and reengineering; third, to determine which concepts/values are the major causes of quality improvement.
The Process to Determine the Population for Sample Selection

First, the Quality Network for Universities Member Experience Matrix was studied for likely candidates. The matrix was created in 1996 by the CBoC/QNU in order to summarize and differentiate the continuous process improvement (CPI) and/or reengineering activities of each member institution (Gibson, 1994). The Membership Experience Matrix identifies continuous process improvement (CPI) as a core characteristic of change initiatives. Continuous process improvement is a concept familiar to both quality management and reengineering.

Each member university was asked to declare whether or not they were, “considering, active, or had success to share” in areas of activity; a blank activity space indicated that no action had been undertaken. The eleven areas are: CPI/re-engineering, process improvement--academic support, process improvement--academic programs, benchmarking, self-directed teams, team training, leadership training, voice of the customer initiatives (internal), voice of the customer initiatives (external), annual quality audits, and ISO 9000/QS/9000 (International Standards Organization/Quality Standards).

Upon further examination it was learned that the CBoC/QNU was more interested in change initiatives in general rather than quality management in
particular (Gibson, personal conversation, 1997). Moreover, membership in the Quality Network for Universities changes over time as new members join and others leave or place their membership on hold for several reasons (i.e., the financial strain encountered by regular meeting attendance).

Although the Conference Board of Canada gave form to the Quality Network for Universities, the 1996 Member Experience Matrix identifies each institution’s CPI activities as equated with reengineering as opposed to quality improvement.

The original 12-university study tour focused on quality management as applied to four US universities, and the original group remains identified as the Quality Network for Universities, albeit the QNU acts as a network for universities interested in change initiatives. Therefore, a separation of quality management’s purpose, concepts and values from those of reengineering was required. Tables 6 (pp. 165-166) and Table 7 (pp. 167-168) as created for Criteria #2, proved very useful in distinguishing between QM and reengineering.
The Process to Distinguish Between the Concepts and Values of Quality Management and Those of Reengineering.

The asterisks (*) in Tables 6 and 7 depict six areas of difference between the values and concepts of quality management and reengineering: management by facts, long-range view of the future, continuous improvement and learning, employee participation and development, fast response, design of quality, and prevention. These differences are critical.

While both theories support the notion of management by fact, fundamental to quality management’s scientific method and data-driven decisional processes, reengineering is silent on any inference regarding variation. Without knowledge of process variation, how is it possible to know if the reengineered process is flowing as anticipated, or even that the new process is better than the discarded one? How can any process be improved if it is not first measured?

An understanding of process variation is fundamental to measurement and improvement. Thus, how can “starting over” be an option if current process status is not comprehensively understood? It would prove very expensive to reengineer a process that, if understood, could have been dramatically improved
by a simple adjustment through knowledge of process variation and the tools and methods of Kaizen.

Another difference between quality management and reengineering addresses the honor given the place of tradition by quality management during times of change, and the exclusion of tradition by reengineering. “Tradition counts for nothing” says Hammer and Champy (1993, p. 49). This is a superficial statement, which ignores the complex nature of any modern organization. Tradition is everything to the university and would naturally be a serious consideration in any institutional change initiative.

The intensity with which strategic quality management is undertaken within the context of institutional change attests to the complexity of universities. Janusian thinking (Cameron, 1984), the process of looking forward and backward simultaneously while undertaking a strategy for change, is fundamental to stakeholder buy-in and to retaining the essence of the university.

McMaster University’s mission statement (McMS) acknowledges the place of tradition in dynamic change. “Reshaping McMaster does not mean that we have to ‘reinvent’ McMaster. We do not have to destroy what has gone before, especially our traditions of research and scholarship and our commitment
to a liberal education” (McMS, 1995b, p.4). The University of Calgary’s Mission Statement (UCalMS) follows suit:

Our history leads us to combine the best of long-established university traditions with the freshness, originality, and independence of the Calgary environment. Our resources include the spirit of a frontier society and the worldwide heritage of cultures which have come together in our scholars, students, and citizens. (UCalMS, 1995b, p. 1).

In order for renewal, any organization needs a history, a clear understanding of the present, and a long-range plan for tomorrow. The Canadian university has a long and valued history out of which has arisen a tradition of excellence, but it is facing both challenges and threats unprecedented in any other time.

The most noteworthy discrepancies between QM and reengineering lie in three core spheres, all relevant to continuous learning and improvement. The first is found in “Kaizen” (small incremental improvements) versus “starting over”; that is, between the evolutionary change assertions of quality management and the revolutionary change position of reengineering.

Hammer and Champy (1993) propose that, “Reengineering cannot be carried out in small cautious steps. It is an all-or-nothing proposition that produces dramatic results” (p. 5). Further, they contend that, “Trying to fix what’s wrong with American companies by tinkering with the individual process
pieces is the best way we know to guarantee continued bad business performance" (p. 27). A discussion of the merits of Kaizen, the evolutionary and incremental changes, that taken together, produce quantum jumps in complex systems as compared with the forced change of reengineering, has already been presented in Chapter 2.

A further core difference is that QM is interested in all processes within an organization. Reengineering's interest lies mainly in improvements, through starting over, in high-order processes at the expense of other sub or microprocesses (i.e., student admissions as the high order (macro) process relies on other processes involved in student admissions—registration, accounts receivable, grants and awards, etc). Hammer and Champy (1993) claim, "We cannot emphasize the crucial distinction [between reengineering and Kaizen] enough. Reengineering must focus on redesigning a fundamental business process, not on departments or other organizational units" (p. 40). Hammer and Champy's (1993) broad, sweeping approach displays a lack of systemic thinking. Moreover, lack of knowledge regarding all processes may result in chaos from tampering, eventually slowing response times.

Although both theories support restructuring, a critical division lies between quality management's purpose of improved efficiencies to enable job
creation and innovation, and reengineering's purpose of improved efficiencies to downsize and reduce jobs. Whereas each theory recognizes the importance of restructuring, quality management is for the long-term continuous improvement of the university while reengineering is a short term, quick fix usually fraught with job losses and poor morale.

When people believe that their participation in the organization (i.e., through teamwork), may in fact lead to job losses for a peer or for themselves, interest drops off remarkably. If an organization loses the trust of its strategic advantage--its people--any intervention for process improvement will be doomed to failure. Organizational vitality suffers, morale decays. In addition, response time may lengthen due to reluctance and/or nonparticipation on the part of employees. Quality management drives out fear, reengineering drives fear in.

In a cultural context, substantive change may indeed occur via reengineering but in a negative direction. Change agents working in a reengineered environment may be dismayed by cultural resistance, yet in reviewing the fundamental differences between quality management and reengineering, resistance can be readily anticipated.
The Process to Determine which Concepts/Values are the Major Causes of Quality Improvement

After having differentiated the theoretical bases of quality management and reengineering, a new question arose. What are the major questions to ask to ascertain if an institution is engaged in the processes and committed to the values of QM as opposed to reengineering? To determine the major question(s) areas, an interrelationship diagraph was constructed using the Malcolm Baldridge National Quality Award (MBNQA) values and concepts as existing groupings or activity headers which serve as the foundation for the philosophy, theoretical basis, and practice of quality management. The method used to determine major question areas was the construction of an interrelationship diagraph.

The construction of an inter-relationship diagraph requires a number of grouping headers normally generated through a process of brainstorming, or in the case of this study, taken from those found in the 11 concept and value groupings of the Baldridge award criteria.

The purpose for constructing an interrelationship diagraph is to take "the central information, idea, issue, or problem [such as found within the MBNQA criteria], and [map] out the logical, sequential links among
related items" (King, 1989, p. 4-6); for instance, the logical connections among the Baldridge award values and concepts. In doing so, the ID method surfaces, reveals, and delineates observable patterns of interrelatedness (King, 1989).

As depicted in Figure 7, the results of the ID diagraph show the causal relationships among the MBNQA’s concepts and values. Causal relationships are indicated by an arrow away from the concept/value ( ---->) while effects are indicated by an arrow toward the concept/value (<----). To determine whether each concept/value is a cause for or an effect of all other concepts/values, a team asks—does A determine B, or B determine A? Only one answer may be given. Although many concepts are both causes and effects for each other, only the one most salient relationship is acceptable; the team, or in the case of this study, the individual must decide between cause and effect.

After the direction of the connection is determined, the number of arrows out and the number of arrows in are counted. The outcome of counting is written with the out arrows (causes) first and the in arrows (effects) last. For example, the result of the ID shows the value, customer-
Figure 7. An inter-relationship diaagraph (ID) to address the question, "What is the most significant cause of successful implementation of QM?"
driven quality, as causal in nine relationships and as affected by only one
other concept leadership, therefore, the score is 9/1.

Likewise, leadership is causal in eight relationships but effected by
only two: continuous improvement and learning, and management by fact.
Hence the score is 8/2. It can be reasoned from the ID method that
leadership committed to the value of customer-driven quality, can, when
informed by data and information, and influenced by a commitment to
continuous improvement and learning, promote substantial payoffs for an
organization.

The outcome of the Baldridge National Quality Award criteria ID
has been prioritized from those values/concepts with greater causal
importance to those with lesser causal worth: (a) Customer-driven quality,
9/1; (b) Leadership, 8/2; (c) Continuous improvement and learning,
management by fact, employee participation and development, all tied at
6/4; (d) Long-range view of the future, 5/5; (e) Corporate responsibility
and partnership development, 4/6; (f) Results orientation at 3/7; (g) Design
of quality and prevention, 2/8; (h) Fast response, 1/9.

Therefore, the two major areas for direction concerning the overall
study and the interview process are customer-driven quality and
leadership. It can be accepted that these two areas have the most influence on all other concepts/values. How then do the concept of leadership and the value of customer-centeredness differ between the two frameworks—quality management and reengineering? To flesh out the differences, three decision trees were constructed.

A decision tree is used to best address "all of the factors which contribute to the existence of the key problem" (King, 1989, pp. 4-10) or situation. Figure 8 establishes the characteristics of quality leadership as determined by Scholtes (1988) while Figure 9 uses nearly identical leadership characteristics but in the context of reengineering. Because reengineering and QM value customer satisfaction in very similar ways, Figure 10 outlines the elements necessary to achieve customer satisfaction.

The term QFD within Figure 8 is the abbreviated form for quality function deployment. QFD is the process for developing the communication and resources systems throughout an organization for the purpose of organizing and coordinating the logistics for change (Scholtes, 1988). In other words, QFD "is a means to identify and carry the voice of the customer through each stage of product or service development and implementation" (Marsh, Moran, Nakui, Hoffherr, 1991, p. 25).
Mission and Vision

Quality Leadership

Purpose
Primary: To improve quality.
Secondary: To reduce costs.

Figure 8. A tree diagram to address the question, “What are the characteristics of quality leadership?” Adapted from Scholtes (1988, pp. 1-14).
Figure 9. A tree diagram to address the question, “What are the characteristics of reengineering leadership?”
Customer satisfaction in quality management

Value of customer satisfaction drives leadership

Positive satisfiers:
- More satisfiers than dissatisfiers.
- Quality in fact VS. quality in perception.

More satisfiers than competitor's product/service.

Positive delighters:
- More delighters than competitor's product/service.
- Voice of the customer.

Voice of the customer.

Surveys Focus Groups

Feedback for planning

Eliminate dissatisfiers

Distinguish between the two

Continual improvement

Creativity and Innovation

Design and Planning

Something experienced but not expected

Feedback for planning

Survive and Thrive

Figure 10. A tree diagram to determine the elements of customer satisfaction in quality management.

*Process improvement here focuses on democratization of the organization.
The tree diagrams for quality leadership and reengineering leadership provided the basis for developing interview questions in a way that is sensitive to organizational culture. The ID of the MBNQA criteria provided the most pertinent concepts and values to begin questioning around customer-driven quality and leadership. The remaining research problem was to finalize the decision as to which universities to study.

**Process for Finalizing the Decision for Case Study Sites**

Because the 12 original universities participated in the 1994 CBoC/QNU study tour to increase knowledge on how total quality as a change strategy could benefit institutions of higher learning, one could assume at least a fledging interest in QM on their part. These 12 universities comprised the population from which a sample of two universities for case studies was drawn. In keeping with the second criteria for case selection, 10 of the 12 universities\(^6\) participating in the CBoC sponsored study tour were visited at their internet website.

A university website provides an opportunity to learn more about each university thus making it more transparent for public scrutiny. For

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\(^6\) The remaining two universities were the University of Montreal and Concordia University, the former Francophone and the latter bilingual. This researcher is not bilingual.
example, a parent or student, in consideration of which university to choose for higher education, may visit several universities' websites/home pages to learn more about what each particular university has to offer academically and also administratively in terms of policy and future direction.

A university’s home page presents an excellent opportunity to market its mission, vision, values/guiding principles, and strategic direction openly within the public domain. In part, the openness required of any university willing to share its strategic plan with the public is a demonstration of greater public accountability. This proved to be so for four of the study tour universities: the University of Calgary, McMaster University, the University of Western Ontario, and Memorial University. The remaining six universities, the Universities of British Columbia, Alberta, and Regina, Queen’s, Carlton and Laurentian either had no mission statement available or the information supplied was either unclear or too sparse to be considered for the study.
Process for Elimination and Final Selection

A document analysis was completed for all four potential sites. The University of Western Ontario (UWO) was eliminated because of the following:

1. UWO’s documents were too long and wordy. One of the hallmarks of QM is the brevity with which statements can be made concerning mission, vision, values and strategic direction. Clarity of thinking and depth and breadth of dialogue secure the organization’s ability to make clearly articulated verbal and written statements. Hence, one expects to see large amounts of material collapsed into well crafted yet brief statements wherein the essence of the university’s purpose, vision, and values is readily accessible to any interested person or group.

2. Using as its central theme, “leadership in learning” (UWO, 1995, p. 2) and the concept of a learning culture as one that, “must be both mindful of tradition and values and also responsive to new challenges and opportunities” (UWO, 1995, p. 1), UWO’s mission statement provided insufficient evidence of a clear understanding of learning organizations or learning cultures, which this research presupposes are outcomes of Deming’s (1982, 1986) 14 Points (Senge, 1990a; Seymour, 1993).
Indications of some movement in perspective could be found in UWO's statements such as that on Staff and Administration found in Section 6 of the Mission Statement. However, it cannot be argued that a fundamental shift in traditional thinking has taken place. Emphasis remains on outcomes (annual performance indicators) although the notion of customer satisfaction is built into the notion of process performance. For example, the following statements demonstrate tendency to change but not necessarily metanoia:

The [annual performance] indicators should include assessments of service quality as perceived by the users; all major administrative documents and policies should be readily available electronically; and, an objective should be to streamline and economize administrative processes, relying in large part on the suggestions of staff whose perspectives of those processes is based on direct experience. (p. 2)

The statement implies that process will be redesigned by those in authority after having received input from those who work in the process. Individuals actually doing the work are those who should be (re)designing the process.

Memorial University's Mission Statement (MUMS, 1994) showed a strong quality consciousness making quality its central focus. The chosen theme at Memorial University is "quality in everything we do"
(MUMS, 1994, p. 13). Out of the central theme Memorial has developed five focus areas: quality, outreach education, community resource, Mid-North/Atlantic, and expanding horizons (p. 13). Although the expanded explanation for all five focus areas clearly contained the language of a QM direction, of particular interest to the study was the first of the five focus areas: “Quality. The university will systematically act to enhance quality in all its services: to students, to the rest of the university community and to external stakeholders” (MUMS, 1994, p. 13).

The document itself was laid out in an accessible format, easily read and understood. Memorial University was a convincing contender for inclusion in the study but there was one drawback. It lacked the size and the political, cultural, and socioeconomic environment of the other two, McMaster University (Mac) and the University of Calgary (UCal). It seemed more meaningful to compare and contrast change at two universities with similar economic and political environments.

Universities in Ontario and Alberta are governed by Provincial Progressive Conservative Governments that have each set forth serious conditions for cost-cutting and downsizing. Although Ontario and Alberta have suffered recent economic downturns, neither has felt the economic
and social devastation of Newfoundland whose economic base was devastated by the shut-down of the cod fishing industry in 1992. The magnitude of disruption in Newfoundland has caught the attention of Memorial University that includes in the mission statement “a special obligation to educate the citizens of Newfoundland and Labrador, to undertake to research on the challenges this province faces and to share its expertise with the community” (1994, p. 6). The needs of the province may outweigh Memorial’s capacity for attending to internationalization at least in the near future.

In addition, Mac and UCal are larger centers of higher learning than their eastern cousin. Both Mac and UCal have a more clearly defined global presence. Calgary, while not expected to overshadow Toronto, is fast becoming known as the energy and communication center of Canada and tends to have more of a commerce orientation (Maclean’s Magazine, 1997) while Hamilton is known for its industrial base oriented to the manufacture of steel.

Because of these factors, the mission statements, and strategic directions for Mac and UCal were studied for their appreciation of a QM-like focus and their match with the seven criteria for case study selection.
The University of Calgary's Mission Statement and Strategic Direction

The University of Calgary’s mission statement was assessed to be closely related to Deming’s theoretical framework. In terms of one of the major indicators of quality, customer satisfaction, UCal states that “students are partners in discovery” (UCal., 1995d, p. 1) and that:

The needs of our students are central to our shaping of the University and our choice of directions. We aim to offer a sense of community, to address each student as an individual, to create a stimulating and encouraging environment for discovery, learning, and personal development. (UCal., 1995d, p. 2)

In support of constancy of purpose and constituent participation, the mission statement acknowledges that, “Strategic planning will flow from this mission statement and the participatory process which has shaped it, drawing on the wisdom and experience of all sectors of the University community and its governing and advisory bodies” (UCal., 1995d, p. 3). The ideal environment is seen as one of service quality in which members practice “mutual respect...[and] build a sense of community and openness by enhancing services and ambiance” (UCal., 1995d, p. 3).

However, it is within the document, Our Strategic Direction to the Future, that accompanied the mission statement from the same Internet site, that Deming’s philosophy can be immediately identified. UCal states
that it will not accept the status quo, rather, it will be guided by purpose and values, and in so doing, the institution recognizes the need to establish partnerships and collaborative arrangements as a new way to achieve its goals (UCal., 1996e). Within the following principle, UCal attends to the notion of partnerships while identifying its many and diverse customer groups.

Achieving and sustaining highest quality in our core activities requires the development of strategic partnerships and collaborations with other universities and educational providers throughout the world; with businesses and the professions, and with government. We will develop new kinds of partnerships for mutual benefit...[the University] has a special responsibility to its community and to Alberta. Our partnership will begin here. (UCal, 1996e, pp. 1-2)

A second principle guiding UCal is that of realigning its undergraduate curriculum “to serve learner needs for the knowledge era” (UCal, 1996e, p. 2). In this principle, UCal is focusing on the intellectual and personal growth of its students in terms of knowledge and skills to enter a changing global economy and the required competencies to succeed at home and internationally. It is both a learner-centered and teacher-centered approach that relies on continually improving the processes of both teaching and learning. “...experiential learning will be encouraged. Undergraduate curricula and delivery methods will be
significantly redesigned. Excellence in teaching will be enhanced by providing professional development opportunities for those who design programs and deliver instruction...” (UCal, 1996e, p. 2).

An implicit understanding of systemic thinking is found in the third principle concerning the realignment of graduate programs, “We will seek ways to involve all faculty members in graduate education across disciplinary lines. We will pursue regional complementarity among graduate programs, and will partner with other universities to share resources for graduate education” (UCal, 1996e, p. 3).

Meeting the needs of the surrounding community through post-degree continuous learning demonstrates insight into the need for continuous learning, customer satisfaction, and leadership.

University graduates now require continuous renewal and expansion of their knowledge and capabilities throughout their professional and personal lives...We will analyze this need, determine what types of programs are most appropriate for the university to offer, and commit to providing them. We will examine ways of increasingly utilizing the masters degree for professional development...We will seek to develop world-wide markets for selected programs. (UCal, 1996e, p. 3)

The most salient evidence of QM was found in two diagrams that outlined the reporting structure of the Coordinating Task Force (a subcommittee of the University Planning Committee) and the four phases
envisioned as necessary for the institution’s transformation to a 21st Century University. This information also accompanied the mission statement. The diagrams, shown in Figures 11 and 12 were readily accessible to the reader in terms of clarity and immediate comprehensibility.

Further, a breakdown of each of the four implementation phases, as shown directly below the graphics on Figure 11, was attached to UCa17s documents to assist the reader toward complete understanding. The way in which large amounts of information had been collapsed for the reader is typical of how information is presented in a QM process. For all the above reasons, the University of Calgary was chosen as a case study to look at change initiatives in higher education in Canada and how those initiatives echo QM principles and methods.

McMaster University’s Mission Statement and Strategic Direction

McMaster’s mission statement (McMS) reads:

At McMaster our purpose is the discovery, communication, and preservation of knowledge. In our teaching, research, and scholarship, we are committed to creativity, innovation, and excellence. We value integrity, quality, and teamwork in everything we do. We inspire critical thinking, personal growth, and a passion for learning. We serve the social, cultural, and economic needs of our community and our society. (1995b, pp. 1-2)
Areas of focus

Figure 11. Reporting structure for the Coordination Task Force, the University of Calgary.

From Reporting Structure (p. 1). By the Coordination Task Force, the University of Calgary, 1996, Calgary, AB: Author. Reprinted with permission.
Figure 12. Process steps for institution-wide transformation

Adapted from Process and Outcomes (p. 2). By the Coordination Task Force, University of Calgary, 1996, Calgary, AB: Author. Copyright 1996 by the University of Calgary. Reprinted with permission.
“Quality”, “teamwork”, “innovation”, “excellence”, “serve” are all words common to QM. In the reading of McMaster’s mission statement and strategic direction, other QM relevant concepts were eye-catching. For example, in the “Goals” (p. 4) section McMaster has chosen such principles as: linking scholarship and education, valuing each other and valuing students, rewarding accomplishment, creating partnerships, breaking down barriers, changing structures, creating learning opportunities, measuring progress, all as means to fulfill the mission and vision: “To achieve international distinction for creativity, innovation, and excellence” (McMS, 1995b, p. 3).

On delving more deeply into the goal statements other indications of a QM-like mind set can be found. For instance, in “Building Strengths” (McMS, 1995b, p. 5) the author moves toward organizational alignment: “In all cases departments and programs will be expected to connect their plans to the University mission statement and to the criteria for resource allocation” (McMS, 1995b, p. 5). Moreover, under “Rationalizing Province-wide” (p. 5) the statement, “We value quality” has been italicized for emphasis.
However, McMaster’s mission statement seems to view quality in a narrow sense, in terms of efficiencies only, “We will not stand in the way of attempts to improve quality by removing unnecessary duplication in the post-secondary system, even if this means that our own programs have to be changed” (McMS, 1995b, p. 5).

Customer service is noted in the phrase, “...we must listen attentively to what our students are telling us and respect their opinions about the learning experience at this university” and further, “We will achieve our mission only if all faculty, staff, and students respect and take pride in one another” (McMS, 1995b, p. 5). The most telling QM phrase in this section on “Enhanced Respect” (p. 5) is the following:

We will support programs that ensure equal treatment, assist those with special needs, maintain a workplace that is free from fear, and provide a welcome environment for all students...We inspire personal growth by showing respect for the contributions made by every member of this community. (McMS, 1995b, pp. 5-6)

The idea of driving out fear, of respecting everyone’s job as important to the accomplishment of mission and the realization of vision, and the work space acting as a space for continuous learning can be attributed directly to Deming (1982, 1986, 1993). In addition, McMaster’s mission statement touches on the notion of empowering individuals within
the organization to take the initiative in discovery, innovation, and creativity.

We must be prepared to give people the authority they need to innovate, to acknowledge that success and failure are inevitable parts of the process of innovation, and to reward and support the learning that comes from both. (McMS, 1995b, p. 7)

If actualized within the university community, the above principle is a fundamental act of leadership that stems from legitimate power—the power that comes from giving power to others as opposed to robbing others of their power and dignity.

According to the McMS (1995b), integrity as a core value is demonstrated in the measurement of progress, even though “we may never be satisfied with these measures” (p. 8). Measurement is the road to continuous improvement, especially when measures and their results are open and accessible to the community. Everyone needs to know how the university is doing in order to determine ways to improve performance in accordance with mission, vision, and values. Although the measures outlined in the section on “Improved Evaluation” (McMS, 1995b, p. 7-8) tend toward outcome measures at the risk of neglecting process performance, McMaster’s mission statement overall showed enough of the necessary ingredients of QM to be chosen as a case study.
The University of Calgary and McMaster University each have large medical schools. Both medical school are treated differently from the rest of the university community. For example, at McMaster, medical students are not part of the McMaster Student Union. In Alberta, the Faculty of Medicine, and in Ontario, the Faculty of Health Sciences, have their own vice-presidents and their own funding mechanisms. For these reasons, the study was limited to the universities exclusive of the medical schools.

Case Study Method

Introduction

Key informants from the University of Calgary were identified prior to the site visit. A letter written to Dr. Ian Winchester, a previous professor from the Ontario Institute of Studies in Education, Higher Education Group, was the key to accessing information about potential contacts. Consequently, Dr. Howard Yeager, Associate Vice-President, Academic and Planning, became the gate-keeper for preparations to visit UCal, for assistance while on site, and as a continued source for clarification during the analysis phase.
Permission to study UCal was assumed because like McMaster, I was made to understand that institutions of higher learning, being research grounded, tend to be open to research about the institutions themselves. Both Dr. Yeager and Dr. Weingarten, Provost, at McMaster University, waved any requirement to take a request for permission to a higher level. Despite reassurances I remained uncomfortable without a more formal process for permission to access and research these institutions. To this end I sent an e-mail to Dr. T. White, President, UCAl, requesting permission to study UCAl. His return message is found in Appendix G. Moreover, I received verbal permission from Dr. George during his interview in late September, 1997.

Dr. White’s message predicates the issues of confidentiality that currently surrounds the transformative initiatives at UCAl. However, my research did not involve the study of team work in action or improvement projects per se. Rather the purpose was to understand in more global terms the strategic change directions taken at UCAl. I decided to go to UCAl and visit Dr. Winchester as suggested by Dr. White.

The time of year that I visited UCAl was the end of March/first of April 1997. This proved to be an inopportune time as it was during final
examinations at the end of the academic year. Previously identified key informants were all available with the exception of the Provost, Dr. J. Calkin. Although I had written to several individuals to establish an interview schedule before my anticipated arrival, only two individuals responded.

At the end of my site visit, I had been able to interview nine informants and had attended one meeting to dialogue about change within the Faculty of Humanities. Approximately half of these people were suggested by key informants as contacts that might be of interest.

The case study at McMaster was conducted over the summer and early autumn, 1997. In terms of informal student interviews, this too was not the best time. Students were involved in compacted summer courses and preoccupied with workload. However, all those academics and administrators whom I wished to interview were available during that time. Eight interviews were conducted in person at McMaster. Another conversation concerning Board of Governors Minutes was held over the telephone.
Data Collection

For both research venues, data collection was undertaken as a three-fold process: key informant interviews, document analysis, and observations.

Interview Format

The first two interviews were conducted at McMaster University and followed a semistructured interview format. However, after arriving at the first interview at the University of Calgary, I recognized that this style was not well suited to this particular environment which seemed far advanced in its use of the technical language of quality and in its understanding and application of teamwork and process improvement. There was a set of sequential steps that told a story about why and how the university was proceeding through its transformation.

Moreover, participants were less formal in conversation and were eager to share any information that they could. They were brimming with excitement about the changes occurring within their university, whether in a department, faculty, unit or institutionally. There was a great deal of pride in the work that had been accomplished and that was continuing.
Therefore, the interview process was revised to allow each informant to unfold his/her story within the context of the larger university story. Essentially, the overall experience of organizational change was nested in the story of each respondent and it was his/her story of most interest. Hence, a recursive approach was used through which each interviewee’s statements became the drivers for continued questioning (Aune, 1995, p. 153).

The skeleton outline for questions (see Appendix C) remained as a backdrop but a goal for each interview was also established. For example, the goal for an interview with a health science informant was to determine the interconnectedness between the university and the community. The issues that have arisen in the context of that relationship as a result of health care institutional downsizing were expected to have a direct impact on the university in terms of student placement and future employment. How was the nursing science faculty adapting to these changes and what sorts of innovations may have come out of the challenge?

Because I had chosen to allow more flexibility into the interviewing process I needed a check point to establish the degree of directiveness
that I was inserting into the revised interview style. I found a way to
evaluate myself in Whyte (1984) who presents a “modified and simplified
version” (p. 99) of research done by Richardson, Dohrenwend, and Klein
(1965, as cited in Whyte, 1984).

Whyte (1984) presents an evaluation scale that “examines the
degree of directedness in any question or statement by the interviewer by
examining it in the context of what immediately preceded it during the
interview” (p. 99). The scale consists of six measures of directiveness
ranging from (1) as the lowest to (6) as the highest.

Whyte’s (1995) six measures of directiveness are as follows:

1. “uh-huh...a nod of the head” (p. 99),
2. reflection as in parroting back or repeating the last phrase as a question,
3. probing the last remark: for instance, attending to the interviewee’s last
   idea or statement by raising some further question about it;
4. “probing an idea preceding the last remark” (p. 99): for instance,
   recalling the informant to any one of a number of ideas contained within a
   longer uninterrupted assertion;
5. probing an idea expressed earlier on in the interview itself,
6. the introduction of a new topic area.
When a remark can be categorized by two different degrees Whyte's (1984) conventional rule is to categorize at the lower number. Two transcribed tapes from the University of Calgary were selected randomly by pulling informant names from a hat. Of the two interviews previously conducted at McMaster University, only one had been taped and was therefore included in the interview evaluation. All three tapes were evaluated using Whyte's (1984) evaluation method. Table 8 provides the outcome of the evaluation process.

One can readily see that reflection and probing were the most commonly used interview strategies for respondents from the University of Calgary. The data are skewed toward the less directive side of Whyte's (1984) scale. This pattern mirrors the systematic and structured way in which the University of Calgary has undertaken its transformational process. Time has been invested to ensure a collective understanding before each step of the transformation is completed and the change process moves forward. In addition, the interviewer and the informants shared an informed language concerning change so that the introduction of new topic areas or backward probing were undertaken mainly to switch topic direction.
Table 8

The Number of Each Type of Question Asked to Determine the Degree of Directiveness Within the Interview Process.

<table>
<thead>
<tr>
<th>Transcriptions</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Total</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP, U Calgary</td>
<td>3</td>
<td>25</td>
<td>21</td>
<td>6</td>
<td>12</td>
<td>10</td>
<td>77</td>
<td>25</td>
</tr>
<tr>
<td>HY, U Calgary</td>
<td>0</td>
<td>25</td>
<td>40</td>
<td>6</td>
<td>3</td>
<td>13</td>
<td>87</td>
<td>40</td>
</tr>
<tr>
<td>AD, McMaster</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>10</td>
<td>24</td>
<td>10</td>
</tr>
</tbody>
</table>
At UCal and at McMaster University, all informants were interviewed at a time and place of their convenience. At the University of Calgary two Vice-presidents (Academic and Finance/Administration), two Deans, one Associate Dean, the President of the Student Union, two department managers, and one front-line worker were formally interviewed. To build in consistency between the two case studies I attempted to gain access to individuals at McMaster who would reflect the positions of those at UCal. To this end McMaster’s participants included the President, two vice-presidents (Academic and Administration), the President of the Student Union, two Deans, and two department managers. Although the samples are small, they represent the institution-wide gatekeepers of change or those who have initiated significant change within a department or unit. Each formal interview lasted from 1 to 2 hours at UCal and from 30 minutes to 1 hour at McMaster. Two participants from McMaster requested a list of questions prior to the interview; no such request was made from UCal.

Yin (1994) cautions against asking leading questions. Although this was avoided, on occasion an insight was shared with an informant as a check for what was being perceived and observed. This process actually
encouraged further engagement from the informants, my sense being that the informants felt heard.

Students were engaged in informal discussions in various places at UCal such as the McEwan Student Center, the MacKimmie Library, the Nickle Arts Museum, the Physical Education Building, the university grounds, the city’s C-Train, and so on. At McMaster, students were involved in informal discussions at the student union and the cafeteria.

With permission from each respondent, all formal interviews were taped. No one refused to be taped at UCal, although one individual requested that he/she remain anonymous in all aspects of the study. At McMaster, one individual refused to be taped and also wished that all comments remain anonymous. Prior to each interview the purpose of the research was fully explained and all questions concerning the research were answered. In addition, all informants were asked to sign a consent form indicating their agreement to engage in the study.

All informants were assured that interviews would be kept in strict confidence and shared only with the researcher’s committee. Many of the informants at both sites agreed to have their name and/or title used within the context of the completed study. Such flexibility allowed for a more in-
depth description, analysis, and interpretation of UCal and McMaster. It also demonstrated confidence and openness regarding the transformative processes underway. In particular, respondents at UCal appeared far more informed about the history of the change process and the continuing efforts within the university at large.

Following each interview, reflections on the interview and on other observations made were taped as a personal journal for future reference. All taped interviews were transcribed verbatim. Many were transcribed into the computer immediately following the interview. Immediate transcription contributed to the direction of future interviews as many questions and themes began to arise with some consistency; other interview information directed new question areas.

To ensure participant comfort with his/her contribution to the study, a copy of each transcribed tape was forwarded to the appropriate individual for revision, addition, deletion. Five transcriptions from UCal and six from McMaster were returned with minor revisions. Those unreturned were assumed to be acceptable as indicated in the letter that accompanied each transcript (see Appendix H). Because the return date for UCal transcripts was June 14th, analysis of the interviews was not
undertaken until June 20th. The latest return date for McMaster was October 25, thus analysis was held until mid-November.

Interview Data Analysis

Data analysis was directly linked to the concepts, values, and themes of QM. To accomplish the linkage, the 11 categories of values and concepts from the Malcolm Baldrige National Quality Award (see Table 6, pp. 165-166) were used as codes to abstract relevant data (Merriam, 1988). In addition, interview contents were scrutinized for emergent themes in transformative processes. Finally, strengths and weaknesses found within the chosen strategic initiatives were identified and causally linked with the theoretical propositions (Yin, 1994) of Deming (1986) and Juran (1989).

Document Analysis

It was because of the clarity of UCal’s mission statement that it was chosen to be included within the study. In particular, diagrams of the change process were included within the documents of mission, vision, and strategic direction. One could readily see the direction taken and gain
awareness into how change at UCal was to unfold. These diagrams have been included with permission as Figures 11 and 12 (pp. 194-195).

Some additional documents include: The University of Calgary Calendar, 1997-98; the University of Calgary’s (1996) Strategic Direction to the Future; Looking Toward Our Second 30 Years: Setting Direction and Context (University of Calgary, 1996f); Looking Toward Our Second 30 years: Crafting Our Strategy for the Future (University of Calgary, 1996g).

The documents from McMaster University include: McMaster University School of Graduate Studies Calendar 1997-98, Directions, Directions II, McMaster University Courier (June 23, 1997), McMaster Times (1995, Fall), and On the State of the Academy, an address by Weingarten (1997, January), to name a few.

An annotated bibliography of documents reviewed but not directly referred to in the text has been prepared for the reader’s interest and can be found in Appendix I.

Observation was ongoing and simultaneous with the interview and document analysis processes. Observations included the physical
environment, student-student interaction, student-faculty interaction, the
demeanor of informants during the interview itself.

One particular opportunity for observing the interaction between
students and faculty was presented at a discussion group hosted by UCal’s
Dean Randall, Faculty of Social Sciences. The discussion group had been
formed for the purpose of reviewing and addressing aspects of the Faculty
from a number of directions. The committee struck by Dean Randall was
represented by faculty, undergraduate, and graduate students. Several
discussion groups were held between March 31 and April 4, 1997. It was
the last group that I was invited to observe. Among issues to be addressed,
the following questions were posted on a flyer, Speak Up (1997c),
distributed to encourage participation:

- What are core competencies associated with an
  undergraduate/graduate education in the Social Sciences?
- Can a common core be identified or are such competencies
  specific to a particular discipline?
- If a common core can be identified, how can curriculum
  within the Faculty of Social Sciences be redesigned to reflect
  these commonalities?
- What is the relationship between faculty and student research
  and undergraduate/graduate instruction? How does research
  relate to curriculum design? (Speak Up, 1997c)

A diary of observations made during the site visit and notes taken
during the course of the discussion group will be introduced during the
discussion of the research analysis and findings. The diary and notes were used to remind the researcher of observations made within various contexts while visiting the University of Calgary and, later, McMaster.

After the case studies were completed, a copy of the appropriate case study was forwarded for comment to Howard Yeager, Associate Vice-President, Academic and Planning, University of Calgary and to Evan Simpson, Dean, Faculty of Humanities at McMaster University. Yeager’s response can be found in Appendix J.
The Context

Unknowingly, one might think that the following paragraph was written about the University of Calgary (UCal) as opposed to the city of Calgary. The university reflects the values and diversity of the community in which it is nested.

[Calgary] has a freshness about it, a vibrancy, a sense of confidence and newness. It likes to see itself as a place on the edge of the frontier, where people put greater stock in enterprise and moxie than they do in fine manners or old-school ties, where cowboy hats bob unremarkedly past pin-stripped suits downtown. (Nemeth, 1997, p. 13)

Large and looming on the northwest end of the city, The University of Calgary sits sprawled and open but with the charm and vitality of a small town university; a place that locals view as an extension of themselves. The confidence of the city is palpable in its university even against an economic background of cost cutting that is in its last year of a 3-year 21% decrease in Provincial funding.

Calgarians are a resilient people, accustomed to continuous changes in weather, short-sleeved in what Ontarians would think begs the layered-
look. There is a confidence about the present and the future, a sort of acceptance of the unknown; a sense that no matter what should appear on the horizon, it will not be greater than they, together as a university community, can handle.

A sentiment of pride permeates the university community. Calgary boasts more university graduates per capita than any other city in Canada. Fast becoming the center of commerce for Canada, the university is embedded within a population from all corners of the globe. Reflected in the student body and the faculty, a concentrated effort is being directed by UCal toward internationalization.

Calgary itself is seen as "the economic heart of a province that has outperformed the Canadian economy in every year since 1990 except one..." (Infometrica as cited in Nemeth, 1997, p. 14). In fact, Alberta and British Columbia, while accounting for only 20% of the population, produced almost half the new jobs in Canada last year (Nemeth, 1997). The importance of Calgary and Alberta as growing economic forces has not been missed by the university. UCal is looking vigilantly at new opportunities to connect curriculum with workforce needs. Partnerships with Calgary's business sector are being vigourously courted by UCal.
Like the city, UCal is awash with the entrepreneurial spirit. Although job placement for its graduates is not the most important aim of the university, it looms ever-present as an important consideration for the curriculum and certainly for the purpose of the university. The move into internationalization supports the notion of a job-relevant education. However, most prominent at UCal is its shift to learner-centeredness, and such a shift cannot afford to ignore the needs and expectations of the learners.

As additional indicators of Calgary’s robust economy, Nemeth (1997) includes:

The city is now only second to Toronto as a corporate head-office center. It is home to 92 of The Financial Post’s top 750 firms, listed by 1995 revenues. Toronto has 118. Calgary has the lowest unemployment rate of any major center in Canada, just 6.5 percent. The national rate is 9.7 percent. (p. 15)

The price of crude oil, trading at $26 a barrel is at its highest since the Persian Gulf War in 1991 (Nemeth, 1997).

In the context of lifestyle and cost of living, last year Calgary had a 1.5% apartment vacancy rate (Canada Mortgage and Housing as cited in Nemeth, 1997) and had the “most single family housing starts [per capita]
of any large Canadian centre last year” (Nemeth, 1997, p. 15). Cost of living is less than that of Vancouver.

As large corporations, like Canadian Pacific Rail, move their headquarters west, Calgary’s citizens hail from all parts of Canada—Montreal, Toronto, Saskatchewan, and the Maritimes. People talk to each other in Calgary. Many observational trips to the city’s core were highlighted by conversations with strangers happy to give directions or share the western spirit of warmth and friendliness. No one need feel alone on the city’s sidewalks, trains, or buses.

The downtown reflects the multicultural flavour of Calgary’s population. The Chinese Cultural Center stands out against the backdrop of Chinese, Japanese, and East Indian markets and restaurant vendors. The area bustles with the sites, sounds, and fragrance of spices from the East. Small galleries, boutiques, and artisan studios can be found as well as large shopping centers common to any Canadian city. The diversity of cultural tastes and cosmopolitan flavors are mirrored in the student, MacEwan Centre, at the university.

Although Calgary is enjoying a time of unprecedented prosperity, the city’s propensity for growth has been won at some cost. The Alberta
oil boom of the 70s “led, inexorably, towards a bust of the early 80s—a traumatic period of bankruptcies and mass layoffs” (Nemeth, 1997, p. 15). Calgary’s Mayor Duerr believes that the period of downsizing in Alberta commenced in 1982, and that the early experience of retrenchment helped to buffer Albertans from the recession in the early 1990s (Nemeth, 1997).

While the population of the city of Calgary has grown to “767,059, a jump of 18,000 over the previous year” (Nemeth, 1997, p. 16), according to Dr. Winchester, Dean of the Faculty of Education, the university is experiencing similar accelerating growth patterns:

When I came [three years ago] there were 16,600 full-time students or their equivalent and there were 1600 faculty so the ratio was about 10 to one. That's a very good ratio, not unlike Oxford or Cambridge. And now the student numbers have climbed. The university has presently got 22,000 full-time students. That's quite an increase. (personal communication, April 3, 1997)

The University of Calgary

The University of Calgary originated out of the University of Alberta (U of A), Edmonton. Starting as the University of Alberta at Calgary, UCal as a stand-alone institution is just 3 decades old having gained full autonomy as a degree-granting institution in 1966. Today it has over 16 faculties and more than 60 academic departments and major
program areas which lead to degrees at the bachelors, masters, doctoral, and professional levels in traditional and interdisciplinary fields (University of Calgary, 1997a).

Situated on 123 hectares, the campus is sprawling, the stairs many. Recently the university has been converted to wheelchair accessibility with inside and outside ramps, washrooms, and elevators. There are 18 buildings on the main campus and several teaching-learning sites off-campus such as the biological field station at Kananaskis Valley, the Rothney Astrophysical Observatory, and the medical school adjacent to Foothills Hospital.

Research funding is in the order of $64 million per year, often times exceeding that number. A Calgary-owned company, University Technologies, concentrates on licensing and royalties arrangements on behalf of the university.

UCal takes its name from the city of Calgary which means “clear, running water in Gaelic, [and] comes from Calgary Bay on the Isle of Mull in Scotland” (University of Calgary, 1997a, p. 13). Its motto, “Mo shuile togam suis,” is Gaelic for I will lift up mine eyes. It seems a fitting motto for there seems to be a feeling that there is nothing that UCal cannot
achieve once it has set its eyes on a target. In the welcoming remarks found within the University of Calgary 1997-1998 Calendar the following description of UCal can be found:

The University of Calgary shares the youth, energy and enterprise of the city and province in which it has grown. Our history leads us to combine the best of long-established university traditions with the freshness, originality and independence of the Calgary environment. Our resources include the spirit of a frontier society and the worldwide heritage of cultures which have come together in our scholars, students and citizens. (p. 13)

Transformation at the University of Calgary:

The Last Decade (1987-1997)

Introduction of Quality Management: Tools and Methods

The University of Calgary, like many recently founded universities, has been in continuous change ever since its inception. However, the first structured change initiative began at UCal during the late 1980s. In 1989, change initiatives at UCal were begun in earnest as a result of a concern voiced by the Vice-President, Student Affairs about the first year student experience. A broadly representative committee with a heavy academic component was assembled to study the transitional phase between high
school and university. One of the committee members was Ed Possberg, Human Resources, who had been invited to share his knowledge with regards to activities such as training and development. Possberg frames the early work of the committee as follows:

What happened out of [the early discussions] is that there became quite an interest in certainly that first year experience and the importance of that whole transition; but it doesn't stop then. It's just the beginning of university life and so they began to get into all kinds of questions like the longer term experience of the person in terms of how they [students] felt about the university as a whole, and what would it be like when they left, would they say nice things or bad things? So out of all that sort of thing came a concern about what was then called customer service. (Personal communication, April 3, 1997)

The notion of customer service brought about the formation of a subcommittee, the Quality Service Steering Committee (QSSC), spearheaded by Possberg. The purpose of QSSC was to consult the literature directly related to customer service within higher education. This search introduced the group to the QM literature. In addition, QSSC members searched for other academic sites already in the process of implementing some sort of quality improvement program. At this time, one of UCal’s graduates, who became a member of the management team at Ford Motor Company, also served on Oregon State University’s (OSU) board of governors. At that time, OSU stood out as one of the leaders of QM in
higher education. Mainly OSU was valued for its experience in terms of the application of QM principles to a higher education setting.

As QSSC members presented the results of their fact finding mission, the senior group at UCal became very supportive and encouraged further work. In 1990-1991 QSSC produced a report to answer the question, “Would [QM] have any relevance to a university environment?” The report received high praise which led to the secondment of Possberg from Human Resources to the position of the Quality Learning Environment Project (QLEP) Coordinator.

The QLEP was established in September, 1991 as a 2-year pilot project to develop a learning strategy and training package for the introduction of quality management principles and processes into UCal. The QLEP committee reported to the President’s Executive Advisory Committee through the Office of the Vice-President, Academic. The final product was a training program known as team-based process improvement (TBPI). The Team Based Process Improvement: Facilitator and Team Leader Reference and Training Manual was finalized in 1992 and team-based training begun throughout the university. A Pareto diagram on p. 1-4 of the manual shows the breakout of course material
dedicated to six areas for consideration. An approximation of the weight of each area is as follows: problem-solving 33%, quality tools 32%, change 20%, facilitation skills 8%, the UCal program 4%, other 3%, all accounting for 100% of course content. One can readily see that the majority of course content is dedicated to tools and methods for quality improvement.

There is a statement of vision for the QLEP on the front cover of the training manual that shows an intrinsic understanding of the connection between Deming’s (1982, 1986) continuous quality improvement and Senge’s (1990a) learning organizations and reads:

Envision

A learning organization where each and every member of the community is fully empowered, committed to, and focused on continually improving the quality of the learning environment at the University of Calgary. (University of Calgary, 1992)

Team Based Process Improvement Initiative Outcome

There were three major problems with introducing QM from a team-based process improvement approach. First, UCal began working toward transformation from a hands-on process improvement strategy before understanding the culture in which academic work and service had
been established and in which change was to be implanted. Essentially the university started at the wrong end, application of tools and methods, in the absence of a clear understanding of QM and without subsequent organizational integration of the essence of the QM philosophy—getting the organizational culture ready for change. Constancy of purpose, Deming’s (1982, 1986) first point and the reason that all other 13 points were conceived was virtually ignored during the QM implementation approach.

The central core or essence of QM was lost to the bells and whistles of application and over zealously for change versus transformation. The underlying organizational values and vision were left unexamined. Thus, there was no knowledge base nor shared understanding of direction from which to take effective action. In an authoritative, top-down environment no substantive change could be possible. This point was missed in the early eagerness to implement change in customer service. One informant summed it up best when he notes in retrospect that:

When you look at team based decision making what you’re looking at is a change of philosophy and values within the organization. Those have to exist in the organization in order to promote it. And, at least in this portion of the university, those values, I don’t think, were embraced particularly. This part of the organization was structured very top-down and the management style was quite autocratic, top-down. So, the likelihood that
something generated at that [front-line] level to be brought forward and advocated for at the senior administrative level [was unlikely]. I don’t think there were the things in place to do that.

The second problem with introducing QM from a team-based process improvement strategy meant that upper management needed only to verbally support the undertakings at the lower level of the organization without substantial commitment to the overall change process. When requests for change came from lower organizational levels those recommendations tended to be ignored in favor of other higher level plans.

As regards organizational morale, the act of falsely empowering the front-line created a scale of distrust that still presents itself as an obstacle within the context of more recent and sincere transformative strategies. One respondent remarked that, “You give persons the tools and the ability to make some group decisions and all of a sudden that’s yanked away...it [was] cruel.”

The democratization of the university was introduced from a level of responsibility inconsistent with any real authority to see change through. The QLEP committee was not effectively positioned within the hierarchical structure to create or advocate the kind of changes in which the teams were involved. The potential for positive change through team
work was abandoned by a hierarchy ill-prepared for the magnitude of possible change through employee empowerment. I believe that this realization can create fear within the hierarchy, a fear that can persuade the abdication of any change initiative. Hence, the idea of QM--CQI or TQM--has come to be held with great reservation if not disdain.

The third problem with the method for implementation was that the projects which the teams were working on tended to be those in selected areas that related to efficiency issues. This strategy tended to optimize the subunits without consideration for the whole of the university. Fragmentation adapted to serve fragmentation.

There was no strategic plan for the organization with which the subunits could identify and use as a transformative basis from which to determine or adapt their own capabilities. The efficiency impetus ran counterproductive to the notion of systemic thinking, integration, and alignment toward substantive change. Some interdepartmental team projects did improve some internal processes (i.e., finance, materials management, plant maintenance, housekeeping), but wherever these processes crossed boundaries, the redesigned process ran into interference due to turf issues; each department working at what seemed to be cross
purposes using prestige and power as leverage. Successful areas tended to be those nonacademic and with a well honed customer service sentiment prior to the introduction of the TBPI model.

**Early Change Initiatives within Two Faculties**

Restructuring at the University of Calgary became most salient under the Presidency of the late Dr. Murray Fraser who initiated spending cuts during the mid-1990s. His aim was for a 15% reduction in campus resources. When Ralph Klein, the Premier of Alberta, announced a 21% reduction in 1994, the university had already jump-started the process prior to Klein’s announcement. This fact was a source of some pride during the study’s interviews held at the UCal from April 2 to April 18, 1997.

Most of the university’s cost containment came through early retirement incentives and the decision to hold faculty and staff numbers down. This meant that those who retired were not necessarily replaced and a subsequent reduction in operating budgets for the various units. In particular two faculties, Kinesiology and Education, were identified by senior administrators as models of change readiness. Both the following
stories about change demonstrate that change agents at Calgary were asking the right questions about change. In their restructuring the question was not how few resources are needed to continue to operate but rather, “How can we change the way we provide academic programs so that the people that we have left are more capable to contribute to continued organizational success?” Such questioning ensures that the institution continues to build on its human strengths and on the strength of its vision.

Faculty of Kinesiology

When the 15% reduction in operating costs in response to Provincial cut backs was initiated the then Faculty of Physical education took this opportunity to undergo a more critical look at itself in response to changing forces other than cost reductions alone.

In 1993-94, the Faculty of Physical Education underwent a major faculty-wide transformation. Recognizing that the magnitude of cuts to university operating budgets by the Provincial Government would likely increase, the Faculty of Physical Education requested its faculty members to declare 2 years in advance if anyone would be taking an early retirement. By taking action in this way, the Dean, Associate Dean, and
all faculty members knew how many people would be leaving, from which
units they would leave, and what the impact would be on each unit’s
programs. The acknowledgment of a future down-turn in resources was
one of the major catalysts for change, but there was another of equal
importance. Faculty had identified a change in the type of learner entering
the Physical Education program.

The changing expectations of the learners was to have a dramatic
effect on the direction taken by the Faculty in terms of a transformation of
its units as well as its curriculum. Dr. Claudia Emes, Associate Dean of
the Faculty of Kinesiology described the changes in learners, their
motivations, and the impact on the Faculty of Physical Education:

When our faculty was first created 30 odd years ago, it
was a school for physical education because the major market
that we were serving was students coming into physical
education ultimately wanting to go into the Faculty of
Education and get a teaching certificate. So our program was
basically designed around that.

We've always had students who weren't interested in
teaching physical education but the change was that those
numbers started to rise very dramatically in the 80s. So that
by the late 80s, early 90s, we had more people in the program
who weren't interested in being teachers than those who were.

In fact we were down to 25% of our graduating class
going into the Faculty of Education. [The others] were going
into the fitness industry. They wanted to get into exercise
therapy plus many of our students were using it as a
broad-based relatively liberal degree as a foundation to get
into other professional schools like physiotherapy, medicine,
some nursing, social work.

We had our own fair share of students who just wanted to get a degree and decided that they'd take phys ed because they wanted to be physically active. Once they had their degree, then they'd figure out what to do with the rest of their lives. So, you know, there was a fair mix of people across several areas that could be identified.

So I think the key forces were the change and demands in the curriculum by the learners, the Provincial Government cut-backs which were creating financial hardship for our faculty. The only way to deal with it was by not renewing the early retirements.

And also just the changes in society contributed; the way that society was suddenly making the university pay attention to things like, “What was happening to these students after they graduated?” and “How successful were we in what were we doing inside?” If the whole institution was becoming more accountable, we as a faculty had to be much more accountable.

(Personal communication, April, 8, 1997)

In answer to the many forces for change in the unit, in June, 1995 the Board of Governors approved that the Faculty of Physical Education be known as the Faculty of Kinesiology and that the current degrees names be changed to be consistent with Kinesiology (University of Calgary, 1995a). Further, in 1995, the Board approved the establishment of a new degree, a Bachelor of Science degree in Kinesiology that would have a “greater scientific component than the Bachelor of Kinesiology, requiring that at least twenty-one half-courses be completed in Science...[and would] “provide a second track for Kinesiology students
who are interested in the science aspect of the B.Sc. program in Kinesiology...” (University of Calgary, 1995c, p. 5).

Hence, the Faculty of Physical Education became the Faculty of Kinesiology equipped with a completely reformed student-centered curriculum. The new curriculum along with a new degree, Bachelor of Science, Kinesiology, was implemented in 1995-96. Since 1996, the curriculum has been tested and continuously improved with input from faculty and students alike.

Faculty of Education

At the time of the arrival of the new Dean of the Faculty of Education, Dr. Ian Winchester, the Alberta Government had just announced a funding cut-back of 21% over 3 years. According to Winchester, the Faculty, prior to the cuts, “had the equivalent of 80 full-time faculty. That was something in the order of 70 or so full-time tenured people.” The other 10 full-time equivalents (FTEs) are accounted for by perhaps as many as 30-40 people.

My visit in April, 1997, coincided with the third year of the reduction plan and the decline in faculty numbers was very evident.
Education faculty had been reduced to 58 FTEs with a plan to further reduce the faculty by two. Winchester attributed this to Provincial cuts and also to the reduction of Federal transfer payments by the Liberal Government under Jacques Chretien.

The magnitude of staff reductions might be better understood when considering the student population for the university as a whole. In 1994, there were 16,600 students (full-time and part-time) with approximately 1,600 staff. In April 1997 Winchester described the student population as having grown to 22,000 students with a faculty of 1,300-1,400, possibly declining to as few as 1,000 faculty after all the downsizing is finished.

Many at the university have coped with larger classes, others have amalgamated departments, and have integrated classes (i.e., instead of small specialty classes, larger classes covering a number of specialty areas). For example, class integration is a method both suited to and used by the Humanities.

The strategy in the Faculty of Education was first to keep the student-teacher ratio down to approximately 30 to 1. However, in truth the ratio is closer to 40 per class with some class sizes exceeding 180 to 200
students. In view of the large class sizes, the Faculty of Education made a decision to restructure the entire Faculty from top to bottom.

The restructuring began by identifying those faculty ready for retirement, but this proved to be a high price. "We had rampant retirements all over the faculty and that meant that for example, in some areas like math education, or for example history, philosophy, and sociology of education we had a total wiping out of faculty (Winchester, personal communication, April 3, 1997). With the loss of these specialized faculty, the existing structure of faculty placement along departmental lines could not be maintained. The choice was to reassign faculty along divisional lines.

Currently there are two faculty divisions; the Graduate Division of Educational Research and the Division of Teacher Preparation. With the introduction of this concept, the Faculty of Education has created a number of opportunities. All faculty are held within a single faculty budget line which enables teachers to be redeployed anywhere there is an identified need, either in the graduate or the teacher preparation divisions.

The insight that made deployment a possibility was that many faculty members were quite flexible in what they could do. It was
discovered that faculty, originally hired to teach in one department, actually held an expertise in some other specialty. This meant that many had developed expertise in several educationally related fields. Such diversity proved to be a bonus for the Faculty of Education as the work of the specialized retirees could now be covered by remaining faculty. The flexibility and diversity of remaining faculty allowed for a further restructuring within the Graduate Division.

Restructuring the Graduate Education Division

Faculty were clustered together by overlying interests to serve the nearly 700 graduate students. The notion is to bring in clusters of faculty who would in turn bring together clusters of students. Their research projects could then be framed in such a way as to employ students. This would enable clusters of students to work with clusters of faculty and at the same time be funded for their research. Winchester admits that there have been teething problems with this concept but he is sure that the end result will be acceptable and useful to students and faculty alike.

Flexibility has been built into the graduate program in that the student must satisfy the minimum requirements of the University of
Calgary but “how” further requirements are fulfilled can be decided between the student and his/her advisory committee. This means that a student who has met the minimum requirements and is ready to go to dissertation can do so.

Additionally, the residence requirement of one or two full years of on-campus residency and a declaration of only 10 hours work per week have been waived. Fees are not based on residency, but rather on the principle of one full year fee for a Doctor of Education and two full years fees for a Ph. D. Essentially, a student could be living in Ontario while working at a full time job and the only requirements would be that he/she have completed the minimum requirements, pay the fees, and do the work. Winchester explains that, “We’ve made the letter of the law in conjunction with actual practice.”

Restructuring the Teacher Preparation Division

Changes within this Division were viewed as more complicated than those made within the Graduate Division. The former structure presented somewhat of a problem. There were three basic programs for teacher education: (a) the 4-year bachelor of Education degree, (b) post-
secondary school entrance into general studies for 1 to 2 years then finishing up the final 2 years in the Faculty of Education, (c) joint degrees.

However, people's programs were often out of sequence. In fact, the completion of the final academic year often preceded the practicum. Such a sequence meant that an individual could go through the whole academic program, yet, upon completion of the practicum, be informed that he/she was unsuited to teach. In such a case a person would, after years of work, miss both his/her degree and a teaching certificate. One extreme example given by Winchester was that a student who had graduated one year ago had actually been in the program for 22 and a half years.

The former complexities of these three educational streams proved to be too tangled for the remaining 58 faculty to manage. Differing sequential learning possibilities, differing courses, differing specialties had students virtually all over the place yet all the while tethered to the Faculty of Education. To further complicate the Teacher Preparation Divisional changes, a number of joint degree programs had been tied to faculty who had left during the period of massive downsizing.
The solution was to create a cohort program for a degree in education after a program. Four houses were established, each with approximately 200 students; 100 in the first year, 100 in the second year. Ten faculty members were assigned to each house so that in effect, each faculty member works with 20 students taking their cohort through the entire 2-year program.

The advantage is that students are placed immediately into schools or workplace settings upon their arrival. Teachers working in settings other than schools account for 40% of all graduates. Therefore, the decision to place students in both schools and workplace settings was grounded in an anticipation of the realities of future employment. "So now, a student comes in and is in essentially a practice-based, problem-based learning setting using cases or problems and the terminology favored at the time, case study" (Winchester, 1997, personal communication). During the first year the cases are provided by faculty with input and understanding of these case studies being augmented by what the student is immediately experiencing in the work world. Later in their studies students are required to complete classroom based research,
developing curriculum and critically analyzing curricular problems
including potential solutions to those problems.

The transition has not been easy. While the new structure is
introduced, students in the old structure are still finishing their degrees.
This means balancing two entirely different structures and multiple
processes while phasing the old out and the new in. The planned outcome
will eliminate the complexities for students and faculty found within the
old program. "Effectively a student who wants to be an elementary or
secondary school teacher will have had much the same experience as in
the schools and should have had some experience in all ranges of schools
and work places" (Winchester, personal communication, April 3, 1997).

Organization-Wide Strategic Quality Management: Rethinking the
University

The transition to the subject of organization-wide change echoes the
transition in this study to the area of critical interest--current practice to
bring about substantive change at UCal. In fact, the University of Calgary
uses the word transformation as opposed to change to underscore the
importance of cultural renewal as the place where change truly occurs.
The term “quality planning” (Juran, 1989) is used by the researcher in recognition of the processes for change undertaken by UCal. It is a label or way of understanding the research findings that has been imposed by the researcher on the study. In contrast, the term is not commonly used throughout the university or throughout the university system across Canada and, therefore, not used in UCal’s self-descriptions of their change strategy and subsequent processes.

The term “quality planning” originated with Juran (1989) and is defined as the “activity of 1) determining customer needs and 2) developing the products and processes required to meet those needs” (p. 361). When organization-wide and linked with the strategic plan, quality planning is encompassed within the term “strategic quality management” (Juran, 1989, p. 363) which embraces Juran’s (1989, 1992) Quality Trilogy—quality planning, quality control, quality improvement.

History of Strategic Quality Management as of April, 1997

The former President of the University of Calgary, Dr. Murray Fraser, is credited as the force behind the current strategic planning and transformative process underway at UCal.
Just prior to the research visit and only 6 months after his retirement, Past President Murray Fraser died. The passing of such a well loved and respected former President had and continues to have a serious impact on the institution. However, the climate of sorrow and loss is being transformed into a renewed persistence and determination to complete the changes that had begun under the direction and guidance of Dr. Fraser.

Yeager describes this sentiment best when he states:

Murray’s dream about the future excellence of this institution was all tied up in [the strategy for transformation]. What I felt as did Deans and Department Heads in those sad days after Murray’s death was a sense of reaffirmation, of adding energy to this process rather than detracting from it. It’s like we’re doing it for Murray now. (Personal communication, April 18, 1997)

A careful reading of the minutes provides an in-depth understanding of many of the issues faced by the University of Calgary and the ways in which these issues are being addressed by the University community. For example, issues of campus crime, sexual harassment and the Safewalk Program, student tuition fees and declining enrollments, the restructuring of some faculties, capital budget expenditures (i.e., the expansion of the Sports Medicine Centre), new governmental moneys available, the results of marketing strategies such as the “Building on the Vision Campaign”
(UCal, 1995a, p. 8) which generated $46 million, awards and recipients, community outreach programs, to name only a few.

However, it was the sequence of events leading to Dr. Fraser’s dream for institutional renewal, well documented in the institution’s Board of Governors minutes from September 1995 to November 1996, that very clearly revealed the infrastructure of the planning process. It should be noted that the Board of Governor’s was and continues to be an active partner in working toward renewal at the University of Calgary. All along the journey toward organizational transformation, the Board has been involved in the dialogue for transformation and informed about progress. The Board itself brings continued support and encouragement through its ongoing approval.
Establishing Constancy of Purpose

In September, 1995, Dr. Howard Yeager, Associate Vice-President, Academic and Planning, while addressing the Board of Governors, stated that, "The University of Calgary has undertaken the critical task of establishing the groundwork to respond to a changing environment and to take advantage of opportunities" (University of Calgary, 1995b, p. 5). The groundwork and opportunities he was referring to consisted of both recommendations and documents forthcoming from the work of two committees: first, the Gibbins Committee, an ad hoc committee of the Senate (known as the General Faculties Council (GFC) at UCal) was struck for the purpose of reviewing GFC Committees, and second, the President’s Executive Advisory Committee (PEAC).

The Gibbins Committee was short-lived but it had recommended two sub-committees, the Technology Task Force and the Learning and Instructional Development Subcommittee (LIDS), both of which were mandated to study key institutional issues, and, as an outcome, to bring forward planning-relevant recommendations. LIDS was created by the Academic Program Committee and
continues to the present (Yeager, personal communication, March 4, 1998). Meanwhile, the President’s Executive Advisory Council set out on a consultative process involving the university’s Deans, and as a result, presented four areas for institutional focus:

...faculty and staff issues such as morale, career development, reward system; a shift to ensure a service response to the needs of students; curriculum redesign to permit a rapid evolvement of academic programs to meet needs; and new student markets” (University of Calgary, 1995b, p. 5)

Prior to Yeager’s Board address, a response to changing learner demographics and curriculum redesign was already well underway. A meeting in August, 1995, brought together the University Planning Committee and the Dean’s Council. This meeting met three purposes: to enhance communication between the two groups and among all individuals; to ascertain the most serious planning issues for the academic units; and, to introduce, dialogue, and develop action plans for the four focus areas identified by the President’s Executive Advisory Council. This meeting marked the genesis for the emergence of new academic action strategies specific to faculty and learner needs and to curriculum.

At the University of Calgary, the GFC has four large committees. The “Big Four” (UCal, 1995b, p. 6) committees include: the University
Planning Committee, Academic Program Committee, Research Policy Committee, and Faculty and Services Planning Committee. Because each of these committees has its own work plan, all four were requested by PEAC to adapt their work plans to the four focus areas.

The foundation for the construction of UCal’s constancy of purpose had been laid. The question of how to systematically penetrate the campus community with the message of the President’s Executive Advisory Council’s four focus areas directed the next steps in the deployment process. The first opportunity was taken up by the Learning and Instructional Development Subcommittee, originally a subcommittee of the Gibbins Committee, and now a special subcommittee of the Academic Program Committee under the GFC. LIDS organized and scheduled the Envisioning Transformation Week (ET) for February 12, 1996. During this week, class time was set aside to engage students with faculty in discussions specifically related to curriculum issues (University of Calgary, 1996a).

By March, 1996, the need for a more focused planning strategy was identified. To this end, in April 1996, the Coordination Task Force (CTF) was established as a subcommittee of the University Planning Committee.
In addition to its role, to facilitate institutional planning, the Coordination Task Force was:

- to develop a comprehensive and integrated plan for institutional direction, recommend how to implement priorities and develop time lines. Its mandate [was] also to refine the institutional plan through continuous interactions throughout the University, coordinating existing innovative efforts and identifying additional issues. (University of Calgary, 1996b p. 5)

Dr. Yeager was appointed Chairman of the newly established Coordination Task Force. A breakout of the strategic planning activities undertaken simultaneously between the Board of Governors and the GFC that led to the establishment of the CTF is highlighted in Figure 13.

The Coordination Task Force operates in a way akin to what Juran (1989) refers to as a “Quality Council” (p. 361). In quality management, the Quality Council is “a committee of upper managers having the responsibility to establish, coordinate, and oversee managing for quality” (Juran, 1989, p. 361). Because quality is considered the desired strategic outcome, the quality council is a strategic planning/management committee that oversees and coordinates transformative processes to produce service/product quality.
Figure 13. Strategic planning activities leading to the creation of the Coordination Task Force at the University of Calgary.
At UCal, the Coordination Task Force is more broadly represented by the campus community including among its members faculty, staff, and students than an upper managers only group, but its positioning is at a high level (University of Calgary, 1996d; University of Calgary, 1996f). CTF reports directly to the University Planning Committee of the General Faculties Council and to the Board of Governors. In doing so, the academic and administrative sides of the university are not only equally represented, but also, they are more integrated and aligned in their change-relevant activities. Like a Quality Council, CTF has been given the autonomy to take up the planning process in a very substantive way.

Essentially, the Coordination Task Force has ownership for the planning and execution of a process to develop the institution’s vision, and from that vision, the strategic plan for the university as a whole. The formation of this central planning body was and continues to be pivotal to the success of the transformative process at UCal.

CTF adopted five principles on which it acts in its coordinating role. CTF is collaborative, iterative, proactive, inclusive, and dynamic. The principle of collaboration exists already in campus life but for the Coordination Task Force to achieve buy-in for institutional renewal, wide
and effective collaboration was crucial. Broad sharing of information, data, concerns, issues, and ideas with other stakeholders and stakeholder groups can only expedite an institution-wide transformation.

As iterative, the CTF is committed to fostering “a continuous process of discussion and planning to take hold both at an institutional level and within the departments” (UCal, 1996f, p. 3). To be proactive, the Coordination Task Force needed to include within its membership visionary individuals and those who had some experience in change management from within, such as Dr. Claudia Emes from the Faculty of Kinesiology, and from without by way of external consultants. Emes, along with Yeager, accepted the role of institutional facilitator as the visioning and strategic planning activities were planned and executed throughout the campus community. The decision to hire an external consulting group is discussed later.

Inclusiveness as a principle underscores CTF’s acumen in anticipating that the whole of the campus community contribute to the fulfillment of the mission of the university. The notion of the university community as “all one team” (Joiner, 1994, p. 11) was an early and crucial insight by CTF.
Finally, the will to continuously assess and make corrections along the transformative journey is contained within the notion of the Coordination Task Force itself, and, along with the change process, can be regarded as dynamic. Acceptance of mistakes as learning opportunities is an implied but unstated principle that, from my study of the university, I believe was built into the work of CTF from the on-set.

The Coordination Task Force: Unfolding Constancy of Purpose

At the Board of Governors Meeting, September 27, 1996, Yeager reported that there were four phases to the work of CTF. The first phase was, through research and discussion, to develop the context in which the university currently exists and to establish directions for change. Phase two would design the features of a university requisite to succeed as a 21st century institution. The third phase would consist of the creation of a plan for implementation of change initiatives, and finally, in the fourth phase, the implementation would become a reality.

Originally, the Coordination Task Force had outlined three main goals. These were reported in the Board minutes as:

- to develop an easily described vision of what the University will be in the future;
- to develop a comprehensive, integrated plan, schedule, and
budget for institutional direction, and to refine this plan through continuous interactions throughout the University...
- to provide a clear understanding of the University’s student demographic profile, in order to identify those groups which can be best served. (University of Calgary, 1996d, p. 7)

Although the third goal remained unrevised, CTF requested that the Board amend the first two original goals to read:

- to articulate five strategy alternatives for the future and to assess their implications;
- to identify components of a successfully designed plan, one that can be fulfilled. (University of Calgary, 1996d, p. 7)

The goals for the Coordination Task Force arose from four fundamental questions: who are we now and who do we want to be, how do we get there, and how do we best assure customer satisfaction for all learner groups? These questions resonate with Batalden’s (1992) notion of the basic questions for quality improvement, “What do we make and why do we make it; how do we make what we make, and how do we improve what we make?”

Through the course of addressing the three goals, an enormous amount of time and energy went into producing convincing arguments that compelling reasons for change existed within UCal itself and from the press of the external environment. Over 1000 people had, by the end of the Fall of 1996, been engaged in a discursive process. Over 200 faculty and staff had participated in
focus group sessions, general information sessions, and Friday Forums while CTF had conversed with key committees and other groups such as the University’s standing task forces (University of Calgary, 1996d).

Additional consultations had taken place with the Deputy Minister of Advanced Education and Career Development, while presentations were made to the Alumni Association, the Senate and its Executive Committee. CTF had also sought information about planning efforts in other Canadian universities, and universities in the United States, Australia, New Zealand and the United Kingdom (UCal, 1996d).

The purpose of gathering information about other strategic planning activities was twofold: “on the one hand to draw innovative ideas and clarify language of expression from other plans, and on the other, to provide a check on [UCal’s] own planning efforts” (University of Calgary, 1996f, p. 2). This exercise in national and international benchmarking helped the Coordination Task Force to identify common elements in successful strategic plans (University of Calgary, 1996f) and to determine how UCal’s institutional strengths and cultural considerations might differentiate its strategic planning process from that of other universities.
Born from the wide-spread consultative process, a binder, *Situational Assessment-Facts, Trends, and Implications Related to the Environment in which the University Operates* contains the total of the extensive and rigorous efforts by CTF to strategically place the university within its current and future environments. Because of the confidential nature of the material contained therein, this document was not made available to me.

However, during his interview, Yeager outlined and discussed not only the major components of the situation assessment but the process for the assessment itself. As a student from another province wanting to research the University of Calgary, I felt welcomed by everyone I met as one of their own community members. The generosity of the university culminated in my interview with Yeager. I chose Yeager as the gatekeeper for my study from earlier correspondence with him, and was not disappointed in my choice. Although his was the last interview conducted, it was this discussion in which many of the other factors I had learned began to really take shape.

Although the transformative process is a lived experience for all who have taken part in it at the University of Calgary, in particular,
Yeager struck me as the most animated when describing the change process as well as the experience of individuals and groups in times of change. He seemed energized by the processes undertaken for transformation at UCal and took delight and pride in recounting the journey. He is a pragmatist. “If many private sector organizations dealt with their customers the way we deal with students, they’d be out of business” (Yeager, personal communication, April 18, 1997).

Yeager struck me as a keen learner and observer of human nature. He observes compassionately and values difference in a way that I found quite remarkable.

The Coordination Task Force did a situation assessment and then it spent a lot of time listening...not just appearing to listen, but really listening and then changing and adapting to what was really valued by the people here, which is the only thing that really counts...We had students and staff on the teams, but the culture comes from the professoriate. We got some weird stuff back and some rich stuff back. We processed it all and that led to consideration of different alternatives...There were no bad ideas; nothing was rejected. (Yeager, personal communication, April 18, 1997).

From the many conversations, formal and informal, that I had taken part in at the University, learner-centeredness was a recurring and strongly held value. According to Yeager, “High pressures of accountability make you very responsive to changing learner needs” (personal communication, April 18, 1997).
It was within the context of constantly shifting learner demographics and an appreciation for learner needs that the situation assessment binder, copyrighted by the university, profiled CTF's analyses in the following areas: “research trends, financial considerations, competitive positioning, essential partners, learner need, human factors, impact of technology, and the University’s strengths” (University of Calgary, 1996d, p. 7).

By beginning the transformative journey with a systematic method to study all factors, internal and external, pressing institutional change, UCal had answered the questions, “Who are we now?” The veil had been lifted so that change could begin. It is the overall competencies, the combined capabilities of the institution as a whole to transform that are revealed through such an intensive research exercise. It is also a profound example of an institution’s capability to move into systemic thinking.

Three major University strengths emerged from the continuing process of institutional inquiry at UCal. The University has world class facilities, an open inclusive atmosphere, and the technology for innovative instructional methods. Based on these three strengths, the Coordination Task Force in concert with the many voices heard from the broad consultative process had developed five differing scenarios or strategic alternatives that reflected the scope of thinking.
about the future role for the University of Calgary. These strategies were presented to the Board of Governors in September 1996 as:

1. Regionally responsive institution - the university would focus on the needs of a region, likely Western Canada - respond to problems generated by geography and needs of local community
2. Thematically excellent institution - a carefully selected theme would become the focus of the University, with collaboration among all parties
3. Research dominant institution - focus on developing international reputation for research, would lead to a high number of graduate students, funding would be largely external
4. Confederation of faculties - no overall institutional planning would occur - faculties would do planning at their level
5. Learner-centered model - try to deliver high quality programs - have national reputation for programs directed to selected groups of learners - research would be at lower level than in other programs. (University of Calgary, 1996d, p. 8)

Each of these scenarios proposed its own questions concerning the role of the university in the future. For example, the alternative of a regionally responsive university would maintain the status quo, and have no interest in engaging in an international competitive market. A confederation of diverse faculties each working in its own way toward its own ends, begs the question, “Should we allow [the University of Calgary] to be a confederation of different hopes and dreams? Is that the
best way to prosper given all [that we know from the situational
assessment data]?" (Yeager, personal communication, April 18, 1997).

None of these five alternative strategies for UCal sufficed in
isolation from the others, but, having developed these strategies tended to
"sharpen the debate" (Yeager, personal communication, April 18, 1997).
The collaborative process took on new life in Town Hall meetings,
meetings with Deans and Department Heads, and student focus groups.
The debate around the consequences of these five alternatives took on
renewed zeal. Yeager states:

What happened was that those whose lives are so tied up in
their research and creative activity said, "Emphasize that and
everything will take care of itself." Others said, "Well, we've
got to be accountable. If we don't adjust our curriculum and be
learner-centered, we're basically not going to get government
support." Of course these things are not mutually exclusive but
they tend to come out that way at the beginning. So by making
them in pure forms and allowing the debate to ensue it allows
the institution to learn together. (Yeager, personal
communication, April 18, 1997).

The wisdom of the process for developing and debating the five
alternative strategies and their consequences initiated a process by which
the barriers between departments, faculties, students, all stakeholders, or
"essential partners" as they are called at UCal, were removed. The
situation analysis binder provided the facts, the data; the participative
process provided insight into the strengths that the university had already and how to capitalize on those strengths in an uncertain future. The five alternative strategies for direction opened an inclusive community-wide debate that both sharpened the edges of difference and with pristine clarity revealed those parts of the vision that were shared.

Perhaps most significantly the process demonstrated the value that is engendered through difference. Senge (1992) stated that the vision must be broad enough to be all-inclusive so that each individual within the organization can find him/herself within it. CTF in its wisdom created a place for every member of the university to recognize not only him/herself, but also the other.

"The discussion itself of pure alternatives led to the emergence of certain, we call them threads and themes, certain elements emerged from the process that were commonly agreed to" (Yeager, personal communication, April 18, 1997). These threads and common themes specific to the university’s own context were narrowed to five: a broadly-based undergraduate education, selected graduate programs, pervasive research and scholarship, a comprehensive approach to serving continuous learners, and a strategically aligned culture with the policies,
processes, and structures also aligned to support that culture (University of Calgary, 1996g).

To institute a broadly-based undergraduate program required that the curriculum at UCal be capable of imparting "a set of intellectual capabilities and skills that prepare graduates for a new era" (University of Calgary, 1996g, p. 6). The implication for a new role for the university is obvious in the notion of preparation of graduates for an ever-changing socioeconomic world of work that requires not only intellectual development but also skills. Yeager accentuates the current situation: "The curriculum is 30 years old and the world has changed. And, accountability boils down to proving value...a curriculum has to be more than a bag of courses" (Personal communication, April 18, 1997).

Learning within a multidisciplinary environment is seen as an important educational opportunity. However, this does not preclude the need for learners to be prepared in disciplinary specialization to develop cognitively. At its very foundation, the theme of a broadly-based education underscores the importance of early and continued "exposure to research, scholarship, and experiential learning" (University of Calgary, 1996c, p. 6).
One of the areas chosen for primary focus in the implementation stage is that of graduate studies. The notion of the graduate curriculum was also a recurring theme during the processes of data gathering, synthesis and interpretation undertaken by CTF. Repeatedly the academic community recognized the need for a focused graduate curriculum that was sustainable and of such quality as to be internationally recognized and reputed.

The affirmation and strengthening of research and scholarship is the main strand woven throughout the fabric of the university. Yeager states that the notion of a research intensive university “is getting much more to the characteristics of what [UCal] wants to be” (personal communication, April 18, 1997).

It means that if we have to make choices, and we look at the wide array of activities that one of these modern universities does, the farther we get away from research and creative activity, the more we should question if we should be doing it. So, this is the beginning of living up to the consequences of what the vast majority of the professoriate said. That is, if you lose your research excellence, you lose the game...This was so loud and so consistently clear, and heard from so many voices...not just the professoriate. It was the downtown business community; it was our alumni. (Yeager, personal communication, April 18, 1997)
A commonly held theme, to create a comprehensive approach to serving continuous learners, is being articulated by the university as it searches for new approaches to delivering educational programs to serve current regional needs for personal and professional up-dating as well as "programs with a global reach in specialized areas in which the institution has [an] international reputation" (University of Calgary, 1996g, p. 6). The Coordination Task Force had been "interacting with a LIDS sub-committee on distance education issues" (University of Calgary, 1996c, p. 5).

UCal also understands that cultural changes will be necessary to create policies, processes, and technologies that will make the university as a whole capable of not only tracking continuously changing learner needs and expectations, but also to enhancing institutional flexibility and adaptability to meet those needs.

The final thread looks at organizational capabilities for future direction. Alignment and integration of all departments, units, programs, and services specific to the university's constancy of purpose and strategic direction is the only way to create the potential for organizational capability. In its work to develop the situational assessment, its sweeping
and continuous dialogue with the university’s essential partners, its
capacity for listening “to people’s earnest expressions of what they held as
strong values [that] they don’t want to see abandoned or diluted...[and]
admitting that we don’t have control over the future” (Yeager, personal
communication, April 18, 1997), CTF had already initiated the processes
for alignment and integration.

Moreover, the Coordination Task Force had come to another
important understanding outlined by Yeager, “We asked how do we
sustain increasingly expensive research infrastructure for a university
under financial circumstances? The answer came back, invest in quality;
for Heaven’s sake, invest in quality.” (personal communication, April 18,
1997).

The threads and themes arising from the university-wide discourse
on transformation culminated in the document, The University of Calgary:
Our Strategic Direction to the Future. The document reflects the same kind
of craftsmanship that is evident in the mission statement. It is only two
pages in length, yet states succinctly the culmination of months of
intensive work. Those involved in the writing of public documents in
regard to constancy of purpose for UCal have an innate ability to collapse
large amounts of information into beautifully crafted statements.

A copy of The University of Calgary: Our Strategic Direction found
in Appendix J is the final product: the statement of mission, values, and
direction that clearly demonstrates the means by which UCal, as an
organization, has chosen to address both its present arrangements and
future conditions. The noticeable absence of wordy, and at times tedious
statements of mission, vision, values, and strategic direction is a hallmark
of the art of quality management documentation.

Next, in November 1996, came a Department Heads and
Equivalents retreat to discuss the implications for the front-line of the
implementation of the strategic direction contained within the document.

They’re the front-line managers. They’re the ones that deal with
the cutbacks, with students. You know they talk to the student
directly. They assign the teaching roles directly. They manage
the research effort directly. And so we found that at this stage,
talking directly with those who would be implementing was a
very important thing prior to any official approval attempt.
(Yeager, personal communication, April 18, 1997).

The processes for developing constancy of purpose and the strategic
direction that arose directly from that process for the University of Calgary
had been multifold. Qualitative and quantitative data presented the case
for the need for change and fueled buy-in from the total campus
community. Wide and varied consultative and collaborative forums held to
present the case for change and to collectively determine the role of the
university today and in the future encouraged open dialogue among,
within, and across individuals, departments, and units.

Out of the opportunities for dialogue both internally and externally,
common institutional values were identified: to create and disseminate
knowledge, to act as a community of scholars, to promote free inquiry and
debate, to lead and inspire societal development, to respect, appreciate
and encourage diversity, to display care and concern for community
(University of Calgary, 1996g). The University’s strengths had been
identified, the five strategy alternatives developed and debated as possible
futures, and consideration had been given to the financial impact of
changing student demographics and new innovations.

Two important realities surfaced. First, UCal:

...must become a focused institution with a marketing strategy
and a global presence. Focus [requires] a coherent organization.
[We have to have] professors who know not just why they work
in economics but why they work here. Know both. Few faculty
actually know why they work here or at any university but they
do know why they work in economics or chemistry. Because
[higher education] is competitive and [competition] is being
globally expressed. This is not going away. And, [competition
in higher education] is not a provincial issue.
The second one is that we must reconceptualize our financing...these are very strong words and the institution struggles to understand that. Clearly, the mentality in the past has been massive subsidizing by Government...a minor but significant portion by students, the seeking of largesse from the private sector, by donors...that era is probably over...To change the mentality from donor to understanding the value we provide and pricing it accordingly, that’s a cultural change. (Yeager, personal communication, April 18, 1997)

The strategic direction for the University of Calgary was approved by General Faculties Council, December 12, 1996 and by the Board of Governors, December 20th. Figure 14 depicts the pathway taken by CTF toward the establishment of a renewed institutional purpose and the strategic plan that would serve the university for the long-term, the next 30 years. The University of Calgary’s constancy of purpose had been brought to light and stated. The pride with which this document was presented is expressed by Yeager:

...on December 12, the legislative body, academic legislature, General Faculties Council, discussed this for two and a half hours, added two words and approved it. And a week later, the Board of Governors unanimously and with applause adopted this. (Yeager, personal communication, April 18, 1997).
Figure 14. Coordination Task Force change process steps: Phase I

The creation of constancy of purpose and strategic direction for the next 30 years.
Institutional Renewal: Creating Constancy of Purpose--Facilitating Factors

There were several critical advantages unique to the University of Calgary in 1995 when the dialogue about the necessity for institutional transformation began in earnest. The first major advantage was the influx of provincial dollars (approximately $30 million) for new facilities to house the 1988 Winter Olympic Games. The physical plant at UCal was in good repair with no major budgetary demands or diversion of funds going to buildings or other facilities (e.g., ice rinks and other physical education and sports facilities) outside of general maintenance. Further, the university itself is young, just over 30 years old, and could be presumed to have been in a rather good state of repair prior to the hosting of the games.

Second, Alberta had already been through an enormous economic downturn during the 1980s so that by the mid-1990s there was a sense of some recovery and a confidence to turn one’s attention from crisis management to proactive planning. It was the Provincial Government’s announcement of stabilization of university funding over three years that proved the catalyst for transformative action.

The University of Calgary was one of the first universities to get budget cuts. It wasn’t during the years of actual slashing the budget that this [transformative action] happens; you’re too busy trying to keep the boat floating. What happens is when the province then says your budget is going to be
constant for the next three years, that’s when it really smacks you in the face...we still have some cuts coming, [and] the stress is high...we still have inflation that’s higher than the consumer price index going up... that’s when it hit here... you’ve got to get [the budget] stabilized before seeing this [strategy for change]. (Yeager, personal conversation, April 18, 1997)

Essentially, the university had been given a breathing space, a time to stop and take a hard look around. From the Board of Governors and the General Faculties Council, President’s Executive Advisory Committee and the Coordination Task Force, the campus community had been made aware of the factual necessity for change. The reality of change had led to the need to plan more effectively and to determine the most effective actions for progressive change.

Third, although there was a recognition to narrow the planning process and thus the creation of the CTF, a further insight was forthcoming; the requirement for external expertise. Universities are storehouses of individuals and groups who hold expertise and special knowledge in a variety of areas, and it is beneficial to draw on such expertise. However, in large, complex organizations undergoing organization-wide change, a move toward external assistance is a sign of
leadership strength, and is consistent with one of Deming’s insights in his notion of profound knowledge—understanding humans and their behavior.

One of the recurring themes from my interviews with university members is that the university is full of highly intelligent people, and highly intelligent people can sometimes believe that they can move into areas of knowledge that are not necessarily within their expertise. The stature of thought found particularly within the university’s faculty is a double-edged sword. Academics who hold a distinct set of assumptions sometimes have a tendency to wander into other knowledge areas where those assumptions are not readily applicable. Recognizing the strengths and weaknesses of an academic environment, a decision was made to seek external assistance. A consulting firm, Framework Partners in Planning was hired at the time of the creation of CTF. Yeager provides the wisdom that led UCAL to move to external consultants when he states:

One of the curiosities about universities is that...everyone here is an expert on something. So, there is a tendency to think that we can mobilize that. The truth of it is that it is extremely hard under current structures to mobilize the talent that’s inside an organization for transformational change. Doesn’t want to happen; isn’t rewarded; hard to integrate. The presence of an external voice is extremely important because the university under its present circumstances doesn’t know how to mobilize it’s own capability. (personal conversation, April 18, 1997)
Because of its world class facilities and a financial settling period, UCal was able to provide the discretionary funds necessary to manage the transitional process. The Board of Governors Minutes, November 22, 1996 states, "Dr. Yeager estimated that transition costs to implement the emerging strategic direction would be between $25 - $30 million over the next two to three years" (University of Calgary, 1996e, p. 5).

Fourth, the changes within Alberta and Calgary that are driving the province and city toward an economic leadership role impact the university in unique ways. As the city imports more and more educated professionals, a market is created for continuing education in fields of business, technology, and commerce. The influx of diverse cultures brings a heterogeneity to the city and the university not previously experienced in the same measure.

In addition, Yeager (personal communication, April 18, 1997) states that there are about 50,000 to 60,000 UCal alumni and many thousands of other university's alumni currently living within the university's catchment area. Therefore, the necessary integration and synthesis of new knowledge and technologies into the existing workforce also provides an enhanced
potential for markets in continuing education and professional up-dating of knowledge and skill sets.

The University of Calgary is a commuter school. That is, it draws from a student population that has been essentially from its own regions and province. The capacity to attract students from other provinces, countries, or nations has been much lower than that of a university like Queen’s or the University of Toronto. With new technologies and electronic communications the university has identified that a greater international presence is possible. Conversely, connection with a wider academic and technological community means international experiences for Calgary’s students. By way of electronic communication, the university can import and export learners together with new knowledge and skills.

Moreover, the long-standing tradition of serving the local educational needs has had a dramatic effect on the university’s relations with the local business community and the city of Calgary. The university of Calgary is viewed by many as the city’s university. The combined forces of the changing needs of the city and its business and technological links to the university have created a partnership wherein the mutual
benefits are obvious. Each views itself and the other as working at the front edge of both an internationalized economy and the 21st century.

The move toward internationalization, the interdependencies present among business, government, technology, and the changing demographics of the city of Calgary intermingle to place the University in a new position. This in itself is renewing and increases both the opportunities for and the energy of the University.

The fact that the University is just over 30 years old may have contributed to the agility with which opportunities were perceived. At the age of thirty, and nested within an environment of energy and dynamism, the University may be just mature enough to capitalize on opportunities while remaining open to the possibilities that continuous change offers. An older, more calcified university may not be able to admit, despite the rigorous research case presented by CTF, that change of the magnitude required is a viable option. In this sense, age may be a fifth major advantage.

A sixth advantage is the open, public commitment of the Board, GFC and the President's Executive Advisory Council to a transformative process in which the University determined to see itself as a model for the
university of the 21st century (University of Calgary, 1996c). The Coordination Task Force, its work, and the public support given by the senior levels of the University for the CTF were known to all interviewed whether in formal situations or informal conversations. This kind of support with the concomitant work and enormous energy required to engage the University community at large and to shift the focus for the future direction for the University is especially striking when one considers that all of the work to date had been accomplished during a transitional period resulting from a change of presidency at UCal.

Dr. Murray Fraser was at the end of his presidential term and preparing for retirement when the press for substantive change was underway. One decision he might have made was to ride out the winds of change, leaving the hard work as a legacy for an incoming president. However, this was not an option for Fraser.

As previously mentioned, Fraser was a well loved university President and a man who, in his leadership, had earned respect and admiration from his people. Some of the comments made by study participants attest to his reputation as a leader:

Fortunately our former president, Murray Fraser, had the foresight to get the university on a cost reduction prior to the government coming in to say that. So we had a couple of
years that we were ahead of the government. (Winchester, personal communication, April 3, 1997)

He championed a lot of things, he was a real cheerleader for a lot of change initiatives and he got a lot of those things going...He could walk into a room with a 100 people and be introduced to somebody's wife whom he never met before, see her in a Mall three weeks later, and address her by her first name. (Possberg, personal communication, April, 3, 1997)

His humanity created an atmosphere which allowed this to take place. And, I’ll be darned if he didn’t allow it to happen when he was right here. Now remember a person who is well loved is a person who might tend to avoid decisions that would displease people but he actually allowed this to take place knowing full well there would be bumps along the way. (Yeager, personal communication, April, 18, 1997)

However, the greatest tribute to Dr. Fraser that I experienced was the number of students who spoke of him as if they knew him personally. They implied high regard for who he was as a man and as a university President. In particular, one student from Manitoba informed me of all the students who had taken time from their studies and personal activities to attend Dr. Fraser’s funeral, she being one of them.

Dr. Fraser, in his leadership, his ability to hold diverse groups together in times of stress, his sense of humanity and desire to do the right things even though those things were extremely difficult, stands, perhaps, as the greatest advantage to change that the University of Calgary had
enjoyed until his passing. The culture, although not perfect, seemed to have a degree of readiness for change that proved an advantage for all. Emes acknowledges the sentiment of cooperation under Dr. Fraser’s leadership:

Murray Fraser was key to [the faculty’s] cooperation with administration. He didn’t believe in adversarial relationships. He didn’t believe in dictatorships so we had an environment in which there was understanding and a real will to cooperate between units where the administrative unit versus the teaching unit versus the faculty did not really exist. (Emes, personal communication, April 9, 1997)

Leadership, however, is also thought to be an attribute of the new President, Dr. Terry White. At the time of his arrival in late June 1996, UCal was well on its way to transformative change using a process for change that was quite different from anything that had here-to-fore been employed. Dr. White could have imposed his stamp on the University by ending the process in favour of some other of his choosing, but he, too, made a different choice.

Terry White came into a situation that was well underway. He could have easily said I want to stop this process until I’m comfortable in my role at the university here or until I get the lay of the land. He didn’t. He allowed us to continue. He was supportive of it; he’s become more and more supportive the longer he’s here...he’s slowly growing into the leadership. I think there’s a lot of plusses to assuming the leadership of this process more slowly than quickly. Few people...would have taken the time to understand the process instead of
charging forward. (Emes, personal conversation, April 9, 1997)

Creating Constancy of Purpose: Potential Obstacles

At this point within the change process, the greatest obstacles to change could be found within the campus community itself. The word resistance will not be used within the context of the following discussion as it serves as a label that I find unacceptable when trying to understand the responses of human beings as they move through changes in their personal and professional lives.

At the heart of change is the notion of stepping into some unknown or untested place believed to be better while at the same time leaving behind what is known and comfortable. Some people find change more difficult than others but if substantive change is to occur, compelling reasons for buying into a change must exist. In the end, although seeming exponential, institution-wide transformation really happens one person at a time.

The tension for change did exist at UCal and had been driven home by the situational assessment completed by the CTF. Upper management had accepted the need for changes and had demonstrated a commitment to change behaviorally in establishing the CTF, and financially in supporting
the many public information sessions, forums, retreats, in the provision of space and equipment, and in the hiring of consultants for the transformative process. While these were all advantageous to the change initiative, some obstacles did exist. The following discussion will identify some of these obstacles as well as provide the means by which the CTF worked to move through them.

First, the use of language was recognized early on as important within an academic environment. Therefore, any use of labels was avoided. Because CQI/TQM had been tried in the past and had been seen as having been unsuccessful, any reference to this strategy was avoided. Subsequently, a new insight into change was underway. To survive and thrive in the new economic order, a serious cultural transformation would be required. Such an awareness led Yeager to state that, “...this is an evolution from continuous improvement to a greater understanding of the need for true cultural change within the organization” (personal conversation, April 18, 1997).

I would argue that the new awareness for true cultural change has always been at the heart of continuous quality improvement. What had really taken place was a comprehension of what the essence of Deming’s
(1986) constancy of purpose is: that all decisions and actions flow from mission, vision and values, and that unless these are clear and shared, the organization is learning disabled. The former sincere but none-the-less superficial application of QM under the guidance of the Human Resources Department with encouragement and endorsement from the Vice-President, Finance and Services had, not surprisingly, missed the mark.

Assimilation of the extent of true cultural change required of the university also shifted the influence for that change from a lower post to the highest appointment within UCal’s governance structures, from an education only perspective to a leadership commitment under the Board of Governors and the GFC. Such a commitment for progressive change sent a formative message throughout the institution that a renewed role for UCal was imperative and all stakeholders were expected to be part of the process. However, as the institutional dialogue continued during the late summer of 1996:

...there was a curious moment...There came back from the campus the notion that, “I object in principle to this”, or “I’m concerned that this [value] has been abandoned.”...a series of concerns about the very thing that would tend to impugn the credibility of the entire effort. Now, some of these issues I think were well founded, others less so, because [those kinds of objections] can be a wonderful strategy to stop this from happening. (Yeager, personal conversation, April 18, 1997)
The response to the anxiety being generated by change, and also by the rate of change, was addressed in the context of emerging organizational values, in particular mutual respect, openness to diversity, and care and concern for community. Congruity between espoused values and values in use underscores the pledge of trustworthiness implicit in the work of the Coordination Task Force through the senior administrative levels. The process by which those values were upheld and anxiety eased is best told in Yeager's own words:

Here's what we did to respond to that. We collected these [concerns] and got them into about six or eight categories and then we went to the General Faculties Council and devoted an entire session to [working through the objections]. We basically had a structured process where a management professor who is not on the change team worked with GFC to distribute these [concerns] in print form and to divide up the membership so one member had one problem. [Each member was invited] to spend five quiet minutes writing down how [s/he] would resolve this problem. And we gathered it all back, synthesized all [the issues] and put the results back on campus to resolve these problems that were in fact game stoppers.

We paid very careful attention to that [curious moment] ...I think that was a turning point because objections were listened to and addressed in an atmosphere of, "How do we resolve it?" We are moving on, these realities do exist. Having a sufficient factual base is an absolute prerequisite for a university environment. You can't make change happen on anecdote, especially in a place like this. (personal conversation, April 18, 1997)
The hiring of an external consulting group at a time of fiscal constraint raised a few eyebrows in the academic and administrative communities. Surely there were other, more pressing, areas needing an injection of dollars? However, given the quality of argument presented by the situation assessment, a good case could be made for the decision to hire. The role of consultants is twofold: first, they are objective. They didn’t care what we did in 1978. They’d say, “Why are you doing that?”, and we’d say, “No one ever asked that before?” (Yeager, personal communication, April 18, 1997).

The other role is to provide the tools and methods to design and redesign processes, to work effectively in teams engaged in action science to inquire into the capabilities of the institution, and to transfer these skills into the organization as quickly as possible. Basically, consultants teach how to take professional administrative knowledge, whether managing a complex organization, a unit, or department, and combine that understanding with improvement knowledge. Combined, these two knowledge sets create a more robust organization that is capable of being engaged in continuous learning, thus, an organization that is capable to master continuous change.
On the academic side of the university, the same holds true. Faculty, with the assistance of consultants can learn to take their professional academic knowledge blended with improvement knowledge—knowledge of the processes of instruction and learning, as well as evaluation and measurement—to create a robust learning space for faculty and students alike.

However, of particular interest to me concerning the UCal’s change strategy is that, at this juncture, the recognition of the tie-in with QM seemed to elude UCal. In fact, when asked how the CTF had come to such an understanding about change, credit was consistently given to the external consulting firm.

I think that’s one of the biggest roles that the facilitators are playing. They keep pushing us in [another] direction showing us another way of looking at things... it’s so healthy to have someone from the outside asking the critical questions. (Emes, personal communication, April 9, 1997)

The Coordination Task Force, although comprised of academics, in general failed to apply a scholarly approach to its own learning. Although much had been assimilated experientially through the process of making change, I found the theoretical framework for change within CTF members somewhat weak. I believe that a stronger theoretical basis would
enhance individual and organizational learning. Understanding why one intervention will work while another may fail is crucial to a forward progression. Moreover, the integration of theory with practice is central to reflective practice (Schon, 1983).

One reason for an experiential, externally facilitated approach was forthcoming. Due to the time frame in which the CTF wanted to move the institution forward into a new strategic direction, guidance by the consultants was preferred. The Coordination Task Force was supplied with a number of articles by the consulting group, but learning, for the most part, was basically experiential.

The pace of change itself could have stood as a roadblock to change. Although the CTF had been established in April, 1996, it had, in just a few short months, ushered in UCal’s document on constancy of purpose and strategic direction. Many informants spoke about the stress that the institution was under during the consultative process and the concomitant push for change. Others noted how tired members of the CTF looked and recognized the workload and strain under which the CTF worked.
The Coordination Task Force was careful to downplay the role of the consultants while enhancing the role of CTF and those university members who had become more involved in the processes of education and facilitation as the movement progressed. Ownership of the transforming activities in reality and in appearance was within the campus community.

**Constancy of Purpose: Possible Futures**

Most change processes fail in the implementation stage. One advantage that Calgary had built into their planning stage to date was the habit of following up on possible strategies or scenarios with sessions to determine potential consequences should the strategy be implemented. One form for a systematic walk through the change prior to implementation is a tool and method referred to as a failure mode and effects analysis (FMEA). A FMEA is often utilized, for example, by the National Demonstration Project (1991) when developing critical pathways for clinical care and practice guidelines in the health sector. Whatever the method, the habit of visually tracking and discussing possible adverse
outcomes prior to initiating a change provides an opportunity to build interventions into a system or a process before its implementation.

On a larger scale, the University of Calgary used a similar process to test how robust their strategic direction might prove to be. Recognizing that any strategy would have to be “flexible and adaptable to changing societal conditions” (University of Calgary 1996g, p. 8), four possible futures were invented and measured against the strength of the strategic direction. The four envisioned futures include: the notion of educational enlightenment, a resurgence in research, an environment of increasing competition, and continuing ambiguity in government and public expectations concerning the purpose(s) for higher education (University of Calgary, 1996h).

Any plans for implementation would have to involve continuous tracking of these four possible future conditions. For example, curriculum development must be flexible and adaptable to meet the needs of changing learner demographics and the needs of a market that demands shifting educational and skill set requirements.

In the “enlightened future” scenario an increase in the number and variety of learners as well as governments and private foundations would
consolidate the view that education is a valued investment. Adequate and
timely funding would be readily forthcoming.

On the other hand, increasing competition from new innovative
players in the field of higher education delivery may better grab the
attention of governments and other private sources for funds. Such
competition may arise from the United States via free trade and the cross-
pollination of culture, from a move to privatize universities, from
corporations that supply high level in-house education and training, to
name only a few. If the university can unmistakably convince the public of
its societal worth it may enjoy continuing public support. Otherwise,
higher education may find itself even more heavily involved in marketing
strategies and fund-raising campaigns.

Conversely, public expectations may not value the role of the
university as research and scholarship, anticipating that the university’s
role is solely to prepare learners for employment. The balance among the
university, governments, business, and public expectation is very delicate;
awareness of ever changing conditions a must.
The Second Phase

Deploying and Sustaining Constancy of Purpose: Continuous Improvement

What happened is that this document [The University of Calgary: Our Strategic Direction to the Future] gave rise to the crafting of the next stage. And the next stage is a series of design and assessment teams that are specifically needed if...we could put teeth into this. (Yeager, personal communication, April 18, 1997)

It was at this point in the transformation of UCal that I arrived to undertake this study. Phase II involves the creation of a number of Task Forces to look at specific issues that flow directly from the strategic direction. In an interview with Dr. Keith Winter, Vice-President Finance and Services, the intention to link the newly forming Task Forces, including one on revenue and expenditures and one on the reward structure at UCal, to financial planning was noted. Winter estimated that 80-90 faculty, staff, and students are currently working in eight different predesign or redesign teams. The eight task force teams are as follows: under the category of “Strategy and Predesign Teams” (University of Calgary, 1997b, p. 1), institutional planning, revenue and expenditure strategy, library situation assessment, research/graduate program
assessment; under the category, “Process, Redesign Teams” (University of Calgary, 1997b, p. 1), recruitment, admit and register undergraduate students, information resources, undergraduate curriculum, redesign/teaching and learning delivery (University of Calgary, 1997b, p. 1).

Until the establishment of CTF, getting the messages about need for change and direction for change had been a priority for both PEAC and GFC. In large measure, the work of the Coordination Task Force was to continue this principle of 360 degree communication between the upper echelon and the campus community. “There was an attempt to have everybody participate at all levels, but also, it’s a sharing of information. CTF information goes back through” (Ogilvie, personal communication, April 15, 1997).

The notion of 360 degree communication is also built into the Task Force teams:

We have meetings every Wednesday morning for an hour and a half or so. Everybody reports what their team did over the last week and so it keeps the pressure on people to have something new to report. Each of these teams, or many of them anyway, have had Town Hall meetings. We had one yesterday on revenue and expenditure [where we invited] people to come and tell us what it is that they think we should do. (Winter, personal communication, April 16, 1997)
The process continues to spiral. First, through broad consultation and data gathering a case was made for institution-wide change and a strategic direction established. Divergent and convergent thinking repeated over and over as the tools and methods for improvement continue to be played out throughout the organization. Specialized institution-wide Task Force teams and interdepartmental strategic planning teams, repeating the process of divergence through data and information collection and convergence through the creation of action plans and strategies. Plan, do, check, and act, all processes for improvement cycling over and over again as members of the campus community align themselves with UCal’s mission, vision, values and strategic direction, integrating these into the very heart of the newly emerging culture.

Through participation and consultation with essential partners, constancy of purpose and strategic direction are being developed for the Vice-President levels to fit with UCal’s organization-wide statements. Next, the departmental, faculty, and unit levels gather data and devise statements of mission, vision, values and strategic direction to fit with those established one level above in a never-ending dance to the rhythm and melody of continuously shaping and reshaping of internal and external
environmental conditions. To be a partner in the dance of progressive metamorphosis is to be a partner concentrated in the ongoing dance of continuous improvement. One partner is the drive for continuous improvement while the other is the evolution of new management principles. Joiner calls this convergence “fourth generation management”, the hallmarks of which are three: quality, scientific approach, and the notion of all one team (Joiner, 1994).

With my background in QM, it was easy for me to see directly how the university, in coming to the insight that cultural change is at the heart of true transformation, would eventually couple its current work in cultural change with its previous work in quality improvement. They are parts of each other. Deming (1982; 1986) implicitly understood the necessity of such a union. Deming’s (1982; 1986) 14 Points provide the dance steps which, when orchestrated in unison, anchor the dance of continuous learning.

Integrating Constancy of Purpose with Existing Improvement Knowledge

Now that UCal has achieved the first of Deming’s (1982; 1986) 14 Points, constancy of purpose, what other conditions does it have that
might indicate that it is engaged, consciously or unconsciously, in strategic quality management? To answer this question the following discussion will rely on the organizational values for the Malcolm Baldrige National Quality Award.

There are 11 criteria against which organizations are measured prior to being a contender for the award: customer-driven quality, continuous improvement and learning, employee participation and development, the capability for fast response to changing conditions, scientific approach for the design of quality and the prevention of errors, a long-range view of the future, management by fact as opposed to assumption or opinion, corporate responsibility and good citizenship, and a results orientation. The reader will recall the discussion of these criteria from Chapter 2.

**Upholding Constancy of Purpose: Institutional Strengths**

Customer-focused quality and leadership emanated from the affinity diagram as the two most significant values for successful application of QM principles and methods. Without hesitation I would conclude that UCal not only holds those values, but also visibly makes customer focus and leadership come to life. The four areas chosen for strategic direction
all reflect the pledge to the learner and to learning. In particular, the two principles, to “realign undergraduate curriculum to serve learner needs for the new knowledge era” (University of Calgary, 1996g, p. 1) and to become more earnestly engaged in the provision of continuing education for Calgary’s local and regional population demonstrate the University’s renewed commitment to a customer focus.

**Customer Satisfaction: Learner-Centeredness**

I think generally speaking the professoriate is still uncomfortable looking at the student/learner, however you want to label them, as a customer. But generally speaking, those of us who have bought into the transformation view them as nothing but the customer whose need has to become foremost; it has to be foremost. (Emes, personal communication, April 7, 1997)

The commitment to strategic partnerships and collaborations with all stakeholders whether individuals, businesses, governments, other educational centers and to learner-centeredness was obvious from documents studied, interviews conducted, and from student attitudes. Students at UCal have a wonderful sense of their own place of importance within the University. Students sit on all committees and on the Board of Governors at UCal. When speaking to the relationship between the
Student Union and the University, Sarath Samarasekera, President of the Student Union called it "very close... When a meeting is set up between the Student Union and the university, it's never between the Student Union and the University; it's between Sarath and Keith [Winter]" (personal communication, April, 7, 1997).

Student empowerment is important at the University. Samarasekera noted that among the many changes being sought by the Student Union, having teaching evaluations published and getting students on faculty commissions and promotions committees were among the most political in nature. Moreover, the student-owned MacEwan Centre was in the early stages of a $9.9 million expansion completely financed by students. Having come from the legacy of the 1988 Olympic Winter games, the existing facilities are world class.

The Student Union at UCal has a long and well deserved reputation for its successful marketing strategies and fund raising. In 1996, the group ran a $1 million surplus of which only 13% was accounted for by student fees. Samarasekera (personal communication, April 7, 1997) believes that the capacity for profitable business is in measure due to the fact that UCal is a commuter school. When student needs are met at home, they have
discretionary dollars to spend at the student complex. MacEwan Centre
boasts a number of student union owned businesses such as a cafe, bar,
coffee center, used book store, and a number of kiosks that are rented to
entrepreneurs like Kobe Beef.

While many students may be in a good financial situation at UCal,
the Student Union is also aware that there are others less fortunate. A food
bank has been set up for needy students and, at the time of my visit, used
books were being sold in the university’s bookstore to assist the food bank
drive.

Samarasekera was well aware of the Coordination Task Force and
of the work to introduce change to UCal:

I was involved in that right from the beginning...students are
now an educated consumer and students are willing to go
where they get the best deal. The best deal may not be the
cheapest deal...the best deal is the best education for the
money. One of the things that needed to be done at the
university was to change the climate to accept change. That's
what CTF did...From an inside perspective what they really
did do was create buy-in from the community...academics
were willing to overlook some transgressions like infringing
on the way courses are taught and the material taught in
classes--curriculum, content, method. All these things would
be things that if they were brought to the forefront right away
would have raised objections. But they were brought to the
forefront in such a way that people thought they were
necessary. (personal communication, April 7, 1997)
Another example of the move toward a more student-centered environment can be attested to in the inclusion of students on the Coordination Task Force and on the predesign and redesign teams established through CTF. Student input was actively and consciously sought out by CTF and by Faculties that had bought into the change process.

During my visit to the University, I attended a focus group session sponsored by the Faculty of Social Sciences. The purpose for the session was to identify the core competencies associated with an undergraduate/graduate degree in social sciences, and if core competencies were identified, to determine how curriculum could be designed to reflect those competencies. The session, the last in a series of four, was chaired by the Dean of the Faculty and attended by undergraduate and graduate students. The atmosphere was relaxed and informal; one that welcomed and invited student comments.

Discussion focused on what had worked well for the students and what had not. It was noted that small groups worked well to integrate a multipersonal perspective into learning but there seemed to be no systematic approach to learning. Without a systematic method, too many
assumptions tended to fragment knowledge. For example, students believed that an earlier introduction to the underlying assumptions of research methodology, the way methodologies are alike and different, would be useful. A recommendation to improve the situation was generated from the students--to provide a course on general research methods from a cross-disciplinary perspective.

Further, the interrelatedness of disciplines is something that students said they did not readily recognize. This means that knowledge or skills acquired outside each particular discipline may be undervalued by some students. While the student from Psychology received much encouragement to take courses outside her chosen discipline, a student from Anthropology received little. By limiting one’s learning to a single discipline, students may be missing out on vast and rich opportunities to expand their learning. All participants noted the importance of striking a balance between intra and extradisciplinary study as not to jeopardize one’s major.

Instructional methods were scrutinized from the learner’s perspective. The notion of large classes, for instance a class of 400 biology students, attended by a high percentage of non-major learners was
referred to by one student as “dumbing it down”. Smaller class sizes with more personal interaction were endorsed by the group.

An intense discussion about the use of computers as an instructional method revealed that these student participants were not in favour of replacing face-to-face teaching with an electronic interactive devise. It is the relational aspect of the faculty-learner interface that students desire. The immediate response and the realm of possibilities that are present in dynamic human interaction were highly prized by these students.

The session ended on an understanding that learning in the field of social sciences needs to be a blend of both structured and unstructured, theoretical and practical methodologies. The group was informed by the Dean of Humanities that some attention had already been given to such characteristics of a learning environment noting that three courses in his Faculty had been developed to emphasize both the textual and contextual, and with theoretical instruction and experiential learning methods accentuated.

Organizationally, a customer-service orientation is enveloped in the approach to safety and security on campus. Many universities employ ex-
police officers to head up the campus security division. At UCal, the security unit is managed by a Ph. D in chemistry. According to Winter:

We don’t want our security units to be police. We want them to be more help oriented. They have a role of keeping order under some circumstances, but we want them to be perceived in a helpful, positive light. (personal communication, April 16, 1997)

However, perhaps the most salient impression I received about the strength of the commitment to learners was the warm and inviting consideration I personally received during my time studying UCal. Albeit from another institution of higher learning, without exception I was treated with respect as a learner, as a fellow traveler in a learning journey.

Leadership

It has already been pointed out that the Board of Governors, the GFC and the PEAC had demonstrated leadership in undertaking organization-wide change at UCal. Moreover, the establishment of the Coordination Task Force in combination with providing them with the autonomy, resources, and authority to begin the transformation of UCal had also been an act of leadership. Many acts of leadership large and small could easily be drawn from the process. But, were there new ways
of thinking about leadership that the university and its stakeholders had learned from the highly collaborative and participative way in which the transformation was being unfolded?

In fact, leadership encompassed a number of diverse concepts of which the university itself was just becoming cognizant. These concepts included mutuality, partnership, customer service, continuous renewal, and learner-centeredness, to name only a few. How were these concepts being articulated through the University's emerging conceptions about leadership?

The place for gaining insight into the emergent concept of a leader at the University came in particular from Dr. Claudia Emes. Emes herself had been part of the Coordination Task Force from its inception. She, along with Yeager, had acted as one of the Coordination Task Force's key facilitators. Her track record in change initiatives at UCal was very good as she had played an instrumental role in the move from a Faculty of Physical Education to a Faculty of Kinesiology. Emes's knowledge and experience from a major faculty change had been brought to her facilitation role with the Coordination Task Force.
I met Emes in the University’s “Change Room”, an enormous space in the Biological Sciences Building. The room served as the headquarters for the Coordination Task Force and for change initiatives at the University. It housed the electronic communications network, information and data specific to change management, the consultants workstations, and workstations designed especially for teamwork activities. At the time of our meeting, there were three process pre- or redesign teams in progress. One team was studying the flow of undergraduate students through the recruitment, admission, and registration (RAR) processes. A large divider stood in front of the group and on the front of the divider was a massive high order flow diagram mapping the RAR process.

Approximately eight people were gathered around a table and were in an intense discussion led by a team leader who was standing, felt pen at the ready, in front of a flip chart. Another team was at work to the right of the RAR team, and behind me and to my right was a smaller team working together quietly in a corner. I later learned that the small group was working on an aspect of a sub-process problem from the RAR process redesign team. Students were present and involved in all three teams.
People flowed casually in and out of the room, helping themselves to coffee or juice and chatting all the while. One participant recalls his take on the Change Room:

It kind of reminds me of some of those old war movies where the war rooms have all the charts over the walls. I’ve been up there a number of times. There seems always to be some activity going on and at times some very tired looking people. They’ve been putting in some very long hours. (Ogilvie, personal communication, April 14, 1997).

All around the room and strategically placed at various work stations were diagrams and information posters created from the work of a variety of teams and for a wealth of purposes. I reproduced some of this work as I awaited Dr. Emes. However, due to issues of confidentiality, none of this work has been made available within the case study.

One important observation that I am able to share is that all work was printshop quality, often printed in two or more colors. There were no flip charts with harried scribbles displaying completed work. Posters as large as three by five feet were displayed with care. All work showed such pride in accomplishment that I was struck by its high quality. I felt, for the first time since undertaking my research, that I was finally in a place that resonated with my academic background and my professional knowledge and skill set.
I wrote in my research journal:

When I walked into the change room it was like coming home. I finally felt connected; I was face to face with my research in all its complexities. I beheld with absolute awe the magnitude, the breadth and depth of the undertaking. I felt impossibly small in the midst of all that surrounded me and at the same time felt a complete comfort knowing intellectually and emotionally what all this meant.

There were desks set up for various people to use; a computer nest for the consultants hired to walk Calgary through the process of institution-wide change. At the back of the room was an enormous conference area for large presentations or for large committee work. The parts of the room were divided simply by electrical wiring for the computers, desks, dividers, make-shift walls. I have never been in a room with more excitement, as if the full scope of potentiality breathed in that room.

The Change Room represented leadership in action. That is, within the relational nature of human beings engaged in the action science of teamwork, barriers are removed and leaders can surface. Teamwork is one pathway to better understanding leadership. Based in what Emes (personal communication, April 7, 1997) refers to as a “lived experience”, she comments on her new understanding of leadership and its role:

You [learn] what is the most important role for you as a leader. Leader doesn’t necessarily mean that you’re alone. If I look at some of the experiences I’ve been through I’ve learned that a leader doesn’t always have to be the one to speak first; a leader doesn’t always have to lead the troops; a leader doesn’t have to be responsible for absolutely everything that’s happening; that this whole notion of making things
horizontal can only be achieved if you have a really good leader...someone who doesn’t feel that they have to be in front of everyone; someone who doesn’t have to be heard most frequently; has to be the loudest; the person whose decision is the one that has to be accepted all the time.

Good leaders have the ability to stand back and allow room for the other. In doing so, the other is engaged, valued, validated, and thus empowered. In a learner-centered environment, the notion of moving off center stage for the enhancement of the other, and of easing the hold on departmental and/or academic turf for the benefit of the whole organization, demonstrate leadership in action. The simple question, “How can I help?”, is the question of the servant. The ideal of the servant-leader is built into Deming’s (1982; 1986) philosophy of continuous quality improvement. Within the context of teamwork, wherein customers and suppliers are present to each other as central partners in the quality of the processes that make the end results, I believe it is possible to create the paradigm shift to servant-leadership.

Teamwork makes and holds the organization horizontal. As teams learn, teamwork creates the possibility for organizational learning and in learning organizations, “leaders are responsible for learning” (Senge, 1990, p. 9).
Such an apprehension leads the discussion into the next Baldrige value, continuous improvement and learning.

**Continuous Improvement and Learning**

That UCal is an organization at the ready for a transition from a traditional to a “fourth generation” (Joiner, 1994) or “learning organization” (Senge, 1990) is obvious. A learning organization is one that continuously expands and renews its capabilities to shape and reshape its future through the ongoing generation of new knowledge. Continuous improvement and learning are the forces for an expansion of consciousness in campus members and in the institution as a whole.

Continuous improvement and learning are then viewed as a journey, not a destination. This is so at the University of Calgary.

Everyone’s saying there’s no way back now. Some say they don’t want to go back to their old jobs; some say that they’ll never be as closed off as they were again. What’s happening is it’s sort of a consciousness expansion for everyone involved. (Yeager, personal communication, April 18, 1997)

Emes concludes:

As we become more of a learning organization as opposed to an educational institution, in our learning, one of the things that we have to become comfortable with is that learning is a process that is not the purview of any particular unit. When I say administration, faculty, students, staff, we’re all in this together
so, we’re learning from each other. Anyone can be a catalyst for learning. Knowledge can come from whomever or wherever it comes from. It doesn’t have to come from a piece of empirical research in the lab. It can come from wherever it bubbles forth. (personal communication, April 7, 1997)

Employee Participation and Development

The fact that UCal has so completely in breadth and in depth engaged as many of the University’s stakeholders as possible within the transformation has been clearly documented and demonstrated. Yeager is confident that the rest of the university, those as yet untouched by the transformative processes, will support the renewal. However, many have yet to be engaged in the actual methods for change and improvement.

Now I would say that the university probably has, and I think it’s a relatively large number, maybe 25% of the faculty and staff on this campus [at a point of] understanding and support of this. It doesn’t mean that 75% are against. I think a large number of people have yet to be touched by it. It’s very difficult to have 4000 employees who are already stressed and working very hard have the time and the where-with-all to internalize this. (Yeager, personal communication, April 18, 1997)

Capability for Fast Response to Changing Conditions

UCal, through the initial research to state the case for change contained in the Situation Assessment binder, and through its development
of the strategic direction and the four possible futures, has confirmed its capability for fast response to changing conditions. Essentially, when an organization is self-aware as well as aware of its surround, and able to continuously track the inner and outer conditions of its world, fast response is highly likely. In short, the kind and quality of the information and knowledge available to UCal as its basis for effective action increases the probability of a fast response.

Scientific Approach for the Design of Quality and the Prevention of Errors

UCal used a scientific approach to state the case for change. Scientific methods are also at the root of process design/redesign and UCal is engaged in such teamwork projects. By improving the institution’s processes via process knowledge and process simplification, efficiency and effectiveness are heightened, errors and defects reduced. Additionally, improved processes work better for those who must work within them, and in the end, result in better service or products. Work to improve processes increases quality and continued work on processes continuously improves quality.
Variation and its understanding is at the heart of process improvement. Although UCal was busily engaged in process improvement, I remain uncertain that there was sound knowledge about process variation at the time of the conclusion of my study. Measuring process variation and constructing control charts to track processes is highly specialized work requiring statistical expertise. That expertise does exist in the University in the form of the Office of Institutional Analysis. There is also the willingness to use internal consultants. If there was little understanding about the concept of process variation in April 1997, I believe it will be a very short time before the campus community is involved with the concept of variation and its influence on decision-making. Yeager was certainly aware of the work necessary to improve processes referring to process improvement as the “grunt work”, and noting that it is “hard work and you need expertise to do it” (personal communication, April 18, 1997). He envisioned that some external expertise will always be required in some way as the transformation continues to unfold and to reveal new approaches to new opportunities for UCal.
A Long-Range View of the Future

UCal's strategic direction was developed to project it 30 years into the future. Such a time frame would comply with this Malcolm Baldridge value.

Management by Fact as Opposed to Assumption or Opinion

In its continuing efforts and commitment to use a scientific approach to management, UCal is successfully in concordance with this value. It will be interesting to watch how management by fact is put into place in the academic side of UCal and in its reward structures, in particular, in merit pay.

Corporate Responsibility and Good Citizenship

One of the surprises arising from the manner in which change was happening at the University is the recognition of the true worth of institutions of higher learning to their society. When asked how the transformation at the University had personally changed him, Yeager responded:

[It changed me and everybody involved in it]. Actually, [the process] enormously improved [my, and others] understanding of the varieties of ways universities add value to the community:
that is, what goes on here and the diversity of the ways in which impact takes place. Everybody who has touched this, support staff, students, and faculty alike have gone through some sort of epiphany of understanding the value that the place actually adds. (personal communication, April 7, 1997)

Reaffirming the value of the university to its society at a time when such worth is in question, and being able to unequivocally state that value clearly and from a position of knowing can be an enormous boon to higher education institutions. A firm sense of identity and esteem are the cornerstones for corporate health and good citizenship. Pride is a feeling that inspires and motivates.

Results Orientation

As UCal begins its strategic journey into the future, the wisdom of the methods by which the strategic direction was developed and the direction itself will tell what results can be anticipated. A results orientation requires that one not get caught in the process, rather that the process ever be seen as the way to results. For this to happen, desired institutional outcomes will need to be agreed upon and a system of measurement put into place.
Already Yeager is questioning which areas will require serious consideration in order to reach the institution's desired future and to sustain the gains made to date. "We need to look at ways in which to provide incentives and to provide reasons for our employees, both faculty and our staff, to want to be institutionally coherent, institutionally aligned" (Yeager, personal communication, April 18, 1997).

One area for intense consideration will be how faculty and staff are rewarded and the issue of merit pay. Merit pay, a long-standing tradition in the academy, is unacceptable to Deming (1986). When systemic thinking and variation have really permeated the academic culture, then there may be a readiness to take on the staying power of the merit pay paradigm. Cultural readiness to address this issue is an outcome measure of the degree of cultural transformation already taken place. The strategic direction for the next 30 years has been established, but for the present, the work at UCal continues as the institution moves into and through Phase II.
Conclusion

There are a number of elements present within the University of Calgary that would lead me to conclude that UCal is in fact actively engaged in quality management. First, the establishment of a central planning body, the Coordination Task Force, to spearhead the process whereby the University created its constancy of purpose is very typical of QM organizations. The high level reporting structure for the Coordination Task Force provided the visible and public support necessary to engage a campus-wide response to change. Provision of resources in kind and amount necessary for the work sent a strong signal to the entire campus community that change was a serious expectation and that the status quo was no longer a viable alternative for the University.

The campus community was consistently informed and up-dated about the progress of and process for change through written materials such as, Looking Toward Our Second 30 years: Setting Direction and Context, and Looking Toward our Second 30 years: Crafting Our Strategy for the Future. Other avenues of information included the Gazette, the campus newspaper, and the Gauntlet, the Student Union publication.
Continuous 360 degree feedback is implicit in customer-supplier relationships.

Input from all stakeholders, internal and external to the University, was sought. The consultative process was expansive and exhaustive. Forthcoming data and information enabled University stakeholders to understand that forces pressing the University may or may not have had been directly related to post-secondary education. Global conditions, socioeconomic and political factors work together in unpredictable ways producing market fluctuations that seem far removed, yet impact on higher education in Canada. For example, the rise of global competition in both the manufacturing and service sectors places a strain on university curricula as the expectation of higher education moves from knowledge for its own sake to the preparation of educated people for the workplace. In this regard, universities are public service organizations. UCal seems to understand and accept the notion of public service as a primary function.

Electronic technologies enable universities to become international as opposed to just local or regional learning centers, and such internationalization means that universities need to think differently about their goals and aspirations, and about competitive positioning. In
consideration of its future, UCal has come to see itself as only one player in a large global network of universities and other educational institutions. The process of data and information gathered moved UCal into systemic thinking in contexts both internal and external to the university. Systemic thinking helps to solidify the notion of all one team internally, and as a partner in a system of higher education centers externally.

If the University is to survive and thrive in an era of a new economy and new knowledge, the most substantive investment must be in quality. The continuous improvement of quality will enable the university to maintain its competitive position in the world marketplace. Transformation at UCal means progressive change and such forward progress means enhancement of institutional capabilities.

As the University becomes more capable, it will be able to measure its progress internally and externally through the activity of benchmarking. UCal has engaged in some benchmarking by using other institutions’ planning as models with which it could compare itself. Benchmarking is a practice built into quality planning, quality control, and quality improvement.
The use of stakeholder teams to improve processes at UCal also places it within the realm of a quality management model. Teams increase the institution's capacity to think in terms of systems, to remove barriers, to focus on data and thus, reduce blame, and to promote learning. In the context of teamwork, the organization increases its capability to unearth and inquire into its own assumptions about the quality of its products and services. UCal has recognized the need to predesign processes, build quality in before the new processes are implemented, and to redesign processes that already exist but are falling short of the mark. There was no mention of reengineering, of throwing out what existed and starting again before the existing process was well understood.

High value is placed on the University's people, their knowledge and skills as professionals. Everyone was included in the consultative processes that led to the University's statement on strategic direction. Keeping a low profile with external consultants and a desire to develop the University's own people are strongly held ideals. Time is allotted those faculty who become part of the Coordination Task Force and the process teams that flow from the Coordination Task Force. Basic to all activities is
a respect for heterogeneity and diverse learning styles. Valuing difference is a hallmark of quality management institutions.

UCal’s shared vision of a desired future, its confidence that that future state can be realized, and its leadership in the field of change and change management strategically position it for success as a center for higher learning.

In conclusion, the University of Calgary meets the operational definition of a QM (CQI/TQM) university created for the research: An institution that is either engaged in implementing the core values and concepts of a QM strategy or one which has initiated activities in support of Deming’s (1986) 14 Points/Juran’s (1989) Quality Trilogy. The strategic direction is built upon five core values: intending customer satisfaction to be the constancy of organizational purpose, focusing on process performance and improvement, understanding process variation, decision making by fact (scientific method), and utilizing teamwork to integrate the organizational system as a whole. Integration is demonstrated in the values of empowerment and full organizational participation in problem solving and decision making. The three core activities that Juran (1989) identifies as quality management embody Deming’s (1986) 14 Points and include: quality control, quality planning, and quality improvement. Together these form Juran’s (1989) Quality Trilogy.
In addition, the internal and external environmental characteristics that have pushed UCal toward this management paradigm have been clearly demonstrated. The lessons learned as a result of adopting a QM change strategy will follow the case study on McMaster University.
The Context

The city of Hamilton was founded in the mid-late 1600s but did not become settled until 1778 with the migration of United Empire Loyalists from the American colonies. In fact, Hamilton was once hopeful of becoming the seat of government for Ontario. Dundurn Castle, a 35-room Victorian mansion was the home of Sir Allan McNab, prime minister of the United Provinces of Canada 1854-1856 (AAA, 1997).

Today, the city’s population is over 300,000 (AAA, 1997). Hamilton is situated on the western end of Lake Ontario in the Province of Ontario. Its position on the lake has played a crucial role in its economic development. In 1830, the Burlington Canal opened establishing the city as a port. Over the years, the port has been modified so that now, “The landlocked harbour at Hamilton is one of the largest on the Great Lakes, handling the third largest tonnage in water traffic” (AAA, 1997, p. 45).

As one travels over the Burlington Skyway Bridge, the smokestacks of Stelco and Dofasco, Canada’s principal steel manufactures, can be readily seen spewing forth steam and other gases. Because of its harbour
and rail service, Hamilton has long stood as an industrial city. The products of heavy industry, soot and grime, are visible and tangible in the older sections of the city. However, a large part of the city’s urban development has taken place along the ridge of the Niagara escarpment rising above the old town. While the palatial homes and estates of wealthy merchants still grace the lakefront, in more recent times many have chosen to build above the city, along the escarpment brow. Here, the roadway winds past beautifully manicured homes and gardens overlooking the city and Lake Ontario. In clear weather it is easy to locate the CN Tower as far east as Toronto.

Notwithstanding its heavy industrial base, Hamilton has become a center for the arts and entertainment. The city boosts the Hamilton Place Theater, a 2,183-seat Great Hall and 400-seat Studio Theater (AAA, 1997) that is situated adjacent to the Art Gallery of Hamilton. Hamilton has its own Philharmonic Orchestra and Opera company.

Like other urban centers, Hamilton’s downtown core is of growing concern. Plagued by an economic downturn and the growing number of suburban shopping centers many retailers have either relocated their businesses to other parts of the city or simply retired.
Hamilton is a heterogeneous city with a mix of cultures, Asian, Eastern Mediterranean, European. Such diversity is displayed in the number and kind of dining places, large and small, within the city core as well as in its outer reaches. Every July 1, multiculturalism is celebrated in an arts, crafts, and food festival which attracts artists and performers from around the world (AAA, 1997).

Hamilton has been able to hold on to much of its historical flavor and as such is a fascinating combination of the old and the new. Two large farmers’ markets, the Hamilton Central Market and the Farmers’ Market Complex offer marketing venues for fresh fruits, vegetables, and meats. A small area known as Hess Village is located within the downtown parameters. Because of its restored Victorian houses, quaint shops, restaurants, and art galleries, Hesse Village is a favored haunt.

McMaster University

The University was “named after Senator William McMaster, who [in the early 1800s] bequeathed funds to endow a Christian school of learning” (McMaster University, 1997, p. 3). Senator McMaster’s dream was realized through the educational efforts of the Baptist community in
Ontario as early as the 1830s (McMaster University, 1997c), and later, was established as a Baptist denominational college. Mac's motto, Ta Panta En Christoi Synesteken translated from Greek is “In Christ all things hold together” (McMaster University, 1997, p. 3).

McMaster University received its Ontario Provincial charter in 1887 (Jones, 1997). Between 1887 and 1930, McMaster was located in Toronto. In 1930, the University was relocated to Hamilton. Mac continued under Baptist dominance until 1947 when it began to remove itself from denominational control to position itself as a secular university conforming to the requirements for state funding (Jones, 1997). Although Mac's first government grant was received 50 years ago in 1947 (Jones, 1997), the University did not become fully non-denominational until 1957 (McMaster University, 1997c). However, the historic Baptist bond is still present through the independently incorporated McMaster Divinity College located on campus (McMaster University, 1997).

Mac's architecture is a composite of old cut stone and glass. University Hall, one of its oldest and most distinguished gothic-type stone buildings, sits at one end of campus in sharp contrast to the modernity of the rectangular concrete slabs and glass of the Health Sciences Center at
the other end. The combination of old and new is not lost in the university’s approach to and implementation of its plan for a future direction.

Approximately 20,000 students and 3,000 employees, 1000 of whom are faculty, are supported on an annual budget of “more than $335 million from operating income, ancillary enterprises, research grants and contracts, endowments, trust and capital funds” (McMaster University, 1996b, p. 6).

Forces for Change at McMaster

Mac, as one of the larger of over 40 institutions of higher learning in Ontario, is placed in a position of having to compete more seriously for students than the University of Calgary which is one of only seven, four of which are universities. Of the more than 40 Ontario institutions, 20 have university status, and seven of these, located in central and southcentral Ontario, are within an hour and a half drive from each other. Capability for effective competition is a serious competency for any university in such a market.
Furthermore, like Alberta the loss of federal transfer grants to the Province of Ontario has left universities reeling in the aftermath of deep financial cuts. In fact, the level of government support for Ontario universities has been steadily eroding over the past 20 years. The Report of the Advisory Panel on Future Directions for Postsecondary Education (APFDPE) states that, “The share of Provincial budgetary expenditures for college and university operations has declined since 1977-78 from 8.1% to 4.9% in 1996-97” (APFDPE, 1996, p. 6).

On July 21, 1995, Finance Minister Ernie Eves announced a 1% cut in Provincial transfer payments to school boards, colleges, and universities. Of the $55.6 million cut, universities accounted for $16.8 million with further cuts anticipated (Ministry of Education and Training, 1995). By November, 1995, the Ontario, “Minister of Education and Training announced a transfer payment reduction of $280 million for universities in 1996-1997” (McMaster University, 1995a, p. 22).

Harvey Weingarten, McMaster University’s Provost and Vice-President, notes that although Mac has been undergoing change for several years, it is the past decade, and most recently, the Harris government’s funding cuts that have proved the most critical force for
change. Following the November, 1995 announcement, McMaster’s administration estimated that the University’s share of the overall $280 million provincial transfer reduction was approximately $17.4 million (McMaster University, 1995a) for 1996-1997. Further cuts are anticipated as the Province continues to reduce its own operating costs and deficit position. Within this context of an impoverished funding environment, universities in Ontario continue to grapple with the two-pronged state-directed objective of increased accessibility to higher education and public accountability.

Because salaries and benefits account for the larger percentage of any university’s expenses (54% of McMaster’s annual operating budget), McMaster’s approach to the economic downturn mirrors the response of many universities and public organizations: volunteer early retirements, severance packages, a restructuring of global base budgets, and the development of a plan to cope with inadequate funding realities. It should be noted that McMaster’s plan to establish an adequate funding base spans a 3-year period while, in contrast, the University of Calgary has developed a long-range 30-year plan to cope with not only inadequate
funding but also continuously changing internal and external conditions
along with concomitant shifting customer needs and expectations.

In July 1996, Mac initiated an additional means by which to cope
with its new financial realities. The Senate and Board of Governors
established a new advisory committee, the University Planning Committee
(UPC), whose mandate is broad-based:

The role is to advise, not decide...second it is to integrate
financial and academic planning in a better way than had
been done in the past. The third is to provide a certain amount
of stakeholder representation and build confidence in the
planning process...those are the three principle factors. Others
are to advise on the strategic direction and implementation plans
of the University. Also, for the first time there is a committee
that gets to comment on the fund-raising plans of the university.
So it integrates back into the academic and financial planning
and the university's pursuit of new resources. These principles
are important to us. (George, personal communication,
September 29, 1997)

The UPC met for the first time in September 1996 after a series of
retreats held to develop a framework for institutional change that included
examination of issues such as institutional priorities, faculty renewal,
research infrastructure and support, and the undergraduate educational
environment and undergraduate support, to name only a few (McMaster
University, 1996a).
McMaster's Journey Toward a New Future

In recognition that "major failures in planning...are implementation failures" (George, personal communication, September 29, 1997), McMaster's senior management group have opted for a planning process that envisions continuously linking the actual work of the organization back to its stated goals and objectives. Such linkages constitute the activities of organizational alignment and integration and serve as the crux of strategic planning. The planning processes in place at McMaster, although alluding to some quality principles, can be found within a more traditional strategic planning paradigm as opposed to a strategic quality planning model.

Strategic planning, in its broadest sense, is the activity for establishing an organization's goals and the means to achieve those goals. The institution's goals are generally determined by the senior group and are rooted in the purpose of the organization. Strategic quality planning is the complex of activities involved in the development of products/services and processes required to meet customers' needs (Juran, 1992). Customers' needs and expectations are the primary considerations for the development of the organization's goals.
Strategic planning tends toward institutional interests while strategic quality planning attends to the interests of those who receive the institution's products and/or services. When engaged in strategic quality planning, a series of universal steps are taken. These steps are abbreviated as follows:

Establish quality goals, identify the customers, ...determine the customers' needs, develop product features that respond to customers' needs, develop processes that are able to produce those product features; establish process controls, and transfer the resulting plans to the operating forces. (Juran, 1992, p. 15)

After careful consideration, I realized that the confusion that I was experiencing in understanding McMaster's change strategy was because those involved in planning had mingled the two concepts, strategic planning and strategic quality planning, so that neither approach is clearly delineated.

While McMaster has reaffirmed a commitment to learners and has identified other customers both internal and external to the institution, its approach falls short of a substantive integration of the notion of customer satisfaction as its primary aim. I believe that the overlapping of paradigms demonstrates an organization in the throes of transition, in a state of
moratorium (Whitbourne & Weingarten, 1979) that has it caught between two competing schools of thought.

The term moratorium is derived from Erikson’s (1963, as cited in Whitbourne & Weinstock, 1979) work on identity crises and refers to the height of the crisis at which time a conflicted person is moving toward some resolution (Whitbourne & Weinstock, 1979). Because a crisis involves a time of threat as well as an opportunity for change and growth, a stage of moratorium in an organization’s development could be viewed in a similar light. Essentially, the organization is in the crisis of change but has not yet effectively resolved the crisis. The challenge is whether or not the institution can defend its integrity as it is pushed to change by internal and external forces while simultaneously trying to hold on to its previous institutional identity.

Until the organization shifts in one direction or the other, I believe that substantive progressive change in the direction of mission and vision will be compromised. In fact, I would argue that problems in implementation actually may be arising in significant measure from McMaster’s Directions documents themselves. The confusion that I have been experiencing in mapping and understanding McMaster’s
transformative approach will be addressed throughout the remainder of the case study.

McMaster's Process for Change: Directions

At McMaster, the process for the establishment of objectives with concomitant accountability built-in is the sum total of a three-part change process known as Directions. Directions I outlines the overarching conceptual framework for the University, Directions II represents the first steps toward implementation of the framework, and Directions III, as of November 1997 still in draft form, will further the implementation process. Planned annual reviews of both organizational objectives and performance against those objectives is believed to assure organizational accountability.

In comparison with UCal, Mac is very early in its transformative process, although Mac has been working at it at least 1 year longer. Because Mac's planning process stands out in stark contrast to the University of Calgary, a continuous comparison will be presented throughout this case study. In doing so, the discussion will emphasize cultural transformation as the heart of substantive organization-wide
success in making a timely response to continuous changing local, national, and international conditions.

Directions I: The Framework for Constancy of Purpose

Mac's current strategic planning exercise was initiated by the new President, Peter George at the time he assumed office July 1, 1995. Following his first year in office and in consultation with the Board, George (McMaster University, 1996a) outlined the three prime areas for concern at McMaster as, "University mission and goals, effective academic leadership, and fostering collegiality" (p. 1). To this end he saw the necessity to build an effective leadership team at the senior level.

As a result, George took two decisive actions. First, he moved to create a cohesive senior management team by appointing a new Provost and Vice-President Academic, and a new Vice-President Research and International Affairs (McMaster University, 1996a). Second, he established a Directions Task Force to develop the vision, mission, and goals for the University (McMaster University, 1996a). Students, staff, and faculty were brought together to form the Task Force and to improve
communication and collegiality on campus (McMaster University 1996a, p. 1).

Directions I was not the first attempt at strategic planning and change at McMaster. George notes the campus community’s frustrations with earlier planning initiatives dating back over the past decade. In 1991, Mac had developed a strategic plan which, despite established benchmark reporting dates, was “simply ignored” (George, personal communication, September 29, 1997). As a result, a fair amount of cynicism remains within Mac’s community. To a great extent the current planning process has been carefully charted with the hope of overcoming lingering disenchantment.

In fact, after having conducted five interviews, I was struck by two realizations. First, the information forthcoming tended to paint the University in a less than a positive light. Second, unlike individuals at UCal who readily and eagerly spoke to the change processes and the work of the Coordination Task Force, those interviewed at McMaster did not initially refer to the Directions process as McMaster’s route to organizational change. Rather, the tendency was to talk about minor changes specific to their work area.
Because the negativity and perceived lack of awareness concerning the point for the Directions process might have been informed by whom I happened to have interviewed, I was concerned that the emerging picture of McMaster could be biased. Therefore, I wrote to the Provost requesting that he direct me to an area that had undergone a major change. I was directed to the Faculty of Humanities which is discussed later.

Like UCal, Mac began its transformative process, Directions I, by seeking out grassroots input. George (personal communication, September, 29, 1997) outlines the collaborative process as entailing open forums such as Town Hall meetings and stakeholder discussion groups. However, no actual attendance records were kept so that there is only an estimate of the number and status of campus members who were present.

There were rough estimates of the number of people attending. I think there were a couple of hundred at a time and there were three or four Town Hall meetings. But, [the meetings were] low on student attendance and probably higher on staff than on faculty attendance. But, there was no attempt to do other than provide the opportunities. I think that we felt that first year it went pretty well in terms of participation [and], given the view of the past, we felt that this was pretty significant. But, any attempt to analyze or evaluate the results, no. (George, personal communication, September, 29, 1997)

Other formats for spreading the word about the Directions process included a monthly Newsletter, a bi-weekly program on McMaster’s radio
station, CFMU, and public notice by the President of his accessibility to
discuss campus issues via telephone, e-mail, or face-to-face meetings by
appointment (McMaster University, 1996a).

The culmination of the various public forums, opportunities for
dialogue, and Town Hall sessions at McMaster was manifested in the
document Directions I. In December, 1995, the document was approved
by both the McMaster University Senate and the Board of Governors.
Essentially, Directions I is a statement of mission, vision, values, and
goals for the University as it moves into the future. As such it established
McMaster's constancy of purpose.

McMaster has stated its mission, vision, and goals as follows.

Mission: At McMaster our purpose is the discovery, communication, and preservation of knowledge. In our
teaching, research, and scholarship, we are committed to creativity, innovation, and excellence. We value integrity, quality, and teamwork in everything we do. We inspire critical thinking, personal growth, and a passion for learning. We serve the social, cultural, and economic needs of our community and our society. (McMaster University, 1995b, p. 1)

Vision: To achieve international distinction for creativity, innovation, and excellence. (McMaster University, 1995b, p. 1)

Goals: Increased focus, enhanced respect, stronger connections, increased innovation, and improved evaluation. (McMaster University, 1995b, pp. 1-8)
A number of Task Forces "with small memberships, short reporting deadlines, and tightly focused terms of reference" (McMaster University, 1995a) were established out of the Directions I exercise. For example, in the academic arena, a Task Force was struck to explore "a collaborative project between McMaster and Mohawk College in the area of a jointly owned profit centre for new specialized degree programs targeted at niche markets" (McMaster University, 1995a, p. 21); and, in the non-academic, Task Forces were created to develop strategies for McMaster's image and "for investigating the promotion of campus advertising, sponsorships and exclusive contracts" (McMaster University, 1995a, p. 21).

Other Task Forces include: revenue generation, a review of new learning and technological opportunities, undergraduate education and educational models, and one on measuring academic quality, performance indicators, and outcome measures (McMaster University, 1995a; McMaster University, 1996a).

In contrast to UCal, neither the Senate nor the Board of Governors at McMaster were key players in the development of the first Directions document from its inception. Rather, they were requested to approve the document upon its completion. By taking this route, ownership of the
transformation at Mac may not be taken as soberly as it might have been.

Hypothetically, such an oversight may hamstring actual, or perhaps, the perception of, commitment to organizational learning and change at the pinnacle of the organization. It will be interesting to watch and see if and how this might affect strategic change over the next few years.

Because there is no Board of Governors paper trail indicating the sequence of steps in Mac's change process, tracking the process was more difficult than at UCal. Clarity and wide-spread communication are critical to transformative buy-in. I believe that the study shows that the University of Calgary has been far more rigorous in its preliminary data collection, and community information strategies, especially in getting students and faculty interested and engaged than has Mac. In fact, in a telephone conversation with one participant, who interacts with the Board and who wishes to remain anonymous, I was advised that the Minutes of Board meetings would be of little use to the change-specific nature of my research.

Unlike UCal, Mac's Board Minutes are held in the Office of the Secretary to the Board and can be read by anyone with permission, but cannot be taken from the office to copy, nor are they readily accessible.
within the public domain. Presently, there are discussions underway to place the minutes on the Internet as a means of complying with a motivation to be more transparent for the sake of accountability. I was able to access a copy of the minutes of the Board meeting, December 14, 1995, at which the Directions I document was approved.

Barring the usefulness of the Board of Governors Minutes, the Presidents’ Newsletters became the source for better understanding the change pathway. Although the President’s Newsletters are written for the purpose of internal/external community information, they also contain personal news about the President and his family. The letters provided a glimpse into the man who is President. There is an authenticity and warmth present; personal qualities that illustrate an openness to the campus community, an approachability that borders on vulnerability, and a willingness to publicly reflect on his own performance as leader.

As I read through the letters and listened to President George, I was reminded of the comments forthcoming about UCal’s late President Fraser. It seems to me that George and Fraser share many of the same positive qualities: honesty, approachability, accessibility, a quiet, understated wisdom; and a remarkable humility. It is important to note that
cultural changes at UCaI were facilitated because of Fraser’s long-term presidency and leadership while George has only just begun his third year of a first term. The length of Fraser’s presidency may account for an organizational culture that, I believe, was better prepared for the breadth and depth of an institution-wide transformation at UCaI than is the culture at McMaster.

There were no far-reaching and in-depth internal and external situation assessments conducted prior to the development of Directions I. When asked if there had been an exercise for such data collection to strengthen the case for change, George states:

No, I think it was sufficient that everyone believed that the previous strategic plan had been ignored and there was a lot of cynicism around it, and secondly, the election of the Conservative Government and the implementation of the Common Sense Revolution was sufficient. (personal communication, September, 29, 1997)

In addition, there is no single body such as a Quality Council whose purpose is to focus on organization-wide transformation through strategic thinking, strategy making, and by deploying the transformative process as was the responsibility of the Coordination Task Force at UCaI. At McMaster, the President and Vice-Presidents have the central
responsibility to usher the strategic plan and its execution into the institution.

Although President George must be commended for his desire to be personally involved in McMaster’s strategic change, such a decision may actually slow the process for change, especially as McMaster is gearing up this year to launch a major fund-raising campaign. University presidents as institutional diplomats are fund-raising lightning rods. Their personal attention and high public profiles demand enormous time and energy to market the university.

Since his induction, President George has already been focusing much of his attention on promoting McMaster’s institutional profile and self-esteem both within and without. As of June 1996, George had delivered over 50 presidential speeches to the external community and had been invited to sit on three Boards: the Royal Botanical Gardens, Chedoke-McMaster Hospitals, Renaissance Project for Economic Renewal (McMaster University, 1996a). He is also an advisor to the Hamilton hospitals restructuring committee. The magnitude of only some of George’s Presidential leadership activities over 1995-1996 is shown in Table 9.
Table 9

Presidential Leadership Activities for Organizational Change at McMaster, 1995-1996

July 1, 1995 President Peter George assumes office.

First initiative is to “lead a process to discover a vision for McMaster University” (McMaster University, 1996a).

Three prime concerns:
1. University mission and goals,
2. Effective academic leadership,
3. Fostering collegiality.

George sets up a Directions Task Force to:
1. Develop mission, vision, and goals for McMaster
2. Foster communication and collegiality; staff, faculty and students make up membership.

*December 1995, Directions I is approved by Board of Governors and the Senate. Several task forces arise from the recommendations forthcoming.

Development of a 3-year budgetary plan via early retirements, severances, initial steps taken to restructure base budgets.

Recognition given to Human Resource issues,
- quality of working life,
- disparity between staff and faculty compensation packages,
- professional development of staff,
- provision of appropriate technical and administrative support.
- initiates new award for excellence in achievement by full-time staff, and new award for faculty research.

Seeks to build a team in senior management group.
Engages in efforts to improve internal communications and consultation to review and improve decision-making.
- 1996, Weingarten named Provost and Vice-President, Academic and new Vice-President, Research and International Affairs appointed.

Works to improve internal relationships with stakeholder groups, i.e., MUFA, MSU, etc.
Initiates President’s Newsletter

University Planning Committee established
Mandate: (Advisory)
1. Advise President and Provost on a plan for institutional renewal. (June-July 1996 planning retreats)
- identification of institutional priorities,
- faculty renewal,
- research infrastructure and support,
- undergraduate educational environment,
- non-academic and academic support services.
2. Integration of academic and financial planning.

External Leadership Involvement (planning for major capital fund-raising campaign within 3 years)
1. Over 50 speeches given at a variety of venues.
3. Member of COU and AUCC.
4. Participation in many Alumni events including 12 weekend events.
Such commitment is a double-edged sword. One the one hand, it sends a formidable message to the campus community that George is an involved and informed President actively supportive of change. On the other hand, without the full attention of his leadership or that of an authorized change leader, Mac’s change process is likely to become watered-down.

George himself acknowledges the importance of the questions, “How quickly is McMaster changing, or does it appear to be changing at all?” In response he admits, “I think it’s changing [but] it’s probably changing more slowly than I’d like it to change or believe it needs to change” (personal communication, September, 29, 1997).

Because Mac is early in its change efforts, a different approach was needed to understand the point of change at which the institution is situated, and to best comprehend the experiences of the campus community as it moves through the change process. The research plan evolved during the course of the interview and document review processes. Therefore, while the research attempted to flow and track with the organization under study, it was, in my view, imperative to begin
questioning the underlying assumptions found within McMaster's constancy of purpose outlined in Directions I.

Institutionally Shared Meaning

Because all subsequent planning and implementation flow directly from the organization's constancy of purpose found in the first Directions document, it seemed essential to check the campus community's understanding of the meaning of the concepts contained therein. Language and its use are accepted as important elements in any academic setting, but also, they are crucial to establishing the internal linkages that align and integrate mission and shared vision throughout an organization.

Further, language that creates and shares meaning achieves something more profound than simply linking concepts. When shared by all stakeholders, it accounts for the degree to which the synthesis of institutional mission, vision, values, and goals are assimilated into the intellect and psyche of the organization.

Juran (1992) specifies the need for unity in language noting that major forces for organizational change along with responsive strategies have required revisions in managerial language. Therefore, one hallmark
of Juran's books is that they all contain a glossary of terms. This notion was not missed by the University of Calgary as a glossary was included at the end of its Mission Statement (University of Calgary, 1990). No such clarification was forthcoming from McMaster.

In trying to determine whether Mac is practicing the methods of QM and/or following in some part the philosophy and principles of QM, key words and phrases were identified as checks for shared understanding. The phrase, "We value integrity, quality, and teamwork in everything we do", (McMaster University, 1995, p. 1) was of particular interest as a place to search out and to apprehend the basis on which the University is directing change. All three values are rooted in the work of Deming (1986) and Juran (1989).

The best example of a written statement outlining a definition for quality is found within the text of Directions: "We value quality. Therefore, we will not stand in the way of attempts to improve quality by removing unnecessary duplication in the post-secondary system, even if this means that our own programs have to be changed" (McMaster University, 1996, p. 5). The notion of quality as efficiency is blatant. Was this the accepted definition for quality at McMaster?
Every interview included the question, "What is McMaster's definition of quality?" As it quickly became evident that no common definition was close at hand, the question became, "What is your definition of quality?" Several answers were forthcoming. Each answer provides a slightly different insight into basic assumptions about quality.

Diverse definitions are included in the following examples.

President George views quality as a mix of tangible and intangible elements that the University struggles to measure:

...to some people, quality is what we used to have when we were students. [I think there are some common indexes of quality]. How precise they are, I'm not sure. We use indexes such as a lot of input measures, such as students per faculty member, dollars per student, and so forth which are rough guidelines only. In terms of evaluative measures or performance measures, we have two that are particularly important at least around here. One is teaching evaluations which at least give a student assessment of teacher's performance, teaching performance which we take seriously. Second is the annual performance appraisal system which evaluates faculty members on three basic criteria, teaching, research, and community and professional service. (George, personal communication, September, 29, 1997)

Andrea Baumann, Dean of the School of Nursing, provides a variety of ways to measure quality but falls short of a definition, other than a feeling of pride, for what it is she is measuring:

Quality starts with the university's programming, the quality of your professors, the background of your professors, hiring
practices, quality assurance programs, internal reviews, external reviews, internal measurements of quality, external measurements, evaluation...Quality is very high pride in the program whether it's research or education. (Baumann, personal communication, July 15, 1997)

Although George's and Baumann's notions of quality and its measurement coincide with the institution's and hint at a state approach to quality as measures of efficiencies, Evan Simpson, Dean of Humanities, provides a commonly held faculty belief about quality as a self-judiciary conviction (Barnett, 1992a, 1992b) subject to peer review. Such a notion is reflective of a, we'll know it when we see it attitude:

The word is not defined in the [Directions I and II] documents you liked and it's not, I'm afraid, very clearly defined in practice. It's a concept that is produced as a rationale for doing something people want to do... There is an answer [to the question, "How do we know when we have quality?"] within the system. We rely on professional judgment, forms of peer review in which those who have demonstrated that they deserve the respect of their fellows are good authorities in making qualitative judgments. (Simpson, personal communication, September 16, 1997)

On the other hand, Alexander Darling, Vice-President, Administration, provides a definition for quality that would match Deming's (1982, 1986) and Juran's (1989) understanding of quality as both an outcome and a principle:

If you look at a lot of quality literature I suppose the closest thing they tend to say is meeting or exceeding the expectations
of those who we serve. So that for someone like the book store, they would measure it by things like, “If you want a book, is the McMaster Bookstore the first place you’d go to or the last place you’d go to?”...Quality would be defined by those who come into the store. (Darling, personal communication, March 27, 1997)

Greg Kaufman, President of the McMaster Student Union, defines quality best through his understanding and acceptance of the word “customer” within the context of an academic setting. Implicit within the word customer, Kaufman identifies the notion of service quality from a student’s standpoint:

The ones who are not comfortable with [the word customer] view the word as meaning someone who is buying something. I’m using the word customer because I am comfortable calling myself a customer of the university because I acknowledge that I am paying money for a service. I think it comes back to the manufacturing and service thing. The ones who are not comfortable with [the word] view it as a manufacturing thing, that we are buying a degree...I’m using the word customer because I acknowledge that I am paying money for a service, and in that sense I am demanding quality for that service. I’m demanding the best for my money. I’m a customer; treat me like one. (Kaufman, personal communication, August 7, 1997)

Can an organization successfully transform itself without a shared definition for quality? I believe it can, but with one codicil. If quality is to be judged by those who use products/services, there must be a permeating commitment to customer satisfaction integrated into the institution’s
constancy of purpose and into the psyche of every member of the campus community. Furthermore, those who receive the institution’s services must be satisfied, if not delighted by those services.

The study at the University of Calgary also demonstrated a discrepancy in a shared definition for quality, but UCal was consistently characterized by both an implicit and explicit student-centeredness. The value of learning whether individual or organizational pervaded the campus community, and the actions of campus participants upheld the value.

Customer Satisfaction: Learner-Centeredness at McMaster

Although less progress seems to have been made than at UCal, McMaster is following suit in its own attempts to more effectively balance teaching with research. For example, each of Mac’s four core goals contains statements about the importance of valuing students and teaching as vital to the success of the university. Some statements are obvious, others less so. Two examples have been taken from two of the University’s major goals which candidly support the shift toward learners as key constituents.
Under the goal “Increased Focus”, the sub-goal, “Linking Scholarship and Education”:

...we affirm that scholarship and education—research and teaching ...are inextricably linked. Every full time faculty member at McMaster should expect to be evaluated in both realms and should strive to have one inform the other...we commit ourselves never deliberately to isolate one from the other, or reward one and not the other. (McMaster University, 1995b, p. 5)

The goal “Enhanced Respect” is collapsed into three subgoals. One sub-goal, “Valuing Students” states:

Our commitment is to excellence in teaching, and that means that we must listen attentively to what our students are telling us and respect their opinions about the learning experience at this university...And, if we are to inspire personal growth, then the academic, physical, and social environment in which students live and learn must encourage mature behaviour, provide for their emotional well-being, and meet their cultural and recreational needs. (McMaster University, 1995b, p. 5)

Recognizing that the first Directions document was approved 2 years ago, and that within that document Mac has publicly reaffirmed a strong commitment to student-centeredness, I chose to check how deeply the notion of student-centeredness has penetrated the campus since December, 1995. Competing perceptions surfaced during the questioning. Simpson describes his perception of the ethos of McMaster:

McMaster defines itself as a research intensive university. People are rewarded for research publication, for discoveries, for
advances in knowledge. Research is the service we provide in addition to and even sometimes at the expense of the instructional services that are our other main function. Because the university characterizes itself as research intensive it tends not to see itself as teaching intensive, so that we who do provide on balance a lot of teaching to the rest of the university can sometimes feel that we’re being taken advantage of because that takes time away from what the university deems the most important activity, namely its research. In many parts of a research university, teaching doesn’t extend much beyond the dissemination of information for those who can get it, and those who can’t get it fall by the wayside. (Simpson, personal communication, September 16, 1997)

The extent to which the value of research is embedded within Mac is also found within its system of reward. “People don’t, at this institution, get much credit toward promotion for excellence in teaching for example, nor does poor teaching prove much of a liability when it comes to promotion” (Simpson, personal communication, September 16, 1997).

Kaufman informs the situation of student life on campus when he acknowledges some problems with facilities and teaching.

Quality of teaching is going down...You don’t have the interaction...the basic beef [of students] I think is not the fact that tuition fees have increased so much but the fact that they have increased so much and the quality of education...some would argue has decreased...The buildings, classrooms [at McMaster], they’re falling apart in some cases and class size has increased so much...You’ve got less teachers and bigger classes which is less interaction, which is a problem...Certain Faculties recognize that they’re there to teach and other Faculties or certain teachers think of us as a pain in the ass when they’re not doing research. (personal communication, August 7, 1997)
One particular experience that I had as a learner/researcher is telling, especially in light of the statement found in the goal, "Enhanced Respect... We will...provide a welcome environment for all students. We serve our community and our society by ensuring that we remain open to different modes of thought and different traditions" (McMaster, 1995b, p. 6).

The following is an entry made in my research journal immediately after having interviewed a Dean at McMaster. Although I have received written permission to use the interview within the research, the specific Dean, for obvious reasons, will remain anonymous.

As I entered the room, the Dean kept her/his back to me. I said, "Good Morning Dr. X", to which there was no reply. There were two chairs on either side of the Dean. I moved toward the one on her/his right at which point s/he looked over her/his left shoulder, pointed to the chair on the left and said, "You can sit there." I introduced myself and began to explain the study but was interrupted as s/he informed me that s/he only had 30 minutes to give me (not the 1 hour that had been previously arranged). I suggested rebooking; s/he suggested we see what we could get done in 30 minutes.

S/he appeared very disinterested in the whole process. S/he had a tendency to give sparse information without expanding on the point. When I requested clarification s/he reluctantly proceeded to provide a larger framework but was loath to provide more succinct or detailed information. At times s/he became sarcastic and disinterested. S/he sighed repeatedly. When asked about a particular student outcome, s/he replied, "Pretty fundamental."

I became engrossed in this person's attitudes, her/his ability
to work within the context of community, to show empathy
toward someone on a research path that s/he herself/himself
traveled for a doctoral dissertation and according to her/him
one in which s/he continues to be actively involved. S/he did
not welcome me as a fellow traveler nor did s/he seem
interested in the importance of the interview process for me
as researcher.

S/he talked about the close working and interdisciplinary
relationships within the university at large. S/he suggested a
family or community atmosphere, yet was completely unable to
muster a pittance of hospitality or even provide the smallest
welcoming space in which I could feel comfortable. I felt neither
valued nor respected as a learner. No one so far has been able to
provide a definition for quality in this center. Yet, this is held as
a primary value within the context of the mission statement. How
are healthy interrelationships created in institutional cultures in
the absence of shared meaning? I gained two important insights
during this interview:

1) the importance of creating authentic inclusive community
within a university; that is, the importance of removing all
artificial barriers to learning;
2) that congruity between espoused values and values in use is
one byproduct of shared meaning. Congruity builds a sense of
safety and trust for students, staff, and faculty.

Although many examples exist that seem to demonstrate a move
toward student-centeredness (e.g., the creation of the University Center
campaign to build a new student center, the growth of the Student
Opportunity Fund to $17.5 million), in my experience at McMaster, the
transformational crusade does not seem to be far enough along to have
made marked improvements in some of the less positive academic environments and sub-cultures.

Still, the senior team cannot be faulted for lack of effort. Commitment for a more student-centered academically balanced environment is strong and public in the senior management team. Nevertheless, to be successful, the President and senior administrators must remain focused toward institution-wide congruity. In short, the institution will have achieved congruity when, as a whole, it enacts its stated values. Congruity is an issue of organizational culture, and in the university the shapers of culture are the faculty.

It poses a conundrum that faculty loyalties tend more toward their discipline than to their institutions. All staff, but in particular faculty are the university’s representatives to the public. They carry within them the fractal images of the institution as a whole. Any university would do well to work at faculty-student relationships within the context of mission and vision. Otherwise, faculty attitudes and behaviors could represent the single greatest barrier to transformation.

Incongruity between what the university says about itself and what is actually happening in daily practice connotes a serious problem for all
participants’ morale. Weingartern (personal communication, March 17, 1997) sheds light on the problem of congruity at McMaster stating that, “We would like to think that behaviors and attitudes during daily practice come directly from our mission statement but they don’t.” Congruity is the acid test to determine organization-wide alignment and integration of constancy of purpose, which when boiled down are the determinants of substantive cultural transformation.

To underscore the notion of the difficulty in shifting an institution’s cultural patterns to coincide with aims and vision, the following examples of two recent change processes, the first in an academic area, the other in a non-academic area are provided.

Change Strategies: One Faculty’s Experience

According to its Dean, Evan Simpson, the Faculty of Humanities at McMaster has been the “department of the University, more than any other, that has felt the stresses of downsizing” (Simpson, personal communication, September 29, 1997). The department is currently operating at 17% less than its 1990 budget and with approximately three-quarters of its former staff complement. The circumstance that instigated
change was twofold, the small size of existing departments and the
decimation of the Faculty’s internal arrangements by massive academic
downsizing.

_IntraFaculty Structure: Rethinking the Department Model_

As a new Dean of the Faculty of Humanities and faced with
diminishing resources, the major question for Simpson was whether or not
to protect the strongest units at the expense of the weaker, or to protect all
eexisting areas of study while at the same time knowing that, in this
scenario, all would become marginally smaller. Simpson, together with the
faculty, saw their choice as clear. “Overall there was no strong will simply
to make the strong stronger, but rather to maintain a full spectrum of
humanities studies” (Simpson, personal communication, September 29,
1997).

Problems were evident with this inclusive strategy. “Some of the
smallest areas looked like candidates for disaster” (Simpson, personal
communication, September 29, 1997). The smallest departments consisted
of music, drama, art, and art history. The largest of these contained only
eight faculty, the smallest, only five. As such, the resolution for the
continued existence for these departments was to unite into one integrated unit now known as the School of Art, Drama, and Music. Under the new School, existing departmental resources could be better utilized.

Although improved resource utilization was a critical motivator for the unification, other factors played an important role. For example, Simpson points to the "obvious academic and intellectual benefits to be gained by bringing together related disciplines in a way that would allow them to cross-fertilize one another" (Simpson, personal communication, September 29, 1997).

In the Faculty's integrated School model, academic programs can be evaluated and amended from several different perspectives. Such integration is a way to by-pass academic programs as simply a bag of courses favoring instead the creation of a multifaceted strategy from which learners can synthesize knowledge from a broader base. The School has only begun its second year of existence, striving to meet expectations, and to live up to its promise.
Breaking Down Barriers: Rethinking IntraFaculty Processes

Because of the retirement incentive packages offered by Mac, the University as a whole played a key role in creating a dramatic imbalance in the internal structure of the Faculty of Humanities. It established an “uneven pattern of retirements [in which] one department lost one-third of its members, another area lost 60% [while] some departments remained unaffected” (Simpson, personal communication, September 29, 1997). In this case, the task became to effectively address and rebalance the Faculty’s internal structure.

Although university administrators suspected for several years that an economic downturn would eventually come, they failed to fully act on that knowledge (Simpson, personal communication, September 29, 1997). However, their suspicions had given them pause for some consideration of the need for simplifying programs. As a result some areas were prepared to modify programs and could adapt fairly quickly despite the changes in manpower while others were so depleted as to confound any simple attempt at alteration (Simpson, personal communication, September 29, 1997).
On a positive note, the many retirements did leave the Faculty with some additional resources for new people, “although we could hire only one for every two retired” (Simpson, personal communication, September 29, 1997). To fairly allocate limited resources, Simpson together with the Department Heads borrowed a process from the University of Manitoba. Once the group had determined the number of people to be hired, they invited the units to present their best case for one or more of the available positions. After all cases were discussed, Simpson, as Dean, deliberated and made the final judgment for the allocation of eight positions.

Because the rationale was always clear, the decisions seemed to be warranted and fair so that everybody is happy as can be under the circumstances. That, I think, defines less a change than a way of coping with change. But, it is a significant part of our story over the last two, three, four years. (Simpson, personal communication, September 29, 1997)

The Faculty Budget: Rethinking Financial Strategies

In 1993, Simpson initiated an innovative move for a Faculty of Humanities. He hired a fund-raiser for the Faculty to begin to identify external prospects for additional funds and to help him to talk with people in the community about the contribution of the Faculty of Humanities to the University and to society. His thinking shows incredible insight into
the problems faced by universities today in terms of the university-public relationship.

We formed an external advisory committee that I thought would take the Faculty out of the ivory tower and connect it with ordinary citizens. This is an illustration of thinking that is now, I believe, prevalent within the university to the effect that the organization cannot afford not to change and must become accountable to people beyond it. (Simpson, personal communication, September 29, 1997)

The outcome, although not successful in a financial sense, did, in Simpson’s opinion, accomplish something perhaps even more valuable for the Faculty. “The faculty, or parts of it, began to think in slightly different ways; began to accept responsibility to the community rather than simply assuming that its needs would be provided” (Simpson, personal communication, September 29, 1997). Unfortunately, there is some indication that this new learning may not have taken as well as Simpson hoped.

Even after the creation of the School of Art, Drama, and Music, the effects of downsizing, changing structural arrangements within the Faculty, and community outreach, “old identities are difficult to discard and friction between the constituting areas remains a difficulty” (Simpson,
personal communication, September 29, 1997). More generally speaking, and perhaps even more discouraging:

This recognition of the university as integrated with society rather than as an independent and isolated island within it is not a way of thinking that is very prevalent even now. People have jobs to do, they do them, and believe that that fulfills their responsibility to the institution. (Simpson, personal communication, September 29, 1997)

Notwithstanding the above statement, there are a few significant rays of hope that demonstrate the value that faculty place on their students. One particular ray exists within the Faculty of Humanity's approach to change. The Faculty has developed a program called “Applied Humanities in which senior students can in various ways consolidate their knowledge by sharing it with others; [notably] junior students” (Simpson, personal communication, September 29, 1997).

By removing the barrier between senior and junior students, and by providing a place for the application of learning, the Faculty has offered a window for reflection in and on practice, a mechanism to marry theory with practice. Perhaps more importantly, Simpson and his people have captured an inclusive spirit, and thus, the potential to build community when barriers are removed. That is, the program for Applied Humanities:

Illustrates in a way the axiom that one does better for himself by sharing what one has or knows. Maybe it is a humanistic
idea but I think it’s certainly true that organizations that share with others what they have learned help to improve the wider environment and thus in the end do good for themselves. (Simpson, personal communication, September 29, 1997).

Another example of student related initiatives forthcoming from the Faculty of Humanities is the opening, December 9, 1997, of the Edward and Margaret Lyons Humanities Communications Centre. The Centre’s mandate is to “conduct research into communications educations and teach communications skills to humanities students” (Lo, 1997, p. 1). In addition, the Centre also serves as “a drop-in resource library aimed at developing work skills” (Lo, 1997, p. 1), and as a resource for students learning English as a second language. Essentially, the Centre resolves to break down barriers of another kind.

Breaking down barriers is not only a sub-goal of Mac’s goal, “Stronger connections” (McMaster University, 1995b, p. 6), but it is also one of Deming’s (1982; 1986) 14 Principles. Recall that McMaster was chosen as a study site based on the language, thus the assumptions, about mission, vision, and goals, contained within its Directions I document.

Although changes have been made, I am not convinced that substantive change has penetrated the faculty in general at McMaster University. My sense is that, culturally, some change may have occurred
especially in attempts toward student-centeredness, yet transformation has not. Transformation requires a fundamental shift of mind and such metanoia requires that basic assumptions be raised about the faculty and their relationship to a post modern university, to its internal and external constituents. If such questions are not raised, change is sustained at a superficial level, a kind of thin veneer that covers the more fundamental problems found in institutional cultures, in their norms and values.

In particular, issues that arise as organizational conflict may be related to faculty’s hold on artificially created territories (e.g., academic and administrative boundaries) and the crucial need to break down all barriers, whether those barriers exist between departments, units, people, faculty and students, or the university and the community. Beneath the senior level, many of McMaster’s academic stakeholders appear, contrary to transformative efforts, to continue to be working from self or disciplinary interest as opposed to institutional interest. The notion of academic boundaries and institutional conflict is further underscored in the story of one administrative department’s experience.
Change Strategies: One Administrative Department’s Experience

As indicated earlier, there was some movement in the early 1990s toward a QM model within those departments reporting to the Vice-President, Administration. Today, the Purchasing Department stands out as an area actively engaged in some of the elements of quality improvement, although process design/redesign is referred to most commonly in these areas as reengineering (Galan, personal communication, September 22, 1997).

For example, Terry Galan, Manager of Purchasing, is not only comfortable with the notion of the student as customer, he supports it. In his comments, Galan also notes the underlying concern that academics display with the notion of student-customers:

I think the students are [the primary customers of the university]. Absolutely. Without them, I’m not here. Without them, the faculty aren’t here. We had a session with the faculty about 2 years ago when Peter took over...it was one of those exercises where we see who our customers are. We clearly identified students as our customers...I tell my staff that our customer is anybody who gives us information or we give information to. That could be anybody. Well, the Deans just wouldn’t recognize that students are their customers. They had to settle on clients. (personal communication, September 22, 1997)
George (personal communication, September 29, 1997) also supports the faculty’s discomfort with students as customers:

The most inflammatory thing that I seem to be able to say is that we should treat students as customers. A couple of faculty said, “We don’t sell grades.” I said, “You miss the point.” The point is students have money in their pockets and a choice of places and programs on which to spend it and we have to give them good customer service if we want them to pick McMaster and be happy in that choice. The idea of customer service and good consumer relations is something that doesn’t come easily to universities I don’t think.

Darling, Vice-President Administration (personal communication, March 27, 1997) refers to the earlier 1990 initiatives coming from the Business Management Services area as a “work smarter, not harder” program begun with the help of an external consulting group, Stevenson-Kellogg. He states that the initiative was service driven, and today, customer service in the business areas is measured through customer satisfaction surveys completed every 2-3 years.

The Business Management Services area is also making use of teamwork. Galan (personal communication, September 22, 1997) describes self-managed teams, as “challenge teams” wherein team membership is representative of the process in which an opportunity for improvement is recognized. For example, Galan (personal communication,
September 22, 1997) indicates that the challenge teams collect data, usually verbal as opposed to numerical, keep minutes, and record successes and all changes. When asked in what sort of changes the teams have been involved, Galan offered the following:

Most of [the changes] would probably be procedural. Very few policy but procedural and some program changes. Some have been fresh ideas, for example, electronic forms rather than paper work. [Others included] changing our hours in financial services...and in fact [financial services] went to a completely different office environment. Cashiers were behind [a barred] wicket. Unknown to them, people on the other side were thinking that’s not trustworthy, or it looks like a jail. We had no idea that that was how it was presented. [When we found out, we changed it]. (Personal communication, September 22, 1997)

When asked about tracking service cycle times, Galan was able to give an excellent example of how complex and ad hoc unmanaged and unmeasured processes can become. “I’ve got four purchasing offices and we did flow diagrams for the purchasing process in each of those. Each one was different. We had no idea! So, we made some changes.” (Galan, personal communication, September 22, 1997). Implicit within his comments one can see the use of process improvement methods and the concepts of variation and process standardization.
Further, in a discussion about cost cutting and downsizing activities within the Purchasing Department, Galan provided the following insight.

Back in 1989-1990, the Vice-President, Finance developed something called, "Work smarter, not harder." So we were well ahead of the budget cuts because we had already done some of those things and even addressed down-sizing as well ... As an example, in accounts payable we came up with an automated program called "three way matching", matching of the invoice order, purchase order and the receiving report. Once we did the flow charts we realized how manual and cumbersome it was so we paid our computing information folks $30 thousand [to set up a computer system for matching] that led to a reduction in staff. Salary reduction was about the same but that's ongoing, plus benefits. So, it did lead [to downsizing] in some cases...[but we didn't start out with downsizing], that's the wrong way to go...too often you fire the people but not the work. (personal communication, September 22, 1997)

The most poignant example of how change in one area can ripple throughout a whole organizational system was provided by Galan and is centered around the issue of faculty travel. According to Galan (personal communication, September 22, 1997) when the Purchasing Department conducted a study into faculty travel, it found a startling circumstance. Over 150 different travel agencies were being used to accommodate faculty.

As a result, the Purchasing Department consolidated all travel under one agent who works with Purchasing to provide travel at a reduced rate.
In addition, the method for booking travel was simplified to reduce paperwork, bureaucratic red tape, and to provide a year-end rebate to faculty units using the new process.

Two separate on-campus sites were set-up, one for staff leisure and student bookings, the other strictly for faculty whether business or pleasure. To eliminate up-front payment, corporate travel cards (American Express) are issued to faculty. When travel is for university business, faculty need only submit their receipts and the Purchasing Department pays American Express directly. In effect, the faculty submission and reimbursement system has been abolished.

Despite the positive changes to make travel and related expenses easier for faculty, some remain quite distressed about the change. Galan (personal communication, September 22, 1997) recounts the problem and exemplifies travel as one area of faculty-staff conflict:

One of my biggest issues is when faculty complain [because] they don’t like something. There tends to be an uproar and an investigation even though [a change] has worked successfully for most of the university, or the campus community...But [faculty] still are complaining. They’re saying, “But Terry, I’ve dealt with Mary at such and such travel for 25 years. Do you expect me to change?” ...This is part of the [University’s] culture.

I have no problems with academic freedom as long as you maintain that in your field of expertise, but I have difficulty and problems with faculty coming in and telling me how to run
my department...I was hired here because I have expertise and certain skills in my area. They were hired for those very same reasons.

The way we have been getting through [these problems] is with support from the senior officers. We have to sell them, and we have on the travel program. [But] I’m being sued about it ...[A faculty member] is actually suing me because he doesn’t like what we’ve implemented...Right now it’s at the grievance stage. The next step? He already told us last week that he’s consulted with lawyers and he will be suing. That’s an example [of faculty-staff conflict]. (Galan, personal communication, September 22, 1997)

Efforts to plan and implement changes in the Business Management Services at McMaster have brought internal faculty-administrative conflicts to light. For example, the notion of lack of accountability on the part of faculty has been implied in Galan’s account of a culture that is in essence primarily driven by faculty needs and expectations.

On the other hand, Galan views the Purchasing Department’s role as one of service to the campus community that eventually results in better service to students. The basis for his frustration is that there is a perceived faculty generated bottleneck between administrative services and student needs. Such bottlenecks, present in systems of communication and in processes that are overly complex, are resource wasters. Efforts to simplify processes and to stem the flow of wasted dollars have been met with opposition. In view of rising student tuition, any perceived waste of
resources can become a bone of contention. The following example is provided.

The Faculty of Health Sciences which encompasses the School of Medicine, the School of Nursing, and the School of Rehabilitation is the first all inclusive Health Sciences Faculty in Canada. The Faculty is self-contained within the Health Sciences building which stands at the southern edge of the campus. The Health Sciences building houses the Chedoke-McMaster Health Centre and as an acute care treatment and research hospital is physically separated by function from the broader campus. It is also separated in other ways. Thus, the problem of duplication of many administrative services has arisen. Health Sciences has its own Human Resources Department, its own Computer Services Unit (CSU), conference services, and so forth. Galan sees this as somewhat distressing in terms of cost of services.

I have two offices over there (in the Health Sciences area) and my computing people here can’t go into that building because the responsibility for computers is amongst the CSU. Every time CSU comes here, I have to pay [for that service]. (personal communication, September 22, 1997)

It is quite conceivable that significant savings occur when a systems approach with concomitant systemic thinking is a natural part of the
management of the institution as a whole. However, in its very early stages of transformation, McMaster tends, as do many organizations, to continued fragmentation. While faculties, units, and departments such as the Purchasing Department and the Faculty of Humanities may be trying to reshape themselves based on a more wholistic system-wide vision, in the broader organizational context, McMaster’s task to create necessary linkages to align all campus players with the University’s mission and vision is formidable.

The preparatory work that had been accomplished by UCal’s President Fraser is not as pervasive at McMaster. Mac’s institutional culture is not as ready for change as the authors of the Directions documents might wish to believe. Cultural preparation for change is an oft missed fundamental element in transformative initiatives. The extensive work at UCal to make the case for change and to spread the word to a wide and varied audience coupled with the efforts to gain input from all campus players may have taken longer, but is likely to significantly expedite their implementation process.

The campus culture at McMaster University remains very conflicted. For example, in addition to duplication of services,
remuneration also remains a contentious issue for the campus community. George (personal communication, September 29, 1997) concedes that “all university’s staff feel that they are second class citizens compared to the faculty ...[but] our culture here has been a difficult one...a certain amount of dysfunctionality amongst employee groups and employee relations [exists].” However, George notes that much of the differential treatment can be explained by the fact that McMaster “has come through hard times and part of that has manifested itself in differential opportunity...[in that] some groups have felt more worse off than others” (George, personal communication, September 29, 1997).

As I wondered if the corporate culture at McMaster encouraged speaking up about issues that staff, faculty, or students found to be unfair, I returned to Directions I and recalled one particular statement that I initially believed linked Mac’s mission statement with Deming’s (1982, 1986) work.

Driving Fear Out of the Workplace

The Deming-like concept found within Directions I is the statement, “We will...maintain a workplace that is free of fear” (McMaster, 1995b, p.
6). Deming’s (1986) Point 8 is “Drive out fear” (p. 59). The similarities between these understandings offered a further clue to the degree to which McMaster University at large is aligning and integrating around Directions. Therefore, I wanted to explore why such a statement would have been placed within the document, where fear might exist currently within the institution, and how McMaster is working toward freeing the workplace from fear.

These areas were explored within the context of the interviews. One participant who indicated that what is said and done at Mac are two widely separate entities declined permission to use any reference to her/him within the text of the study. The point made was that clearly one does not discuss the undiscussables within the existing organizational culture.

When asked why such a statement about fear was included in the Directions I document, Baumann concluded that she did not know. Are you aware of any reasons for people to be fearful? “No, not to my knowledge. Did you ask the Provost. He may be more aware than I” (personal communication, July 15, 1997).
In contrast, Kaufman offered the following explanation, “It’s talking more about the harassment, homophobia element” (personal communication, August 7, 1997). When reminded that he had earlier mentioned another reason for fear Kaufman recalled:

...there are things that you just don’t discuss and I don’t necessarily think that that’s right although I can understand where it’s coming from. You don’t want to tell potential customers that the quality of education is down because then they won’t want to come and that would just create a further decline, yet, you need to tell people who are donating money that we’re in a crisis here. We need your money; please give it to us. You’ve got to strike a balance. (personal communication, August 7, 1997)

Yet another example of fear in the work place was offered by Galan and further underscores the perception of differential treatment between staff and faculty:

[The faculty] are able to be critical without repercussions, staff cannot. Faculty have tenure and can literally tear apart my VP Administration and still have a suit of armor on. I can’t. I’d be out on my butt if I said some of those things. (personal communication, September 22, 1997)

However, Galan also admits that positive changes are occurring within the work environment. He noted that a few years ago people would not have dared complain about problems in their work area or within the institution but there is now a handful of people who are addressing issues
with those in authority. Moreover, some who might formerly have been perceived as authoritarian are more welcoming of the comments of subordinates in order to improve the work of the department or unit. He envisions the formation of a challenge team in his own area to study and improve the flow of communication and need-to-know information to the appropriate people so that, “at minimum, we [are] all in the same room having the same information” (personal communication, September 22, 1997).

Galan himself has set up a process to promote the unearthing of concerns in the Purchasing Department so that opportunities for improvement can be acted upon. He holds a monthly communications meeting with his staff wherein, he supplies the “coffee and doughnuts and they supply the words. I tell them we can disagree in here as long as we’re not demeaning, inhumane, or rude to one another, we can disagree” (personal communication, September 22, 1997).

Galan’s work to improve the Purchasing Department’s customer service, his keen awareness of the student as the ultimate customer of the university, his attempts to build and maintain trust within his staff and with the overall department, and his capacity to make decisions that are
mission- and vision-driven all provide examples of Darling’s notion of concept embeddedness.

I have to admit that at times when I have gone to those [Quality Network] meetings I have almost felt guilty that we don’t have a program. And yet, there have been a lot of initiatives and in those initiatives there has been a lot of training. I take comfort in the fact that at least some of the literature is saying that in essence to really embed a certain way of thinking in any organization that you almost have to get embedded sets of groups within the organization and then let [the change] grow rather than being sort of an institutional program...But, again it’s probably something in the nature of the institution. (Darling, personal communication, March 27, 1997)

Darling (personal communication, March 27, 1997) sees change occurring in pockets of the university--pockets that eventually will be wide-spread and embedded within the organization in such a way as to create substantive change. Such a notion is reminiscent of onion-patching.

Within the context of each pocket, education and training are natural occurrences. The Purchasing Department represents one such pocket. However, it is also an example of one of the departments reporting to the Vice-President Administration and suggests that other of his reports may be moving in a similar direction of change management.

Both the Director of Purchasing and the Director of Human Resources have come to McMaster from private sector enterprises. Each
of these individuals holds ideologies about management that reflect more recent thinking, and each has brought knowledge from other work environments to the university. “When I came here, this place was in the dark ages... I was flabbergasted. We were typing purchase orders on IBM electric typewriters when I arrived here in ‘89. That’s not too long ago” (Galan, personal communication, September 22, 1997). Essentially, they are able to see with different eyes, unencumbered by the traditions and political protocols of the academy. Can an institution, like some persons, be blinded by its own self-image?

The issue of staff and faculty trust in the institution, its leadership, and in each other lies at the heart of fear within an institution. Does the environment support truth-telling? Do stakeholders within the organization view problems as opportunities to improve or as signs of failure? Is information openly shared? Perhaps the very best reason for the placement of the phrase, “We will... maintain a workplace that is free of fear” (McMaster, 1995b, p. 6), into the Directions document is suggested by Simpson:

I think that what you read there is an expression of viewpoints prevalent in some government circles and some movements such as women’s movements that call attention to the anxieties
that some people have in any relatively open environment. So, an example of the fear in question would be the fear an unaccompanied woman would feel when leaving a class late at night. It does not refer to fear of ridicule or harassment...It doesn’t refer to any of the less obvious or less talked about fears that are nevertheless part of a person’s life. In short, my own view tends to be that many of the commitments that you read there are not deeply thought through or deeply felt but rather are responding to certain things that are matters of moment. (personal communication, September 16, 1997)

Such an insight into the manufacture of statements of mission, vision, values, and goals is extremely perceptive. Recall the exhaustive situation assessment, stored in binder format, completed by UCal to present, in the very first place, compelling arguments for change. Contrast this with McMaster’s notion that the depth of financial cuts from a Tory government was sufficient to sell the campus community on the need for change.

In addition, compare the lengths to which the Coordination Task Force from UCal went to generate buy-in from the total campus community with McMaster’s Town Hall meetings that were in the President’s perception poorly attended by students and faculty (George, personal communication, September 29, 1997).

Consideration of time spent in the visioning processes along with the intensity of forward push from the recognized planning bodies at each
institution may also shed light on the rate and substance of progress made in terms of organization-wide alignment and integration.

At the University of Calgary, alignment and integration appeared in both text and behavior. Action had been taken at both the upper and lower levels of the organization. Consistently, students, staff, and faculty were informed about and were more than willing to acknowledge the work of CTF as well as the implications of that work in their own academic and administrative processes. Faculty actively collected student information about the academic curriculum and the learning environment, and were engaged in making changes based on their customers’ voices.

At the University of Calgary, Yeager and Emes were recognized institutional transformational facilitators and were given the resources, human and financial, necessary to advance the change process. There was a designated space, the Change Room, that served as the center, the nucleus of transformative activities. External consultants supplied ongoing educational resources and facilitation. Because of his late arrival, President White’s greatest contribution is to allow the process to continue and to encourage the momentum.

At McMaster, the push for change is Presidential and
Vice-Presidential. As such, time spent in change management must be shared with that of the demands of other senior level work. The planning process remains broad and less well-focused than at UCal. Lack of a narrowed focus and an authorized team whose job it is to cascade expertise and resources for transformation throughout the institution, means that institution-wide alignment remains superficial. The change process is slowed.

Alignment is occurring in that departments, Schools, and Faculties are developing written statements of mission, vision, values, and goals that fit with that of the University at large, but many of the actions of members of the campus community do not seem to be consistent with those stated in Mac's vision and values. I suspect that many are stuck in the completion of the paperwork, but otherwise, business as usual. The scope of change understood so well at the upper levels of McMaster does not seem, as yet, to have permeated the lower levels in such a way as to have integrated mission, vision, and values into daily practice.

When mission statements are used as marketing tools rather than living documents, change becomes a vacant word; transformation or renewal impossible goals. Bennis (1990) argues that leaders can only lead
when an organization’s culture is open enough to allow the changes that a leader demands. Wise leaders and open cultures view planning documents as pathways to the future, not simply marketing strategies or hollow promises.

Simpson is keenly aware of this and admits that “a lot of [Directions] is highly general and presented in principles that everyone would subscribe to. It’s when it comes to their application that uncertainties arise. There have been two rounds of implementation...and there have been reports on both Directions I and II. The reports make thin reading” (personal communication, September 16, 1997).

If shared meaning is questionable and if Directions I is presented in general principles, how then can implementation be possible? The next section deals with the Directions II stage of McMaster’s process for organization-wide transformation.

**Directions II: Implementation**

Although the first step in the transformation at McMaster was a community-wide, somewhat inclusive exercise that resulted in Directions I, Directions II was developed by the senior administrative group. On July
10 and 11, 1996, President George and his group of senior administrators and Deans met in a strategic planning retreat to discuss four previously determined major agenda items that arose directly from the Directions I document: Institutional Renewal, Revenue and Funding, Administrative Support, and McMaster Student Body (McMaster University, 1996b). According to Weingarten, these agenda items "are not mutually exclusive" (McMaster University, 1996b, p. 1).

The Planning Process

Each of the four agenda items was assigned three individuals who were "charged with the responsibility of writing a position paper that was distributed to the entire team prior to the planning session" (McMaster University, 1996b, p. 1). There were 14 planning session participants, comprised of the President, Vice-Presidents, and Deans of Faculties and Schools. There was no representation by the Board of Governors or from campus stakeholders below the level of Dean.

It is noted that the pre-retreat position papers generated much discussion but little controversy (McMaster University, 1996b). Overall, the outcome of the sessions is articulated in a number of ways. Some of
the discussions led to targeted decisions, others to operational agreements within the senior academic team. Other decisions require the approval of institutional governing bodies such as the Senate and/or Board of Governors. Weingarten writes that the planning group has “no intent to bypass the duly structured academic governance structure” (McMaster, 1996b, p. 1).

I. Institutional Renewal

The concept of institutional renewal as used by McMaster is limited to faculty renewal rather than a broad-based notion of institution-wide transformation. In such a context, three critical considerations related to institutional renewal surfaced during this planning session: funds for institutional renewal, priority areas for institutional renewal, and faculty appointments to coincide with renewal (McMaster University 1996b).

Institutional Renewal: Funds

Weingarten notes, “We cannot remain stagnant, nor simply downsize with across-the-board cuts every time the government grant is reduced” (McMaster University, 1996b, p. 2). To this end, four decisions
became evident. First, that a 1% tax on all budget lines accrue centrally in order to accumulate the necessary funds for cross-unit reallocations. In addition, “a vigorous review of budget lines” (McMaster University, 1996b, p. 2) was recommended. The question during the budget review was whether or not current resources were being used appropriately. To set an example the investigation was slated to begin with the Provost’s office and the Hooker endowment fund.

Second, the planning group set a 2-year time line for accruing funds for institutional renewal. To meet this goal, the group decided to “explore the possibility of using pension surplus to fund the bridging cost of the early retirement program” (McMaster University, 1996b, p. 2). Priority areas to direct the “liberated funds” (McMaster University, 1996b, p. 2) were noted as “faculty hirings and appropriate computing/information technology systems” (McMaster University, 1996b, p. 2).

Third, while it is foreseen that Faculty envelopes should retain any operating surplus, surpluses accumulated in non-academic units should be centrally reallocated to a pool from which the University could renew its academic faculty complement (McMaster University, 1996b). One can readily see the motivation for cost containment by Faculties, but it seems
to me that this decision may play havoc with the administrative staff at McMaster who already see themselves as the poor cousins of the academic community.

Fourth, if new faculty are to be hired, the question arises whether those hirings should be conducted locally by the Faculty Deans or centrally by the Provost and President (McMaster University, 1996b, p. 3). In addition, the correct balance of tenure-track (TT) positions with contractually limited appointments (CLA) is seen as an issue for faculty renewal. The process decided upon is as follows. Where Faculty envelopes permit, a Dean with the Faculty can recommend a CLA without Provost intervention. The Dean would simply inform the Provost of the new hire. This represents the devolution of decisional authority to a lower position within the organization. Decisional authority is placed into the hands of the Dean and faculty as those who know best how an individual would fit into the academic curriculum and overall goals of the unit. In this sense, the decision to devolve authority is empowering.

All TT appointments will continue to require the approval of the Provost and President. The number of TT faculty is forecasted to decline below the 1996-1997 complement. Therefore, it is believed that TT faculty
appointments must “represent some of [the] key strategic decisions” (McMaster University, 1996b, p. 3). Two operational principles are to guide the appointment of new TT faculty. First, “if a [TT] faculty appointee does not succeed to tenure...the funds for this position will remain in the base budget of the Faculty and the Dean retains the [TT] position in the Faculty without a requirement for central approval” (McMaster University, 1996b, p. 3). The Dean and Faculty will have 2 years to fill the position. If the position remains vacant after the given time period, it will be reviewed by the Dean, Provost, and President. An extension of 1 year may or may not be given (McMaster University, 1996b).

To establish a funding base to meet the demands of institutional renewal and to directly link resource allocation with institutional mission, a priority setting exercise was developed by the strategic planning retreat team. The purpose for priority setting is to determine, in a rational way, how best to allocate all institutional resources including faculty. “It should be clear that designation of an area as priority must influence resource allocation decisions, including faculty renewal, fundraising, TAs, capital
expenditures, infrastructure support, etc” (McMaster University, 1996b, p. 4).

The consensually agreed upon principles for priority setting at McMaster are as follows.

1. Enhanced inter- or cross-disciplinarity: “involve the collaboration of faculty members from two or more Faculties” (McMaster University, 1996b, p. 4).

2. Non-status quo: “demonstrate innovative undergraduate educational experiences, such as co-op programs, theme schools, etc.” (McMaster University, 1996b, p. 4).

3. Customer focus: “demonstrate student demand and societal need, either at undergraduate or graduate levels, or both” (McMaster University, 1996b, p. 4).

4. Results oriented: “demonstrate current excellence by providing peer reviews or performance indicators attesting to the current excellence or uniqueness of the group in areas such as teaching, research strengths, facilities, etc.” (McMaster University, 1996b, p. 4).

5. Competitive advantage: “provide a convincing argument for excellence or competitive advantage in areas such as ability to attract
research dollars, excellent students and faculty, etc. (McMaster University, 1996b, p. 4).

6. Systemic in design: “are able to establish external linkages” (McMaster University, 1996b, p. 4).

It is envisioned that Chairs for faculty positions in designated priority areas will provide a tangible display of the senior group’s pledge to link planning with resources. The Chairs will be funded by diverting funds from lower priority activities or from new dollars raised specifically for the position of Chair (McMaster University, 1996b).

II. Revenue and Funding

Because so much of the institution’s renewal is dollar-dependent, the second major domain for consideration within the Directions II planning initiative is the whole area of revenue and funding. As previously mentioned, the notion that planning and budgeting are inextricably connected brought forth the formation of the University Planning Committee (UPC) as an advisory committee to the President and Provost. The same notion also gave birth to one overriding principle associated with revenue and funding, “the duration of commitment to [an]
expenditure should match the duration of the revenue available to fund that expenditure” (McMaster University, 1996b, p. 5).

Simply stated, a university that has had its operating budget from government grants decreased from 75% in 1992-1993 to 62% in 1996-1997 (McMaster University, 1996b) cannot continue to support a full academic staff complement. “A reduction in the number of tenured track faculty at McMaster is likely” (McMaster University, 1996b, p. 5).

In the context of this reality, a strategy to increase the private sector funding base and to generate new revenues internally is underway. Faculty Deans in consultation with the President, Provost, and Vice-President, Administration, have been requested to develop a 3-year plan in which revenue goals are to be established together with the revenue generating strategies by which their goals will be met.

Although the development of the plan and the strategies is founded in consensus, once the plan has been created, the success of each Faculty in meeting its targets will impact the well-being of all other Faculties university-wide. “The success of a Faculty in meeting its goals should influence cross-unit resource allocations” (McMaster University, 1996b, p. 5). Interdependence of funding and revenues as well as Faculty
interdependence is actualized in this process and moves Mac into a systems thinking mode in a very concrete way.

Further, to recoup some of the resources tied to time consumption within the Faculties and support services, Directions II targets three areas for “careful study and significant progress this year” (McMaster University, 1996b, p. 5): student recruitment and retention, information and computing systems, and Graduate Studies.

**Student Recruitment and Retention**

Under the leadership of the Vice President Academic and the Registrar, an Enrolment Management Team has been established. The Enrolment Management Team (EMT) “looks at the whole process from high-school liaison and recruitment to target setting to the experience while students are here to the on-set of the alumni experience” (George, personal communication, September 29, 1997).

When asked how the team was approaching the complexity of the process, George responded:

We’ve tried to define an instrument that will look at that higher order process and within that of course, there are the various, if you like micro-processes. It’s chaired by the Associate Vice-President, Academic. It’s been through one cycle. There’s been no synthetic report that’s come out of the
first year observation. (personal communication, September 29, 1997).

Concerning the internal work of the EMT and the tools and methods, for example flow diagrams and affinity charts, by which the team is gathering data to study the flow of students from recruitment through the total system, George replied:

Well, that's a good question whether the committee in its internal workings have used that kind of process. The most conspicuous report coming back from that committee always, I suppose, will be the registration data. But, I think certainly the expectations around that committee to put more coherence into the process are high. But it's a good question about the reporting methods around it. (personal communication, September 29, 1997).

Information and Computing Systems

A comprehensive review of the computing, information and communications systems at Mac is coordinated by the Provost and Vice-President, Administration.

The mandate of this review is not only to identify our computing/information technology/communication needs but also to recommend amendments to our current structures and resources, particularly those of Computing & Information Services (CIS) and the Computer Services Unit (CSU), to meet our objectives and needs. (McMaster University, 1996b, p. 6)
As aforementioned by Galan (personal Communication, September 22, 1997), the exercise of reviewing the policies and the processes that are presently in operation within CIS and CSU may prove useful in terms of reduced duplication of costs and service in the institution’s use of its current technological systems. As of July 1, 1997, McMaster has a new Associate Vice-President Information, Systems & Technology.

III. Administrative Structure

McMaster University is a much more formal organization, as used in the sense of protocol, than is UCal. For example, when arranging appointments with interviewees at UCal, a simple telephone call was all that was needed. At McMaster, the more acceptable route was through formal written correspondence. Responses often contained a request for a list of interview questions prior to the appointment.

McMaster University is characterized as a matrix organization (Baumann, personal communication, July 15, 1997) wherein the major process used for decision-making is consensus. While consensus and participation are important elements of any organization, particularly in a
matrix structure, consensus can be too unwieldy and, thus, too slow a
decisional process.

Committees and groups provide the internal administrative structure
for consensus building in a matrix organizational model. Such structures
have the tendency to over-bureaucratize. In contrast, in a QM
organization, teams engaged in the process of action science constitute the
internal administrative structures.

Teamwork is far better understood and utilized at the University of
Calgary then at McMaster. Progress with teamwork and with the
principles and practice of QM was evident in the work being conducted in
the Change Room. No such resource for scientific approach or for team
data collection and analysis presently exists at McMaster.

Through Directions II, McMaster has initiated steps to relieve some
of its bureaucracy through a request that “each Faculty review its bylaws
and practices and to abolish committees...that do not seem to serve a
useful function” (McMaster University, 1996b, p. 8). In order to
streamline faculty renewal, a recommendation is forthcoming that “all
‘acting’ appointments up to and including one year in length be
recommended directly to the Senate by the individual to whom the acting person would report” (McMaster University, 1996b, p. 8).

Finally, broader participation is supported by the inclusion within the Planning and Priorities Committee all “those individuals who participated in the Provost and Deans meetings, e.g., Faculty Deans, the Associate Dean/Vice-President (Health Sciences) and the Assistant Provost (Student Affairs)” (McMaster University, 1996b, p. 8).

The purpose of attending to the administrative structure is to improve efficiency and effectiveness within the administrative arena. As Green (1981) suggests of many universities, “McMaster has been remiss in failing to invest in activities that promote the training and professional development of individuals key to effective and efficient [administration]” (McMaster University, 1996b, p. 6).

One of the most complex issues I faced during the study was a growing discomfort about the professional and personal preparation of those in positions of authority. Few participants reported having undergone any formalized training or education prior to assuming administrative positions. Attention to the literature on change and/or change management was found to be more so at the University of Calgary,
but it was still minimal. McMaster, at the time of the study, had not hired any consulting group to assist with their transformation.

In the Province of Ontario, the budget for higher education is increasing by “$80 million in the next two years to $2.84 billion” (Toronto Star, 1997, p. A1). In addition, students are being asked to shoulder more and more of the costs of their education (Ruimy, 1997), as much as another 20% between 1997 and 1999. With this in mind, the realization that the university invests little in providing the knowledge and skills required to effectively and efficiently manage the business of higher learning is alarming. George underscored my concern as follows:

The fact remains that there is no professional program for training university administrators that enjoys general confidence other than the trial and error method. Give somebody a job and let’s see how s/he does. One of the problems I think has been because of the model for selecting academic administrators. It’s not always clear that the appropriate criteria are used for making the selection. Second, because a person always has fixed terms, s/he has to be appointed or reappointed by peers. It does sometimes lead to the appointment of inappropriate candidates; sometimes to the lack of decision-making acuity and strength on the part of administrators. A better not rock the boat, or I may not get reappointed syndrome. And, third, we’re not very good at demoting people who obviously aren’t working out, we’re not very good at getting rid of them early. So, we let them fill out their terms and I think that those are our weaknesses within the system. On the other hand, nobody has pointed out a better system. (personal communication, September 29, 1997)
George’s words echo those of Yeager at the University of Calgary: that is, the generally accepted principle that because faculty are supposed to be intelligent people, presumably they can learn about how to manage as they go along. Galan’s (personal communication, September 22, 1997) earlier comments pertaining to conflict between staff and faculty underscores the outcome of allowing this principle of faculty as all things to all situations to prevail.

IV. McMaster Student Body

“It is hard for us to imagine a purpose for this University that does not have its students and academic programs as central” (McMaster University, 1996b, p. 9). This statement is found within the last of the 4 major planning areas of Directions II. In a strategic quality planning exercise, this is the first as opposed to last planning area to be considered. The placement also suggests a lack of understanding concerning the need for serious-mindedness in a renewed commitment to learner-centeredness at McMaster. Without such an appreciation, the institution tends to engage in change as an act of survival for the sake of survival; survival that is also characterized by a marked failure to thrive.
Beyond the intention to establish the Enrolment Management Committee to coordinate the activities of student recruitment and retention, other means by which to engage students at Mac are offered in Directions II.

First, Chairs and Deans are expected to ensure student representation on curriculum committees. Second, the Senate was asked to amend its bylaws to allow for a seat and a voice for student leaders at Mac; namely, the presidents of the McMaster Student Union, the Graduate Students Association, and the McMaster Association of Part-time Students. Third, a decline in the number of graduate students at McMaster sparked a review of the graduate studies program that would include: “a detailed analysis of the apparent downward trend...and recommendations for procedures or strategies to increase research productivity...increase in the total number of graduate students, the quality of the graduate students, or other strategies” (McMaster University, 1996b, p. 9).

Fourth, as an outcome of discussions concerning the achievement of more flexibility in undergraduate studies, Directions II requests that the number of units to complete an Honors degree be decreased. To this end,
curriculum committees in each Faculty are expected to reduce these numbers by 1996-1997 year end. The decrease in units is to be overseen by the Undergraduate Council.

Each recommendation forthcoming from Directions II has an associated action and individually assigned responsibility attached to it. Hence, it is perceived that the non-compliance that was experienced in the first strategic exercise in 1991 will not played out again within the context of the new strategic planning format. By September, 1997, the score card read as follows: “total recommendations [from Directions II] requiring action 35, recommendations completed/continuing 27, recommendations not complete 8” (McMaster University 1997a, p. 2).

A critical question is whether or not the goals from Directions I have been articulated in the implementation stage, Directions II, as one is presumed to flow from the other. Therefore, Figure 15 was constructed to clarify how the goals of Directions I, as the strategic planning document, relate to the goals from Directions II, the implementation stage. Although the two are connected, the relationship is not immediate. It may have been a better approach to have had retreat participants answer the questions:
Figure 15. The relationship between the goals from Directions I and those of Directions II, the implementation stage of McMaster’s Strategic Plan.
"How can we, as an institution, increase our focus, enhance respect, strengthen connections, increase innovation, and improve evaluation?"

Such a discussion would have led participants to question current understanding about where, how, and why the institution presently has been falling short of these goals. This would have required data collection and would have engaged institutional constituents in an entirely different exercise. These questions may have led to a scientific approach, and, when used in the context of teamwork, could have raised underlying assumptions about McMaster as it operates currently. However, there does not seem to be an awareness on the part of senior administrators for the need for data-based decision making, or for teamwork as the platform for action science.

In addition, while grassroots input was sought during the Directions I information gathering stage, only senior and middle managers were part of the Directions II process. Thus, the voice of their customers--faculty, staff, and students--was absent in the plan for implementation. Yet, these are the people who will be required to implement the strategic plan on a daily basis now and into McMaster's future.
The lack of immediate connection between Directions I and Directions II, the absence of the customer's voice during the development of the implementation stage, and the lack of awareness about the importance of data-driven decisions in the context of teamwork stand as major shortfalls in McMaster's overall change strategy.

McMaster University and the Malcolm Baldrige National Quality Award Values

Because the University values its research-intensity and innovation, I wondered what values McMaster University was exhibiting in its planning process that might be considered as original in approach? Therefore, I again turned to the values contained in the Malcolm Baldrige National Quality Award.

The earlier section on customer satisfaction and student-centeredness demonstrated a problem with integration and synthesis of this value within an institution that has raised the status of research to "sacred cow" (Kriegel & Brandt, 1996, p. 1). In the instance of a business environment, a sacred cow refers to "an outmoded belief, assumption, practice, policy, system, or strategy, generally invisible, that inhibits
change and prevents responsiveness to new opportunities” (Kriegel & Brandt, 1996, p. 1). Research is what has made McMaster successful and has virtually overshadowed teaching in terms of prestige and reward.

Changing to a more balanced scholarship will require a change in the way teaching is conceived at Mac. Kreigel and Brandt (1996) point out that “people are the gatekeepers of change” (p. 3) and as such buy-in on the part of faculty is a must. Informed buy-in can re-energize an organization creating the kind of energy that can fundamentally shift the direction of change toward positive outcomes.

Ultimately it is people who must change. Therefore, it is within the systems of reward and recognition that teaching may be able to regain some status within the University. Because what is valued is funded, it will also gain in stature when it is appropriately resourced by the institution. If the senior administrative team hopes to be in service to those seeking higher learning, then this senior team must also be in service to those on the front line executing curriculum and providing learning opportunities.

On a positive note, central funds are being reallocated in innovative ways to programs that meet pre-established criteria such as those that
would collaboratively involve faculty from two or more areas, demonstrate innovative undergraduate education experiences, demonstrate student demand and societal need at either the graduate or undergraduate level, and demonstrate current excellence by providing clear reviews of performance indicators that would test current excellence or uniqueness of the group (Darling, personal communication, March 27, 1997). Such criteria do demonstrate a concentrated effort to address learner-centeredness, the success of which will be played out somewhere down the road. However, the proof of the worth of Mac’s planning exercise will be born out in each faculty and department, and this will require time and persistence.

Leadership

With the appointment of President George and his team of Vice-Presidents, the face of McMaster’s leadership team has changed. There is a renewed sense of hope pervading the campus. Kaufman reports that:

President George is very good for McMaster. He’s very clear on what the vision is. [The senior administrative team] have some concrete ideas on how they want to see McMaster riding through [these changes]. ... The first thing that Dr. George did when he got here was to say, “We have a problem; we don’t
have money. How are we going to figure it out?” (personal communication, August 7, 1997)

The fact that McMaster does not have the money at its disposal that the University of Calgary seems to have may be one of the more significant obstacles to change or at least one major determinant of the pace of change. For instance, although the University of Calgary acquired a $30 million student center as a legacy of the 1988 Winter Olympics, McMaster has had to fundraise for the same type of facility.

In terms of a new leadership approach, one characteristic of McMaster stands out. As President of Mac, Dr. George’s contract is the “first one on which the president is to deliver an annual self-assessment of performance and to declare performance objectives for the coming year” (George, personal communication, September 29, 1997).

The Board of Governors undertakes George’s performance review but it does not end there. George has also made his review a public document. George provides the reasoning behind this act of presidential transparency:

I think the public has a right to know what I think my mandate is. Anybody who disagrees with my interpretation of it has the right to say so. And, I think the public has the right to know what I think I’ve accomplished in the last year and the performance objectives to which I’ll be held accountable for the next year. That’s new here. I don’t think it happens at
many institutions yet. (personal communication, September 29, 1997)

Albeit George may be breaking new ground in terms of public information, the strategic planning process found within the Directions I and II documents is harbouring traditional ideals and methods. For example, grassroots involvement was sought for Directions I but the process for determining the 4 major planning areas, Directions II, was hierarchical in nature.

The process of establishing mission, vision, and values is consistent with strategic quality planning but there is variance from this in the process for planning strategy. Strategic planning is bounded by the goals of the University set out by the senior group with the assistance of Faculty Deans. Within the context of goals, objectives are set, actions developed, and responsibility assigned.

The strategies tend to focus on structures such as programs, theme schools, units, and faculties as opposed to process. In fact, there is little understanding of process improvement as a vehicle for breakthrough. Essentially, the strategic planning exercise is fraught with the same problems as those found in management by objectives. The reader is referred back to Table 3 on page 41.
McMaster's strategic plan is based on where the university wants to be at some future date as opposed to who has the need for its services and what those services should be. Moreover, although the institutional values have been stated as quality, integrity, and teamwork, the study shows that shared understanding is highly suspect.

Lack of a common understanding and a shared language for change may, in part, account for the disconnection that seems to be present. That is, participants did not immediately twig to the Directions documents as the actual plan for institution-wide change. In all honesty I too had difficulty immediately making that connection.

In addition, I have some nagging doubts about the educational preparation for change at McMaster. I remain skeptical that the necessary knowledge and experience exist within the senior group alone, without some external consultation, so that progressive, substantive change is achieved. I am reminded of Yeager’s (personal communication, April 18, 1997) insight; that the university under its present circumstances does not know how to mobilize its own capability, to effectively mobilize its internal resources to cope with the stress of an economic downturn and continuous change.
Effective action taken from both management and quality improvement knowledge would provide a much stronger platform for change at McMaster and would increase the probability of institution-wide success. McMaster has top level commitment but it may be a hollow commitment without the necessary theoretical framework that would assist them in planning, in implementing, and in evaluating their plans and actions.

**Continuous Improvement and Learning**

With the exception of the Purchasing Department and the Vice-President, Administration, I perceived little knowledge about the notion of continuous improvement. Further, at this point in its history I would not view Mac as a learning organization. It is not engaged in any substantive way in systems thinking, in establishing shared meaning, in teamwork, in building an inclusive community, in exploring its mental models. No substantive investment has been made in educating administrators although this is an identified need, and one which George plans to rectify. I do not wish to imply that the potential for continuous
learning and improvement does not exist. It simply has not yet been unearthed in any significant measure.

**Employee Participation and Development**

The study showed that McMaster does not rate highly in the area of employee development or investment in the skills development and education of its administrative staff. However, employee participation in decision-making by consensus is said to be very high in both academic and administrative activities. George (personal communication, September 29, 1997) identifies the collegial process as one in which he has confidence: “I’m actually a great believer in collegial process...and I think people who are skilled at moving our collaborative process along do get amazing things accomplished.”

On the other hand after his first year at Mac, he also identified collegiality as a primary concern. His concern would indicate some problems within the cultural make-up of McMaster. External partnerships are valued above internal partnership. At this point, I would identify McMaster’s culture as its greatest barrier to change. As such, it stands in
the way of the next Baldridge Award value, the organization’s capability for fast response to changing conditions.

McMaster University tends to fit Birbaum’s model of “organized anarchy” (Birbaum, 1988, p. 151) where President George views his leadership role as one of “moral persuasion” (personal communication, September 29, 1997). At the same time McMaster is in a transitional stage moving in the direction of, what I believe, is a more political mode.

In an organized anarchy, “the ‘decisions’ of the system are a consequence produced by the system but intended by no one and decisively controlled by no one” (Cohen & March, as cited in Birbaum, 1988, p. 153). However, the process to develop Directions I and II was intentional and structured. The expectation of department and faculty alignment with institutional mission, vision, and values is another example of a changing organizational environment.

The competitive process for program funding marks a shift to a more rational and political managerial system, as does the placement of the change process squarely within the hands of the senior administrative team. Yet, such a need to compete internally for increased resources can effect political power plays and inhibit the development of a coherent
campus culture (Birnbaum, 1988). If the political university can be seen as a “shifting kaleidoscope of interest groups and coalitions (Birnbaum, 1988, p. 132), then Darling’s (personal communication, March 27, 1997) comment, “my attitude is, I’ll give money to winners, but I won’t give money to winers”, is particularly enlightening.

Winners at McMaster may, in fact, be described as those whose political savvy is such that they can readily read and take advantage of uncertainty, dissension, and conflict. In short, those individuals who have long been the power-brokers in the system, those who can attract external resources through entrepreneurial ventures, are adept and successful in attracting research dollars, are viewed as prestigious Faculties such as law, medicine, engineering, or “have high prestige and can increase graduate enrollments” (Birnbaum, 1988, p. 133). In terms of political gamesmanship, the ongoing dissension between administration and faculty has already been addressed.

McMaster’s culture and internal structures are not as yet flexible enough to respond to rapidly changing conditions. In addition, little work has been done to understand and simplify complex processes. The notion of customer-supplier relationships while understood in some areas, is
lacking in others. George has only begun to organize a strong cohesive senior administrative team, and Directions III which will further the planning process is just being completed in draft form. It is too early in the planning process to be able to organize an quick and effective response to changing conditions.

**Scientific Approach for the Design of Quality and the Prevention of Errors**

This value is not present in any significant way within the University nor, currently, within the knowledge set of the senior management team. Variation is a concept that has not been addressed in any substantive way. I found no evidence within the interviews conducted or in the document analysis that would uphold this value at McMaster.

**A Long-Range View of the Future**

Directions I as the foundation for Directions II and III has elements that lend themselves to long-range planning such as statements of vision and values but these should be moving with changing conditions and new opportunities emerging in the field of higher education. Directions II
seems more short-range in that the plan for financial recovery spans only a 3-year period.

Corporate Responsibility and Good Citizenship

In addition to his many community activities, George is putting a great deal of effort into establishing pride in the University:

I don’t think that we’ve done enough and I don’t think that Presidents have done enough to promote institutional profile and institutional self-esteem...we have an Image Task Force that’s just been established...I think the marriage of that into the planning of this major campaign will be something that will do significant things for McMaster’s profile nationally. (personal communication, September 29, 1997)

I believe that much pride already exists within McMaster. Those interviewed, despite the many problems within the organization’s culture, were quick to praise McMaster especially for its achievements in research. Invariably Mac was cited as an innovative center wherein excellence is highly prized. Galan (personal communication, September 22, 1997) infers his own sense of pride in working with McMaster: “While I have my complaints about this place and there’s room for improvement, we do a lot of great things here. I don’t want you walking away from this thinking that it’s so bad.”
Another was concerned that I might be getting a jaded impression of McMaster. In order to avert that potential, he cautioned, "I wouldn’t want to leave you with the impression that McMaster is indifferent to the words that it writes or to its students or to the public. I have wanted to talk to you frankly since you’re engaged in research" (Simpson, personal communication September 16, 1997).

It is through the courage to admit to problems, to acknowledge that things are not perfect that change can begin to happen. The implicit must be made explicit. Such revelation requires honesty, courage, and a belief that issues can be resolved. In an environment where problems can be identified, those problems can be seen as opportunities to improve. I am confident that McMaster’s new leadership team has this potential.

**Results Orientation**

As previously noted, I believe that strategic planning in its traditional form does not have the capacity to bring about substantive change. Because there is no reliable method (eg., scientific method, teamwork, customer centered approach) to implement the proposed changes, the problems in implementation will persist. Conversely, strategic
quality planning offers a way to plan, implement, improve, and hold the gains made. The breakthroughs in attitudes, learning, organizational culture, and ultimately in results are far more probable in strategic quality management of which strategic quality planning is but one activity. Therefore, I would conclude that within the boundaries of its present strategic planning process McMaster is not likely to achieve its desired results: “To achieve international distinction for creativity, innovation, and excellence” (McMaster University, 1995b, p. 1).

Conclusion

McMaster is not involved in a substantive way in QM. Rather, McMaster’s approach to change in these new economic times profiles a traditional strategic planning exercise. The indicators contained within Directions I that led me to believe that McMaster was more involved in QM (e.g., the value of quality, teamwork, and partnerships, the push to remove barriers, to drive out fear, the use of the word customer) tend to be, at this time, only superficially understood and poorly implemented.

McMaster’s ethos as a research-intensive university has seriously hampered its capacity to value teaching. An urge toward a more
student-centered climate is underway but not intensely enough to consider customer satisfaction as McMaster’s core focus.

Although some attempts toward change have been initiated in the academic side, more success has been felt in the administrative and business services side of the University. Administrative managers, more recently hired, have brought a fresh and diverse set of skills and assumptions from other sectors outside the University. Faculty, on the other hand, have had a long time association with the University’s traditions, and tend toward disciplinary as opposed to institutional allegiance. As a result, there is less impetus toward substantive change within the academic community. The internal constituents are so highly political as to hinder organization-wide collaboration and unified action.

Although President George has brought a sense of hope for progressive change to McMaster, the organizational culture and the change strategy are such that change will not likely happen as quickly or as pervasively as George hopes. However, if senior administrators are provided the resources and opportunities to learn about newer management models such as QM, the flexibility to learn and desire for change at the senior level may shift the culture in the direction of
substantive change. The problem lies with a lack of knowledge for improvement not with lack of a will to try.

Knowledge for improvement demands a language for improvement. Shared language and shared meaning are two important concerns for the McMaster University community. There is a need to create inclusive community; that is a community wherein all members are treated with concern and respect. As the community learns together, members change together. Education directed at building the capability for transformation and improvement at McMaster may prove the means by which a true sense of university-wide community can be established.
CHAPTER FIVE: LESSONS LEARNED

Introduction

During the past decade, Canadian universities have been undergoing a steady erosion of their economic base while, at the same time, they are being burdened by demands to demonstrate public accountability for received resources, to increase access, and to improve the quality of education. Likewise, other, more global trends such as changes in the workforce and in the economy are making new demands on higher education. In short, while governmental funding is declining, the demand for higher education, its value to individuals and to Canada’s global economic markets, is escalating.

For example, there has been a steady shift from an industrial-based to a knowledge-centered economy, and as the movement continues to evolve, the university, in both its research and teaching, is becoming increasingly more important to Canada’s economic strength. However, the notion of a world class economy demands something more from the university. Today, learners and employers are looking toward a university education as a gateway to future employment and employability. Because of the rising costs of higher education, learners are looking for schooling
that is value-added; that is, the kind of instruction that will lead readily to employment in their chosen field.

Because of the demand for knowledge workers and the continually changing nature of global markets, learning is now viewed as a life-long activity. As a result, the sector from which the university draws has expanded and changed dramatically. In addition to traditional post-secondary learners, a large market segment embodies working adults upgrading their knowledge and skills to maintain current positions or to completely change careers. The influx of adult learners is making the educational market more customer defined. Adult learners are more inclined to make career related demands on university programs, demands that include what the learner needs and expects, as well as when and how those needs are met. Further, as the increasing cost of a university education is placed on the learner, their demands likely will be given higher priority. The new enthusiasm for learner-centeredness marks a cultural alteration for higher education.

Research collaboration between the university and the manufacturing sector is on the rise, along with questions of ethics, ownership, and dissemination of new knowledge. As well, the competitive
academic market created by private companies with their own in-house educators and training consultants, privately funded research institutions, and existing publicly sponsored universities demands new learning and instructional technologies such as distance learning, satellite campuses, theme schools, interinstitutional academic partnerships, and shared service arrangements, to name a few.

Summary of Research

In light of the pressures on higher education in Canada, the foregoing study was designed to address the means by which Canadian universities are undergoing institution-wide changes that allow flexible, results-oriented, innovative strategies in response to today’s diverse educational demands. Because learning is facilitated by an appropriate framework, the change management model chosen for the study was Deming’s (1982, 1986) 14 Points for continuous quality improvement.

For the purposes of the study, Deming’s (1982, 1986) theoretical framework and processes of application were referred to as quality management (QM). The following questions were proposed: 1) Are Canadian universities involved in the implementation of a QM paradigm?
2) If so, how are Canadian universities using the framework for institution-wide change? 3) What lessons from Canadian universities which have employed QM philosophy and methods can be inferred concerning the acceptance and implementation of QM?

The first research activity was the construction of a questionnaire to be sent to all universities in Canada. However, following the completion of the first pilot, the survey was abandoned for two reasons: 1) the survey language is based in QM theory and not all university stakeholders may be cognizant of the terminology, or, if cognizant, may choose to interpret the terminology idiosyncratically; 2) because many change initiatives may be undertaken at different institutional strata, at this time the survey could not identify the individuals who might be involved in/or at least aware of these activities, nor describe the full scope of activities underway.

Therefore, an alternate approach was taken. Two universities, the University of Calgary and McMaster were chosen as case studies. The selection process included the prerequisites that the universities are current members of the Conference Board of Canada Quality Network for Universities (CBoC/QNU) and that the language contained in each university’s mission, vision, and value statements is consistent with Deming’s (1982, 1986) framework.
The Quality Network for Universities was established in the Fall of 1993 "to provide a forum for senior university leaders interested in exploring the relevance for their institutions of emerging experience and theory in total quality and related organizational change strategies" (Gibson, 1994, p. I).

The case study sites were drawn from members of the CBoC/QNU that had demonstrated an interest in total quality management in a university setting, and/or had participated in the 1994 study tour of four American universities implementing quality management. These members include: the Universities of Alberta, British Columbia, Calgary, Regina, Western Ontario, and Montreal; Carlton University; Laurentian University; McMaster University; Queen’s University; Concordia University; and Memorial University. Each of these twelve university’s documents outlining mission, vision, values, and strategic direction were retrieved from the internet and subsequently reviewed and analyzed for the presence of quality management concepts, words, and/or phrases.

The search concluded with the selection of the University of Calgary, Calgary, Alberta and McMaster University, Hamilton, Ontario. The University of Calgary employs approximately 4,000 full-time equivalent (FTE) academic and support staff to educate about 18,000 full-
time undergraduate and 2,000 graduate students (University of Calgary, 1997a). Instructional staff account for approximately 1,700 FTEs and contribute to the work of "16 faculties and more than 60 academic departments and major program areas" (University of Calgary, 1997a, p. 15). As the fourth largest employer in its region, the University of Calgary has "an estimated financial impact on the regional economy of $460 million annually" (University of Calgary, 1997a, p. 15).

Slightly smaller, McMaster University has approximately 20,000 full- and part-time students and 3,000 employees, 1000 of whom are faculty. Close to 1,500 students are pursuing advanced degrees. There are six faculties at McMaster: business, engineering, health sciences, humanities, science, and social science. McMaster University is supported on an annual budget of more than $335 million (McMaster University, 1996b).

Having selected the University of Calgary and McMaster University, permission to study each university and its change initiatives was sought from the University Presidents. Permission was forthcoming. Howard Yeager, Associate Vice-President, Academic and Planning at the University of Calgary, and President Peter George at McMaster
University served as the gatekeepers for the research. Interviews and document analysis were the methods for data collection. Although the number of informants at each university was small, nine from the University of Calgary and eight from McMaster, the individuals who participated were organizationally positioned to be aware of the change initiatives from either a planning and/or implementation perspective. In addition, students were interviewed informally as the opportunity for conversation arose. Still, the study does recognize that there may be an inherent bias from so small a representative group within an organization as large and complex as a university and that caution must be taken in data analysis.

A personal journal was kept during the interview process at both campuses. Interviews were tape-recorded with permission. Transcripts from all interviews were returned to the appropriate participant for his/her revision. Transcripts were then coded for recurring concepts and themes and compared with the 11 values/concepts contained within the Malcolm Baldridge National Quality Award which is based on Deming’s (1982, 1986) theory and application. Completed case studies were sent to key informants, Howard Yeager at the University of Calgary and Evan
Simpson, Dean of Humanities at McMaster, for comment regarding content and accuracy. President George was offered the opportunity to review and comment on McMaster’s case study, but declined.

Major Findings

The University of Calgary’s change strategy was found to be in keeping with the framework and methods of QM. Constancy of purpose was established by way of an intensive process of data collection and campus community input. Continuous feedback concerning the collaborative process and the collective decisions arising from stakeholders’ input was achieved through Townhall meetings, Friday Forums, campus newspaper articles, and special publications from the Coordination Task Force.

The Coordination Task Force (CTF), appointed by the President and Board of Governors, is charged with the mandate to establish the mission, vision, and values of the University of Calgary as well as a strategic direction, along with implementation and evaluation, that would sustain the University over the next 30 years. Membership in the CTF was widely representative of the campus including administration, faculty,
staff, and students. Howard Yeager, as one of two institutional facilitators, reported on both process and progress directly to the Board of Governors.

In its capacity as an organization-wide planning body, the CTF acted as a Quality Council (Juran, 1989) to steer the planning and implementation of change, as well as to identify and resolve any obstacles to the transformative process. According to Juran (1989), the responsibility of a Quality Council is to “launch, coordinate, and institutionalize’ annual quality improvement” (p. 43). Improvement is another word for breakthrough and the University of Calgary was most concerned with breakthrough at the cultural level, a breakthrough that was often referred to by Yeager (personal communication, April 18, 1997) as organizational “transformation”.

Two earlier change initiatives had demonstrated both change readiness and a penchant for innovation at the University of Calgary. The change in the Faculty of Physical Education came as a result of changing student needs. In recognition that students majoring in physical education were changing the ways in which they used the degree (not only as a stepping stone to teaching physical education but also as a means to enter the medical and paramedical professions), the faculty responded through
curriculum redevelopment and a Faculty renovation that created the Faculty of Kinesiology. The experiences brought by Claudia Emes from the Faculty of Kinesiology’s change contributed to her being asked to participate as the second institutional facilitator on the CTF.

Meanwhile the Faculty of Education responded to an economic downturn resulting in the loss of a number of faculty by utilizing the remaining faculty creatively. Faculty members were surveyed to determine interests outside of their area of specialization. By building on these alternative strengths, remaining faculty could be assigned additional subject areas complementary to their interests. For example, a faculty member whose identified area of specialization is education administration may have developed a firm knowledge base in philosophy of education. By exploiting his/her area of interest, the individual could choose to teach in both specialties.

One major factor contributing to the University of Calgary’s readiness for change was the strong connections that had been built between the faculty and the administration by Murray Fraser during his presidency. Coupled with the work of the CTF in organizing teams to study institution-wide issues, conflict between administration and faculty
seemed to be low. Teamwork and Deming’s (1986) seven helpful tools were utilized as the procedures for implementation and evaluation of the strategic direction for the University of Calgary. As a result, a cross-section of university stakeholders had representation on process improvement teams, and, thus, had the opportunity to work together and view issues from each other’s perspective. In addition, the care taken to produce the case for transformation had provided a space for many diverse voices to be heard bringing the campus community closer together. Thus, teamwork provided a forum for “cultural learning” (Tierney, 1993, p. 144). Tierney (1993) describes cultural learning as “the development of, and engagement in, dialogues of support and understanding across differences” (p. 144). External consultants established a platform for cultural learning and played a major role in directing the transformative process at Calgary.

In contrast, McMaster University has adopted a traditional strategic planning and implementation strategy. The change strategies used by McMaster tend to demarcate traditional institutional boundaries, working within territories rather than between them. For example, the following three strategies account for four major opportunities to bring faculty,
administrators, students, and staff together as an inclusive campus community, but were lost due to the internal structure of the planning process.

First, the coordination of the change process at McMaster is directly under the purview of the president and the Vice-Presidents. Therefore, representation for change management is limited to the upper institutional strata limiting the consultative process and narrowing the opportunity for institution-wide contribution. Second, grassroots input was solicited by the senior administrative team but not as conscientiously as at the University of Calgary. The case for change was less well defined and, consequently, buy-in from the total campus community compromised. Third, unlike the University of Calgary, the Board of Governors at McMaster was not involved in the Directions I process to develop the mission, vision, and values of the University, but was presented with the finished document for approval on December 14, 1995. Initial engagement and involvement of the Board may have given Board members ownership of the change process and may have ensured the continuation of the Board’s endorsement through the many and varied decisions associated with institution-wide transformation.
Finally, after having established Directions I, a retreat was held to develop the first phase for implementation, Directions II. Participation at the retreat was limited to academic deans and the senior management team. Although President George (personal communication, September 29, 1997) implied that there was conflict between faculty and administration and described the culture of the University as “difficult”, there was no representation from administration (other than the Vice-Presidents), staff, or students at the planning retreat. Individuals were assigned responsibility for identified action areas as opposed to a teamwork approach. In fact, Directions II is devoted completely to the academic activities of the University.

In terms of Faculty and department change activities, the Faculty of Humanities and the Purchasing Department provide examples. Due to institutional downsizing and the subsequent loss of faculty in the visual and performing arts, and in an attempt to use existing resources prudently, the Faculty of Humanities created a theme school, the School of Art, Drama, and Music. However, despite the unification of the three academic areas, friction among the faculty continues. Evan Simpson, Dean of the Faculty of Humanities underscored the notion that faculty feel only a
limited responsibility, as opposed to a personal bond, to the institution. The university as an island, an ivory tower, remains prevalent among academic staff.

A personal observation arising from the interview process is the extent to which McMaster University is moving from an "organized anarchy" (Birnbaum, 1988) toward a highly politicized environment. Supporting evidence for such a shift includes: the implication that before President George’s appointment, University stakeholders were "loosely coupled" (Birnbaum, 1988, p. 40) to the organization, doing generally as they pleased; the consolidation of power at the senior administrative strata via the newly appointed Vice-Presidents Academic and Research and International Affairs, and the new Associate Vice-President, Information Systems and Technology; the concentration of authority for institution-wide change within the academic hierarchy surrounding President George; the absence of interhierarchical and cross-functional teamwork; the construction of an internal competition for scarce resources that is described by Darling (personal communication, march 27, 1997) as a means to reward winners, not winers; and the expectation that academic
units and departments align their mission with that of the overall institution.

Although there have been attempts to align academic and administrative departments around the mission, vision, and values of the University, faculty remain autonomous and discipline-centered. Greg Kaufman, President of the McMaster Student Union, noted that faculty tend their own needs, often at the expense of the students’ needs. A shift to student-centeredness as a stated institutional goal seems to be more a desired condition than an existing state at McMaster.

Conversely, the Director of Purchasing, Terry Galan, is less likely to take students for granted, viewing the university as connected to the community and to society at large, and students as fundamental to the purpose of the university. In fact, the difference in value placed on students between the academic and administrative sides at McMaster represents grave institutional subculture differences.

During the interview, Galan also underscored the degree to which conflict is experienced between the faculty and administrative staff. However, collaboration in the Purchasing Department is accomplished through weekly departmental communication meetings and the creation of
“challenge teams” for problem solving and decision-making. In this context, collaborative activities are in concert with Deming’s (1982, 1986) theoretical framework and application and, as such, the administrative subculture at McMaster appears to be much less of an obstacle to publicly accountable change than is the faculty.

Discussion

The proceeding discussion of the two universities, the University of Calgary and McMaster, will exemplify not only the differences in their strategic planning processes, but also will underscore the probability for success using each change strategy. I argue that conventional strategic planning and implementation at McMaster University sustains customary departmental and faculty boundaries, and, thus, impedes institutional unification allowing the organizational culture to remain more or less unchanged. Because substantial change requires cultural change, McMaster’s change strategy is less likely to create the tangible results, outlined in Directions I, that the University of Calgary will conceivably enjoy using the methods of strategic quality management for strategic planning, implementation, and evaluation.
The following discussion will highlight the major differences in the
two planning processes by reference to the lessons learned in the
following categories: the case for change—internal and external
environmental analysis; the place for language in change management; the
importance of a theoretical framework; plans and strategies; teamwork as
fundamental to progressive change; organization-wide learning; the
concept of all one team; and, principle-centered leadership. It should be
noted that the following lessons learned are critical in terms of practical
application.

Lesson One: Construct a Compelling, Comprehensive Case for Change

At the University of Calgary, time was spent in carefully
constructing a case for change and in connecting each step in the change
process with preceding events. There was input from the Board of
Governors and the academic community in each step of the transformation
and there was recognition for all those involved. Three hundred and sixty
degree feedback mechanisms were utilized. Wide-spread participation
contributed to the belief that there was an inherent logic to each step, to
implementation, and to evaluation along the way. These ongoing processes
reflect Deming's (1982, 1986) plan, do, study/check, act (PDCA) cycle which represents an organizational learning cycle.

The process of rationally presenting the case for change demonstrated that change at the University of Calgary was much more than symbolic; the status quo was simply no longer acceptable (Yeager, personal communication, April 18, 1997). By presenting a thorough case for change, the campus community was better prepared to buy into the change strategies. Without concrete buy-in, the organization changes in appearance only. Concerning the early efforts in QM at the University of Calgary, Yeager (personal communication, March 4, 1998) states, “There was no attempt at buy-in; it was just an exercise to look like we were doing something.”

Because buy-in at McMaster is leveraged mainly on financial retrenchment (Weingarten, personal communication, March 17, 1997) rather than on a carefully constructed case for change, constituent enthusiasm may prove to be only symbolic. Change at McMaster is strongly linked with a perceived insufficiency of dollars and “loosely coupled” (Birnbaum, 1988, p. 38) to a perceived need for institutional unity and cultural transformation.
In loosely-coupled organizations, faculties, departments, and even tasks become suboptimized; the parts are perceived to be of greater importance than the whole. In fact, the parts may operate at cross purposes to the whole. This notion was aptly demonstrated in the development of the theme School of Music, Drama, and Art at McMaster University.

Although the move to a theme school made possible the continuance of smaller faculties, the internal conflict among constituents continues. In effect, participants in the School remain more closely attached to their area of interest than to the effective functioning of the newly formed School. Faculty are tightly coupled to their disciplines but loosely coupled to the theme school. In addition, the need to transfer one’s acquired discipline-specific power into the newly unified theme school cannot be ignored. Birnbaum (1988) describes the situation best: “In general, loose coupling makes coordination of activities problematic and makes it difficult to use administrative processes to effect change” (p. 40).

However, loose coupling also has its benefits. Birnbaum (1988) suggests that creativity and responsiveness to environment may be outcomes of specialty areas working autonomously. As the organization
moves from an “anarchical institution” (Birnbaum, 1988, p. 151) to a more political environment, an environment wherein power is consolidated in the senior administrative group and where heightened internal competition is encouraged, some of McMaster’s innovative disposition may suffer.

For example, one restructuring strategy at McMaster is the introduction of a competitive process wherein units are asked to contend for resources based on newly conceived allocation priorities. Essentially, the purpose for priority setting is to determine, in a rational way, how best to allocate all institutional resources including faculty. Principles for priority setting at McMaster include: a) programs that enhance inter- or cross-disciplinarity; b) programs that are innovative in addressing the undergraduate experience such as co-op programs, theme schools; c) programs that have a student/customer focus; d) programs that are results oriented determined through peer reviews or performance indicators; e) programs that show a competitive advantage in their ability to attract research dollars, excellent students and faculty; and f) programs that are systemic in design and have the ability to establish external linkages (McMaster University, 1996b, p. 4).
If these six principles represent what is valued at McMaster, then why not work to find ways to achieve these principles by improving what already exists? A strategy to restructure existing academic programs along the aforementioned six principles could assure that resources are allocated more rationally and alter the current plan to focus solely on new programs in such a way as to build internal cooperation, thus organizational learning, as opposed to competition. Cooperation to improve the institution's scholarship in general seems to me to be a better use of limited resources.

Furthermore, by establishing a funding environment highly competitive in nature the University may actually increase the anxiety among academic units and departments as they vie for scarce resources and may undermine the degree to which McMaster will continue to occupy a reputation for creativity.

Occupational stress in the wake of financial retrenchment such as downsizing results not only in compromised innovation, but also in grave economic consequences of illness (Greenberg, Finkelstein & Berndt, 1995). What, in fact, have been the organizational costs from downsizing and attempting to do more with less? Future research might include studies
that demonstrate the net gains from organization restructuring: that is the financial gains from restructuring minus the losses due to occupational stress. Other avenues for research might include incidence of employee health/illness, absenteeism, and the deterioration of the perceived quality of worklife among faculty in a political institution as compared with a learning organization. In addition, it would be informative if a framework could be developed that would describe, in detail, the fundamental cultural characteristics and the cultural differences in each of Birnbaum’s (1988) organizations--collegial, political, anarchical, and bureaucratic--as opposed to Senge’s (1990) learning organization.

Lesson Two: Adopt a Common Language for Change

The notion of the importance of language was a recurring theme throughout the study. Recall Gibson’s (1994) caution concerning language in the Conference Board of Canada Report, Continuous Improvement on a Tradition of Excellence: Lessons from the Study Tour on Total Quality in a University Setting. Yeager (personal communication, April 18, 1997) also noted that language in any change process is “important, and very sensitive on a campus... language matters here.” Furthermore, one of the
major obstacles to the completion of the research survey was the issue of the lack of a common language for change or quality management in the Canadian university.

A common language makes possible the framing of problems and the resolution of problems in a constructive way (Schein, 1994) in that it offers "an entire community [a means to] operate from a common base of knowledge" (Engelkemeyer, 1993, p. 7). Where a common language does not exist, communications failures and cultural misunderstandings run rampant. Hence, language can also be considered as a means for cultural connection, as the glue that establishes and maintains the linkages of a system's inner structure or network. Language can also be seen as "a medium in which we articulate new models for living together" (Kofman & Senge, 1994, p. 16), and, as such, language is a fundamental learning tool. In this regard, a common language can be a means which helps to create a learning organization.

Nowhere is language more an issue than in a complex organization such as the university where diverse disciplines, pure and applied sciences, arts programs, and hierarchical administrative strata form varied cultures and subcultures, all of which are immersed in their own language.
Each of these texts and subtexts create psychological boundaries around various groups in such a way as to be fundamental to the group’s cultural structure and function. “In occupational communities, we call this language ‘jargon’. Using that [group-specific] language expresses membership and belonging, and that, in turn, provides status and identity...In addition, the familiar categories of thought provide meaning, comfort, and predictability...” (Schein, 1994, p. 49).

In an intellectual community such language territories are better understood as discourse. Discourse refers to “an organized, consistent, professional, institutionalized language used to produce and reproduce knowledge” (Bove, 1992, p. x). If the generation of organizational knowledge is to be the outcome of creating a learning organization, then, within the context of Bove’s (1992) definition, the language of QM and, thus, of organizational learning can be considered discourse. However, the language of quality is frequently disparagingly dismissed as jargon. In my experience the pejorative use of the word “jargon” is a tactical and intellectual move which serves as an obstacle to change, and as a means to disenfranchise other ways of knowing.
It is little wonder that university-wide change strategies can be hampered by language, especially language that is neither well understood nor shared by all concerned. Schein (1994) notes that where a common language and shared understanding are only implied, "the group reaches a ‘false consensus’--members assume they mean the same thing by certain terms" (p. 47). In rapidly changing circumstances, it is even more unlikely that all members of an administrative group speak the same managerial and technical language.

The problems that ensue from false consensus were seen most clearly in the diverse interpretations of McMaster University’s Directions I documents. University constituents assumed that there was consensus and common understanding of terms contained within the documents, but the reality was that not everyone was talking the same language. Such a state would infer that Directions I was written without adequate dialogue as prerequisite. According to Bohm (1987), dialogue is described as:

A free flow of meaning among all participants...[in which] people are no longer in opposition, nor can they be said to be interacting, rather they are participating in [a] common pool of meaning which is capable of constant development and change. (p. 175)

It is in the implementation of the university’s strategic plans that the notion of false consensus is best understood. “Only when decisions fail to
be implemented correctly do we begin to realize that what other people heard as the decision differed according to their membership in different subcultures” (Schein, 1994, p. 49). Furthermore, Schein (1994) concludes that: “how much power and autonomy one has in one’s organizational “space” colors very much what things mean” (p. 50). Therefore, adequate time must be taken with all organizational strata to establish a common language and common understanding before attempting to move forward into the implementation of change strategies. The University of Calgary stands as a good example of the mindful way in which the language of change was carefully constructed and articulated throughout the campus community in each step of their transformative process, and in the many avenues that the transformative process was communicated to the campus at large.

Seymour and Collett (1991) suggest that the use of a common language can increase the plausibility that university stakeholders will engage in discussions about shared organizational frustrations and concerns “without involving personalities” (Seymour & Collett, 1991, p. 21). QM, with its emphasis on process problems as opposed to blame, offers an opportunity for common understanding across cultural borders.
Seymour and Collett (1991) highlight the concept of the cross-border versatility of QM when they state that QM “provides a universal set of principles that make as much sense in an English department as they do in the admissions office or custodial services” (p. 21). Therefore, in the context of the application of change management strategies, a succinct way to understand lesson two might be, call transformational concepts what you prefer, but be consistent and make sure everyone understands the meaning and use of terms before proceeding.

Lesson Three: A Theoretical Framework for Change is a Necessity

If the goal is organization-wide transformation then it is worth the effort to understand the theoretical bases and the application of change strategies. Although much has been written concerning change (Hesselbein et., al., 1997; Kanter, 1983; Morgan, 1988, 1993; Senge, 1990; Senge et. al., 1994; Torbert, 1991; Whitbourne and Weinstock, 1979), I believe that Deming’s (1982, 1986) continuous quality improvement and Juran’s (1989) total quality management serve as the most comprehensive approaches to strategic planning concomitant with implementation, control, and evaluation. For example, upon completion of the comparison
between QM and reengineering, I was struck by how extensively Deming’s (1986) 14 Principles for continuous quality improvement and Juran’s (1989) quality trilogy provide the means, in the context of both the technical and human dimensions, for substantive organization-wide transformation; that is, transformation at the heart of the organization--its culture.

Because of the profundity of change possible, I have come to believe that no other change management framework can claim to accomplish change in an intensely transformative sense in quite the same way and to the same extent that Deming (1982, 1986) offers. Senge’s (1990) learning organization, Hammer and Champy’s (1993) reengineering, and even Morgan’s (1990, 1993) notions concerning change and creativity in organizations have their foundations in Deming’s (1982, 1986) theory of continuous quality improvement/Juran’s (1989) total quality management.

Having stated this, I am curious as to why the change masters at both McMaster and the University of Calgary did not investigate change management strategies prior to undertaking major institution-wide change. In part, the University of Calgary overcame this internal weakness by
hiring external consultants and allowing them to walk the institution, under
the guidance of CTF, through their transformative processes. However,
this was not the case at McMaster University.

The gap between a desire for institution-wide change in the absence
of a means to go about it may be accounted for by the fact that neither
University tends to adequately fund professional development. For
example, Yeager (personal communication, February 26, 1998) suggests
that: “Most modern knowledge-based companies spend 1-7% [Juran
(HCHP, 1989) suggests at least 10%] of their operating budgets on
professional development. Universities spend at best, a few tenths of a
percent. The dollar figure is a modest one.”

Likewise, George (personal communication, September 29, 1997)
provides insight into McMaster’s investment in professional development:

I’ve sent a number of senior colleagues to a series of
administrators workshops and they all say they’re... expensive and a complete waste of time. Second, because
we’re supposed to be intelligent people, presumably we can
learn and read something about how to administer better and
better as we go along. But, the fact remains that there is no
professional program for training university administrators
that enjoys general confidence other than the trial and error
method.
The notion of academics being well-versed on any number of
topics, and, therefore, confident to move into uncharted waters without
seeking additional education or knowledge was a theme at the University
of Calgary’s Faculty of Kinesiology’s change process. Emes (personal
communication, April 9, 1997) comments:

[I] had spent some time but not a tremendous amount of time
trying to learn about how one [goes about change]. We had
read articles and that sort of thing. Basically we were going
on instinct--flying by the seat of our pants... . We didn't
necessarily establish a theory about making change. But,
as I say we did a few things that weren't by the book and
we were just lucky because...it didn't back-fire on us.

When asked about her experience with the institution-wide change process
under the guidance of the external consultants, Emes (personal
communication, April 9, 1997) commented further:

... I think the biggest learning for me was how we should
have done it [undertaken the change in Kinesiology]... .
Here we are academics and we have people in the system
who have a tremendous amount of theory [but] we don't
focus a lot on theory... . [It's] something that wasn't
planned...something that just [happened because of the
rate of change].

I have the nagging sense that, left to their own devices, the
University of Calgary stakeholders may have also undertaken
institution-wide change flying by the seat of their pants. The role of 
external consultants and their importance in excavating deep-rooted 
assumptions about university governance and planning has already been 
discussed.

During my interview with Harvey Weingarten, Provost at 
McMaster, Dr. Weingarten (personal communication, March 17, 1997) 
suggested that academics, for the most part, believe that they do not need 
any additional instruction. They see themselves as pretty smart people so 
that they do not tend to take advantage of resources for knowledge and 
skills development, even though it might be in their best interest to do so.
The fact that McMaster has undertaken institutional change without the 
counsel of external consultants and with an administrative team operating 
out of traditional notions of management, I believe, will prove a detriment 
to their fulfillment of mission, vision, values and future direction.

In fact, the forms and contexts of university administrator 
preparation and the status of professional development for university 
administrators would be a fascinating topic for future research. What are 
university administrators being taught in terms of governance and planning 
for turbulent times? How are their administrative needs assessed, by
whom, and using what indicators? Such questions naturally lead to the
next lesson which suggests that planning and strategy making differ, each
requiring a separate knowledge base and skill set.

Lesson Four: Make Plans and Strategies

According to Mintzberg (1994a), strategic thinking involves
intuition and creativity—the soft data derived from personal experience—in
concert with harder data informed by market research. Strategic planning
suggests analysis while strategic thinking connotes synthesis. Strategy
making is the legacy of both strategic thinking and strategic planning.
There can be no separation of analysis from synthesis in strategy making.

Mintzberg (1994a) sees strategy making as the route by which old
established categories are transcended and replaced by “new combinations
and new perspectives” (p. 109). Where categories are simply rearranged,
no serious change takes place (Mintzberg, 1994a). Through strategic
quality management, the University of Calgary is in the process of
surpassing old categories and replacing them with novel arrangements. On
the other hand, I believe that McMaster University is rearranging
established categories within the context of its action plan, Directions II.
The tools and methods for quality improvement constitute a scientific approach to change and when combined with cross-functional teamwork provide the means to engage in divergent and convergent thinking: that is, in the art and science of both analysis and synthesis as a vigorous process encompassed within the institution's broader direction and vision. "Scientific methods [are used] to analyze data, to construct and test hypotheses, and evaluate results in order to solve problems" (Sims & Sims, 1995, p. 9)

A scientific approach integrated into the way in which the organization is managed connotes one corner of the Joiner Triangle (Joiner, 1994). The other two corners include the notion of all one team and customer satisfaction. In the context of the University of Calgary's strategies: 1) customer satisfaction is translated through a visible commitment to learner-centeredness, 2) planning, implementation, and evaluation of core processes are functions of teamwork, and 3) use of a scientific approach is ongoing, first in establishing the case for change and then for process design/redesign. The concept of "all one team" will be further addressed in lesson seven.

On the other hand, McMaster University's commitment to
learner-centeredness is not as visible, there is no consistency in scientific methods for problem setting or solving, and teamwork is only sporadically used. In short, the knowledge and skills necessary for strategic thinking, strategic planning, and strategy making seem to be more pronounced at the University of Calgary than at McMaster. For purposes of the practice of change management, proficiency in all three competencies is crucial. Further, any curriculum developed for the purposes of administrative learning should include theory and practice with all three forms of strategizing.

If as George (personal communication, September 29, 1997) suggests, professional development for university administrators may be a waste of time and money, on what basis has the current curriculum been developed and what is its focus? What organizations offer continuing educational programs in university governance and planning? What is the relationship between these organizations and the universities they serve. For example, the Institute for Healthcare Improvement (IHI) in the United States offers a yearly forum that addresses current issues in healthcare, and newly emerging management strategies for effectiveness and efficiency in the administration of health care services. As such, IHI is
closely linked with the real work of health management organizations across the US.

Other questions for university research in strategic planning, strategic thinking, and strategy making might include the following: How are universities, that seem to be managing change successfully, disseminating the lessons they have learned to their counterparts in Canada? What is the emerging nature of competition between and among Canadian universities? How does the notion of competition impair or facilitate collaboration among Canadian universities?

Lesson Five: Teamwork is Critical to Organizational Transformation

Although each University actively involved the campus community in the development of mission, vision, and values, the University of Calgary continues that involvement through the establishment of a number of process improvement teams. Teams, not individuals, are accountable to improve institution-wide processes such as institutional planning, revenue and expenditure strategies, recruitment, admission and registration of undergraduate students, and so on. Teamwork is the pathway to cultural change and institutional transformation because it penetrates the psyche of
the institution, where underlying assumptions can be raised and questioned (Kilmann, 1989).

Team thinking assumes that people see the world differently, that they process information differently, that they make sense of life in organizations (and outside them) differently. It also requires team members to develop their own unique thinking capacities and to exercise them openly, actively, and freely. (Bensimon & Neumann, 1993, p. 57)

Recall that Juran’s (1989) quality improvement cycle in the context of teamwork accounts for breakthroughs in organization, attitudes, knowledge, culture, and, finally, results. Breakthroughs are achieved through basic data collection and analysis using such tools as frequency distributions, fishbone diagrams, the Pareto principle, the Shewhart control cycle, and through the application of the concept of process capability. Yeager (personal communication, April 18, 1997) demonstrated a keen understanding of the concept of capability when he outlined the process used for benchmarking the University of Calgary’s capabilities:

[We compared] ourselves not just to other universities but to colleges, private sector providers, to technical institutes and so on. Where are we in that spectrum? Staff—the human factor: issues of morale, issues of professional development, the reward system. What’s the current situation? Internal assessment and implications: what are the capabilities of the organization in general? Not a department by department saying strong, weak, let’s dump sociology or anything like that. It had to do with the overall competencies of the institution.
In contrast, McMaster University’s method for change is more
top-down in nature with senior level individuals assigned the responsibility
for taking actions based on the goals developed in Directions II.
Teamwork and scientific approach are not as prevalent or as well
understood. Rather, according to Weingarten (personal communication,
March 17, 1997), teamwork is understood in the traditional sense of
groups and committees, formal and informal. Individuals at McMaster
value collaboration and consensus-building, but, there is no real work on
process, only sporadic involvement such as that in the Purchasing
Department.

When asked if senior administration acted collectively as a team,
Darling (personal communication, March 27, 1997) commented: “I don’t
know if others outside would say we act as a team. Maybe that’s the test;
how do others see us? Because when people say we’re not a team, I guess
we’re not a team, no matter how much we think so”.

There appears to be no formal team structure or teamwork process
at McMaster University. That is, teams are not occupied in the application
of the standard tools and methods of data collection and analyses which
would indicate that action science is fundamental to problem solving at the
institution. Neither is the campus community largely engaged nor heavily invested in cultural transformation. Rather, McMaster is working in a much more superficial way mainly on changing existing structures.

Structures are inputs to processes and without work on process, McMaster may achieve some change but not in a transformative sense. Gains forthcoming from change strategies can only be held where attitudes, knowledge, and cultural awareness have been addressed. Therefore, the conclusion may be drawn that McMaster will likely experience difficulty in sustaining many of the gains achieved from implementation.

Lesson Six: Organization-Wide Learning is Fundamental to Progressive Change

The sixth lesson is related to learning and proposes that unless learning takes place in the executive subculture, substantive learning will be impaired in the lower hierarchical levels. Learning in the executive subculture means that the executive team is willing to self-reflect and self-analyze. Schein (1994) admits that such self-reflection is often threatening to the upper hierarchy’s self-image as leaders and, thus, is often avoided.
However, such avoidance can cause learning deficiencies throughout an organization.

As gatekeepers to their institution’s change processes, both Yeager and George demonstrated a penchant for self-reflection and self-learning. Yeager (personal communication, April 18, 1997) spoke of the expansion of consciousness he has undergone since the inception of the transformation at Calgary while George (personal communication, September 29, 1997) reflected that he is working to become more extroverted in his role as President of McMaster. Moreover, George shares his annual goals and performance review publicly with the McMaster community.

At the University of Calgary, Yeager, with the assistance of the consultants, seemed to be well versed in more recent organizational change theories. Yeager’s knowledge was borne out in the institution at large. Although Yeager (personal communication, April 18, 1997) reports that approximately 25% of all personnel at the University of Calgary had had opportunity to be critically involved in the transformative process, there seemed to be a broader overall system response to change at Calgary
than at McMaster. McMaster's campus community was unevenly involved in organized, structured change, and, therefore, limited in terms of organization-wide learning. The uneven approach to organizational learning at McMaster is most apparent in the onion patch strategies applied commonly within the departments that report to Alexander Darling, Vice-President of Finance.

The learning deficiency intrinsic within an onion-patch strategy, referred to by Darling (personal communication, March 27, 1997) as "concept embeddedness", is accented by Schein (1994): "If the initial learning has occurred in groups below the executive level... the problem of creating dialogue across hierarchical strata is even more essential because it is easy for the higher level to undermine the learning of the lower levels” (pp. 50-51). To penetrate the organization in substantive ways, the new role for leadership includes the capability to educate and facilitate, to serve as models of continuous learning. Leadership in learning organizations also requires that leaders have the courage to question their own assumptions about people and institutions, and to suspend those assumptions in order to get to the root causes of problems.
Juran (1989) believes that it is most beneficial when senior managers including the president are educated in quality and its management, and that, in turn, they take an active role in educating the next level down. In this way the educational process is cascaded by one level above all the way down through the hierarchy. Such a strategy ensures dialogue across and through all organizational strata. Under the direction of President Fraser, the Coordination Task Force at the University of Calgary understood and utilized this strategy. Because the new president, Terry White, was not at the University of Calgary from the inception of its transformation it will be interesting to study how the University fares under the change in leadership, especially in terms of ongoing organizational learning.

In terms of the importance of dialogue, Isaacs (1994) suggests that it provides "an advance on double-loop learning processes and represents triple-loop learning. That is, dialogue involves learning about the context and the nature of the processes by which people form their paradigms, and thus take action" (p. 38). Understood in this context, Issacs (1994) suggests another role for leaders that involves creating learning environments wherein assumptions can be raised and explored with a
measure of safety. In other words, risk-taking is valued as integral to the learning process.

In a learning environment, leaders are accountable to create cultures that support newly learned concepts and values (Schein, 1986). Furthermore, it is a necessity that leaders support individuals as others move through the anxiety of relinquishing comfortable ways of thinking for new, and often contrary, problem solving strategies. Perhaps the best example of the anxiety associated with change occurred in the revisions made in travel arrangements at McMaster University. Recall that one academic’s answer to the streamlining of the faculty reimbursement scheme was to hire a lawyer and threaten a law suit. Here, the administrative subculture assumption may have been that all faculty would welcome such a change, while the faculty subculture assumption may have been of a possible conspiracy to curb autonomy.

In contrast, an example of best practice in deferring change associated anxiety is the attention paid to providing change process information to the total campus at the University of Calgary. “[The campus community] understand[s] at the very root there’s no conspiracy. You see what you get. Conspiracy theories...have a heck of a time getting
started because the process is totally open. We tell everybody everything about what’s going on” (Yeager, personal communication, April 18, 1997).

“Cultural assumptions dominate managerial thinking about strategy, structure and systems” (Schein, 1986, p. 31). Managers at different organizational strata may differ in their perception of the culture within their particular unit, and, therefore, of the institution as a whole. For example, the Director of the Purchasing Department may have quite a different understanding of faculty’s needs and expectations than would the Provost. Consequently, there is an inherent need for dialogue across cultural borders and psychological boundaries so that the organization’s stakeholders can learn how to learn together. In this way, inclusive community can be created.

Bringing a community together requires an understanding of synthesis and analysis as modes of institutional inquiry. As previously discussed, such integration can be accomplished through strategy making. But making strategies that transform requires a systems view, a view of the whole. Subsequently, it is recommended that all personnel policies, financial rewards, recognition, business, academic, and administrative
activities be aligned around mission and vision, and any personnel policies that may be construed as punitive or negative be eradicated.

Ackoff (as cited in Schwinn & Schwinn, 1994) writes that “synthesis, or putting things together, is the key to systems thinking just as analysis, or taking them apart, was the key to machine age thinking. Synthesis and analysis are complementary processes...they can be considered separately, but they cannot be separated” (p. 4). This understanding has practical implications and forms the basis for lesson seven.

Lesson Seven: From a Community of Scholars to All One Team--Structure the University as a Cultural Democracy

Dissension between the perceived roles and institutional status of the university’s core worker groups, faculty and administration, has been shown to be a repeating theme throughout the research. In fact, in my opinion, the repetitive pattern of subculture conflict may be the single most persistent obstacle to organization-wide transformation in the Canadian university. Yet, subcultures, their mix of similarities and differences,
contribute to diversity that is so much a part of life in complex organizations such as universities.

There is evidence that diversity is highly prized within the university (Commission on Non-Traditional Study (CNTS), 1973). Diversity takes many forms: the ethnic make-up of staff and students, gender diversity, combinations of academic and experiential learning opportunities, changes in educational program design and teaching methods, satellite campuses and other non-traditional arrangements such as open universities, innovative reforms in graduate education such as internships and international exposures that expand "traditional perspectives and structures" (Thomas, 1996, p. 11), teamwork and other collaborative processes.

During a recent job search to various internet sites, I was struck by the number of universities that mentioned diversity in terms of faculty and student population as an attractor to the potential candidate. Both the university’s diversity and the prospective candidate’s capacity to encourage and sustain diversity are viewed as critical features in the employer-employee interaction. For example, the University of Toronto included among its list of expectations from the position of Director of
University Student Recruitment: “the incumbent will create, develop, and implement successful strategies to sustain and enhance the quality and diversity of the University’s [student] applicant pool” (University of Toronto, 1998).

Thomas (1996) suggests that “diversity contributes to complexity. Complexity reflects diversity. The two mirror each other” (p. 9). The direct relationship between diversity and complexity means that as complexity increases so does diversity. There is much argument to support that the complexity of higher education in its structures and processes is increasing conjointly with the many forces for change and the move toward globalization.

However, the celebration of diversity as a value in the academy, tends to fall short when diversity is applied to role. Thomas (1996) sees three basic characteristics intrinsic to diversity. First, diversity “encompasses differences and similarities” (Thomas, 1996, p. 5). Thus, “to get at the true nature of diversity (comprising differences and similarities) requires an ability to assume both perspectives simultaneously” (Thomas, 1996, p. 6). In terms of faculty, being more

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6 All italics are the authors.
concerned about one’s discipline represents a micro perspective. Conversely, an administrator who considers the institution’s needs void of the staff’s is taking a macro perspective. What is required is to consider the individual and the institution simultaneously; to have a sense of the parts and the whole. “The micro facilitates identification of differences, and the macro enhances the ability to see similarities” (Thomas, 1996, p. 6).

Second:

Diversity refers to the collective (all-inclusive) mixture of differences and similarities along a given dimension. ...The true meaning of diversity suggests that if you are concerned about racism, you include all races; if you’re concerned about gender, you include both genders; or if you’re concerned about age issues, you include all age groups. In other words, the mixture is all-inclusive. (Thomas, 1996, pp. 7-8)

One might conclude that if transformative change is the goal, then all the university’s groups must be included in meaningful dialogue about change. Thomas’ (1996) notion of diversity as referring to the collective mixture of differences and similarities underscores the attention required to hear and act upon concerns at the grassroots level of an organization before proceeding to the next phase in a change process.
Third, “the component elements in diversity mixtures can vary and so a discussion of diversity must specify the dimensions in question” (Thomas, 1996, p. 8). Thomas (1996) suggests that diversity presents itself in various mixtures that may include “people, concepts, concrete items, or abstractions” (p. 8), and that understanding the mix or dimension of diversity in question is crucial to recognizing issues and resolving problems relevant to both similarity and difference within an organization.

In terms of the administration-faculty conflict, valuing the knowledge of those in roles outside of one’s own, knowledge amassed from different learning styles, different thinking styles, and different life experiences must surely become a larger part of the diversity and heterogeneity that is so prized by those who choose to be in an academic community. When diversity is fully valued, difference becomes an organizing concept and presents the possibility for a “cultural democracy” (Tierney, 1993, p. 11) to emerge.

Cultural democracy involves the enactment of dialogue and action that are based on a framework of trying to understand and honor cultural difference, rather than of subjugating such difference to mere attributes of an individual’s identity [or position within the institution’s strata]. (Tierney, 1993, p. 11)
The university, as the foremost institution responsible for the development and dissemination of knowledge, stands as a moral compass for society at large. In its moral responsibilities, the university is seen as an enterprise for continued human development and improved quality of life for all species on the planet. The university is therefore a significant player in the mix of social institutions and societal infrastructure.

Despite its broad role in the betterment of society, the university does not stand apart from the society in which it is embedded. It is part of a larger community of service organizations, economic and political institutions, religious groups, and so on. In fact, both Universities, Calgary and McMaster, are moving in the direction of greater community involvement. President George (personal communication, September 29, 1997) has made it one of his priorities to establish a bridge between McMaster and the surrounding community of Hamilton. However, Yeager (personal communication, April 18, 1997) was more descriptive in his understanding of the changing role of the university in society at large:

...the shifts in learner needs and the fundamentally changing employment market, the power of globalization [on our] activities, the increasing influence of information technology on learning were forces that were transformative [and] which led us to have the intuition that we probably had to change the roles of all participants here [at the University]. So, that changing the actual qualitative roles of faculty, staff, and
students, and administrators was really at the heart of forming something called the Coordination Task Force.

As the university begins to envision itself as part of a larger indivisible whole, as a subsystem within the social fabric of a city, region, country, and world community, it may prove useful to consider the characteristics of a twenty-first century university as community within larger international socioeconomic and political structures.

To think in terms of a campus community as a cultural democracy is to take all players into consideration as every university stakeholder has a role to play in the continuance of an academic community. Therefore, every person and all types of work are necessary to sustain the life of the university as a social entity. Additionally, every community member is valued for his/her contribution to institutional identity and ethos (Tierney, 1993). This notion stands in stark contrast to Birnbaum's (1988) models of university governance--bureaucratic, anarchical, political, or collegial. Each of these models infers a mechanized institution in which "individuals are replaceable parts, one as good as the other" (Tierney, 1993, p. 82).

There are major differences in the nature of work undertaken by a university's varied constituents. Until recently, academic work held a sort of mystery much like that of medicine or religion. Although the
mystification of academic work has been mainly a social construct, it has been one in which academics are pleased to participate. For example, as noted by Henkel (1997), faculty have long enjoyed institutional status under traditional university governance arrangements. Traditional governing arrangements insulated faculty from the administrative structures that have supported academic work and made academic life possible. However, in a holistic view, such traditional academic-endorsed forms of governance can be understood as fragmented, prohibitive, and self-serving. Henkel (1997) concedes that governance in the pre- and modern university is that of:

...the kind of Ancient Greek city state democracy that values equality and community among academics, not between them and other occupational groups and certainly not consumers: and individual autonomy albeit with some concessions to collective responsibility. (p. 142)

As recently as the early 1990s, and with the advent of governmental accountability and transparency initiatives (Report of the Task Force on University Accountability, 1993), much of the mystery began to be extracted from the community of scholars. Of late, the shift in public values from the university as an academic enclave to the university as a publicly financed institution whose main aim is utilitarian has invited the
sentiment that “it can be administered [in the same way] as any work in 
any service providing agency” (Bleiklie, as cited in Henkel, 1997, p. 135).

The fear among academics is that in the loss of the “exceptional 
status” (Henkel, 1997, p. 135) previously afforded the university, there 
may be a concomitant loss of individual autonomy among the faculty. 
Furthermore, academics fear the loss of those traditional forms of 
governance that afforded them status. I do not believe that one condition 
naturally follows the other.

Because of the nature, the intensity, and the importance of academic 
work, I believe it will always be prized. Yeager agrees. When asked how 
the transformative process at the University of Calgary had affected him 
personally, Yeager (personal communication, April 18, 1997) responded:

[It has] enormously improved [my] understanding of the 
varieties of ways universities add value to the community: that 
is, what goes on here and the diversity of the ways in which 
impact takes place. Everybody who has touched this, support 
staff, students, and faculty alike have gone through some sort 
of epiphany of understanding the value that the place actually 
adds.

However, the shift from knowledge for its own sake to knowledge for the 
sake of utilitarian (socio-economic and political) goals will create change,
and progressive constructive change can be addressed only within the context of a total community effort.

To remain viable and sustainable in increasingly competitive times, universities will need to turn their attention to student recruitment and retention as well as to curriculum. Faculty, as those most often in contact with learners, will need to become more learner-centered. Thus, they become key participants in creating a climate wherein learning is encouraged and rewarded, and also where teaching will have shifted from a stand and deliver style to the “management of student learning” (Henkel, 1997, p. 138).

Quality assurance programs have already instilled new demands on faculty’s attention (Henkel, 1997). For example, in a study to examine the implications of quality assurance and quality assessment on institutions of higher education in Great Britain, Henkel (1997) found that the academics are:

...struggling to hold on to the values and modes of working that belonged to an elite system: modes of specialisation, divisions of labour and institutional governance that stem from the dominance of the discipline in concepts of academic identity and professionalism. (p. 142)
Under accountability schemes, the institution itself is pressured to establish corporate-wide standards. Institutional mission, vision, and goals are reflected in those of the administrative departments and academic units to establish corporate alignment and integration. Regardless of their disciplinary allegiances, and especially in times of financial constraint, faculty have a new responsibility to attend to the corporate infrastructure and operational success of the institution as a whole. Therefore, it is imperative that they see themselves, as well as engage themselves, within the broader context of the academic community. Faculty are challenged to take the impact of their mental model of the community of scholars seriously, especially the divisive nature of their exclusivity.

At the University of Calgary, indepth discussions among the many and diverse stakeholders allowed for the creation of a shared vision for the University within a framework where "themes and threads" were developed in "mutually sustainable conversations of respect that inevitably [gave] rise to different interpretations of organizational reality" (Tierney, 1993, p. 80). Those threads and themes were then woven into the fabric of the vision and values for the university, a vision that is to sustain it over the next thirty years. Essentially, the process encompassing the advent of
the themes and threads laid the groundwork for the emergence of cultural democracy, an all-inclusive community of, as Joiner (1994) would describe it, “all one team”. Tierney (1993) explains:

To foment change, we must encourage diversity toward a specific identity. The contradiction here is that not every individual must move to the same interpretation of reality, but all individuals need to feel a part of the organization. Equifinal processes enable multiple interpretations of the organization in order to achieve unified goals. Such is the purpose of communal decision making. (p. 82)

Moreover, at the University of Calgary, cross-functional and interhierarchical quality improvement teams helped to bridge the gap between the organization’s various roles and led to enhanced understanding about the work of support staff and others within the organization. Student involvement in curriculum development and learning improvement teams created a space for the inclusion of learners in a more active role within an academic community.

The necessity for faculty to adopt the same ecological, dynamic systems approach to the context of academic life is paradoxical to retaining the value of professional autonomy. One learns and grows in the presence of others.

Those contexts that display their precarious nature, those contexts that invite revision and recreation are inherently better than
those which attempt to hide their precarious nature and fight revisionist attempts. The best constructs for explaining and organizing the world will imitate life itself. They will be in a continual state of becoming. When we fail to recognize this principle, we lose the capacity to understand others. We become rigid. We lose the ability to learn. (Kofman & Senge, 1994, p. 15)

How then could a learning organization fail to understand the importance of professional autonomy in the pursuit of knowledge? Faculty, as customers of administration working in a learning organization, can expect that their needs and expectations will be met in concert with constancy of purpose, customer satisfaction. Inevitably, learners will measure satisfaction through their learning experiences with faculty and faculty will be capable of creating positive learning spaces only to the extent that they experience satisfaction and quality in their work lives.

Lesson Eight: Execute Principle-Centered Leadership

The forces for change plaguing universities and the recent emphasis on downsizing and restructuring have made new demands on leadership in higher education. Many of the new leadership competencies have already been discussed. However, the dangers of restructuring in the presence of a leadership that fails to act on espoused values bear repeating. The
downside of many change strategies inheres in the obvious neglect of the human dimension of the corporation in the rampant pursuit of accountability, alternate funding sources, internationalization, customer focus, reengineering, and continued prestige.

In consideration of such neglect, a new image for leadership is emerging, “authentic leadership” (Bhindi & Duigan, 1997, p. 119) based on four principles outlined by Bhindi and Duigan as: authenticity, intentionality, spirituality, and sensibility. Birnbaum (1992) describes similar characteristics in university presidents who enjoy high faculty support:

These presidents were seen as people who were ‘very fair and ethical,’ as having ‘high integrity and competence, not dictatorial or heavy-handed.’ They kept promises once made, ...stated their positions and were not seen as having hidden agendas. As a consequence, they were described as principled, decent, honest, and trustworthy...These presidents actively sought information and invited communication. (Birnbaum, 1992, p. 79)

Because many people have within them the situation-dependent capacity for leadership, the following discussion argues that these four principles are important characteristics to which all in the university or any organization might aspire. Recall that, in a QM paradigm, leadership can arise from anywhere and at any level within an organization. Certainly,
Emes took on a leadership role in the University of Calgary’s transformational efforts even though, not occupying a senior level position, she would not be considered to be an institutional leader in the traditional sense.

In truth, authenticity, intentionality, spirituality, and sensibility are relational in nature, and if the university is to transform, its transformation will occur within the context of human relationships. These same characteristics also accompany notions such as mutuality in partnership arrangements, in the notion of a “servant-leader” (Greenleaf, 1991), and in service quality. All of the arguments heretofore presented for the understanding and preparation of organizational culture for change are rooted in the concept of relationship.

Authenticity is based on personal integrity, on truthfulness (Secretan, 1996), and on the capability to build trusting relationships (Posner & Kouzes, 1995). Authenticity also implies a commitment to ethical and moral values as espoused and as put into action (Argyris & Schon, 1978; Hodgkinson, 1991). Authenticity and congruity are inseparable. “Leadership is authentic to the degree that it is ethical action...It implies sincerity, genuineness, trustworthiness in action and in
interaction and rejects motives and actions that are deceptive, hypocritical, duplicitous” (Bhindi & Duigan, 1997, p. 121). Self-knowledge and self-truth inhabit the minds and hearts of authentic human beings, and in self-awareness mistakes are anticipated and valued learning opportunities. Terry (as cited in Bhindi & Duigan, 1997) states that “authenticity entails action that is both true and real in ourselves and in the world” (p. 124).

Intentionality compels and is compelled by vision. The behaviors and forms that actions take are intentions made manifest. When those intentions are grounded in authenticity they create powerful transformative forces that can give renewed meaning to academic life and work. In fact, Bhindi and Duigan (1997) state that: “Authentic leaders are spiritual leaders” (p. 126); they help others to find meaning in their work.

We yearn for some way to bring the every day experiences of our lives, as well as the extraordinary ones, within a context of larger significance. Those who stand with and strengthen us in this search we recognize as spiritual leaders. (Whitehead, as cited in Bhindi & Duigan, 1997, p. 126)

The spiritually relevant questions in a university’s culture are many and are primarily concerned with the human dimension. How is power shared in the organization? Is each constituent valued as a unique person? Are there racial, gender, or other prejudices? Is there a feeling of
belonging? How and where can one find compassion in the university?

What is the true nature of competition/cooperation within the institution?

What makes a university worthy of the phrase 'higher' education? Is 'higher' in reference to continued learning or does it refer to a striving for higher values/standards derived from more complex learning and an expansion of consciousness?

Spirit is present in every human action and interaction. Therefore, change management practitioners should encourage the establishment of educational programs and opportunities that develop the four leadership principles of authenticity, intentionality, spirituality, and sensibility broadly throughout the institution.

A Concluding Remark

I began this study believing that the difference between the university and other organizations resided solely in purpose. I have concluded the study with a much broader understanding of how the aim of the university determines its polycultural composition. Indeed, the complexity of higher education’s polycultural aggregate may signify the reason that the university genuinely varies from other service
organizations. In essence, more so than most organizations, a university represents a complex polycultural setting that demands a sensitivity to the diverse needs of others and requires a cross-cultural administrative approach. The paradox of a polycultural setting is that the individualistic work of scholars can thrive if attention to community building is also prevalent. A cultural democracy makes room for difference by creating institutional arrangements that support continuous learning.

Finally, can a university be managed using the same managerial arrangements as other QM organizations? Yes, because within a cultural democracy there is a preference for dialogue, teamwork, consensus-building, collaboration, and for creating an all-inclusive community. All of these ingredients are found in Deming’s (1982, 1986) framework for continuous quality improvement...
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Appendix A: Deming’s 14 Points

1. Create constancy of purpose toward improvement of products and service, with the aim to become competitive and to stay in business, and to provide jobs.

2. Adopt the new philosophy. We are in a new economic age. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.

3. Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.


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

6. Institute training on the job.

7. Institute leadership...the aim of supervision should be to help people and machines and gadgets to do a better job. Supervision and management is in need of over-haul, as well as supervision of production workers.

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

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

10. Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity. Such exhortations only create adversarial relationships, as the bulk of the causes of low quality and low productivity belong to the system and thus lie beyond the power of the work force.

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11a. Eliminate work standards (quotas) on the factory floor. Substitute leadership.

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

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

14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody’s job.

(Deming, 1986, pp. 23-24)
Appendix B: Deming’s Seven Helpful Charts (Walton, 1991)

Run Charts show the results of a process plotted over a period of time. Examples are sales per month, time taken for deliveries.

A Flow Chart is the graphic representation of the steps in a process. The lines between the boxes show the “hand-offs” where most process breakdowns occur. "An organization is a relay team; the better the hand-offs, the better the results" (Seymour, 1995, p. 173).

Scatter Diagrams illustrate the relationship between two variables such as number of publications and teaching load.

Control Charts are used to demonstrate variation in a process or system. They are run charts with specifically determined upper and lower control limits. Control Charts are used to identify and eliminate common and special causes of process variation.
Appendix B: Deming's Seven Helpful Charts continued.....

Pareto charts are bar charts used after data has been collected. The purpose of the Pareto chart is to rank causes and signify priorities. When the Lorenz curve is applied the chart gives rise to the 80-20 principle.

Histograms are used to measure frequencies i.e., how often faculty meetings that last longer than 30 minutes, for example 40 minutes to 90 minutes.

Cause and effect charts are also called fishbone diagrams because they resemble a fishbone or Ishikawa diagrams after their originator. They are used to determine categories of causation, usually manpower, method, machinery, materials, and milieu.
Appendix C: Guideposts for Research Questions

General Questions

a) HOW--At what level of the institution was QM first championed--grass roots movement, senior or middle management level, faculty inspired, etc?

b) WHY--On the basis of what criteria was the decision to implement QM made? Who decided?

c) What was or is the structure developed to plan the implementation and educational processes of QM? How is continuous quality improvement (QM) introduced throughout the institution?

d) In which area did the implementation process begin? Why?

e) What are the favourite stories of successes and of mistakes in implementing QM?

f) How has QM been received by administration, faculty, support staff, students?

g) What is the rationale behind each of the above group's acceptance or rejection?

h) What have been the financial costs associated with QM implementation?

i) Have there been measurable financial benefits from QM? Where? What kind?

j) How is improvement recognized? How are teams or individuals rewarded and recognized for outstanding performance?

k) Does the university have recognized quality professionals? Who are they and how were they selected?

l) Who today are the institution's quality champions? Are these people
new champions? How and why did they decide in favour of QM?

Customer Satisfaction: (Quality as constancy of purpose)

a) Have there been any problems with the word “customer” in the university setting?

b) What measures are being used to evaluate customer satisfaction?

c) To whom and what have these measures been applied?

e) What have been the outcomes in customer satisfaction and organizational renewal?

   i. Have there been measured gains in service satisfaction between customers and suppliers within the university? These could be in attitude, communication, innovation, and/or financial gains.

Process Focus

a) Have the core processes of the institution been identified? What are they? Have key stakeholders been identified for cross-disciplinary/cross-functional studies? Are there studies underway involving core processes?

b) Have subprocesses been identified? What are they? In which area(s) and across which functions/disciplines?

c) Has the institution engaged in mapping process flows—information, product, persons—through core and subprocesses?

d) Are problems being identified as process versus people problems or are participants looking for someone to blame?

e) How are processes or problems slated for solution? Are there criteria? Who determines the priority of process improvement projects?
Understanding Variation

a) Are university participants using Deming's tools for process improvement? Is administration using Hoshin planning tools for improvement? Which tools are used most frequently?

b) Has variation in process been measured?

c) Has process improvement--redesign or new design (reengineering) taken place? What are the outcomes of process improvements?

d) What are the most frequently occurring problems in process--turnaround-time, increased frequency (i.e., lost productivity through rework, lost information, information overload, process hand-off, etc.)?

Teamwork

a) Is process design and/or redesign a team effort?
   a.i) What is the organization's understanding and definition of partnership?

b) How are teams selected?

c) What are the team roles and how have these been chosen?

d) What are some examples of teamwork problem solving?

e) How do the teams and their work "fit" into the institution's planning practices?

f) How often are team recommendations acted on?

g) How are team members educated for process improvement team work? Who are the designated educators and how where these people/this department chosen? Was it necessary to initiate a new educational structure within the institution?
PARTICIPANT CONSENT FORM

I, _____________________________, agree to participate in the study, “Lessons Learned: Canadian Universities and the Continuous Quality Improvement Experience,” being conducted by Elizabeth Meuser, Doctoral Candidate, O.I.S.E/UT according to the following terms:

1. That the purpose for the study has been fully explained to me prior to my agreement to participate;

2. That I may withdraw from the study at any time, and/or for any reason with no recrimination;

3. That there will be no use of my name, location, or personal identifying information used in the study, unless my permission is granted;
   Permission  YES  NO

4. That all interview notes, tapes, and transcripts of tapes be kept confidential and in a locked place at all times unless being used;

5. That all interview notes, tapes, and transcripts of tapes be shared only with the members of E. Meuser’s research committee;

6. That my contribution will be shared with me, and that I agree with the interpretation of my contribution prior to the completion and presentation of the study.

Participant: _______________________
Researcher: _______________________
Date: __________
Appendix E: Creation of the Survey

Phase One: Survey Construction

Introduction

Some of the terms used in QM change initiatives can be problematic to certain people. For example, the use of the term "customer" as opposed to "client" is unsettling to some (Gibson, 1994; Hildyard, personal communication, August, 1996). Hence, wherever possible, the survey is sensitive to its customers' language preferences. All references to TQM/CQI were eliminated and substituted for quality management (QM). In addition, the interview processes used the language of QM only where there was participant comfort.

Survey Construction

A survey was constructed: a) to provide general knowledge about which universities in the Canadian-wide system are employing QM and which universities are not; b) to describe the overall picture of the state of QM as a management strategy in the Canadian university; and, c) to determine which universities best describe the three university states of interest: a university just beginning its QM journey; a university well along its QM change journey; and a university that started a QM change initiative and then decided to either abandon
the effort or, due to other factors, to place further implementation on hold. The determination of these three states would direct the second research phase—case studies and documentation analysis.

Moreover, the survey design allowed for insights into the Canadian university’s implementation processes and progress (McMillan & Schumacher, 1989). Therefore, survey design and construction offered both quantitative (Christensen & Stoup, 1986; Corcoran & Fischer, 1987) and qualitative methods (Fontana & Frey, 1994; Reason, 1994) for study, and consequently, a broad base for analysis.

It was the intention of the researcher to adhere closely to the processes of quality improvement in the actual survey construction. For example, Deming’s (1986) Plan-Do-Check-Act (PDCA) Cycle was used. The survey was “Planned” using a modified version of a Kepner and Tragoe (1965) decisional analysis to determine survey development. The “Do” cycle represented the actual survey construction while the “Check” cycle was used for piloting the survey.

The survey was to go through two pilot stages. The first, “mini-pilot” was sent to two individuals who had insight into QM practice within Canadian universities. They were Judith Gibson, Senior Research Associate, Organizational Effectiveness Research Group at the Conference Board of
Canada Quality Network for Universities and to Ken Clements at the Canadian Association of University Business Officers (CAUBO). Because Ken Clements retired just prior to the “mini-pilot”, the survey was forwarded by him and his replacement, Doug Bromwell, to Duncan Watt, Associate Vice-President, Finance and Administration, Carlton University. Telephone comments were provided by Ms. Gibson while the survey was returned by Dr. Watt’s associate, along with written comments.

After the “mini-piloted” returns were received, the survey was revised (Act) before its final pilot. Two experts in QM concepts and application were selected. One individual (Daniel Seymour) has written extensively on the initiation and implementation of QM in the US university, the other (Geoff Scott) is part of the University of Technology’s, Sydney, Australia transformative change process.

When these piloted surveys were returned, the survey was again to be revised before its final mail-out. Geoff Scott responded requesting that I e-mail the survey to him. However, e-mailing meant that the survey would be out of alignment and difficult to read. I suggested this, through e-mail to Scott, but with no further response. Seymour did not respond at all. Table E1 illustrates the modified KT process for survey design and construction. Actual construction of the survey is rooted in the design recommendations found in Borg and Gall (1989).
Table E1

The Modified Process Used for Decisional Analysis: Application to Survey Construction

Purpose for the decisional analysis:

1. To develop a survey capable of collecting research-specific information.

2. To determine costs relative to the survey and decide on a plan for financially supporting the survey method

The First Part of the Cycle (problem-setting)

1. Problem Analysis:

1.1 Statement of the Problem (identifies a deviation from a performance standard i.e., what should be and what actually is)

A questionnaire has been deemed the necessary first step in research method concerning the progress of the Canadian university in the adoption and implementation of QM as the administrative strategy of choice. There is no such survey currently available, and therefore, one must be constructed.

1.2 Problem-Relevant Question:

   a) What criteria are necessary to determine whether or not TQM/CQI is being initiated and/or implemented in university governance and scholarship?

Operational Definition of a QM University:

A QM university is operationally defined as an institution that is either engaged in implementing the five core directions of a QM strategy or has initiated activities in support of Deming’s 14 Points/Juran’s Quality Trilogy (1989). The five core directions are built upon five core values: intending customer satisfaction to be the constancy of organizational purpose and be indicated through statements of mission, vision, and values, focusing on process performance and improvement (i.e., understanding process variation), decision making by fact (scientific method), and utilizing teamwork to integrate the organizational system as a whole. Integration is demonstrated in the values of empowerment and full organizational participation in problem-solving and decision making. The three core activities that Juran (1989) identifies as total quality management embody Deming’s (1986) 14 points and include: quality control, quality planning, and quality improvement. Together these form Juran’s (1989) quality trilogy. Resources have been dedicated to move in these five core directions.

(table continues)
Deviation from the Operational Definition:

A non-QM university is any university not engaged in the above, and/or not interested in becoming involved. No resources have been dedicated.

1.3 Survey Objectives

1. To develop a survey capable of collecting research-specific information.

2. To determine costs relative to the survey and decide on a plan for financially supporting the survey method.

The survey objectives formed the basis for choosing a KT analysis in the early stages of survey planning and development. More specifically, for a survey to be capable of providing the correct information, criteria were established by selecting the “musts and the wants” of a survey instrument. The systematic approach using a “musts” and “wants” method is recommended by Kepner & Tragoe (1965)—known as a KT analysis.

A “must” pertains to a go/no go situation. In other words, the university is QM or it is not. Only those universities that meet the five directional criteria will be included in the interview process. However, those institutions which are not QM universities will provide important data on why they have chosen not to become involved with these new management paradigms.

A “want” pertains to a relative fit between the survey and its objectives. In this case, information that the researcher would like to capture in order to reveal more of the story of QM and the Canadian university. Such information is desirable but not critical to the objectives.

Survey Musts:

a) The survey must retrieve information that will show whether or not a university is a QM university (resources and activities).

b) The survey must retrieve information that will show progress made. That is, the survey must be able to capture the information that will assist in the ranking of progress along the continuum from rudimentary to advanced status. Table E2, p. 531 will clarify the ranking continuum.

c) The survey must be designed creatively, motivating those surveyed to want to return it to the source.

Survey Wants:

a) The areas that the researcher would like to capture are the comments included independently by the respondents. These tend to be less structured and freely initiated creating a rich data base.

b) Consideration must be given to the wants in survey design.

(table continues)
Indicators for “Musts”

a) The survey must retrieve information that will show whether or not a university is a QM university.
   --- dedicated human resources (absorbed within the existing budget)
   --- dedicated financial resources (abstracted from the existing budget as a quality department or person(s) assigned as quality professionals who have a separate account(s).
   --- dedicated educational budget for internal educators/materials/supplies.
   --- dedicated resources for external education, affirmation of institutional dissemination of new learning and knowledge.
   --- affirmation that the university has developed a process focus, is engaged in teamwork, has been studying variation, has been seeking customer knowledge and understands customer satisfaction as both internal and external to the institution.
   --- affirmation that QM is used in the planning process, that statistical process control is used to measure processes and outcomes, and that the university has initiated and is employing quality improvement models: HCHP’s (1989) quality journey; Deming’s (1986) PDCA cycle; etc.

b) The survey must retrieve information that will show progress made. That is, the survey must be able to capture the information that will assist in the determination of progress along the continuum from rudimentary to advanced status.

To determine what information is necessary to reach this objective, four university QM developmental categories were created from the information found in Figure E2. For the reader’s convenience, some of the information contained within the developmental categories found in Table E2 is restated as the following:
   --- affirmation that the senior administrative group have developed team skills.
   --- affirmation of education in the senior group, Board and Senate leadership.
   --- the date of the last writing of a mission statement.
   --- understanding of the need for and/or the development of a vision statement and guiding principles.
   --- affirmation of the process for visioning as being collaborative and the people/groups involved in the planning and writing process.

c) The survey must be designed creatively, motivating those surveyed to want to return it to the source.

--- spend time creating the survey cover so that it grabs the respondent’s attention.
--- print survey in two-three colors (consult a graphics specialist or use computer and colored printer—cost is a factor).
--- insert a self-addressed stamped envelope with the survey (enough postage to assume the additional costs of organizational vision statement, core values and additional surveys forwarded and completed by others within the institution).
--- telephone individuals to notify them that the survey will be coming.
--- telephone after survey has been received by them as a reminder.
--- allow plenty of opportunities for respondent comments built into the research as well as additional comment pages at the end.

(table continues)
d) The survey must capture the intended information.

--- pilot the survey (US universities as not to contaminate the sample, US and Canadian experts in the field i.e., Daniel Seymour, Chris Handley, Ken Clements and Thesis Committee Members)

Indicators for “Wants”

a) The areas that the researcher would like to capture are the comments included independently by the respondents. These tend to be less structured and freely initiated creating a rich data base.

--- the opportunity for comment is used.
--- a method for coding the comments is developed.

b) Consideration must be given to the wants in survey design (see musts indicator “d” above)

Solving Problems in Advance: What Could Go Wrong?

Failure Mode and Effects Analysis (FMEA)—what could fail and what effect will this failure have on the outcome of the survey? An FMEA allows one to walk through the potentially troublesome areas before the completion of the survey. Preplanning can help eliminate many potential problems that may arise.

1. The survey does not request the right information to meet the objectives:

--- Planning ahead for potential problems—pilot the survey to individuals recognized for their expertise and to institutions of higher learning already using QM.

2. Sample contamination:

--- The survey will be piloted at US universities as not to contaminate the Canadian sample.

3. Respondent bias: (the respondents under- or over-estimate the QM progress actually made).

--- The survey will include a request for each university to agree to a site-visit for the purpose of a case study.

The Second Part of the Cycle: (evaluation, problem identification, and corrective action)

--- will be commenced after the survey has been piloted and recommendations for revision complete.
--- revisions (corrective actions) were made according to the evaluations from the pilot stage.
--- final mail-out is completed.
--- high percentage of surveys returned.
In addition to Borg and Gall (1989) and to Deming’s (1986) PDCA cycle, survey construction draws upon elements found within four planning models: Kepner and Tragoe’s (1965) decisional analysis (KT analysis) methodology; the use of quality improvement tools from both Deming (1986) and Juran (HCHP, 1989, 1991); the Hospital Corporation of America’s (HCA) integrated decision and planning method (FOCUS-PDCA) which HCA developed by amalgamating Deming’s (1986) plan, do, check (study), act (PDCA) cycle with Juran’s four stages of a quality improvement (QI) process (cited in HCHP, 1989, p. VI-11-2).

Each of these models has strengths and weaknesses. For instance, the Kepner-Tragoe (KT) model is an in-depth cyclic model very useful for those with no planning background but cumbersome for those with experience. However, the KT (1965) decisional analysis reacquainted the researcher with the very basics of planning and proved useful for the degree of detail involved in survey development.

Because the platform for the research was QM, the tools and methods for these models were incorporated into the entire planning and execution of the study itself. However Deming’s (1986) PDCA cycle was combined with other planning and implementation models. The weakness of Deming’s (1986) and
Juran’s (1989) planning approach is that it assumes the planner is experienced.

HCA’s model was especially useful for amalgamating Deming (1986) and Juran (1989), thus, keeping the researcher focused on the combined theories. HCA’s process was employed to provide a broader understanding of the QM planning process at work planning cycle at work.

Deming’s (1986) PDCA cycle and Juran’s (1989) quality improvement cycle form the bases for QM methods and tools. Because the research is rooted in TQM, the use of these cycles assisted in the understanding of QM’s basic problem-solving methodology. The weakness for the purposes of survey construction was that these models assume a high level of experience in problem setting, solving, and planning. Conversely, the Kepner-Tragoe model brought survey planning to a very basic and in-depth level more suited to the intensity and detail of survey development.

HCA amalgamated Deming’s PDCA and Juran’s Quality Improvement Cycle to produce FOCUS-PDCA. HCA’s contribution demonstrates the close relationship between Deming’s (1986) and Juran’s (1989) models. These two models can be used simultaneously, therefore, HCA’s model is appreciated for it’s ability to focus both QM methodologies. Although survey construction required an in-depth understanding of the core directions of Deming’s (1986) 14
Points and Juran's (1989) Quality Trilogy, the Kepner-Tragoe (1965) method for decisional analysis offered the means to comprehensively penetrate the foregoing broad cyclical approaches. Thus, combined with Deming, Juran, and the HCA model, the K-T analysis' ability to pull the researcher back to basic problem setting, solving, and planning, offered a more complete and incisive approach to survey construction. Figure E1 is intended to clarify these four planning modes.

The first condition for survey construction process was to determine the most pertinent survey questions, "What survey criteria will best indicate whether or not each Canadian university is engaged in an institutional QM-based strategy for change, and provide the necessary information to assess each university's progress in QM implementation?" Having selected the question, it was necessary to create a flow diagram (Deming, 1986; Gitlow, Gitlow, Oppenheim, & Oppenheim, 1989) to provide a broad flow or map of the institutional direction for change to QM. A "high-level flow" diagram builds a common understanding of the process [to guide] problem-solving efforts" (Juran Institute, 1989a, p. 1-1).

A flow diagram is a graphic representation of the sequence of steps that we perform to produce some output. The output may be a physical product, a
1. *Deming (1986) PDCA cycle

   Act 4 1. Plan
   Check 3 2. Do

2. Juran’s Steps in Quality Improvement

   Holding the gains
   Remedial Journey
   Project definition and organization
   Diagnostic Journey

* Deming (1986) credits Walter Shewart as the originator of the PDCA cycle (p. 88).

3. Hospital Corporation of America

   F -- find a problem
   O -- organize a team
   C -- collect data
   U -- understand the data
   S -- select an improvement

   Act 1. Plan
   Check 2. Do

4. Kepner-Tragoe Decisional Analysis

   Implement the Plan

   Make a Decision
   Determine the cause

   1 3 2

Figure E1. The four planning approaches used for survey construction and research method.
Mapping the Journey for Implementation

The roads to organizational transformation to quality are many and varied depending upon each institution’s structure and culture. For example, some institutions have been introduced to QM by way of an early quality champion familiar with Deming or Juran through reading or independent interest. This individual may persuade others to join in a small autonomous quality study group to discuss or to experiment with the new management paradigm learned from Deming (1986) or Juran (1989). The idea is to “Think big but stay close to your roots” (Scholtes, 1988, p. 1-23). Such a small interest group is known as an “onion patch” (Scholtes, 1988, p. 1-23), and like an onion patch, newly formed quality champions may begin to spread the word about the results of their efforts throughout the institution.

However, onion patching rarely produces the significant transformational results of a top-down approach. Onion patching is akin to trying to drive a team of horses from the back of the buggy. Efforts expended and outcomes produced cannot create the kind of momentum that will direct the institution toward
substantive transformation and renewal. In addition, superiors may resent the onion patch’s initiative and stand in the way of new paradigm progress.

The “onion patch” transformer must keep in mind that efforts should always be geared at getting the attention of top management, educating them, and making them believers and champions. Without their eventual buy-in, all transformation efforts will wither on the vine. (Scholtes, 1988, 1-23)

To commit to “constancy of purpose,” Deming (1986) and Juran (1989) press the need for top-level commitment to QM and a top-down approach to a QM institutional transformation process. Real change must come from a top-level commitment toward the direction that QM will take the organization. In particular a QM transformational direction challenges the basic assumptions and belief structures of the institution, and such challenges have a profound effect on institutional culture. If top-level management is not committed to change, middle and lower-level efforts will be frustrated and fruitless for the organization. It is with this understanding that a top-down roadmap for institutional change, Figure E2, was constructed.
Figure E2. Institution-wide change: Roadmap for implementation of CQI/TQM
The construction of a high level flow diagram is useful as a framework upon which to begin to address the survey questions. Existing roadmaps from the University of Alberta Hospitals and a generic map for organization-wide quality improvement (source unknown) were employed as guides to reach the objective of describing the direction of a QM implementation process for a university.

Using the newly created roadmap, four developmental stages were identified to anchor the activities associated with progression for QM implementation and integration. However, it must be noted that these stages are in no way rigid. Rather, the stages serve as flexible guidelines to assist the researcher in determining the stage of each university’s initiation and/or implementation. For example, one university may be progressive in one area and undeveloped in another. Each university implements according to its own cultural make-up, financial capabilities, knowledge base, and so on.

Therefore, the university’s QM planning progress and the associated tasks underway or completed were to be weighted according to the stage in which it is located (the weights are discussed at the end of phase one). These four developmental stages are defined as: rudimentary, novice, intermediate, and advanced. Indicators to differentiate these four categories are illustrated as follows.
The rudimentary category identifies those universities in the preliminary stages of QM; for example, institutions wherein little knowledge about or interest in QM exists at the senior level of administration. However, in the rudimentary university there may be some engagement or activity at the grassroots (departmental, disciplinary, faculty, program, group), onion-patch level or someone who is acknowledged by his/her peers as an early champion of QM within the institution.

The guidelines for a novice institution consist of senior administration, Board of Governors, and/or Senate endorsement of the philosophy and practice of QM as advantageous to the fulfillment of the institutional mission and goals. To cement their commitment, evidence of dedicated resources, both human and financial, to support further education for the executive group—senior administrators, members of the Board and Senate—is available and accessible.

Moreover, there is documentation of a plan for education by either external or internal consultants. For those further in the educational process, there is evidence that the proposed education has either begun or is completed. At the novice stage the tasks completed by the senior group include: the development of an institutional quality policy, description of all the university’s
customers and suppliers—both internal and external to the institution, and the identification of the institution’s core processes.

The mission statement will have been revisited and perhaps rewritten. The university’s senior leadership will have discussed their concepts of an institutional vision and the guiding principles that support vision. Furthermore, the senior leadership will be preparing, or have prepared, a plan to involve all faculty and employees in a visioning process. This will provide an opportunity for senior level open and public commitment to QM.

At the intermediate stage, the senior leadership group will be participating in the education of all senate members, faculty-administrators and union leaders. The selection and appointment of a QM Director including his/her education and skills training will have been undertaken. Institutional quality professionals will have been selected. These individuals work with the QM Director in educating and monitoring the immediate and future quality improvement processes within the university. Education and skills development will be either underway or completed for this group.

To initiate the transformation, the QM Director, with the participation of the middle management group, will initiate the educational process with all faculty, support staff, and union members. The outcome of this education will be
the completion of the departmental, discipline, or program mission statements, vision statements, and guiding principles. Each of these documents will support those of the institution.

By the end of the intermediate stage, departments and programs will be undertaking quality improvement projects within the context of teamwork--cross-functional, interdisciplinary, and/or interhierarchical. Recommendations for institutional or department/program changes will be forwarded to the Quality Council via the team’s champion--the assigned senior manager. The team champion will be assigned from the level of the Vice-President. If accepted, implementation of the recommendations is followed by monitoring and evaluation. This completes the first cycle of Deming’s PDCA model. Such processes, duplicated throughout the university, may be recognized as easily standardized according to the evaluation and to the improvements made.

Meanwhile, the senior leadership will have produced a corporate quality plan. The new mission statement, vision statement, and guiding principles will be made public and widely accessible. In addition, the senior group will be using the tools and processes for teamwork within their corporate efforts and will have developed surveys for both faculty and student satisfaction. Before moving to an advanced stage these surveys must be completed, returned, and analyzed. A
reward and recognition team should be mandated by the senior group with representation of all Vice-Presidents and other senior leaders.

As a result of these activities, the senior group will have developed criteria for problem selection and for team selection. They will have selected an institution-wide problem, operationally defined the problem, selected a team, written a team mission statement, and provided the mandate and resources for problem-solution. Also, the senior group will have appointed a senior level team champion to report on progress and to champion the team’s work during problem-solution as well as with any final recommendations.

The advanced stage of QM implementation requires a greater length of time and experience than probably any Canadian university has been as yet engaged. However, in advanced implementation, there would be an expectation of the following: many incremental improvements will have been documented; there will have been on-going evaluation of the processes of teamwork; on-going measurement and documentation of outcomes; financial planning, control, and improvements will have been documented and on-going; QM will have been built into the processes of all scholarship activities; QM is a part of the life of the university--administrative and scholarly. QM will be accepted as merely the way the university goes about supporting its mission and fulfilling its vision.
Table E2 offers a summary of the four implementation stages. Construction of the survey was undertaken to reflect these four implementation stages.

Sample and Population

All major universities in Canada were to be surveyed. In order to include Francophone universities, the survey would be translated into French by Ms. Lucie Cantin, a member of the Association of French Translators in St. Catharines, Ontario.

The first round of pre-piloted surveys were to be sent to Vice Presidents, academic and administrative. Recognizing that QM initiatives, while not globally instituted, may be active at the grassroots level, a question was provided within the survey to attempt to discover whether or not this might be true of any of the universities under study. In addition, the names of any of the departments or faculties/disciplines implementing QM was requested. Therefore, a second round of surveys to "grassroots" or "onion-patch" initiatives became a possibility.

Data Collection

Before the survey was distributed, it was to be pre-coded with the assistance of the Ontario Institute for Studies in Education (OISE) Department of
### Table E2

**Developmental Stages of CQI Implementation—Cascading Model**

<table>
<thead>
<tr>
<th>Developmental Stage</th>
<th>Planning Progress</th>
<th>Associated Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice</td>
<td>Awareness and dialogue within the senior group.</td>
<td>Spreading the word.</td>
</tr>
<tr>
<td>Rudimentary</td>
<td>Board of Governors dedicate resources (human and financial) for education and skills development.</td>
<td>Education underway (Board, Senate, senior group). Identify customers, suppliers, core institutional processes. Internal CQI implementation team (Quality Council) identified, and trained. CQI director/coordinator selected.</td>
</tr>
<tr>
<td>Advanced</td>
<td>CQI built into all administrative and faculty processes. Organization-wide, on-going evaluation. Financial decisions and accounting practices “fit” CQI paradigm.</td>
<td>Education of all faculty, union representatives, and support staff. Global and departmental/disciplinary QIPs underway and continuing. Evaluation is on-going.</td>
</tr>
</tbody>
</table>
Measurement and Evaluation (MECA). Each survey was to be scored according to the pre-established codes.

**Analysis of the Survey**

Responses would be interpreted using a rating scale. Corcoran and Fischer (1987) describe a rating scale procedure as "an attempt to obtain an evaluation or quantitative judgment about personality, or institutional characteristics based upon personal judgments" (p. 42). Each response would be assigned a score depending on the section in which it is found. Score 1 for each affirmative response in the rudimentary section, 2 for the novice, 3 for intermediate, and 4 for advanced. The scoring process should account for each university-specific implementation process.

Comments would be analyzed within the context of the first research objective: to identify which Canadian universities are actively pursuing quality management as their change strategy. Qualitative comments would assist in rank ordering whenever there was a tie in scoring or in scores that were very closely related. Moreover, qualitative comments would provide insight into those universities selected for the interview phase.
Phase Two

Semi-structured Interviews

Phase Two involved the study of 2-3 cases in order to understand and describe the diverse strategies employed by these three QM universities as they have moved from the initial stages through implementation and beyond. Phase Two was designed to use the information gathered via the survey to determine three different conditions in the initiation and implementation of Deming’s (1986) CQI and Juran’s (1989) TQM paradigms into Canadian universities.

Having determined the QM status of Canadian universities, three universities were requested to serve as case studies. The three states of initiation and implementation were to be: a) a university just beginning its QM journey; b) a university well along its QM change journey; and, c) a university that started a QM change initiative and then either completely abandoned its efforts, or for other extraneous reasons, decided to place implementation on hold. In Phase Two there was to be a simultaneous undertaking of document analysis.

Documentation analysis, observation, and semi-structured interviews were the selected qualitative research methods. The case studies flowed from the presence or absence of four required QM criteria: a dedication to customer
satisfaction; a process focus; an understanding of variation; and a commitment to teamwork, as well as length of experience with a QM strategy.

The first two universities selected included: a university in the intermediate stage with all four core components operative (inferring longer experience with a QM strategy), and a university in the beginning stages of implementation. The selection of a third university was dependent upon the availability of a university that had begun the QM journey and then decided not to continue. A decision to either discontinue altogether or to place the initiative on hold could provide insights into lessons learned and into the university's experience with a QM paradigm. If the survey showed this to be the case for a particular university, it was to be included as a case study site.

The semi-structured interviews would be, where permitted, tape-recorded, then transcribed and coded. Coding would be accomplished according to categories that arose from the interview questions, document analysis, and the data that were derived as a result of these activities. Using the coding descriptions from Bogdan and Biklen (1992), context categories may be developed to describe both the setting and the document analysis; situational codes are useful for individual portrayals of the setting and context; perspective codes depict institutional rules, norms, and shared values; perception codes
illustrate subjects’ views of their work world; and, process codes can characterize the process of QM adoption and implementation over time. Event codes may provide important information about implementation and on-going evaluation of QM including rewards and recognition practices.

For general research questions, those regarding the four QM core areas (customer satisfaction, process, variation, and teamwork) for study and the direction that the semi-structured interviews took, see Appendix D.

**Document Analysis (undertaken simultaneously with the interview process)**

The documentation research included a study of the mission statement, including vision statement and guiding principles, of each of the three selected universities as well as any documents associated with the QM implementation and evaluation processes designed by each. When QM is operative, there is a particular paper trail of dialogue encounters, planning committees, identification of improvement projects, and the teamwork process that would be expected to exist in some form in each university. This information would be used in conjunction with semi-
structured interviews with identified stakeholders involved in QM implementation and continuous evaluation efforts.

Senior administrators would be requested to direct the researcher to the appropriate university stakeholders. Other individuals lower down the university hierarchy would be approached in general conversation. This method would provide the researcher with valuable information about the dissemination of QM and QM methods to faculty, general staff, and students.

After mini-piloting the survey it was decided by myself and my research committee that two major obstacles could not be overcome. First, there being no common vocabulary for QM, it would be impossible to get valid and reliable responses. Second, we remained uncertain as to whom to send the survey. Different players may have diverse understandings so that the process for the mail out could not be determined as reliable or valid. Thus, a new method and design was undertaken and can be found in Chapter 3 of the study.
Appendix F: Sample of the First Pilot of Draft Survey
Little is known about the Canadian university's experience with the values, concepts, and application of quality management (QM)--Continuous Quality Improvement (CQI), also referred to as Total Quality Management (TQM)--to higher education.

PURPOSE

The purpose for this survey is to identify the changing values, concepts, and conditions that have led toward changes within your university's administrative and/or academic activities. In particular, the study seeks to determine whether or not, how, and to what extent Canadian universities are engaged in quality management as a strategy for change. Therefore, it seeks to ask questions about:

1. The changing values, concepts, and factors that have led your university to accept or reject quality management;

2. The extent to which quality management has been accepted and implemented in your university in both the academic and the administrative areas;

3. Selected characteristics of your university's experience with quality management.

Completion of the survey itself should require not more than 1 hour. All information acquired from this survey will be used anonymously. The completion and return of the survey will serve as your consent to take part in this study.
1. In a very brief statement, what is the Mission of your university?

___________________________________________________________

2. When was your university’s Mission Statement re/written? ____________________________________________

3. How was your Mission Statement produced? ______________________________________________________

___________________________________________________________

4. Does your university have a written Vision Statement? YES ☐ NO ☐
   (If yes, please enclose a copy of your vision statement and/or core values when you return this survey)

5. What process was used to produce your university’s Vision Statement? ________________________________

___________________________________________________________

6. New paradigm management theories (i.e., Deming’s (1986) continuous quality improvement (CQI) and Juran’s (1989) total quality management (TQM)), share a set of core values and concepts. Is your university currently working toward any of the following core values and concepts in either its administrative or academic activities?

<table>
<thead>
<tr>
<th>Administrative Activities</th>
<th>Academic Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Strengthening leadership for quality improvement</td>
<td>b. Strengthening leadership for quality improvement</td>
</tr>
<tr>
<td>c. Continuous improvement in administrative processes</td>
<td>c. Continuous improvement in scholarship</td>
</tr>
<tr>
<td>d. Continuous learning</td>
<td>d. Continuous learning</td>
</tr>
<tr>
<td>e. Employee participation through teamwork</td>
<td>e. Teamwork as a method for teaching and learning</td>
</tr>
<tr>
<td>f. Employee development</td>
<td>f. Student development</td>
</tr>
</tbody>
</table>
Administrative Activities

- g. Long-range view of the future
- h. Organizational capability for fast response to changing conditions
- i. Systemic thinking (interdependencies)
- j. Management by fact
- k. Partnership development
- l. Corporate responsibility for quality
- m. Results orientation

Academic Activities

- g. Long-range view of the future
- h. Academic capability for fast response to changing conditions
- i. Focus on interdependence of the processes of scholarship
- j. Evaluation by fact
- k. Partnership development
- l. Personal responsibility for quality
- m. Results orientation

(CQI and TQM will henceforth be collectively referred to as "quality management" (QM).

7. Is your university a member of the Canadian Conference Board Quality Network?

  YES ☐ NO ☐

8. What is your university’s definition for quality?

9. Your university is currently involved in institution-wide quality management activities.

  YES ☐ NO ☐

  Please identify both the internal and external factors that influenced your decision.

  (If you answered Yes to question #9, please go to question #13 on page 5; If you answered NO, please go to question #10)
10. Although your university is not currently involved in institution-wide QM activities, you are aware of departments/units in your university that are applying quality management philosophy and technologies.  

YES ☐ NO ☐

If YES, which departments/units? ________________________________________  
______________________________________________________  
______________________________________________________  

11. Your university has given serious consideration to quality management, but has decided against implementing such a change initiative.  

YES ☐ NO ☐

Please identify both the internal and external factors that influenced your decision.  

________________________________________________________________________  
________________________________________________________________________  
________________________________________________________________________  
________________________________________________________________________  

(If you answered Yes to question #11, please go to pages 11 and 12; If NO, please continue to question #12)

12. Your university has applied the philosophy and methods of quality management in the past but has no plans to continue to do so in the future or has placed its QM implementation on hold until some future date?  
   No plans to continue the effort ☐ Implementation placed on hold ☐

Please identify both the internal and external factors that influenced your decision.  

________________________________________________________________________  
________________________________________________________________________  
________________________________________________________________________  
________________________________________________________________________
13. How was quality management first introduced into your university? ____________________

14. Is/was your university applying quality management in:
   
   - [ ] Administrative activities
   - [ ] Academic activities

15. How long has your university been using QM in administrative activities?
   
   Number of years: 0 1 2 3 4 5 6 7 8 9 10+ years

16. How long has your university been using QM in academic activities?
   
   Number of years: 0 1 2 3 4 5 6 7 8 9 10+ years

17. Does your university have faculty who have expertise in the philosophy of quality management?  
   YES [ ] NO [ ] Don’t know [ ]

18. Does your university have faculty who have expertise in the methods of application of quality management?  
   YES [ ] NO [ ]

19. Academic faculty with expertise in QM can be found in which of the following areas?
   
   - [ ] Education
   - [ ] Medical Sciences
   - [ ] Management
   - [ ] Engineering
   - [ ] Business
   - [ ] Social Sciences
   - [ ] Planning
   - [ ] Don’t Know
   - [ ] Other [ ] If Other, please specify ____________________________

20. Your university has involved those faculty who have expertise in QM in changes that are institution-wide.  
   YES [ ] NO [ ] Don’t know [ ]

21. Your university has involved those faculty who have expertise in QM in changes in specific areas.  
   YES [ ] NO [ ] Don’t know [ ]
6

If YES, which specific areas? __________________________________________
________________________________________
________________________________________

22. Has your university dedicated resources to its quality management change initiative in any of the following areas?

Dedicated Financial Resources: YES ☐ NO ☐

If YES, please indicate the range of resources made available:

$25,000 ☐ $25,001 - 50,000 ☐ $50,001 - 100,000 ☐ > $100,001 ☐

Dedicated Human Resources: YES ☐ NO ☐

Contract employees ☐ how many _____? Support staff ☐ how many _____?

Professional staff ☐ how many _____? External consultants ☐

Have there been separate resources made available for institution-wide education and training for all staff? YES ☐ NO ☐

If YES, have in-house trainers been trained? YES ☐ NO ☐

Have quality management-specific educational resources and programs been developed for staff training? YES ☐ NO ☐

What is your estimate of the total cost for QM education and skills development to date? ______

23. Please indicate which groups have completed QM education, are currently receiving education, or those where there are either plans or no plans to provide QM education for a group. (Please check only ONE response for each group)

<table>
<thead>
<tr>
<th>Group</th>
<th>Completed</th>
<th>Receiving</th>
<th>Plan to</th>
<th>No Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board of Governors</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Senate</td>
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<tr>
<td>President</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Senior Administrators</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Faculty: completed □ receiving □ plan to □ no plans □
Support Staff: completed □ receiving □ plan to □ no plans □
Union Leaders: completed □ receiving □ plan to □ no plans □

24. Are those who have been educated in QM applying its concepts? YES □ NO □
25. Are those who have been educated in QM applying its methods? YES □ NO □
26. Has your university selected a QM Director/Coordinator? YES □ NO □
Has your university established a Quality Department? YES □ NO □
Has your university established a Quality Council/Steering Committee? YES □ NO □

27. Have university-wide “core” clients/client groups been identified?
ALL □ SOME □ NONE □

If you answered NONE, please go to question # 28; If you answered ALL or SOME, please continue.

Please identify and rank 4 of your major external client groups on the basis of importance to your university’s fulfillment of mission.
1. ____________________________ 3. ____________________________
2. ____________________________ 4. ____________________________

Please choose 1 of the above external client groups and identify 2 of its core Needs and/or Expectations (N/E). Group chosen: ____________________________
(N/E) 1. ____________________________ 2. ____________________________

Please identify and rank 4 of your major internal client groups on the basis of importance to your university’s fulfillment of mission.
1. ____________________________ 3. ____________________________
2. ____________________________ 4. ____________________________
Please choose 1 of the above internal client groups and identify 2 of its core Needs and/or Expectations (N/E).

Group chosen: ____________________________

(N/E) 1. ____________________________ 2. ____________________________

28. Has your university identified its institution's core processes?  
YES ☐  NO ☐

(If you answered YES, please continue; If you answered NO, please go to question #29)

If your university has identified its core processes, please name its 4 most important core processes in order of priority for improvement.

1. ____________________________ 3. ____________________________
2. ____________________________ 4. ____________________________

29. QM takes an evolutionary (kaizen) approach which means small incremental process improvements that often lead to change and innovation on a revolutionary scale.

Reengineering takes a revolutionary approach based in a philosophy of discarding existing processes altogether and completely starting over.

Is your university involved in kaizen?  
YES ☐  NO ☐

Is your university involved in "reengineering"?  
YES ☐  NO ☐

30. Are you using teams for kaizen, for reengineering, or for both?

Kaizen ☐  Reengineering ☐

31. What tools for process redesign/new design are you using?

Flow charts ☐  Pareto charts ☐  Histograms ☐
Control charts ☐  Scatter diagrams ☐  Run charts ☐
Brain storming ☐  Interrelationship digraphs ☐  Affinity charts ☐
Other ☐  Fishbone (Isikawa) charts ☐

If Other, please specify ____________________________
32. Is the composition of your teams representative of the stakeholders in the process under study?

ALWAYS  □  MOST TIMES  □  SELDOM  □  NEVER  □

33. Which of the following describes your teamwork? (You may give more than one answer)

Cross-functional  □  Multidisciplinary  □  Interdisciplinary  □

Interhierarchial  □  Other  □

If Other, please specify ____________________________

34. Please give 1 example of a process improvement or new process a team has underway and 1 example of a process improvement or new process a team has completed.

Example A) Process improvement □ Completely new process □

Underway ___________________________________________

Example B) Process improvement □ Completely new process □

Completed _________________________________________

35. Do your teams use an action research approach--a Plan, Do, Check, Act (PDCA) cycle--for problem-solving?

ALWAYS  □  MOST TIMES  □  SELDOM  □  NEVER  □

OTHER  □  If Other, please specify ____________________________

36. Have your teams been tracking process variation? YES □ NO □

Don’t know □

If YES, are they measuring common cause variation □ special cause variation □

Don’t know □
37. Fear exists in all organizations. Some reasons for fear in your university at all staff levels may include:

- Truth telling
- Lack of trust
- Broken promises
- Loss of position/status
- Lack of recognition
- Job loss
- Being left out of decisions
- Belittlement
- Denial of tenure
- Placed on Sessional
- Being blamed
- Other

If Other, please explain. ____________________________________________________________

38. Overall, how satisfied is your university with its quality management implementation strategy?

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>
| Not at all satisfied | Very satisfied | Please explain | ____________________________________________________________
| | | | ____________________________________________________________
| | | | ____________________________________________________________
| | | | ____________________________________________________________
| | | | ____________________________________________________________
| | | | ____________________________________________________________
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| | | | ____________________________________________________________
According to the results of the survey, two or three universities will be selected for case studies. If selected, is your university willing to be involved in a case study?

YES ☐ NO ☐ Would like to think about it. ☐

If selected as a study site, would your institution be willing to waive anonymity?

YES ☐ NO ☐ Would like to think about it. ☐

Contact person __________________________________________

Phone __________ Fax __________ E-mail __________

Please return this survey by **DECEMBER 31, 1996** in the enclosed self-addressed, stamped envelope.

If you require further information or clarification, you may contact me at:

Elizabeth Meuser
30 Woodington Place
Welland, Ontario L3C 2J2
Phone: 1-905-734-1610
e-mail: emeuser@iaw.on.ca
Fax #: 1-905-734-9453

I will be pleased to share the results of the survey with you when practical to do so.

Thank you in advance for your participation.

Elizabeth Meuser, (PH. D. Candidate, Higher Education Group, OISE/UT)
Have you completed all questions in the survey?

Have you enclosed a copy of your Vision Statement, and a copy of your Core Values/Guiding Principles?

Additional comments:
Appendix G:
E-mail Letter from Dr. T. White, President, University of Calgary

Return Path
<@mvsa.admin.ucalgary.ca:62101@ucdasvm1.admin.ucalgary.ca>
X-Delivery-Notice: SMTP MAIL FROM does not correspond to sender.

Date:    Mon, 24 Mar 97 13:50:46 MST
From:    "Dr. Terry White"

<62101@UCDASVM1.ADMIN.UCALGARY.CA>

Subject:  Case Study
To:       <emeuser@iaw.on.ca>
Cc:       "Dr. T. White"
<62101@UCDASVM1.ADMIN.UCALGARY.CA>,
    "Dr. I. Winchester"
<18011@UCDASVM1.ADMIN.UCALGARY.CA>,
    "Dr. H. Yeager"
<62115@UCDASVM1.ADMIN.UCALGARY.CA>

FROM: Dr. Terry White, President

I was interested to hear from you and to learn about your research work. Of course your interest in The University of Calgary is appreciated, but we have a number of internal people who are working on our futures projects that are planning to do various publications and studies. Our inclination is that they should have first opportunities for access to detailed information in order to do so.
It may be that the significant changes in the Faculty of Education would be good grist for your work and Dean Winchester may be willing to be of assistance in that case.

At any rate, I wish you every success in your thesis work.
Best regards.

Terry White
2500 University Drive NW  T2N 1N4
403-220-5460  Fax 403-282-8343
Appendix H:

Dr. Keith Winter
Vice President, Finance and Services
University of Calgary
2500 University Drive NW
Calgary, Alberta T2N 1N4

May 14, 1997

Dear Dr. Winter

I would like to take this opportunity to thank you again for participating in my doctoral research.

As promised I am sending you a copy of the transcript from our conversation on April 16th. Please go through it and correct, delete, or clarify anything that you wish. Then please return it to me.

I would appreciate having the transcript returned to me by June 14th, and for your convenience, I have included a self-addressed stamped envelope. If however I do not receive the transcript I shall think everything is fine with you and begin my analysis.

Continued success in your transformation process at the University of Calgary. You already have reason to feel great pride in your work and in your accomplishments.

Sincerely,

Elizabeth Meuser, Reg. N., M.Ed., (Ph.D. Candidate)
Department of Policy Development in Education/Higher Education Group
Ontario Institute for Studies in Education/University of Toronto
Appendix I: Annotated Bibliography of Research Documents at the University of Calgary and McMaster University


A careful read of the minutes provided an in-depth understanding of many of the issues faced by the University of Calgary and the ways in which these issues were being addressed by the university community. For example, issues of campus crime, sexual harassment and the Safewalk Program, student tuition fees and declining enrollments, the restructuring of some faculties, capital budget expenditures (i.e., the expansion of the Sports Medicine Centre), new governmental moneys available, the results of marketing strategies such as the "Building on the Vision Campaign" (University of Calgary, 1996a, p. 8) which generated $46 million, awards and recipients, community outreach programs, to name only a few.


The publication outlines the changes to the library under President White. The library would be allocated "$580,000 in new funding, and (it) would be spared the 1.6 percent cut planned for 1997/98" (p. 1). In addition, there was a half-page section about the progress of the strategic plan and the work of the Coordination Task Force.


The newspaper notes that campus food bank's business nearly doubled in the recent school year due to single-parent family use particularly in the summer months. The food bank operates Monday to Friday from 8 AM to 4 PM.

There was a town hall review held on revenue and expenditure by the Revenue and Expenditure Strategy Team, one of many design teams set-up within the context of the "Strategic Transformation process" (p. 3).

The Institutional Positioning Team is referred to as the "cornerstone for the second phase of U of C's planning process" (p. 3). An article outlining the team's activities states that: "it is involved in three major activities: a Learner
Needs Assessment, a Capabilities Assessment and a Comparative Assessment. The results will be used to develop an institutional marketing strategy and communications plan” (p. 3)


Implementation of Directions II--Directions II was widely distributed with townhall meetings following.

Three townhall meetings were held in October. The purpose of the meetings was to provide a forum for comment on the proposed procedures for designating priority areas for funding. Concern was apparent over perceived winners and losers in the competition for funds.

There has been an attempt to balance decentralization with central coordination. The Policy and Priorities Advisory Group now includes Faculty and Graduate deans. This will flatten the organization.

Enrolment Management Committee has been established.

November 7th marked the launch of the McMaster University Student Opportunity Fund. More than $1.6 million was raised and matched by the Province of Ontario.


At the Board retreat held on November 9th, three priorities areas were decided upon:

1. To give resource priority to programs that have high demand.

2. To collaborate and share resources with other Ontario institutions in order to reduce duplication; seek prospective partners and forge alliances, including partnerships with other universities, industry, local government, and health care institutions.
3. To decentralize and simplify managerial structures, concentrate on new administrative technologies, eliminate non-essential regulations, implement more effective and efficient distributions of authority by a willingness to restructure McMaster.

Inhibitors:

1. Lack of budgetary flexibility to rationally direct resources
2. Emphasis on autonomy and self-sufficiency versus developing partnerships and sharing resources
3. Commitment to traditional structures and process
4. Resistance to change

Cultural requirements for Change:

1. A system of rewards and incentives
2. Decisive leadership that respects collegiality
3. Board meeting reports on progress of implementation

University Advancement:

1. DeGroot gift of $4 million toward the student centre
2. Student Opportunity Fund exceeds $2.3 million
3. Capital fund-raising plan initiated
4. Publication of the University's first annual report, *Growing into the 21st Century*--internally distributed (5000 copies)
5. Maclean's Magazine ranks Mac as one of Canada's top universities


Ministry of Education and Training requests universities to:

1. Recommend the most appropriate cost sharing scheme for students and government
2. Identify ways to support and promote cooperation between colleges and universities
3. Provide advice on how to address the expected demands on post-secondary education

Universities can increase tuition fees by 10% with a 30% clawback of increased revenues for student assistance (this is discretionary).

Directions II:

A call for proposals to determine 5-6 strategic areas for priority funding was met by 44 submissions. The criteria for deciding are as follows: scholarly excellence, interdisciplinary focus, include a process to bridge basic inquiry and application, link research to teaching, and appropriate supervision in place.

The list of proposals was then reduced to 7 areas: manufacturing and materials, work and family, bench to bedside biology, information analysis, information technology, environmental studies, and globalization and the human condition. A second round of submissions from these areas is being sought by April 1, 1997.


Student Opportunity Fund grows to $17.2 million. Tuition fees at Mac are raised by 10%.

Directions II:

Planning sessions to be held July 10th and 11th. The agenda categories include: Institutional renewal; Revenue and Funding, Administrative Support, McMaster Student Body.

The outcomes from the planning sessions has been included in the general text of the McMaster case study.
Appendix J: Response from Dr. Howard Yeager,
University of Calgary Case Study

Return-Path: <hlyeager@acs.ucalgary.ca>
Date: Wed, 04 Mar 1998 13:08:51 -0700
From: Howard Yeager <hlyeager@acs.ucalgary.ca>
Reply-To: hlyeager@acs.ucalgary.ca
Organization: The University of Calgary
To: Elizabeth Meuser <emeuser@iaw.on.ca>
Subject: Your chapter

Elizabeth,

I've read your chapter, and was very positively impressed with it. You have been very complimentary to us at the U of C, and I thank you for that. As well, I think you have accurately captured the essence of what was the motivation for the change effort, how it unfolded, the values we tried to live up to, the difficulty of the work, and the mistakes and successes we experienced. I have no substantive suggestions for change or improvement. I think you have done an admirable job of description and analysis. I must say that your understanding of the early QM attempts was right on the money - there was no attempt at buy-in, it was just an exercise to look like we were doing something.

I do have one suggestion on a minor point. On page 257, it reads that LIDS was originally a subcommittee of the Gibbins Committee. Actually, the GC only made some recommendations to other committees and then disbanded. LIDS was then created by the Academic Program Committee, and exists to this day. This is a minor point though.

Again, I want to congratulate you on the accuracy and clarity of your chapter, and the interesting and readable way in which you have described our experiences. I believe that this will provide the only thorough record of this institutional effort. I would very much like to receive a copy of your thesis when it is available, and would be pleased to cover any costs that an extra copy would create.
Good luck with your defense, and let me know if I can be of any further help.
P.S. I did send you copies of the published updates on the ST effort in the mail.
Howard