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Sustained Change in Postsecondary Education

By

Judy Grace Harrower   ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment
of the requirements for the degree of Doctor of Philosophy

In

Administration of Postsecondary Education

Department of Educational Policy Studies

Edmonton, Alberta

Spring, 2000

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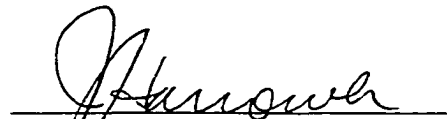
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled SUSTAINED CHANGE IN POSTSECONDARY EDUCATION submitted by JUDY GRACE HARROWER in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY IN ADMINISTRATION OF POSTSECONDARY EDUCATION.

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DATE _January 28 2000_

DEDICATION

This manuscript is dedicated to the management and staff of postsecondary institutions, who work tirelessly toward improvement of their programs. These professionals have as a goal the education and training of adults, who in turn use this knowledge for the furtherance of our community and our country. Together these noble people, both teacher and student, display a passion for excellence as they strive to be all that they can be.

ABSTRACT

This dissertation identifies the key factors and behavioural processes that sustained change in a postsecondary institution in Western Canada. It also identifies the impacts of the change on students, instructors, and the institution.

The Division under study was required to respond to a 21% reduction in government funding. One Division response was a restructuring of the administration of the Division, i.e., a reduction in management layers from 21 Program Heads and Assistant Program Heads to four Team Leaders.

A conceptual framework was developed using an input-process-output system. The framework outlined key factors identified in the literature, Harrison's (1994) behavioural processes approach, and Fullan's (1982) impact concept. Seventeen interviews were conducted with executive, instructional staff, administrative and technical support, and non-Divisional staff. The findings were first analyzed in the aggregate, then by stakeholder, or organizational interest group.

Findings confirmed that the key factors affecting change in postsecondary education were leadership, change agent, and validity elements. The findings, however, show that the support of the organizational culture, discussed in the management literature, was not required in this postsecondary institutional Division to sustain change. The impact on the institution was positive, in an unexpected way. Students and instructors benefitted from the sharing of resources; a sharing that was necessitated by the reduction of funding. The organization benefitted from the management model precipitated by this Division.

What the organization learned from the outcome is that every Division did not have to look or perform exactly like the other. Many other Divisions, for instance, investigated a team-based model that was not like the first Division model. What the institution has accomplished, is a sustained and successful change in one Division.

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CHAPTER 1

INTRODUCTION

Change has become an integral part of business, industry, and organizational life. Organizations routinely examine their structures, re-engineer their systems, and resource training programs to improve productivity and efficiency. Most postsecondary education institutions, however, have embraced change more slowly than business and industry.

Emberley (1996) in *Zero Tolerance* summarizes the state of affairs in Canadian universities. "The academic world, with its high levels of abstraction and apparent remoteness from the immediacy of the political fray in which social issues are debated, has seemed not particularly pertinent to the well-being of Canadians" (p.1). Further, he describes the debate between the public and the university this way: "outside observers call for 'accessibility, accountability and efficiency' while the university response is 'equity, academic freedom and autonomy' " (p. 256). This sentiment is echoed by Girard and Uhl (1992) when they state "the Canadian higher education scene today reveals an overly stable faculty which is suffering because of few additions and frequently no replacements" (p. 96). Since there has been little change or requirement for change, a conclusion from these two authors reflects on an institution's change hardiness, or ability to change or accept change as a result of experience with change. These authors, together with pressure from provincial governments, reflect a growing pressure on educational institutions to change, in keeping with changes in the world.

Provincial governments have responded to public pressure by instituting funding cuts and accountability measures for postsecondary institutions. These measures precipitated the need for a response from postsecondary institutions in the form of rapid change. The immediacy of the response means there has been little regard to researching the most appropriate focus for change within the institution, much less the best way to implement this change. Further, there has been little attention paid to how to make the change "stick."

The Challenge of Change in Postsecondary Education

Many organizations struggle through the process of change, only to find that once the change occurs the challenge is to keep the change from backsliding to the old way of doing things. Lippitt, Langseth, and Mossop (1985) characterize the loss to the organization that is incurred in backsliding as four critical losses:

> Competence deteriorates because of new roles, procedures attitudes, and needed skills; relationships are warped due to revised organization structure and removed physical settings; power is dispersed as people enter different environments and old threads are parted; and intrinsic rewards are devalued as a result of altered relative positions in the organization hierarchy or diminished opportunity for promotion that would have been there had not the table of organization been shifted (p. 104).

The cost of the change effort, both in hard dollars and human effort, is significant. When a change is implemented but is not sustained, there is a considerable waste of the resources involved in making the change. Schneider, Brief and Guzzo (1996) summarize the cost to the organization as follows:

> It happens all too often. A company introduces changes with high expectations of improving performance. When the changes fail to take root and produce intended results, the unfulfilled hopes lead management to introduce other seemingly promising changes. These, too, ultimately fail. The sequence repeats an unending cycle of high expectations

followed by failure and, inevitably, frustration for management and cynicism for workers (p. 6).

Fullan (1982) uses the term "continuation" to describe sustainability in educational institutions. He says "the problem of continuation is endemic to all new programs regardless of whether they arise from external initiatives or are internally developed" (p. 77). Further, he says the most discouraging prospect in understanding the continuation process "is the realization that it is not linear and is never-ending. [Each factor] must be *continually* borne in mind and attended to when need be" (p.77). To give some idea of how circular the process of change, leading to sustained outcome is, Fullan concludes:

> "There is a logic to the change process in which factors affecting adoption and implementation results in (1) more or less implementation (degree of implementation), which affects (2) attitudes to the innovation and (3) the quality of the impact -- and attitudes and impact in turn contribute to the likelihood of (4) continuation. The entire process influences (5) our attitude to school improvement" (p.78).

The causes of "backsliding" are complex. There may be resistance to change or there may be external unplanned forces. Fullan (1993) suggests these forces are inevitable, such as "government policy changes or gets constantly redefined, key leaders leave, important contact people are shifted to another role, new technology is invented, a bitter conflict erupts" (p.19). Another reason cited for backsliding is: "due to increased expectations on behalf of the various customers for education, the general expectation in education is that 'more and more innovation is needed'" (p. 23). Indeed, he notes "the main problem in public education is not resistance to change, but the presence of too many innovations mandated or adopted uncritically and superficially on an ad hoc

fragmented basis" (p. 23). In order to determine whether the change in this case was another innovation, adopted uncritically, another question was developed for the sustained change case: did management and staff believe the change is a valid response to a driving force?

Rowley, Lujan and Dolence (1997) focus more on the resistance to change aspect and the reasons for this resistance. They say the complacency which faculty enjoy is often fueled by their view of themselves as experts who "do not heed others well, have a bias for tradition, enjoy protection offered by existing process, and are insulated from external pressures" (p. 78).

Bridges (1991), outlines the need for a planned transition to change, otherwise people will be unable to "let go of the present before they can get to the future" (p. 32). Likewise, Egan (1995) points out that without a strategic process in place for change, "change programmes sow the seeds of their own failure" (p. 120).

The authors of change literature, cited in Chapter 2, indicate that there are four factors that will sustain a change. One factor is the leadership, or people who hold positions of power in the organization. Another factor is the change agent, or people or institutions that are in a position to facilitate a change. A third factor is the perceived validity of a change initiative; i.e., how valid is the need for a change, given the cost and effort required to make the change and maintain it. The fourth factor is the readiness of the culture to support a change effort.

In addition to these factors effecting change, Harrison (1994) outlines several processes that need to be in place to ensure a change will "stick." The

processes he outlines are those of behaviour and communication contained in patterns of behaviour and relations among groups and individuals (p. 30). Harrison also discusses the importance of participative decision-making in order to ensure agreement of the goals and procedures to establish the change (p. 40).

In addition to the factors and processes that ensure a change will be sustained, Fullan (1982) suggests that it is not enough to have a sustained change. He says the change effort is negated if the impact or result or outcome of the change has not improved the organization in some way. Specifically, the improvement should be reflected in student benefits, instructor development, or organization improvement as a whole.

Thus, the importance of sustainability of a change effort has been established in the literature and in the experience of both public and private organizations. This chapter outlines the context in which this study took place, specifically, the current public attitude toward education, the driver, or crisis catalyst for the change, and the research model used to measure factors and processes in the change that has been sustained for over three years. It will outline the main sources of literature used to develop a model of change factors and behaviour processes, as well as the impact of the change investigated in the study. The chapter will conclude with an outline of the organization of the dissertation chapters.

Contextual Factors Affecting Postsecondary Education

The context in which the study took place includes the current public attitude toward education and the growing concerns of government regarding

education "deliverables": i.e., the outcomes or results expected from a resource that takes so many tax dollars to support.

There has been very little radical change in postsecondary institutions in Canada, including administration practices and curriculum delivery. Institutions have become more entrenched in their administration and delivery of education in a traditional manner. Dolence and Donald (1995) describe a traditional 20th century educational institution as one who uses key performance indicators that includes administrative cost per full time student, average grade point average for incoming freshmen, four-year graduation rate of students, number of degrees awarded, number of parking spaces, number of students in each major, tuition revenue, and student/faculty ratio (p.76). These indicators, used to measure the performance or achievement of educational institutions, does not reflect program effectiveness, student satisfaction, or competitive comparisons with other institutions.

The context of this study includes the external environmental factors of public attitude, government response, emerging student profile, and the national trend as the environment in which postsecondary institutions operate. The context also discusses the internal environmental factors of the postsecondary institution under study and the Division under study.

<div align="center">Public Attitude</div>

Environmental factors affecting Canadian postsecondary institutions have been identified by Emberly (1996) in *Zero Tolerance*, wherein he describes the changed expectations of taxpayers, students, and government constituents. He

describes the focus of public attention on higher education as being due to taxpayers' changing expectations about their status as customers of education. They believe that, as customers, they have a right to dictate to the institutions what they expect in the way of service. This reflects a change in public attitude from the traditional view that academia is in control of its own environment, and that highly educated individuals' motives could not be questioned.

Government Response

The Alberta government issued an invitation in 1994 to individuals and groups to participate in the planning process on budget and policy initiatives. In response to growing public dissatisfaction with postsecondary educational institutions in Alberta, the Alberta Government published the *Vision for Change* (1995) document. This document espoused the belief that a rapid change in technology has precipitated a correspondingly rapid change in how the public want to receive their education: by technology, without regard for time and space. In other words, the public want access to education via distance learning, such as through the Internet or through some other technological device. This means students can gain access to education any place, including their own home, and that education should be received at the convenience of the student, at any time. The electronic information highway has created a belief that education should become as convenient, expedient, and accommodating as the technology allows. Accordingly, the Alberta government has instituted 'envelopes' of money that postsecondary institutions can apply for in preparation for technological delivery of education. This reflects a shift in postsecondary education

institutional policy, with resources allocated to development and delivery of non-traditional education.

The Crisis Catalyst

The event in the external environment acting as a crisis catalyst driving the change for the institution was a major decrease in funding to postsecondary institutions in Alberta in 1995. Specifically, a 21% reduction in funding over three years caused every postsecondary institution in the province to reevaluate how they planned their business and educational activities and therefore their budget strategy. All Divisions were charged with individually responding to the 21% reduction. There was no central decision to cut management levels. Each Division decided how to meet the cuts differently. What is unique about the Division in this case is that it met the target reductions through a solution arrived at through a participative staff process. The solution was a reduction in senior management. No other Division met the target in this way and therefore no other Division currently uses this management structure.

Purpose of the Study

The purpose of this study was to identify key factors and behavioural processes that contribute to a sustained change in a particular postsecondary education institution. In addition, an understanding of the impact of the change on the postsecondary institution was explored.

Research Questions

In order to understand change in postsecondary education, one Division in

a large Western Canadian technical institution which had recently undergone fairly substantial change and sustained it was studied in depth. The following two general research questions were guided by this study:

(1) **What were the key factors and behavioural processes that sustained change in a postsecondary institution?**

(2) **What were the impacts of the change on students, instructors, and the organization?**

In order to answer these questions, four subsidiary research questions were developed, to gain a comprehensive understanding of this Division's experience with change.

1.1 **What resources were assigned to the change?**

1.2 **What were the key factors that contributed to sustainability?**

1.3. **What were the key processes that contributed to sustainability?**

2.1 **What has been the impact of the change?**

These general research questions, and their subsidiary questions, along with an explanation regarding their significance to the analysis of this case, are explained in Chapter Three.

Definitions of Key Terms

The following terms are defined in the context of this study:

Accountability

Accountability has become a key performance indicator, forcing postsecondary institutions to become "accountable" or responsible to the government for fiscal performance.

Backsliding

Regression to a former state, especially in a change that cannot be maintained.

Change

Change is the result of a need to respond to influences that require a change to take place, transforming some former state to a new, current state.

Change agents

Change agents are processes that are used to effect change, such as Continuous Quality Improvement and Transition Monitoring Teams.

Change Hardiness

Organizations that have experienced more change become change hardy. They are able to plan and implement change in a more accepting way than an organization that has not experienced any change.

Clusters

The name given to the group of programs that previously existed as individual programs, but were, as a result of the restructuring, "clustered" together (3 or 4 programs) under one team leader.

Drivers for change

The driver that influenced change in this organization was the funding reduction.

Stakeholder Groups

Groups of people, identified in this case by organizational strata, who are involved in a change or who might be affected by or interested in the outcomes of the change, as a group.

Sustainable change

Change that is stable while it meets the needs of the organization and has lasted for some period of time.

Organization of the Dissertation

The dissertation is divided into 6 chapters. This chapter identifies current forces for change that drove the Division being studied into a change process that resulted in organizational restructuring. At the time of this study (1998) the change had been sustained for over three years, regardless of the fact that no other Division in the organization restructured in order to achieve the result required, which was to meet funding reductions. Only the Division studied used a Team Leadership model to meet operational needs. This model did not have the support of the institution, but the Division was able to sustain its leadership design.

Chapter 2 provides a review of the literature relative to the factors, processes and impact of sustainable change. It summarizes the literature required to understand usual factors and processes in change as well as the literature for impact analysis or change in educational settings. It concludes with a conceptual model that provided the basis for the design of the questions, explained in Chapter 3.

Chapter 3 delineates the methodological approach used to study the Division and obtain the data for analysis. It includes the process used to analyze the data. Chapter 4 describes the case that was chosen for study. It identifies and defines the institution, the Division, the stakeholder groups, and the two change agent models: the Continuous Quality Improvement (CQI) team, and the Transition Monitoring Team (TMT).

Chapter 5 details the findings for the key factors, behavioural processes, and impact of the change. A summary of responses and a stakeholder analysis,

where appropriate, are provided for each question.

Chapter 6 presents the summary, conclusions, recommendations and implications of the study. As a direct result of the findings and analysis presented in Chapter 5, this final chapter proposes a new model of change that can be specifically applied to postsecondary institutions.

The dissertation concludes with a bibliography and appendices. The appendices include copies of pertinent correspondence, interview schedules, and tables of data sorted by stakeholder groups.

CHAPTER 2

REVIEW OF THE RELATED LITERATURE

This chapter reviews literature pertaining to factors and processes that sustain change in organizations. During the review, it became clear that the change literature did not differentiate between organizational change in postsecondary education from that of corporations. The assumption that appeared to be made by change authors was that change research would apply to any organization, regardless of type. Therefore, to prepare for this study, the majority of the literature reviewed applied to change in corporations. In addition, literature that specifically discussed change in education was reviewed. The most relevant and current literature on change led to a conceptual framework against which to conduct the research for this study. This fact, of literature mostly appearing in management literature, is borne out by Hardy's (1996) research in which she cautions postsecondary institutions to be cautious in their application of "canned" management strategies, which she outlines as ignoring the specific character of the collegial approach in the university setting.

Key Factors Influencing Change in an Organization

Change literature indicated several factors that influence change. The four factors reviewed are: leadership, change agents, validity, and cultural support. This study focused on determining if the sustainable change that occurred could be related to any one of the four factors described in the literature. In order to analyze this, the following sections first describe the literature used to resource

each key factor. Second, authors are compared or contrasted in their views on each of the factors.

Leadership

In this section, literature is reviewed that pertains to the importance of leadership during change. Two concepts of leadership: the relationship of leaders to their subordinates, and, the importance of gaining commitment, are discussed from the point of view of several authors in the field of leadership.

The first concept, the relationship of leaders to their subordinates, is discussed by Hersey and Blanchard (1993), and, Greiner and Schein (1988). These authors describe sustained change through use of authoritative power, and the trust their followers have in their right to that power. In the Hersey and Blanchard Situational Leadership model, the less the subordinates are ready for change (unwilling or unable to change), the more a leader must be involved in implementing a change (provide specific instructions and closely supervise the change process). As subordinates move toward more readiness for change (able and confident or willing to change), a leader must relax involvement in the change process (turn over responsibility for decisions and implementation) (p. 485 - 488). Greiner and Schein postulate that if a Chief Executive Officer (CEO) asserts influence to effect change, and staff who directly report to the CEO accept this influence, then movement toward the change is accelerated and is more likely to be sustained (p.162 - 165). Therefore, resistance or support depends solely on the reaction of the CEO and that CEO's subordinates and no other factor. Figure 1 shows how a change could be accepted and sustained, depending on the

willingness of key subordinates as a group to accept the CEO's influence, and the

willingness of the CEO to assert influence over the group.

Figure 1: Political Resolutions in Top Management

High

Willingness of
key subordinates

	Passive loyalty	Active consensus
	Peer rivalry	Covert resistance

as a group to accept
Chief Executive
Officer's influence

Low

　　　　　　　　　　　Low　　　　　　　　　　　　　　　　　　High
Willingness of Chief Executive Officer
to assert influence over the group

Source: Greiner and Schein (1988) p. 164

　　　In the leadership authoritative power concept, leaders retain the power and

relinquish it as they want or feel they should. Followers accept the power only as

it is given to them, believing they are only entitled to the power if it is given by

the leader.

　　　The second concept of leadership reflects the importance of gaining

commitment from followers. Lewin's study (as cited in Hersey & Blanchard,

1993) identified the phases of the change process: unfreezing, changing,

refreezing, and the responsibility of the leader in these phases. In the unfreezing

phase, the leader motivates the subordinates to see the need for change. In the

changing phase, the leader creates a situation where subordinates can internalize

the change, either through force (rewards or punishments) or compliance (supervision) opportunities. Refreezing occurs when the new behaviour becomes integrated or internalized. Lewin suggests that unless reinforcement occurs, there is a danger that the new behaviour will be extinguished over time.

The importance of gaining commitment, is also discussed by Bennis and Nanus (1997), and, Block (1993). Bennis and Nanus make a distinction between managers and leaders. They say managers are those who focus on managing resources of capital, human skills and raw materials, making sure the job gets done with a high level of quality. Leaders, however, focus on a vision of what the work could be, and in the process garner commitment of staff through trust (p. 85). The other important point made by Bennis and Nanus is that once the vision is communicated, it must be reinforced through continual communication. It is reinforced through the "strategy and decision-making process. It must be constantly evaluated for possible change in the light of new circumstances" (p. 101). Further, they say "if the organization is to be successful, the image must grow out of the needs of the entire organization and must be claimed or owned by all the important actors. In short, it must become part of a new social architecture in the organization" (p. 101). Block also uses the term "architecture" to describe the structure in an organization and the roles of managers and staff, as well as rewards, are all part of the complexity of commitment to change (p. 100). He says a flattened hierarchy with fewer managers means "there are fewer supervisors and therefore fewer people watching, which means core workers can exercise more choice" (p.102). This is "useful in illustrating the intent of

becoming as congruent as possible in affirming partnership and keeping an organization's attention on service rather than on command and control" (p. 104).

Change Agents

Change agents are those forces, both internal and/or external to the organization, that cause the need for a change to be considered. In this section, literature is reviewed that pertains to the relationship of change agents to sustained change. Several sources were reviewed, leading to two ways of looking at change agent status. The first set of sources reviewed change agents as the people who facilitate change in an organization. The second set of sources reviewed change agents as a process or set of processes that are instrumental in facilitating change in an organization.

Havelock (1973), Baldridge (1975), Ottaway (1979), and Buchanan and Badham (1999) all refer to the change agent as a person who facilitates change in various ways. Havelock uses a model of six stages for a change agent to become familiar with and use in implementing change. The change agent steps through the stages of building relationships, diagnosing problems, and choosing solutions. Baldridge also uses stages, or "rules" to enhance the change outcome. These rules involve giving serious attention to the problem by ensuring the change agent has all the information and that the organization consider the result of serious changes because the organizational structure as well as attitudes will be altered. In the final analysis, a rule is that only changes that are both politically and economically feasible, ensuring the changes solve diagnosed problems, should be made. Ottaway has collected the case studies of various change agents, showing

how they effected the change in their organization. Buchanan and Badham documented the importance of the change agent engaging in political activity to effect change. All of these sources attribute change to an individual who employs various strategies to effect change.

A slightly different view of the change agent role was proposed by Schein (1969), who defined a change agent not so much as an individual who uses personal power to effect a change, but as a process consultant, who works with management so that they "perceive, understand, and act upon process events which occur in the client's environment" (p. 9). A process consultant is sometimes referred to an action researcher. This is a person who, according to Weir (1979), establishes a collaborative relationship between the researcher (change agent) and the organization to create a new process (p. 91). Lippitt (1985) also refers to action research as a process, or a collection of data about an ongoing system relative to some objective or goal, providing feedback to the system, so that the system can continually be improved (p. 132).

A different way of looking at change and change agents was proposed by Shapiro and Levine (1999), Small (1995), and Hamlin, Reidy and Stewart (1997) who used the term change agent to mean a process. Shaprio and Levine referred to these change agents as "change levers." They identify five levers that can be used in higher education: institutional mission statements, strategic planning processes, periodic campus reviews of departments and colleges, collaboration between departments and colleges and external reviews (p. 46). Small surveyed postsecondary institutions to find out what was considered to be a change agent,

external to a postsecondary institution. He sent out questionnaires to Canadian

colleges and universities to determine if there was change occurring in

postsecondary institutions, and if it was, what change agents did respondents

believe had influence over lasting change. In the survey, Small asked what was

considered as a significant change. Forty-six percent of responding colleges

reported a significant change to be one in managerial structure (p. 118).

Institutional boards and administration, provincial government or government

agencies, academic faculty, students, federal government, and the public at large

were perceived to have influenced change in the institutions. Respondents

perceived the greatest influence over change to be provincial governments (p.

121). A recurring theme in the survey Small conducted is the use of Total Quality

Management (TQM) as an approach to sustain change (p. 125). Hamlin, Reidy

and Stewart (1997) studied the British Civil Service to determine if

Organizational Development (OD) interventions were important influencers of

sustained change. The statements gathered during the workshops showed what

participants thought was effective or ineffective managerial behaviour. The

intervention provided by the OD workshops was deemed successful in stimulating

a transformational shift, or reduction in management. The British case refers to

this reduction in management as delayering. The net effect of the TQM process

was a recommendation to delayer management levels from 21 to 5. The success

of the intervention was evidenced by other teams in the Division beginning to

implement their own workshops. The similarity between the British study and the

postsecondary study undertaken in this research is the delayering that took place

through a TQM intervention. The British Civil Service Division went from 21

"collections" (similar to programs or units) to 14 collections, and eventually to 5

collections or levels of management. Because of the findings regarding the

importance of TQM in the Small and Hamlin, Reidy, and Stewart studies, the

literature regarding the place of TQM or Continuous Quality Improvement (CQI)

in higher education is reviewed.

Continuous Quality Improvement (CQI)

Various sources refer to CQI as Total Quality Management (TQM), Total

Quality Improvement (TQI), or Total quality (TQ). In this study, I will use CQI,

as it is reflective of the term used in this case.

Chaffee and Sherr (1992) wrote a publication specifically for

postsecondary education, applying quality tools and techniques to processes.

> TQM provides very few answers; rather, it poses key questions and
> provides an array of potential methods through which *the organization's
> participants* can answer them. Participants themselves must shoulder the
> responsibility of creating a continuously improving organization, and an
> essential element of the transformation is that they apply their own
> expertise toward continuous improvement (p. 8).

The TQM approach to solving problems is to use participants from the

organization to work out the solution themselves. Chaffee and Sherr (1992)

include in the approach a cross-functional team. "Cross-functional teams are

common in TQM because they can help ensure that a solution will work for all

affected parties" (p.16). "When the team includes representatives of diverse roles,

team members can knowledgeably discuss what happens at various steps and

why. They can explain their needs as beneficiaries of preceding steps and ask

those who work later in the process about their needs" (p. 65). Further, the

authors say that

> the value of teamwork is well established in research, especially when a problem is complex and ambiguous, as in many organizational processes. Teamwork helps people develop a shared sense of responsibility, reducing the amount of stress felt by any one person, allowing all team members to see how their work contributes to the whole, and building relationships among them that improve their work in other areas (p. 64).

This discussion of the workings of CQI in an educational setting shows how cross-functional teams, working together to find solutions to complex problems, will produce a solution in which they share responsibility and understanding of the complexity of the issues and the consequences of the decision.

Shmoker and Wilson (1993) agree with the findings of Chaffee and Sherr (1992) in their case studies of various schools who were successful in the use of CQI to effect change. "All schools made a priority of time for meetings and took creative measures to provide it" (p. 149). In order to become a learning organization, a "deliberate effort for teachers and managers to talk and observe each other in educative settings provides synergism that brings out the best in everyone" (p. 149).

Another change agent process that was identified in the literature was the management of transition from the existing state to the new state. Attention to the transition may sustain the change.

Transition Management

Once a change initiative is decided upon and the change begins to take place, the organization assumes the role of helping to move the change along, so it doesn't get stuck or start to backslide. Kanter, Stein and Jick (1992), and Bridges (1991) call this process "making it happen" and "transition leadership." Kanter,

Stein and Jick propose a model for "Making it Happen and Making it Stick" (p. 508). Their model is based on involving staff and management in both decision-making and implementing the required changes. These authors are in favour of participative problem solving. This type of solution building is also part of Bridges' model. Bridges believes that the key to sustainable change is transition management. Transition is the period between the old way of doing things and the new, proposed way of doing things. He calls this transition the "neutral zone" between ending and beginning. In recognizing the neutral zone, management could experience decreased staff morale, increased absenteeism, miscommunication, poor priority setting and a higher staff turnover (p. 35). Bridges proposes that the solution to prevent or minimize these issues is communication (p. 49). He believes that the more information all participants have during the transition, the likelier the transition will be smoother, and will reach the beginning of the new phase quicker. Bridges' research devotes a great deal of time to the neutral, or transition, zone.

Perceived Validity of the Change

The third factor sustaining change is validity, or the perception by the staff that the change is valid and required. In this section, literature is reviewed that pertains to the validity of the change. Owens (1998) agrees that organizational development interventions should be centered around a valid change so that true, sustainable change can be effected. The opposite effect is "partial, incomplete, short-term activities lacking the planning, scope, and sustained effort required for success" (pp. 316-317). Further, Owens says change is more likely to happen

when an educational institution "seeks to develop an internal capacity for continuous problem solving. The processes of renewal include the increased capacity to sense and identify emerging problems" (p. 303). In summary, Owens shows that educational institutions are more receptive to change if they feel the change is valid; however, the solution to the change needed is more likely to be sustained if workers and managers solve mutual problems together (p. 326). Owens also deals with Total Quality Management in association with problem solving, since the TQM process involves using teams of staff to resolve issues. Staff must acknowledge that there is a need for change; therefore, the change is valid. The second point is that the staff should support the solution in order to support the required change, possibly through a TQM process.

Bridges (1991) also categorized selling the problem that is the reason for the change as "very important. Do this at once" (p. 14). Bridges states most managers and leaders put 10% of their energy into selling the problem and 90% into selling the solution to the problem. People are not in the market for solutions to problems they don't see, acknowledge, or understand. They might even come up with a better solution than yours, and then you will not have to sell it -- it will be theirs (p. 15). Bridges makes two points: first, we need to show how important the validity of the change is and, second, how important a participative solution is in making a sustained change.

Both Owens (1998) and Bridges (1991) show how to reduce resistance to change through an approach of selling the staff on the validity of the need for change. They also outline the importance of a TQM process. The first salient

point from this research is that staff must believe change is a valid response to a real need. The second point is that the method of determining the response (through a TQM process) is connected to validity.

<div align="center">Cultural Support</div>

In this section, literature is reviewed that pertains to the support the institution provided to the Division implementing change. Schneider, Brief and Guzzo (1996) addressed organizational change strategy based on preparing the climate and culture for sustainability. The result of their review of changes at AT&T, General Motors, Ritz-Carlton and IBM Rochester shows that changes are more likely to stick when the organization is ready, and the change strategy refers to the entire organization. They noted that a change, such as the organizational hierarchy change in this study, is effective when structural changes are associated with changes in the psychology of employees. Further, each organization reviewed needed a crisis in order to have a valid change. AT&T went through divestiture and GM experienced a huge loss in market share. These examples point to a need for radical action. To summarize, the first criteria for change to be sustained is that prevailing conditions are important at the start of the change effort. The second criteria for change to last is the way it is introduced. The findings of these authors indicated that the probability of change taking root is more likely when work is challenging, decisions are participative, and interpersonal relationships are characterized by mutual trust. In this journal article, Schneider, Brief and Guzzo review current methods associated with organizational change, where they show that the TQM approach is most closely

affiliated with the four key dimensions outlined above.

Pawar and Eastman (1997) have linked culture to transformational leadership as it relates to the ability of leaders to influence change. In fact, they say organizational context must exist, which in turn influences organizational receptivity to transformational leadership. Their term for culture, is contextual influence, and they have concentrated their research on contextual influence based on four factors: an organizational emphasis on efficiency and adaptation orientation; a relative dominance of technical core and boundary-spanning units in the organizational task system; organizational structure; and, mode of governance. They conclude that a clan mode of governance will be more receptive to transformational leadership than a bureaucratic mode of governance. Their analysis of culture based on these four factors led to a conclusion that leaders can be successful by using these factors through confrontation and reshaping these factors, or by knowledge of these factors and harnessing them as instruments in the change process.

Chaffee and Jacobson (1997) identify the requirements for change in postsecondary institutions, as follows:

> Increasingly, leaders are exhorted to "transform" their institutions --
> essentially, to turn them into something new. While planning is necessary
> for transformation, it is insufficient to accomplish that. The magnitude of
> the task calls for the development of a new, shared vision of what the
> institution wishes to become (p. 232).

Further, the authors point out how difficult it is to achieve a shared vision in postsecondary institutions, given the subcultures present.

> Institutions with diverse subcultures need a shared vision to unite people
> and coordinate action, but their very diversity makes this difficult to

achieve. For example, administrators may seek high enrollment, efficiency, or accountability, while faculty may seek smaller classes, more travel funds, and fewer committees. These sets of goals are not necessarily mutually exclusive, but they illustrate fundamental differences in language and thought between the two subcultures. Before they can share a vision they need to find shared goals and language (p. 233).

In order to successfully involve other subcultures in a transformation, it is important to understand them. "Successful transformational planning efforts depend upon both a clear recognition of cultural flash points and the development of inclusive strategies designed to mitigate them" (p. 236).

This review of the literature has identified four key factors that should be present in an organization if change is to be sustained. These factors are: leadership, change agents, validity, and cultural support. In addition to key factors that sustain change, there are also important behavioural processes that are necessary to ensure sustained change in an organization.

Behavioural Processes Influencing Change in the Organization

The behaviours of cooperation and communication are mentioned by several authors as being important to the sustainability of change. Harrison (1994) developed a model illustrating the influence of behaviour on sustainability of change. He showed that behaviour could be tangible through observation of specific behaviour patterns evidenced through cooperation, conflict, coordination, communication, and rewards. In addition, the level of participation used in problem solving and goal setting could be an indicator of the processes influencing sustained change.

Relations Among Groups and Individuals

Positive relationships between groups and individuals create a climate of

openness to change. Further, sustained change requires that positive relationships

continue through the transition of the change from the old to the new, and beyond.

<u>Cooperation, Conflict Resolution and Communication</u>

Harrison (1994) indicated that change would be more effective if there

were "high levels of trust, open communication of feelings and needs between

ranks, and a deemphasis of status differences" (p. 40). Porter, Lawler and

Hackman (1975) agree that change will be sustained through cooperation,

effected through team building activities such as questionnaires designed to

measure communication and cooperation; process consultation designed to have

the organization work together to diagnose communication problems; and, an

interpersonal approach where teams consciously work together to improve

communication (p. 458 - 463). These authors acknowledge that during change

there will be conflict. The ability to develop conflict resolution skills and to apply

them during resource allocation, problem solving, and goal setting allows more

time to give priority to implementation of change strategies.

Controlling and Rewarding Behaviour

Organizations often institute rewards through money given to managers

and staff for any savings in labor costs. Porter, Lawler, and Hackman (1975)

indicate a reward system of this type "improves personal relations, increases

individual productivity, and organizational profitability" (p. 459).

Participative Problem-Solving

Harrison (1994) and Pomrenke (1982) consider the importance of

including staff in the development of solutions to be extremely important if

change is to be sustained. Pomrenke advocates training in order to develop teams

to solve the organization's problems. The purpose of prior training is because

> modern organizations are extremely complex systems that can no longer
> be managed single-handedly in the traditional "great president" mode.
> Problems must be solved through the efforts of people of diverse
> backgrounds, skills, and personalities. As information is shared in teams
> or work groups, the teams can become vehicles by which the
> understanding of and commitment to the organization can be enhanced.
> As people get a clearer idea of how their tasks relate to the goals of the
> organization and to the tasks of others around them, they are much more
> likely to accept those goals as their own (p. 38 - 39).

Levin (1998) found in colleges using TQM as a change agent that the

organization was "altered significantly" (p. 416). In one college where TQM was

introduced, it "precipitated internal change, empowering employees and involving

everyone" (p. 416). Interestingly, TQM is also credited with leading to a college

reorganization as a result of its introduction.

Impact

When an organization undertakes a change effort, it seems likely that the

expected outcome would be an improvement to the status quo. If there is nothing

to be gained by the change, then the "do nothing" alternative is more viable than

the alternatives proposed by change agents.

Starke and Sexty (1995) review a logical pattern for introducing change

that has, as a final step, the evaluation of the change. Evaluation of the change

cannot usually take place immediately. An initial evaluation of the process

around what went well and what could have gone better can be done immediately

upon completion of the change implementation. However, it requires some set

amount of time to lapse before a summative evaluation can be accomplished in

order to provide feedback on whether the problem has been solved and the system is working more efficiently. In many organizations this type of evaluation is not done. Bidwell and Lippitt's study (as cited in Lippitt, Langseth, and Mossop 1985), surveyed 76 consultants and clients to gain insight on the barriers to conducting evaluation, and ranked their findings as follows: lack of time ranked highest; and in descending order came lack of a frame of reference (criteria); failure to determine expectations in measurable rterms; lack of money for research; inability to convince management [of the need for an evaluation]; lack of effective research methods and tools; inadequate facilities and resources [for the research]; lack of cooperation between client and consultant; and magnitude of the research (p. 120).

Beckhard and Harris (1977) give two other reasons for lack of evaluation. They cite a lack of serious consideration in the early stages of change implementation so that no clear criteria are developed against which to measure the effects of interventions. They also cite informal evidence of success or lack of success as being fairly obvious, and therefore management deems formal evaluations to be an unnecessary cost (p. 85).

Mohr (1992) defines impact analysis as "determining the extent to which one set of directed human activities affected the state of some objects of phenomena and - at least sometimes - determining why the effects were as small or large as they turned out to be" (p. 1). These impacts on the system can be evaluated to determine if they are positive (the extent to which the outcome matched the intended goals), negative (the extent to which the outcome is in direct

opposition to the intended goals), or whether there was some unintended impact on systems. Specifically, an evaluation should include an investigation into the side effects of the change effort. This will allow the researcher to investigate not only if the change addressed the problem satisfactorily or unsatisfactorily, but also if several other points in the process may have changed that were unintended.

Fullan (1982) discusses the institutionalization or continuation of change in education institutions. In this work, he stresses the importance of the impact of change. "After all, innovations are supposed to accomplish something worthwhile" (p. 77). Specifically, Fullan states these benefits as "student learning, teacher benefits (e.g., professional development), and organizational change (e.g., increased interaction, teaming) (pp. 77 - 78). Further, if there has been an impact, has it been a benefit as a result of the identified change [or as a result of some other environmental factor]. For students, if the change has "worked," the innovation or change should result in "heightened interest. It engages students in more interesting educational activities and increases the attainment of desired educational objectives" (p. 156). For teachers, "effective educational change in practice cannot occur without improvements in the teachers' work life" (p. 112). For the organization, Fullan does not present a clear picture of what successful change would look like.

Fullan (1991) further developed the concept of measuring impact on students, teachers and the organization. Students benefit where students have a heightened interest and engagement, where changes have been made "at the instruction and classroom level, and at the level of the school as an organization.

This results in enhanced student motivation, performance, and overall engagement in learning and the life of the school" (p. 184). Teachers benefit from the collegial approach. Fullan cautions, however, that one should not assume joint work is automatically more appropriate. "Contrived collegiality can lead to the proliferation of unwanted contacts among teachers which consume already scarce time. True collaborative cultures are 'deep, personal and enduring' " (p. 135-136). Organizations benefit from developing the people who populate them. They are then able to choose innovation wisely. "The greatest problem faced by school systems is not resistance to innovation but taking on too many changes indiscriminately. Selectivity and synergy replace ad hocism in institutionally developed organizations" (p. 349). Further, "interactive professionalism serves simultaneously to increase access to and scrutiny of each other's ideas and practices" (p. 349). Alliances with individuals and partnerships with institutions are powerful strategies.

Fullan (1993) describes change in the education system more globally than in his other works. Rather than seeing students, teachers, and the organization as different entities, he describes them as a dynamic complexity. "When cause and effect are not close in time and space and obvious interventions do not produce expected outcomes because other 'unplanned' factors dynamically interfere. The goal then is to get into the habit of experiencing and thinking about educational change processes as an overlapping series of dynamically complex phenomena" (pp. 20 - 21). In terms of impact, in this work Fullan no longer writes about the benefits of change. Rather, he focuses on what the individual and

the organization has learned that they can apply to the next change, in order to improve its outcome.

Fullan (1993) devotes a large part of his focus to the environment in which the new learning organization finds itself. Because of the continuous change that is "out there," the learning organization "learns to live with [their environments] interactively. Continuous change is built into the relationship because widespread interactions under conditions of dynamic complexity demand constant attention and movement" (p. 84).

Environment

The environment is also important in Harrison's (1994) model, which includes the dynamic, ever-changing, external environment. External conditions "influence the flow of inputs (resources) to organizations, affect the reception of outputs (in this study -- sustainable change), and can directly affect internal operations" (p. 30). The example of changing external conditions in this case is the government reduction in funding. The institution had no control over this decision and simply had to respond, with no set guidelines or practices to help in solution building. "An organization's success depends heavily on its ability to adapt to its environment" (p. 31). The external environment does "not necessarily correspond to the interests or priorities of top management" (p. 31).

Hanson (1996) in his work on educational administration and change, reviewed how change happens in a postsecondary institution, citing enforced change, expedient change, and essential change as the impetus for change. Hanson discussed the resistance to this type of change that can be expected at the

individual level due to vested interests. However, resistance to change may be mitigated by the inability of staff to find work in any other sector. The environment was not conducive to staff leaving the technical institution to go back to the skill sector they had come from. The private sector, as stated by Andrews, Holdaway, and Mowat (1997), was "undergoing significant restructuring, downsizing, and massive changes in their organization and administration" (p. 89). So there was no other job available for instructors if they were to leave teaching. There was nothing to go back to.

Dennison and Gallagher (1986) point out that in the early 1970's (which is approximately when the institution being studied was commissioned), the "hierarchical structural model from the corporate world was in vogue" (p. 197). However, in the new circumstances, where "the rapid pace of change is the single most important phenomenon facing Canada's colleges in the years ahead, requiring an operating mode that is compatible with responding to, and providing, institutional change" (p. 201), a traditional hierarchy in an organization may not be the best structure to allow rapid change.

The literature reviewed suggests that there are many influences on change but if any of these influences lose power, position, or drive then the change that has taken place also loses power and the change is likely to backslide. The factors and processes identified throughout the review are meant to be considered when an organization wants to keep the change from backsliding. A conceptual framework guided the study.

Developing the Conceptual Framework

According to Miles and Huberman (1994), a conceptual framework provides, "either graphically or in a narrative form, the main things to be studied...the key factors, constructs or variables...and the presumed relationship among them" (p. 18). The conceptual framework was created to assist with the gathering of pertinent data and to construct the interview guide. Two main sources provide a conceptual framework for this study (see Figure 2). The "input-processes-output" open system model proposed by Harrison (1994) was useful in placing the processes that were identified in the literature into the framework. Two elements were identified, based on the literature review: key factors and behavioural processes. The key factors were: leadership, change agents, validity of the change, and, cultural support. The behavioural processes were: relations among groups and individuals including cooperation, obvious conflict and communication; controlling and rewarding behaviour; and problem-solving. Fullan's (1982) theory regarding the impact of any change regarding the benefits to student learning, instructor professional development, and, increased teaming or interaction in the organization was included in the framework. It seemed appropriate to find out if the change had any effect on the organization post-implementation.

The input column shows what available resources make up the content of input: people, funds, and time. The output column shows the result, i.e. sustained change. Environmental elements are noted at the top and bottom of the model to identify the surrounding contextual parameters of any change effort.

Figure 2: <u>Conceptual Framework to Study Factors and Behaviour Processes that</u>
<u>Sustain Change, and the Resulting Impact</u>

<<<-------------------E N V I R O N M E N T-------------------->>>

INPUT	FACTORS AND BEHAVIOUR PROCESSES		OUTPUT		IMPACT
Resources • People • Funds • Time	**Factors that Sustain Change** • Leadership • Change agents • Perceived validity of the change • Cultural support **Behaviour Processes that Sustain Change** • Relations among groups and individuals: cooperation, obvious conflict, communication • Controlling and rewarding behaviour • Problem solving	> > > > > > > > > > >	**Sustained Change**	> > > > > > > > > > >	**Result** • Student learning • Instructor professional development • Increased interaction or teaming in the organization

<<<-------------------E N V I R O N M E N T-------------------->>>

Source: Adapted from Harrison (1994) pp. 28 - 55; Fullan (1982)

The Environment-Input-Process-Output Concept

Harrison (1994) uses the environment-input-process-output model

diagnose organizational change. The four system elements (hereafter described as

variables), i.e., environment, inputs, outputs, and processes, are particularly

affected by a dynamic external environment that, because it is constantly

changing and is not controlled by any one factor, provides a constant challenge to

those trying to operate within that model. Harrison describes this first system

variable (the environment) in this way:

> Environment includes all the external organizations and conditions that are
> directly related to an organization's main operations and its technologies.
> They include funding sources, suppliers, distributors, unions, customers,
> clients, regulators, competitors, collaborative partners, markets for
> products and resources, and the state of knowledge concerning the
> organization's technologies. The *general environment* includes
> institutions and conditions having infrequent or long-term impacts on the
> organization and its task environment, including the economy, the legal
> system, the state of scientific and technical knowledge, social institutions
> such as the family, population distribution and composition, the political
> system, and the local or national cultures within which the organization
> operates (pp. 28-29).

Harrison describes the other system variables (inputs, behaviour processes, and

outputs) and subcomponents of these variables as follows:

> One key element [variable] is "inputs." The subcomponents of the input
> element are raw materials, money, people, equipment, information,
> knowledge, and legal authorizations that an organization obtains from its
> environment and that contribute to the creation of its outputs (p. 28).

> The second key element [variable] is "behaviour and processes." These
> are the prevailing patterns of behaviour, interactions, and relations among
> groups and individuals. (p. 28).

The subcomponents, or elements, chosen for review are: four key factors, i.e.,

leadership, change agents, perceived validity of the change, and cultural support,

used in this study and were deemed appropriate variables to examine. The six

behavioural processes, described by Harrison, are: relations among groups and

individuals, cooperation, obvious conflict, communication, controlling and

rewarding behaviour, and problem solving. Through observation of these

influencers, we can determine whether there has been support or a lack of support

for the change, and therefore which behaviours have influenced the sustainability

of the change.

> The last key element [variable] is "outputs." The subcomponents of the
> output element are products, services, and ideas that are the outcomes of
> organizational action. An organization transfers its main outputs back to
> the environment and uses others internally (p. 28).

The Impact Concept

The final aspect of the conceptual framework is impact or the results that

emanate from change. In Fullan's (1982) discussion of institutionalization or

continuation of change in education institutions, he stresses the impact of change.

"After all, innovations are supposed to accomplish something worthwhile"

(p. 77).

Summary

The literature chapter identifies the four key factors associated with

sustained change: leadership, change agents, perceived validity of the change,

and cultural support. This chapter also identifies six behaviour processes that

sustain change: relations among groups and individuals, cooperation, obvious

conflict, communication, controlling and rewarding behaviour, and problem

solving. A discussion of the impact of change on an institution describes the

importance of determining if the change has been beneficial.

The systems model, (input, process, output, existing in a dynamic environment) proposed by Harrison (1994), combined with the impact theory proposed by Fullan (1982) led to the development of the conceptual framework (Figure 2) for this study. Operationalization of this model is described in Chapter 3 as a part of the research method and design.

CHAPTER 3

RESEARCH METHOD AND DESIGN

This chapter presents the method used to determine the research questions and gather, analyze, and report the data. In addition, the influence of the pilot study, the rationale for employing a qualitative approach to gathering data, and details regarding an embedded approach to the data are discussed. The methods of attaining reliability, credibility, and trustworthiness are also reviewed. Finally, the limitations, delimitations and assumptions that apply to this research are outlined.

Purpose of the Research

The major purpose of the study was to identify key factors and behavioural processes that contributed to the sustainability of a change effort in one Division of a Western Canadian postsecondary institution. A secondary purpose was to find out if the change had any impact on the postsecondary organization in which the change took place. In order to accomplish this, a case was selected where an administrative structural change occurred which has been sustained over a period of three years (as described in Chapter 4).

Case Approach

A modified case study approach was selected for this research, given the nature of the institution and the Division in which the change occurred. This section describes the rationale for using such an approach, the selection of the case, formulating the research problem and question development.

Rationale

Hartley (as cited in Cassell and Symon, 1995) described the case study

approach as follows:

> The strength of case studies lies especially in their capacity to explore
> social processes as they unfold in organizations. A case study allows for a
> processual, contextual and generally longitudinal analysis of the various
> actions and meanings which take place and which are constructed within
> organizations. Case studies are also useful where it is important to
> understand those social processes in their organizational and
> environmental context. Behaviour may only be fully understandable in
> the context of the wider forces operating within the organization whether
> these are contemporary or historical (p. 212).

This research benefits from the case study approach because the goal was

to explore factors and processes as they unfolded over the three years. Another

benefit was the ability to ensure every stakeholder group was represented in

interviews.

Documentation alone would not give the rich data necessary to understand

the various social processes which took place. Also it became apparent that only

one interview, such as that with the Dean or the Academic Vice President, would

not give the broad, in-depth information that was obtained through a much wider

scope of interviewing.

Becker (1968) defines case studies as necessary "to arrive at a

comprehensive understanding of the groups under study, and to develop general

theoretical statements about regularities in social structure and process" (p. 233).

The case study approach achieves these benefits because it accomplishes both a

comprehensive understanding of the Division under study, and it allows

theoretical statements to be developed.

Merriam (1988) defines a qualitative case study as an "intensive, holistic description and analysis of a single instance, phenomenon, or social unit" (p. 21). Use of a case study approach allowed the Division to be described in an intensive and holistic manner (see Chapter 4). Therefore the data obtained provides analysis of the phenomenon of sustainability.

Stake (1998) refers to three types of case study: intrinsic case study, instrumental case study, and collective case study. Using these definitions, the case study undertaken in this research is intrinsic and instrumental. An intrinsic case study "is undertaken because one wants better understanding of this particular case" (p. 88). An instrumental case study is where "a particular case is examined to provide insight into an issue or refinement of theory" (p. 88). In telling the story of the case, Stake states "one cannot know at the outset what the issues, the perceptions, the theory will be. Case researchers enter the scene expecting, even knowing, that certain events, problems, relationships will be important, yet discover that some actually are of little consequence" (p. 93).

Finally, Yin (1994), in his seminal work on case study research, outlined the practical use of a case study approach when the research question is "why." "Why questions are explanatory and likely to lead to the use of case studies...as the preferred research strategy. This is because such questions deal with operational links needing to be traced over time" (p. 6).

These authors define case studies and the conditions under which their uses as a research tool have merit. They support the belief that the case study methodology is a valid qualitative approach to research.

Selecting the Case

One Division of a postsecondary institution in Western Canada used a business approach and solution for an externally-imposed funding reduction. The institution and the Division are described in greater detail in Chapter 4. What is unique about this case is that no other Division in the institution used this business approach or type of solution. Most Divisions used the traditional standard of reducing staff and supplies, which had as one potential the possibility of directly affecting classroom dynamics. However, this Division used the approach of changing how it was organized and administered, with the specific written intention of not affecting classroom dynamics. Further, by the time I learned of the case in late 1997, the solution had been in place for three years, and had "stuck," even though there appeared to be no organizational support for the way the Division was newly structured. In fact, the structure caused some problems in interaction with the rest of the organization, since it was physically and philosophically different from other Divisions.

The case was ideal, because it was possible to define the boundaries around the case selected. The change in the Division was to the organizational administrative structure. The change occurred quickly, based on an external force (funding reductions imposed by the Provincial government) and three years later the Division was still in its changed state, neither backsliding to the old structure, nor incrementally changing to any new structure.

Formulating the Research Problem

The change that took place in the institution studied was of interest

because the change was in a single programming unit. The entire institution had not changed dramatically since its inception in 1963, nor had the entire institution changed as a result of the change in this Division, or of recent government funding reductions. Therefore, the research question centered on the notion that there were some factors or processes that had caused the change to be sustained for the three-year period.

Data Gathering

In order to answer the questions developed for this case, two methods were used in data gathering: interviews and documentation review. This section describes the instrumentation, including the interview process, the pilot test, and the documentation provided for analysis.

Instrumentation

Two strategies were used: semi-structured interviews which gathered the perspective of postsecondary faculty, administrators and staff; and, document analysis. Questions were generally open-ended (see Appendix A). Specific examples were sought as participants described situations related to the change process in this Division. These questions are described in this chapter under Question Development. Documents were the reports associated with the three-year change process. Specifically, the unpublished document from the cross-functional team (Total Quality Management Team), Transition Monitoring Report 1, Transition Monitoring Report 2, and the Review of the 1995 Restructuring document, as described in this chapter under "Documentation."

<u>Question Development</u>

The concept of sustainable change, and further, the reasons why a change had been sustained in a postsecondary institution that did not appear to be change hardy (described in Chapter 4), led to two specific research questions:

1. What are the key factors and behavioural processes that sustain change in a postsecondary institution?

Business journals particularly looked at how major change was being sustained in business and industry, but there was very little information in the education literature on change with regard to organizational structure. Most change information in education literature at the time of the review was about curriculum.

2. What were the impacts of the change on students, instructors, and the organization?

The literature on change indicated that there should be some result, either positive or negative, intended or unintended, from a major change effort. In other words, the reason to undertake the change in the first place should be satisfied. Fullan (1995) further indicated that any change should not only obtain a result, but should also show an impact on students, instructors and the organization.

In order to answer these questions, four Subsidiary Research Questions were developed, with probes, for a comprehensive understanding of this Division's experience with change. The questions were then tried out in a pilot, described in the section titled Pilot Test. The Subsidiary Research Questions, their probes, and the rationale are explained.

1.1 What resources were assigned to the change?

Probes:

(a) What was the organizational structure before the change began? This probe was asked to explain the difference between the original structure and the structure after the change process.

(b) How was the organizational structure identified to be changed? This probe was asked to explain why the change was made to the organizational structure as opposed to, say, making use of a staff redundancy program.

1.2 **What were the key factors that contributed to sustainability?**

Probes:

(a) Which key people influenced the change? This question was asked to determine who led the change. The purpose was to explore leadership and change agent data.

(b) Did management and staff believe the structural change was a valid response to the need for funding cuts? This question was asked to determine if respondents believed in the necessity of the change.

(c) Did the culture support the change? This question was asked to determine if other institution Divisions or administration supported the Division making the change.

1.3. **What were the key processes that contributed to sustainability?**

Probes:

(a) How did behaviour contribute to the success of the change?

Additional probes included:

(1) relations among groups and individuals such as team leaders, teams, union,

accrediting bodies and customers (students), staff, service areas, and program

advisory committee members.

(2) cooperation between team members and teams

(3) conflicts between team members and teams

(4) coordination of budgets

(5) communication from leaders, peers, and monitoring teams

(6) controlling and rewarding behaviour

(7) problem solving - was it participative or top-down.

These probes helped to identify behaviour of team members and leaders,

which might identify them as being key processes to sustainable change.

2.1 What has been the impact of the change?

Probes:

(a) What benefits were realized to student learning, instructor professional

development, and increased interaction or moving to teams in the organization?

This probe determined if there was a perception that the change had a positive or

negative impact on the Division or the organization.

(b) If you could change one thing, what would it be? This was asked as an open-

ended question to allow open discussion.

These interview questions allowed me to interact with individuals directly

connected with the change. In the interaction, it was possible to get a genuine

understanding from the staff about their thoughts and feelings about the change

process, specifically what made the change sustainable. The method of selecting

the sample and the arrangements to interview this sample are described.

Sample Selection

An application to conduct research was submitted to the Institutional Research Department (see Appendix B). Approval was granted on March 19, 1998 (see Appendix B). An initial meeting was held in April 20, 1998, with the Dean of the Division and his management team where the purpose of the study was outlined. Permission to interview staff who met the criteria was given.

To fit the interview criteria, participants must have been working in the Division at the time of the announcement of the 21% reduction in funding and still be working in the Division at the time of the study, a period of approximately three years. The Division supplied a list of 47 staff who met this criteria. In addition, six executive and three non-Division staff met the criteria. An electronic message, describing the study in detail and soliciting volunteers, was sent to all potential participants in early May, 1998. The goal was to have at least one person who fit the criteria from each stakeholder group in each cluster of Programs of Study (described in Chapter 4) to interview. Eighteen participants responded by mid-May. This was deemed adequate, as it represented participants from all stakeholder groups and all clusters. There was representation from all four clusters, including Team Leaders, instructors, and technical or administrative support staff. Six executive members, representing the entire population of executive involved in the change, agreed to be interviewed. Interviewing all executive provided a macro view of the institution (2 senior administrators: Academic Vice-President and Dean), as well as a micro view of the institution (4 Team Leaders). Five faculty (instructors) were representative of each cluster (one

from three clusters, one man/woman team from the last cluster). Four administrative and technical support staff represented each cluster. Three non-Divisional staff completed the number of 17 total interviews. The candidates for participation were the first 18 who represented the clusters and the stakeholder groups. Two requests for participation were sent out in order to achieve the broad coverage of stakeholder groups and clusters.

Pilot Test

In order to acquire background and insight about the specific academic unit being studied, a former Associate Dean of the Division was interviewed in a pilot approach to the research in May, 1998. The pilot helped to clarify and refine the interview questions. Initially, the questions were open-ended and vague. The interviewing style was more of a discussion beginning with the question, but advanced to other topics related, but not specific enough to the questions prepared. In transcribing this interview, the need to be more specific on the questions asked became apparent.

Interview Arrangements

Eighteen people volunteered for the interview process. After permission was gained from each person (see Appendix C), interviews were scheduled and held in private offices or meeting rooms, arranged through institutional administration. Each interview, conducted in May and June, 1998, took approximately one- to one-and-one-half hours to complete. All interviews were audio-taped and transcribed, then forwarded to the interviewee with a notation to edit (add or delete) the transcription until they were satisfied the document clearly

reflected their answers to the questions. All were returned by the end of June, 1998.

Documentation

Several important documents were used to triangulate the data. These documents were a Transitional Monitoring Team Report 1 (April 24, 1996), Transitional Monitoring Team Report 2 (May 30, 1997), and a 1998 Review of the 1995 Restructuring of the Division. A summary of these documents follows.

Transitional Monitoring Team Report 1. This report was presented to the Division Leadership Team (Dean, Associate Dean, and four Team Leaders, the Human Resources consultant, and the Dean's Assistant) almost one year after the change had been initiated. As noted earlier, the mandate of the Transitional Monitoring Team (TMT) was to assess, evaluate, and report on the impact of the recent administrative changes within the Division. The team was aided and guided by a CQI facilitator. The TMT used a CQI approach to gather information and formulate recommendations. The CQI approach meant that the TMT had a sponsor, a mandate that was approved, membership from all work groups, and a feedback mechanism to ensure that what was being discussed represented the feelings and interpretations from all levels. The outcome of this TMT was a series of nine proposals. Five proposals were workload-related and four were communication-related. The executive summary of this report described the strengths and weaknesses of the new structure as:

> The strengths of the new administrative model that were identified
> included a better awareness of the other programs within the new clusters
> as well as the issues affecting other programs. The changes have forced
> staff into a different way of doing business. Staff have worked together as

a team throughout the changes. Another advantage is that there are fewer layers of administration.

Weaknesses of the new model include problems with communication and concerns regarding the delegation of administrative duties (p. 4).

Transitional Monitoring Team Report 2. In response to a

recommendation from Report 1, a second TMT was asked to continue to monitor

the change in November, 1996, and a report was prepared for the Leadership

Team. The purpose of this second TMT was to monitor the implementation of

recommendations of the previous TMT and to gather and communicate to the

staff important and relevant issues that continued to impact the way business was

done. Again, this team used a CQI approach. Seven recommendations were

made in this second report. Two were workload-related, two were in the nature of

requests for appreciation and recognition of the efforts of the staff of the Division

during the change, and two were communication-related. The last

recommendation was a request for a response to a set of recommendations. The

executive summary described the recommendations as follows:

> The feedback collected from staff confirmed that: the quality of education is being maintained, there is general support for a TMT, there is general support for the reorganization of the school structure, workload continues to be a concern, and there is a lack of recognition and representation of specific groups at all levels of the institute (p. 1).

1998 Review of the 1995 Restructuring of the Division. A review of

the restructuring of the Division was commissioned by the Division leadership

team in 1998, in response to concerns in both Transitional Monitoring Reports 1

and 2 regarding workload. Human Resource Services conducted the review and

made several recommendations, centering around workload issues as a direct

result of restructuring. Findings of the review are summarized as:

Since the 1995 administrative restructuring in the Division, the staff have found that they have increased opportunities for decision-making, communication, sharing of resources and expertise, and an enhanced sense of camaraderie and team work. The leadership team is supportive, productive, and makes decisions that benefit the Division as a whole rather than for individual clusters or programs. Students are being served at least as well now as they were in the past, and, in some cases, service and instructional quality is enhanced (p. 2).

Data Analyses

Data analyses for interviews and documents follows. The description of how the data were coded after interviews took place is described in Table 3.1. Data were coded so that they could be sorted by individual response, as well as by stakeholder group.

Table 3.1

Stakeholder Responses

Ques. No.*	Stake- holder	Response	Effect on Sustainability	Researcher Observation
1	1-10	hierarchy	N/A	clear
2	1-10	manpower takes majority of budget	H	environment
3	1-10	dean and associate dean	H	leadership

* Question 1: What was the organizational structure before the change began?
  Question 2: How was organizational structure identified to be changed?
  Question 3: Which key people influenced the change?

Components of Table 3.1 represent the key variables in this study. The questions are listed in Appendix A.

The stakeholder column has two components: stakeholder group (1 to 4) and stakeholder individual (by interview number 1 - 17). Component one

represents the four stakeholder groups: Group 1 is the executive (Academic Vice-President, Dean, Associate Dean, Team Leaders). Group 2 is the instructional staff (faculty). Group 3 is the administrative support staff (secretary and technical support). Group 4 is the non-Divisional staff (Human Resources, Organizational Development, and Continuing Education). In Table 3.1, the notation 1-10 means the executive (stakeholder group one), 10th interview (individual's response). The 1-10 coding allowed the data to be sorted by group (1) or by individual (10).

The response column reflects a summary of the response to the question by each interviewee. Transcripts were scanned for each question. If possible, one entry per question was given. If it appeared that one summary would not be adequate, then more than one summary was entered. The reason for making more than one entry would occur if a different theme (identified in the Researcher Observation column) could be analyzed by sorting the columns separately.

The fourth column, Effect on Sustainability, was originally coded as H (high -- clearly supported the change), M (moderate -- somewhat supported the change, L (low -- clearly did not support the change), and N/A (not applicable). When I reviewed the data in depth, I realized that this variable was open to interpretation which could be too subjective, and thus indefensible. This code was determined sometimes by voice inflection, or the context in which the response was given. Overall, the data became meaningless and is excluded from further use in the study.

The fifth column, Research Observation, became the notation for factors or processes or other themes that emerged from the specific interview statement.

This table, when completed, could be sorted either by question, by individual, by stakeholder group, or by theme, which was useful in both the analysis of data by responses to the question, and by responses within the stakeholder group.

Data analysis for the documentation was a review of the documents. Common themes were identified that matched the variable of the conceptual model. For example, the Transition Monitoring Team reports documented communication efforts and feedback from staff, reflecting behavioural processes of communication and conflict resolution activities. The 1998 Review of the 1995 Restructuring report documented the efforts of the leadership team in addressing issues, and in offering the institution the opportunity to address staff issues. In the next section, the variables from the conceptual model are described in detail.

<div align="center">The Conceptual Framework</div>

For this study, the five key variables were: Environment, Input, Factors and Processes, Output, and Impact (see Figure 2, Chapter 2). Within each of these variables, the elements that influence postsecondary change are listed.

<u>Environment</u>

The first key variable was the environment. It provided the dynamic that precipitated the change. The provincial government, at the time of the financial reductions, had promised the public that provincial budgets would be slashed, with a focus on eliminating a huge budget deficit in the Provincial budget. In addition to reductions in funding for the education sector, the economic conditions of the day dictated significant funding reductions in ancillary publicly-

funded sectors. For instance, at the same time education was experiencing funding cuts, other public sectors, such as the health sector was also being drastically affected by government funding cuts. In the Division of the institution being studied, this meant that even if teachers in health programs, for example, wanted to quit teaching, they would have few options for other work in a related professional work environment.

The funding cuts in the employment sector affected hiring practices for graduates; therefore, there were fewer applicants to the programs, because it was presumed that students were unlikely to get jobs upon graduation. The quotas (students allowed to enroll) for some of these programs were also lowered, with decreased funding to these programs because of the lower quotas. (Some Canadian institutions closed some programs).

Another factor affecting postsecondary institutions was increased competition. This was brought about by accountability factors introduced by the government. Institutions had to prove their worth by attracting at least three applicants for each quota position available. Otherwise the government determined that the program was not considered viable or wanted by the public. Since all institutions needed to attract these numbers of applicants, some institutions lowered entrance requirements, attracting more applicants, and therefore giving students more options for postsecondary institutions for their education. All of these examples of the environmental dynamic had an impact on the Division being studied.

Input

The second key variable in this study was input. The input, or resources, considered in this research were people, funds, and time. People were the management and staff of the Division being studied. The management and staff had an existing hierarchical management style that experienced a change to a team leadership style. Funds were an important input because the change was predicated on the driving force of reduced financial means to support the Division in its existing state. Time was a consideration because the change had to be effected by fiscal year end in order to meet the reduced funding target for that budget year. These resources are not discussed in depth, nor studied in detail because they were a given at the time of the change. This study concentrates on how the change was sustained rather than what forces precipitated the change, or what resources were in place at the time of the change.

Factors and Behavioural Processes

The third key variable was comprised of two elements: key factors and behavioural processes. There were four key factors influencing change that were chosen to research: leadership, change agents, perceived validity of the change, and cultural support of the institution. The first key factor, leadership, was provided by an Executive structure, which included the Dean and Associate Dean, who reported to the President and Academic Vice-President, and Team Leaders. A consideration in the investigation of leadership was the position power of senior officials or leaders who asserted influence to make change happen, and subordinates to these senior officials who accepted this influence. Specifically,

the Dean and Associate Dean influenced the change by deciding that a

Continuous Quality Improvement (CQI) approach would be used in

recommending a solution. Further, these leaders chose the CQI team participants.

They retained the power to accept or reject the recommended solution.

Inevitably, the leaders had the responsibility to ensure the solution was

operationalized through resource allocation and individual rewards for

cooperative behaviour.

A second key factor influencing change was change agents. In this study,

change agents are interventions, such as a Continuous Quality Improvement

(CQI) team who recommended changes to the Divisional leaders described above.

Another such intervention was the Transition Monitoring Team (TMT) who kept

the line of communication open. These teams are described more fully in Chapter

4. In this study facilitators, who were supported by the Organizational

Development and Human Resource Departments, facilitated the discussions that

led to the major recommendation for a change in the Divisional organizational

structure. A subcomponent of the change agent factor was the position power of

the facilitators, who were perceived by the Dean as having significant importance

in recommending change.

A third key factor in this study was the perceived validity of the change.

Perceived validity refers to the belief by participants of the change effort that the

solution was a valid response to the need for change. In this study, it was

necessary to establish whether participants understood first if there was a valid

need for change and, second, that the change that took place addressed this need.

The fourth key factor in this study was cultural support for the change. The culture refers to the larger organization and its support or lack of support for the changes that occurred. The cultural context in this study referred to other Divisions and the President and the Academic Vice-President and their acceptance or support of the change initiative. Other areas of the culture include the Registrar's office, Human Resources, Mail Room, and other administrative offices that would have to change their processes to deal with one structurally different Division.

The second element, behaviour processes that prevail during a change process, may have an influence on its sustainability. Behavioural data gathered for this study centers on relations among groups and individuals; cooperation between team members and between teams; obvious conflicts; coordination of budgets; communication between clusters, team leaders, and management; controlling and rewarding behaviour; problem solving, goal setting, and meeting the goals. Analysis of communication and behaviour provide an insight into determining if these processes influenced sustained change.

Output

The fourth key variable was output. Outputs are the products, services and ideas that are the outcomes of organizational action. The output or goal of this set of organizational actions was sustained change. Therefore the key factors and behaviour processes that contributed to this output have been captured and analyzed. In this conceptual framework, the output has been achieved. The analysis deals with how it was achieved.

Impact

The fifth key variable was impact. Even though this is not an evaluation study, the overall impact of the change was researched in order to determine results. Fullan (1982) says that there should be some discussion on the question of outcomes of change efforts, since "innovations are supposed to accomplish something worthwhile" (p.77). He suggests evaluators include in their data gathering the impact that is observed and described in terms of student benefits, instructor benefits, and organization benefits. These impacts would be seen at best as improved student learning, professional development for instructors, and increased interaction or teaming in the organization (p. 77-78). Goal statements, when being formulated, should have these three considerations in mind, or at least include statements that reflect no negative impact on these three considerations.

Mohr (1992) defines impact analysis as "determining the extent to which one set of directed human activities affected the state of some objects or phenomena, and, at least sometimes, determining why the effects were as small or large as they turned out to be" (p. 1). These impacts on the institution can be assessed to determine if they are positive (the extent to which the outcome matched the intended goals) or negative (the extent to which the outcome is in direct opposition to the intended goals) or whether there was some unintended impact on the organization. In other words, the research should examine not only if the solution addressed the crisis satisfactorily or unsatisfactorily, but it should examine if several other results occurred that were unintended. Fullan (1982) would have the researcher look for the intended and unintended impact on

students, instructors, and the organization. In this study, it was possible to gather data from the participants on their views about the elements of student learning, instructor professional development, and increased interaction or teaming in the organization.

The next section outlines how the data gathered met the requirement of trustworthiness.

Trustworthiness

Guba and Lincoln (1988) identified areas of concern in ensuring credibility and reliability of interview data. These are: host verification or member checks, triangulation, and corroboration (pp. 185-186). The following reflects an explanation of each concern as well as how this research addressed these concerns.

Host Verification

Host verification or member checks refers to checking the perceptions of interviewees to see if they match the researcher's interpretations of responses. The first perception to check was whether the participants agreed that a change had taken place. The question asked during data gathering was "What was the organizational structure before the change began?" This question elicited responses indicating that all interviewees agreed there was a change, saying what the old structure was (i.e., 21 program head and assistant program heads); and what the new structure became (i.e., 4 team leaders). In addition, the Dean of the Division was asked to review the thesis draft at an early stage, to ensure the descriptions of the change, the descriptions of the stakeholders, and any other

detail was correct.

Another method of host verification was the opportunity given each interviewee to edit his/her own transcription. Very minor changes in transcription occurred as a result of respondents reviewing their statements. Most changes were grammatical.

Triangulation and Corroboration

The second trustworthiness issue, regarding triangulation and corroboration, has two aspects. One aspect is to check propositions with other members. The second is to use more than one methodological tool to arrive at an understanding. In this study, triangulation and corroboration were addressed by checking with more than one set of members or stakeholders. The stakeholder component was comprised of management, instructors, administrative support and technician staff, and non-Divisional staff. Each of these sets of stakeholders was expected to hold differing views of the same data. It is common for different levels within an organization to have a differ-ent view of the same information because they are affected differently.

In this study, for example, the management group was affected by workload more than instructors. The original management group (Divisional Council) spread administration out over 21 people, meaning that administrative processes were in place and may have been handled easily by people who had been in the job for several years. The learning curve required of the 4 new Team Leaders to take on all the program administration meant that work would automatically slow down, or be inadvertently left out due to a misunderstanding

of its importance. Although the new Team Leaders were encouraged to drop work where appropriate, this was often not possible when others were relying on the Division for time-sensitive information. Examples were: curriculum changes to the Registrar, student grade administration to students and the Registrar, semester startup, and final examinations. Instructors had the same workload as they had previously. However, there were some factors on which both management and instructors should be able to agree, such as what the change was, why it started, what contributed to its sustainability, and whether the change was valid.

A second method to assure corroboration was contained in documentation: the Review of the 1995 Restructuring of the School of Health Sciences, described in Chapter 4. The review was undertaken independent from this study, commissioned by the institution, to review issues resulting from the restructuring. The findings of this independent study were based on the same understanding of the change that took place in the Division as has been documented in this research.

<div align="center">Ethical Considerations</div>

Each participant was given the right to veto, change, or delete his or her own material, which contributed to the trustworthiness of the result through clarification of meaning or intention. Participants were also given the right to withdraw at any time in the study (see Appendix C). Anonymity and confidentiality was assured by using pseudonyms for individuals, the programs, and the institution. Stakeholder groups were identified by type, i.e., executive,

instructors, administrative support, or non-Divisional staff, but not by name. There were enough participants in these categories to ensure anonymity. This research was approved by an Ethics Committee of the Department of Educational Policy Studies of the University of Alberta and by the institution of analyses.

Limitations

The following describes the limitations of the study which could not be addressed given the goal of the research, which was to determine the key factors and processes that sustained change.

1. Other Divisions within the postsecondary institution were not interviewed to find out their views on the change that took place. It was not determined why other Divisions did not respond in the same way as the Division studied.

2. Supporting administrative departments were not interviewed for their views on the change that took place. It was not determined if the change caused extra work for these Departments, or less work due to fewer people in leadership roles to keep informed.

3. Due to a requirement by the Education Administration Faculty, and a request from the Institution studied, the identity of the Institution studied will remain anonymous. This limitation affected providing some details of the constraints in the environment in which the Institution operated.

Delimitations

The following boundaries were applied to the case:

1. The case study was bounded by the first sign of a need for change; that is, the government reduction in funding, which allowed Divisions to discover how

they would address the reduction within each program, and, fiscal year end 1998 (approximately three years).

2. Participants in the case study were required to be present for the entire time boundary (three years).

3. Eighteen participants were chosen from executive, management, instructional staff, administrative support staff and external departments. All participants were from the institution being researched.

4. Students are not included as participants. Students may have been affected by the change, but it would be necessary to find students who attended during the transition.

5. Data gathering occurred over a four-month time frame: June to September, 1998.

Assumptions

The following assumptions were made at the commencement of this study:

1. A change had occurred. This was evidenced by a different organizational structure.

2. The staff of the Division believed the new organizational structure was a unique model.

3. The change had been sustained. This was evidenced by the fact that no incremental change had occurred and no backsliding to the previous organizational model had occurred.

4. Stakeholder groups (as defined in Chapter 3) would have differences of opinion, by group, because communication of information usually stays

within each stakeholder group. The expectation of the various stakeholder groupings, therefore, was that participants would hold the same or similar opinions within each group, but that the collective group opinions would differ from stakeholder group to stakeholder group.

5. Change in postsecondary organizational administration would parallel change in industry organizations. Key factors and processes were well documented in industry organizations, which led to the choice of key factors and processes for this study.

Summary

In this chapter the methods used to address the research questions were presented. Details on how the research questions were constructed and the methods used to address them were provided. The research questions were justified on the basis of using a conceptual model developed from an approach recommended by Harrison (1994) to determine key factors and processes, and by Fullan (1982) to determine impact. The methods used to operationalize the systems model described in Chapter 2 were presented. Finally, the chapter closed with a discussion of how the researcher addressed validity and reliability, as well as how participants were protected through anonymity.

CHAPTER 4

PROFILE OF THE INSTITUTION, DIVISION, PARTICIPANTS,

STAKEHOLDERS, AND CROSS-FUNCTIONAL TEAMS

The purpose of this chapter is to describe the postsecondary institution in which the study took place, the Division studied, the participants or stakeholders interviewed, and the preparation for change through the use of cross-functional teams in two participative processes: Continuous Quality Improvement Team (CQI), and two transition monitoring teams (TMT).

The Postsecondary Institution

The postsecondary institution in which this research was conducted is a large Institute of Technology in Western Canada. The institution has a Board of Governors, a President and four Vice-Presidents. The Vice-President units are Student Services and Community Relations, Administration, Academic Services, and Human Resources and Extension Services. This research took place in a Division under the Academic Vice-President (AVP). There are nine Divisions under this Vice-President, offering 85 different two-year diploma and one-year certificate programs, 35 apprenticeship programs and 900 continuing education courses. The institution also offers Applied Degree programs. Student enrolment approximates 7,500 full-time and 33,000 continuing education registrations. Apprenticeship registrations comprise another 6,000.

A Division in this institution represents several Programs of Study, chaired by a Dean, who manages all of the operations of the Division; several Program Heads, who manage all of the operations for their own Programs of

Study; instructors, who help to design and then deliver curriculum (based on industry standards and industry advisory committees' advice); technicians, who provide technical support; and, administrative support, who provide clerical and administration backup. Two important community connections are supports to staff: advisory committees, and accrediting bodies. Advisory committees provide the link between the institution and business and industry, advising on the number of graduates required by the industry the committee represents; trends in skill and knowledge requirements; and the extent to which the institution's graduates are meeting the needs of industry. Accrediting bodies are those groups who grant accrediting status to a particular Program of Study. These bodies provide rigor and a set of standards to a Program of Study.

Institutional Change Hardiness

This study concerns changes in 1994-1997, where at the Division level institute-wide changes took place in order to meet funding reductions. Prior to 1994, all Divisions within the institution generally worked separately and in isolation. This study discusses the sustained change within one of the Divisions. The change undertaken is described in detail in this Chapter.

At the institute level, organizational structure has changed little in its 35 years of operation. According to one senior administrator, who had been at the institution over 25 years, the first significant institution-wide change was organizational, and it resulted in the reduction of administrators (15 Chairpersons were reorganized into 10 Associate Deans in 1987). This change reflected only a name change for first line administrators, from Chairpersons to Associate Deans,

and also reflected a decrease in Associate Deans from 15 to 10. This change was accomplished in large part due to retirements rather than any outside influence, such as funding cuts. Operations were not challenged in any way. Therefore, this change can be seen as minor in nature.

In 1996, a second set of institution-wide changes occurred, when programs were regrouped from a Division model to a School model. This reflected an organizational change (from 4 Divisions to 7 Schools) and a name change (from "Division" to "School"). Hereafter, in this study, the term "Division" is still used although in reality the unit studied is now a School. The institution as a whole had not met its funding target. In order to meet the 21% funding reduction overall, all Associate Dean positions were discontinued. However, operations were not at risk. Therefore this change is also considered minor in nature. This 1996 change, although it occurred in the midst of the study time frame, is not included for analysis because it did not affect the organizational structure change.

Two organizational changes in thirty years, one precipitated due to retirements (1987), and another precipitated due to reduction in funding (1996), but only affecting a handful of people, leads to a conclusion that the institution is not change-hardy. Very little change either in organizational structure or reporting (the same Board, President, Vice-President, and Dean structure) had been experienced. Specifically, no education programs were cut as a result of the changes; workload shifted at the Dean level only; and no workload issues were manifested deeper in the organization -- except in the Division under investigation. The change investigated in this research was the first major change

since 1987, and was structural. Only this single Division, out of 7 Divisions in this institution changed its structure. No other Division underwent structural change.

The lack of change in the institution, described in this section, is reflective of the typical postsecondary institution, described by Emberly (1996) and by Girard and Uhl (1992), referred in Chapter 1. The fact that the institution was not change hardy makes the accomplishment of this Division (sustained change) even more exceptional.

The Division

At the time of this study, the Division provided diploma-level (one- or two-year) education programs, preparing 200 - 250 students for employment. It had ten Programs of Study, each varying in length from one to two years. Students graduated with a credential which enabled them to earn on average $24,000 to $36,000 annually. The following section describes the organizational structure before and after the change.

Organizational Structure

Before the change, 13 individual Programs of Study each had a Program Head and one or more Assistant Program Heads to provide administrative activities, such as hiring instructors, liaising with advisory committees, ensuring accreditation criteria were met, counseling students, and attending to various paperwork duties. All Program Head and Assistant Program Head staff were recruited from the instructor ranks and, as such, all had teaching duties as part of their workload. Further, a matrix-reporting scheme existed in the Division for

administrative support. Matrix reporting meant that a human resources consultant, for instance, reported to the Operating Division Dean for human resource activities of the Division, but also reported to the Human Resources Vice-President for overall human resource planning in the institution. In this Division, the matrix reporting scheme included a human resources consultant, a continuing education manager, and an organization development officer (hereafter referred to as non-Divisional staff).

After the change, 13 Programs of Study in this Division were combined into four "clusters." Each cluster had a Team Leader to provide administrative activities. Where appropriate, each Team Leader delegated administration activities to instructors or administrative support staff. Table 4.1 shows the organizational hierarchy before and after the change.

Table 4.1

Organizational Hierarchy Before and After the Change

Division Staff Before the Change	Division Staff After the Change
Executive: 1　President 1　Academic Vice-President 1　Dean 1　Associate Dean 21　Program Heads and Assistant Program Heads administered 13 Programs of Study	Executive: 1　President 1　Academic Vice-President 1　Dean 1　Associate Dean 4　Team Leaders administered 13 Programs of Study, now called "clusters"

In the new organizational model administrative activities in this Division were either discontinued or distributed among the four team leaders, with some

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duties being delegated to instructors and administrative support staff. Workload issues were subjected to ongoing resolution activities by management and staff. No other Division in the organization opted for the same type of change.

Participants and Stakeholder Groups

This section describes participants for the study who were invited to volunteer for interviews. These participants are further described in their identity as a stakeholder group.

<u>Participants</u>

Participants for this study, described below, are executive and staff who were part of the original organizational structure (before 1994), and who at the time of this study (1998) comprised the current organizational structure.

There were 18 participants who responded to the request for volunteers. Nine were male, nine were female. One male/female team requested a joint interview, for a total of 17 interviews. The average years of service with the institution at the time of the study was 15 years.

<u>Stakeholder Groups</u>

Stakeholder groups, in this study, were defined as groups of individuals who belonged to the same organizational strata, or approximate grade level, and who therefore shared the same understanding of the organization from their common viewpoint. These stakeholder groups had an interest in the outcome of the organizational change, and they were treated for the subunit analysis as a bounded group, i.e., each stakeholder group was considered as one element of data. The change that took place in the organizational structure affected the

distribution of individuals within the stakeholder group, the work done by each stakeholder group, their status, and the possibility for promotion. Stakeholder groups were identified in the belief that any differences in perception of key factors and processes influencing change could be captured if the data were collected by each group.

The following three stakeholder groups worked in the same Division: (1) executive staff (Vice-President Academic, Dean, Team Leaders from each cluster);

(2) instructional staff (representative of each of the four clusters);

(3) administrative support staff and technicians (representative of each of the four clusters).

The forth stakeholder group is included in the study but is comprised of staff who worked in the Division in a facilitative capacity (non-Divisional staff). The departments represented by these non-Divisional staff were Human Resources, Organizational Development, and Continuing Education. The interviews of non-Divisional departments were limited to these three departments because the role their staff played during the change was to guide or facilitate the change and to deal with any outcomes of a human resource nature. They also had an overview of the larger organization as they worked with other Divisions. They worked with the CQI team, which originally made the recommendation for a change in hierarchy, and subsequently worked with the Transition Monitoring Team in a facilitative role when various resource issues were questioned. Their involvement with the Division was in an advisory capacity.

<u>Characteristics of Stakeholder Groups</u>

The following characteristics describe the four stakeholder groups: executive members, instructors, administrative support and technical staff, and non-Divisional staff.

Executive Members. Six people, recruited from the Divisional senior executive and Team Leader group, representing the total population of Executive, were interviewed; three males and three females. (The current President was ineligible for the study, since he did not fit the criteria of being in the organization when the change took place.) Their years of service in the institution averaged 21, with a low of 12 and a high of 34 years' service. All began their teaching careers at this same institution.

Instructional Staff. Five instructional staff volunteered for interviews, out of 34 eligible staff (who met the criteria of being in the organization when the change took place); three males and two females. In one of these interviews a male/female team asked to be interviewed together. This meant four interviews occurred involving five staff. Some had been members of the Transition Monitoring Team (TMT), described later in this chapter, which was established on a volunteer basis to continually monitor the feelings of staff as the changes took place. Their years of service averaged 8.

Administrative and Technical Support Staff. Four administrative support and technician staff, out of 10 who met the criteria, volunteered for interviews. Four females made up this group. Their years of service averaged 15.75.

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Non-Divisional Staff. The three non-Divisional staff, representing the total eligible population, who were interviewed came from human resources and continuing education. They included two males and one female. Their years of service averaged 15.

Preparation for Change

The Division prepared for change through the use of cross-functional teams in a participative process. Cross-functional means that members from all stakeholder groups, described earlier, were part of the participative process used in making recommendations for change and for monitoring that change. Two teams were used in this case: a participative process for problem solving termed Continuous Quality Improvement (CQI) and also referred to as Total Quality Management (TQM); and, a communication process during change transition, termed Transition Monitoring Team (TMT). Two different TMT teams were mandated during the first three years. The operationalizing of these two teams is described in the next sections. Table 4.2 depicts the timeline, from the news of a funding reduction, to the organization at the time of this study. Following the table, the CQI team and the TMT team is explained.

Table 4.2

Timeline From Funding Reduction to Current Organization

Timeline	Meetings and Decisions
1994-January	Provincial government announces 21% reduction in funding, to be accomplished over three years, starting July 1.

(table continues)

Table 4.2 *(continued)*

1994-July 1	Staff takes a 5% decrease in salary.
1994-July 1	Operations budget is cut by 6%. The CQI process in the Division is authorized by the Dean.
1994-August	The Dean and Associate Dean draft the charter (expected outcomes for the CQI team), and select CQI team members.
1994-September	The CQI team begins work, with their mandate to finish in February.
1994-November	The Dean tells the CQI team to have recommendations to the Dean by December.
1994-December 18	The CQI team gives the draft proposal to the Dean with two tenets: Maintain the integrity of the classroom Reduce numbers of administrators, i.e., anybody not in the classroom.
1994-December	The CQI team operationalizes the recommendation to reduce administration as follows: reduce 21 program heads and assistant program heads to 4 positions to be called Team Leaders. Cluster 13 programs of study by similar content areas into 4 clusters, each cluster having one leader.
1994-December	The Dean gives the CQI recommendations to the program heads and assistant program heads, with five working days given for individuals or groups to refute the recommendations. No issues are raised.
1995-January	Four new Team Leader position descriptions are posted and interviews commence. Only those from the program head and assistant program head group can apply.
1995-February	Four Team Leaders are selected and announced.
1995-July 1	The new Team Leaders are now in place, responsible for a Division budget reduced by 7%.

(table continues)

Table 4.2 *(continued)*

1995-September	First Transition Monitoring Team forms to assess impact of changes to internal and external customers.
1996-April	First Transition Monitoring Team presents 9 proposals to the Dean, summarized in this study.
1996-June	The President announces a new structure of Schools rather than Divisions, making Associate Dean positions redundant. This reduction in management throughout the institution achieves the final 3% funding reduction.
1996-November	Second Transition Monitoring Team forms in response to need to keep communication open.
1997-May	Second Transition Monitoring Team presents 7 proposals to the Dean, summarized in this study.

Continuous Quality Improvement (CQI)

In 1993, fully one year prior to the funding reductions, the President called all staff together and explained that the institution would be developing a process called Continuous Quality Improvement (CQI), a process that uses input and data from all staff to make recommendations regarding change. There was no specific change known, communicated, or planned at the time. Likely the training was in response to the societal and corporate direction of using CQI for decision-making in business, industry, and postsecondary institutions.

The CQI process uses very specific techniques including developing a charter or mandate outlining the objective, documenting the process followed to reach recommendations, and using an external team to make recommendations. It was a very radical change to the traditional top-down decision-making approach at this institution. The senior executive were trained or acquainted with the CQI

process to at least the introductory level. Some institutional educators were trained more in depth so that they could act as facilitators to other Divisions using the CQI process. There was a significant investment of time, energy, and resources throughout 1993 and nothing could have better prepared the Institute to find innovative ways to deal with the budget reduction process to come. The following section describes the selection of the CQI team in the Division, the CQI mandate, and the CQI recommendations.

Selecting the Continuous Quality Improvement (CQI) Team

The CQI process was already in place at the Institution by 1994. In keeping with this process, the Divisional Council in this study chose the CQI team as an approach to consider the issue of a 21% reduction in budget, and to make recommendations to the Council for a solution. The Divisional Council was comprised of the Dean, the Associate Dean, all thirteen Program Heads, the Dean's Administrative Assistant, and one Human Resources consultant. This group held regular meetings every two weeks to discuss the operations of the Division. The CQI team members were nominated by this Council for this Division's handling of the 21% reduction process; the Dean chose the Team Leader. The team met from August 1994 to February 1995. The team was comprised of administrators, instructors, technical and administrative support staff, and a Human Resource consultant, and was facilitated by Organizational Development staff from the institution.

The CQI Mandate

According to the Transition Monitoring Team Report No. 1, the CQI team

was commissioned to look at how the Division could meet the funding cutbacks, become more efficient, and yet maintain the number of students and the quality of education using all resources in the Division. A charter (series of objectives) for the CQI team was drafted in August, 1994. The charter had, as its objective, *to identify efficiencies and provide recommendations on how the Division could meet the budget reduction for the three budget years.* The expected outcomes were:

(1) to have maximum program accessibility to students, while maintaining or enhancing program quality where possible;

(2) to maintain maximum employment of staff numbers; and

(3) to use maximum instructional capacity in the Division.

CQI Recommendations

The CQI team accelerated their work and tabled their recommendations in December, 1994. The recommendations included:

(1) maintain the integrity of the classroom. Ultimately, therefore, the cuts could only be in staff defined as *anybody not in the classroom*;

(2) reduce the 21 individuals, then assigned to 10.6 administrative positions, to four individuals, to be called Team Leaders;

(3) make Team Leaders responsible for the administration of all the programs in the Division by clustering the programs with similar content areas.

These recommendations were presented to the Divisional Council in December, 1994. The Dean then presented the recommendations to faculty and staff. By January, 1995, Team Leader position descriptions were posted and by

February, 1995, the Team Leaders were selected and announced.

The Transition Monitoring Team (TMT)

In the fall of 1995, at the initiative of the new leadership team of this Division (the Dean and Associate Dean, Administrative Assistants, four Team Leaders and one Human Resources consultant), a Transition Monitoring Team (TMT) was formed to assess, evaluate, and report on the impact of the recent administrative changes within the Division. The TMT was representative of Divisional staff, including academic, technical support, administrative support and institutional staff provided by Human Resource Services (Transition Monitoring Team, 1996, Report p.1). The team was aided and guided by a Continuous Quality Improvement (CQI) facilitator. The TMT used a CQI approach to gather information and formulate recommendations. The tools used to gather data were flow charts, cause and effect diagrams, histograms and force field analysis, brainstorming, and nominal group techniques. The feedback was gathered from staff, second-year students, and external customers. The methods used to gather feedback were questionnaires for staff and students, open forums for staff, meetings with Team Leaders, informal one-on-one discussions, written communication and voice mail. All of these communication strategies ensured that staff and students had excellent avenues to be heard, and that the comments went to management. Management responded formally by either making whatever changes were necessary or explaining why the changes could not be addressed.

Summary

One Division of a large Canadian Technical Institute met a requirement for funding reduction through an organization structure change. The Division reduced program management staff (Program Heads and Assistant Program Heads) from 21 to 4 (Team Leaders). This change shifted work from leadership to staff, and resulted in a change of status and promotion possibilities for the balance of the instructional staff. This change has been sustained for a period of three years, with no evidence of backsliding. A study of the change was conducted to determine the key factors and processes that contributed to the sustainability of this significant change. This study further sought to determine the impact of the change on the institution.

The characteristics of the 18 participants who provided 17 interviews (one interview had two participants) are described. Participants, 9 males and 9 females, had long service with the institute (average 15 years). They volunteered from all stakeholder groups (executive, instructional staff, technical and administrative support staff, and non-Division staff). All volunteers were willing to participate even though the interviews took place at semester end.

Two tools were used in participative decision-making: Continuous Quality Improvement (CQI), and Transition Monitoring Teams (TMT). These tools involved individuals from across the functions in the Division in recommending solutions to the Divisional Council. The CQI cross-functional team recommended a solution regarding how the Division could meet funding reductions. The TMT teams (two separate consecutive teams were formed)

recommended solutions regarding communication and problem solving as a result

of the change in the organization.

Chapter 5 discusses the findings in relation to the research questions.

CHAPTER 5

FINDINGS AND DISCUSSION

The purpose of this chapter is to present the findings that contributed to sustained change in postsecondary education. The findings relate to the key variables that were identified in the conceptual framework (Figure 2): environment, inputs, factors and behaviour processes, outputs, and, impact. Findings are presented for each variable, followed, where applicable, by a summary of responses and a stakeholder analysis and a discussion. The chapter closes with a summary of the findings from the interviews and any pertinent information from the documentation reviewed.

Variable One: Environment

The environment provided the impetus for the change to occur. In the external environment, a growing dissatisfaction with postsecondary education on the part of the public resulted in a Provincial government response to introduce funding reductions. This forced postsecondary institutions to examine their operations and reduce costs in order to comply with the funding reductions. Expected backlash from advisory committees did not materialize because the people on the committees knew that the industry was in flux. In fact, the Division received kudos from advisory committee members that the postsecondary institution was responding in a realistic way to the changing environment.

Another anticipated backlash was from the instructors' union. However, this did not occur, perhaps because the union was kept informed about the changes and the need for change. In the past, staff had been given "permanent"

positions, meaning that their employment could not be terminated. They would be given a job somewhere in the organization. But the government introduced measures whereby formerly "permanent" staff could lose their jobs if the job became redundant. Andrews, Holdaway, and Mowat (1997) outlined the measure as follows.

> "The Minister will request the boards of public institutions to revisit their collective agreements to meet the changing economic circumstances. Specifically, barriers to the termination of academic staff in response to fiscal restraint must be removed" (p. 85).

This measure temporarily reduced the power of unions to fight the change.

The internal environment at the postsecondary institution studied revealed that preparation for change had begun through a training program in Continuous Quality Improvement (CQI). The external and internal environmental forces provided a dynamic that laid the foundation for a change requirement and a change process to occur. These findings were based on documents from the Provincial government outlining the funding reductions, and on answers to interview questions regarding the understanding staff held of the reason for the change (described further under the validity of the change).

These findings agree with Harrison's (1994) approach to the importance of the environment, creating external conditions that require a response. However, Hanson's (1996) work on educational administration and change suggested that the organization might experience resistance due to vested interests. The fact that there was no work in the private sector, as suggested by Andrews, Holdaway, and Mowat (1997), could have had an influence on the desire of the instructional staff to support the change. Conversely, in agreement with Dennison and Gallagher

(1986), the staff could be following the new vogue in corporations of movement toward teams in the workplace.

Variable Two: Inputs

The inputs comprised the various resources available in the Division under study. These resources had three elements: people, funds, and time.

People represents the hierarchical organizational structure that, due to funding cuts, changed to a flat organization, as described in Chapter 4. Funds represents the decrease in funding that precipitated the organizational structure change. Time represents the short time frame that the Division had in which to determine and implement the changed structure (3 1/2 months). To explore what resources were assigned to the change, two questions were asked:

(a) What was the organizational structure before the change began? and,

(b) How was organizational structure changed?

These questions were asked to ensure an interviewee understood what the organizational structure had been and what it was at the time of the study to ascertain the difference. A typical reply to the question of the former organizational structure was:

> This Division was aligned similarly with the rest of the organization's structure, generally with a Program Head per program, and, in most cases, one Assistant Program Head. In larger programs they sometimes had two Assistant Program Heads, and instructional staff below that.

In answer to the question: How was organizational structure identified as the aspect to be changed? all interviewees understood that the decision was made in response to the funding reduction. They also knew that the money had to come from salaries. It was generally agreed that the cross-functional team (CQI team)

examined every possibility, such as reducing staff in the classroom, cutting an entire program, or reducing enrollments. In the end, the decision was, as one interviewee said, "to maintain the integrity of the classroom and keep the pilot light burning (i.e., run as efficient a program as possible, but do not close any programs)." In order to accomplish this goal, reduced funding was achieved by taking staff out of administrative positions and putting them back in the classroom. One person commented "the change in structure was sold on eliminating redundancies," meaning that they believed 21 Program Heads and Assistant Program Heads must be doing similar kinds of work, so that by clustering the programs under four Team Leaders, the similar kinds of work for 13 programs rolled into 4 clusters, thereby eliminating redundancies. Another respondent summed it up this way:

> There was a cross-functional team from the Division. When the budget cuts were coming in and we needed to find 21% resources, the cross-functional team, made up of members of instructional staff, admin support, technical staff from all of the different programs in the Division, met and they came up with the plan of how they could meet the 21%. This new structure was generally the result of their recommendations. Not quite the same, but very close.

> All of the Divisions went about it in their own way. I think one of the focuses of the team was that they wanted to keep manpower bodies. They did not want to lose people at the bottom. They wanted to restructure to see if they could meet the required dollars in that method. With trying to maintain as many staff as possible.

In answer to the question: What was the organizational structure before the change began? all interviewees understood the hierarchy and the change to the organization structure that had been made. In answer to the question: How was organizational structure identified to be changed? all interviewees understood it

was a recommendation of the CQI team. The following summary of responses by individual and by stakeholder group shows it was generally understood that there was a need, and it was addressed appropriately.

Summary of Responses

The findings from these two questions confirmed that all participants, from each stakeholder group, knew precisely what had happened: that the Division had gone from a hierarchical structure of 21 Program Heads and Assistant Heads to a Team Leadership model of 4 Team Leaders. Answers showed that all stakeholders had the information and understood the change to the hierarchy. Secondly, all participants understood that the recommendation for restructuring the organization into clusters with 4 Team Leaders was as a result of a CQI process, i.e., a cross-functional team that met and analyzed how to best meet funding reductions.

Stakeholder Analysis

When the data were analyzed by stakeholder group, all four groups of stakeholders identified in this case had the information necessary to understand what the change was, how it was applied, and why it was done. Individuals can and do influence their stakeholder group. In this case it appears as though there were no differences in stakeholder group understanding and each representative group interviewed understood what was happening. This is a significant finding, based on Nadler, Shaw, Walton, and Associates (1995) who reviewed the treatment of stakeholders:

> To monitor and assess change efforts, steering committees and design teams often use semiformal stakeholder-management techniques.

Stakeholder management consists of identifying key stakeholders (external and internal) and then assessing their knowledge of the effort, their level of influence over the outcome, and their level of commitment to the success of the effort. Level of commitment is described on a scale from "blocker" to "sponsor." Complications are stakeholders who appear to be supportive publicly but who block the effort behind the scenes; the truly supportive individual whose subordinates block the effort; and the supporter who lacks sufficient knowledge of the effort and therefore communicates inaccurate information to the organization (pp. 182-183).

None of the effects mentioned by these authors were evident in this study. There was no identified blocker or lack of trust by subordinates. All stakeholder groups indicated they had all the knowledge needed to understand the change and to support it. All interviewees were committed to the change, which, according to Beckhard and Harris (1987) is unusual. "It is sufficient to get the *minimum* commitment judged necessary from each individual or group; don't expect every member of the critical mass to be ready to 'make' change happen" (p. 94).

Responses from each stakeholder group will give readers a clear idea of how each group understood the proposed change.

Executive. Comments were:

I wasn't on the cross-functional team, but I guess what they were looking at was the amount of administration that it was costing the program to run. And I think that's how it came about. They didn't want to cut the quality. They didn't want to change the small group sizes, all the strengths that our programs have for industry. They didn't want to erode that. And so what they looked at was the administration and at the budgeting process, sharing of equipment, and I think they felt that the recommendation was where their best chance was for gaining the money -- because it was a resource issue.

Instructors. Comments were:

The idea was sold to us that we would become more streamlined, supposedly more efficient than the old model. It eliminated a lot of redundancies.

I think, to my understanding, that there was a dollar value placed on the structure as it existed and it was identified that the dollar value within the structure was something that had to be addressed. And could the same responsibilities be carried out with a reduced structure. By virtue of that saving, then by flattening the structure it was identified that about 1/8 of the administrative cost could come out of the Dean's office and that's where most of the change occurred.

Administrative and Technical Support. Comments were:

The cross-functional budget team looked at all the different ways of making changes and cutting the budget. That was the way that worked its way out of the CQI process.

Non-Divisional Staff. Comments were:

The CQI cross-functional team was struck with about 20 members. They looked at a variety of ways to save the funds. It became apparent that having instructional folks do administrative work was quite expensive and that the expectation was that an administrative support person could equally well do many of the functions and cost about half.

Discussion

Overall, interviewees understood this change in the organization, and that the change was made because of a need to meet funding reductions. The change in hierarchy and leadership numbers meant that 17 people lost status as a "leader." In addition, with fewer positions to aspire to, instructors also had limited chances for promotion. Also, some instructors and administrative support staff were asked to assume administrative duties. Sometimes the duties were assigned, and sometimes volunteers asked for the opportunity to be involved in administrative duties. The extra duties were not given remuneration, but, where appropriate, an instructor could receive fewer teaching hours so that administrative duties could be carried out. No interviewee complained about this change in workload specifically, but workload generally was an issue brought forward by the TMT

and by a workload study done by Organization Development.

The fact that staff were so informed, at all stakeholder levels, was indicative of an excellent communication network. The change met with limited resistance. In fact, the answer to the closing question "would you go back to the old hierarchy" resulted in all interviewees responding "no." With fewer hierarchy, staff reported they had better access to the Dean, were better informed regarding the issues concerning their programs, and felt involved in participative decision-making when the solution sought needed to have more input.

This finding is supported by the documentation provided by the Review of the Restructuring commissioned by the department, and fulfilled by the institution's Organizational Development Services. For instance, while workload was one of the factors being investigated, the report did not recommend returning to the former hierarchy. Instead, it recommended one more administrative assistant to help the Team Leaders with their workload. Throughout the interviews it was apparent that staff felt they had contributed more to the overall organization by adopting the team leader model, and by accepting some of the resulting workload. But they did not want to go back to the original hierarchy; rather, they wanted recognition for the efforts they had committed to the organization. To support this finding, an interview comment, reported in the Review was "the school's unique response to the challenge of the cutbacks and its resulting innovative structure was never properly, formally and publicly recognized by Executive Committee members" (p. 24).

Variable Three: Factors and Behaviour Processes

In this study, the third variable had two elements: key factors and behaviour processes. The findings are reported separately, including responses and stakeholder analysis, ending in a discussion of the findings from interviews and documentation for each section.

Key Factors

The literature about change in organizations revealed four factors that are keys to sustained change: (1) leadership; (2) change agents; (3) validity; and, (4) culture. Three questions were asked to explore these:

(a) Which key people influenced the change i.e., leadership and change agents;

(b) Did management and staff believe the structural change was a valid response to the need for funding cuts; and,

(c) Did the culture support the change.

Leadership and Change Agents

Initially, I anticipated that a person would be named as the influencer of sustained change, either as a leader or as a change agent. Thus, the question, Which key people influenced the change? sought to discover if leadership and/or change agents were present as a factor in the sustained change under investigation. The interview data did identify a person or persons in the leadership role (the Dean and Associate Dean), but for the change agent role, responses reflected the process of using participative decision-making in the form of the CQI and TMT. Therefore, the discussion of key factors as leadership and change agents are combined as a single topic.

Summary of Responses

A slight majority (8 responses out of 17) indicated participants thought the change had been influenced by the CQI team. Other participants (7) thought the change was influenced by the management team (the Dean and Associate Dean). The balance of the participants had different views.

Comments from those believing the change had been influenced by the CQI team were:

> The change was basically implemented by the guiding team for the cross-functional team. Within the cross-functional team there were a variety of folks that made suggestions that ultimately went forward as recommendations.

> It is difficult to identify key people because it was done on a team approach and it was done on a voted level of identifying issues that could be addressed, be put on the board and be discussed, and to understand the process, all of the issues were looked at. It wasn't just the administrative structure. There were a lot of other issues being addressed during that time. The team was not there primarily to change the structure. The team was there to address the budget and the budget process and the necessity to lose the 21% and how that could be accomplished. One of these recommendations was the structural change in the administrative system.

Comments from those believing the change had been influenced by the Dean and Associate Dean were:

> I think the Dean was the driving force behind it. I think he chose the leader of the team as somebody who would agree with that possibility.

> The Dean and Associate Dean were quite facilitative and were certainly available for consultation on this kind of thing and helped in the formation.

Stakeholder Analysis

Answers to the question are fairly evenly divided between leadership (the Dean) and change agent intervention (in the form of the CQI process). However, the stakeholder analysis of this question indicates a more interesting division; i.e.,

executive interviewees attributed the change to the CQI process, while staff

attributed the change to the executive. Greiner and Schein (1988) posit that a

change would be accepted and sustained if key subordinates accepted the Chief

Executive Officer's (CEO) influence, and trusted that the CEO had a vision to

which they could commit. The following comments are reflective.

Executive. Some comments were:

The only contact the Dean had with the CQI team, while they were meeting to design recommendations, was with the team leader.

The key people implementing the change were the members of the cross-functional team, and then definitely all the team leaders.

There was good support for the presentation from the CQI team and the members of the CQI team itself.

There was some perception in the staff that it had already been decided and that there were some key people on the CQI team that were pushing for it [the restructuring].

Instructors. In support of Greiner and Schein's (1988) concept of the

subordinates being "willing as a group to accept the CEO influence," one

instructor said "staff accepted the credibility of management and existing program

leaders." Another comment was "the concept was sold based on eliminating

redundancies." Another interviewee noted that "the goal was to keep staff in the

classroom. We didn't want to lose people at the bottom." It seems staff believed

that everything possible was going to be done to preserve the educational program

so that students would receive the benefits of a continuing excellent education.

This pleased staff because they wanted to "continue to be associated with a

quality education program." They also felt they had struck a solution that would

not "lose people at the bottom." They saw that no jobs would be lost, but

redundancies, or duplication of administrative effort, would be cut (since there would be fewer people to carry out administrative duties). These comments also support Block's (1993) view that with a flattened hierarchy, "there are fewer supervisors and therefore fewer people watching," meaning more autonomy for the instructors.

Regarding change agent influence, the study by Hamlin, Reidy and Stewart (1997) recommended inside influencers such as interventions like the CQI process were needed to sustain change. Again, the stakeholder analysis showed that not as many staff (or therefore, participants in the CQI process) thought the change was influenced by the CQI process. In fact staff, who after all are the glue that holds the change together (through their support of the change), still thought that the CQI process was worthwhile, but the budget funds "had to come from somewhere, and naturally, it would have to come somehow from staff." In answering the question "who influenced the change," instructors clearly thought the influence came from the Dean and Associate Dean.

Administrative and Technical Support Staff. One comment was:

Program Heads and the Dean and Associate Dean made the final decision, with input from the Program Heads and staff.

Non-Divisional Staff. One comment was:

The Dean and Associate Dean were the biggest influencers. The Divisional Council, which was all the Program Heads, opened the door to allow the change to occur. I think they wanted to close the door pretty quick once it started happening, but the process they were working through, for example, through budgets, and trying to realize the economy that needed to be made, it was pretty obvious that it couldn't continue the way it was.

Discussion

Strong, consistent, supportive leadership by the Dean and Associate Dean paved the road to sustained change. Even when instructors, for instance, acknowledged the importance of the CQI process, they still said "the cross-functional team that devised the new structure would be one of the main influencing factors, but the Dean and Associate Dean obviously had to like their recommendations in order to implement them." Furthermore, once the changes to the hierarchy were implemented, there was more autonomy at the instructor and administrative support levels. Some commented that previous to the change they "never knew what the problems were." Now, they felt involved in the problems and in the solution-building. There was a feeling of removing layers of supervision between management and staff. The Dean and Associate Dean became more visible in the communication efforts, and therefore more approachable. These two leaders showed sincere interest in what all the individuals thought and felt about the change. Tremendous efforts at communication, collaboration, and responsiveness became normal practice, which had not been the case prior to the change. Previously, leadership were expected to communicate down the line, but often, in the name of expediency, communication was lacking, or not effective.

These findings agree with Hersey and Blanchard (1993) Situational Leadership model, in that as the staff gained experience with the change, they required less intervention from the Dean and Associate Dean. Also, Lewin's (as cited in Hersey and Blanchard 1993) unfreezing, changing, and refreezing theory

applies in this study since all communication efforts were placed on this strategy by the Dean and Associate Dean.

The stakeholder analysis reveals a difference of opinion regarding who is responsible for the change. The executive stakeholder group believe the CQI, or cross-functional team is responsible for the solution. All other stakeholder groups believe it is the executive who are responsible for the solution. This support of Greiner and Schein's (1988) political resolutions allowed "active consensus" as described in their model (see Figure 1).

Block (1993) describes this difference of opinion in terms of dependency and empowerment. He put forth the notion that there is a gap in belief by supervisors and subordinates that there exists dependency and empowerment in their relationship. Supervisors believe they are empowering their staff so that "answers to the latest crisis lies within each of us and therefore we all buckle up for adventure" whereas staff believe they are dependent on leaders "who know what is best for others, including ourselves, and are therefore responsible for how much freedom we have [to make decisions]" (pp. 8-9).

One thing in this study was clear. Once the decision was made, it did require unwavering support of the leadership team. This is true because in fact, even if the staff felt empowered to make or participate in decisions, they relied on the leadership team to find and allocate resources.

There was no finding that indicated interviewees thought any one person was responsible as a change agent, or a process consultant, as defined by Havelock (1973), Baldridge (1975), Ottaway (1979), Buchanan and Badham

(1999) or Schein (1969). However, it was clear that processes, acting as agents of change, were instrumental in the sustained change outcome.

There were two powerful agents of change: the CQI process and the TMT communication vehicle. The CQI process received sponsorship by the leadership team, and the solution generated by that process was implemented as closely as possible, given the constraints of the larger institution. The TMT following the change was a direct attempt to manage the transition from the old system to the new system. This change tool was part of the training conceived by Bridges (1991) who chronicled the need for such a team to keep communication open and constant. This finding supports Shapiro and Levine (1999) in their concept of 'change levers' such as strategic planning and external reviews. It also supports Small (1995) who found from his survey that college staff viewed managerial structure change to be significant change. In the same survey, Small found a recurring theme of sustained change supported by a TQM approach. The literature that best fits this study was the study conducted by Hamlin, Reidy and Stewart (1997) where CQI was viewed as the contributing factor to sustained change in the British Civil Service.

The documentation, i.e., documentation from the CQI meetings, and the two TMT reports, chronicle what happened for the decision, the implementation, and the two years after the implementation. The two TMT reports were significant in that they outlined issues and recommendations raised by the staff, with memorandums from the guidance team (Dean and Team Leaders) outlining what action was taken to address these issues and recommendations. This process

confirmed support of the leadership and the influence of the change agents. The success of the change reflects the findings of Chaffee and Sherr (1992), who noted that the TQM approach to solving problems was most successful when a cross-functional team was used, developing a "shared sense of responsibility." In addition, attention to the transition state (moving from the existing state to the new state), was supported. This agrees with the findings of Kanter, Stein and Jick (1992), and, Bridges (1991) who said the solution to resistance during transition was increased communication.

<div align="center">Perceived Validity of the Change</div>

The question, "Did management and staff believe the structural change was a valid response to the need for funding cuts?" sought to reveal if stakeholder groups thought the change was valid.

Summary of Responses

The majority of interviewees thought the change was in response to a valid requirement to reduce funding. A few participants did not believe in the validity of the need for change. A further two people had mixed feelings about the change, which likely meant they supported the majority, when pressed.

Those who supported the validity commented:

> I think because we were a small Division we didn't have the resources of some of the larger Divisions and those larger Divisions might have had the means to address their cutback in other ways. There is a rumour that some Divisions did not meet the cutback but I think they just chose to do it in a different way.

> I feel that the response was valid. I think that management certainly did. And I think probably the Program Heads, the program leaders of that day bought in as well. Because some of them were vulnerable as roles changed. They seemed to be supportive of it as well. And I think the staff

in general more or less accepted the credibility of management and their exiting program leaders and the CQI team in buying in to it as well.

I think that if they (management and staff) didn't see it as adding value, they wouldn't have done it.

Those who doubted the validity commented:

I'd say it was mixed. There were differences of opinion. Some people felt that the restructuring wasn't necessary and it was going to cause people to work harder, and why didn't they just go the bottom line like the other Divisions. In the first year there were a lot of unhappy people. Some were willing to give it a try. Some didn't think it was going to work. People who had been in the Assistant Program Head roles were bitter the first year as they felt that something had been taken from them. I guess people got used to the change by the second year since it wasn't as difficult. People got more settled into their new job responsibilities.

With any change there comes resistance from staff. I don't know if there was a lot of staff that were for it, but then, once you start working out bugs, and start working in the system itself, then you find that, yes, it's quite workable.

Stakeholder Analysis

The following comments, by stakeholder group, indicated the feelings of the staff regarding validity of the change.

Executive. The stakeholder analysis in this case indicated that executive knew the need was real. Budgets were being cut. In the external environment, other provinces' education institutions were beginning to cut similar programs entirely out of their education systems. This response by education institutions was due to the fact that funding in the industry was also being cut. The result of funding reductions was staff reductions. Therefore, there were no jobs for graduates of the programs. This dynamic environmental factor influenced the executive when they answered in the affirmative regarding validity of the change.

Instructors. Instructors generally did not think the change was a valid

response, but their answers were qualified with comments such as "second year marked a difference in attitude," or, "had a wait-and-see attitude. I was more concerned about enough money for students and what impact the funding cuts would have on patient care." Another instructor comment was "staff resisted at first, but as bugs are worked out, it's quite workable." These comments indicated that although instructors had some misgivings at first, they were prepared to accept the change.

Administrative and Technical Support and non-Divisional Staff. These two stakeholder groups also agreed with management and staff that the change was valid, especially if they served on the cross-functional team. Owens (1998) said change would be sustained if the change was complete, exhibited long-term planning, and had sustained effort (pp. 316-317). The comments from the instructors indicate that the sustained effort, combined with an implementation plan, helped them in the second year of the change to consider the change irreversible and therefore, according to Owens, it became "stable."

Discussion

Initially, instructional staff and administrative support staff were not convinced that the change was valid. This was because no other Division met the requirements in the same way. Staff in fact did not believe much was being done in other Divisions at all, and that theirs was the only Division responding to the cuts. What this did in the end was to give staff a feeling of camaraderie, that they had pulled together and made the "leadership model" as it came to be known, work. A strong sense of community was the result.

The stakeholder analysis revealed the executive group knew that the budget cuts were real and that, as was evidenced in other provinces, the entire program could be cut. What the executive opted to do was work hard to reduce their resource requirement from the institution and still deliver a program of which they could be proud. The staff may never have seriously thought the institution would consider cutting what was perceived to be a successful and highly regarded program. However, by the time of the interviews, the staff had also come to believe in the validity of the change, and gave it their full support. Also, it was evident during the interviews that the Programs of Study were widely considered to produce excellent graduates. Documentation supported this belief. Institution statistics published in the year of the study showed over 95% of all graduates from this Division were placed in positions. Over 70% of all Division graduates were in training-related employment. This statistic reflects the top placement for the institution, with the exception of computer-related technology graduates (who report 96.2% placement).

This finding supports Owens (1998) and Bridges (1991) in their findings regarding reduced resistance if staff agree the need for change is sincere. Executive in this study knew the need was sincere, but they had to "sell the need," as Bridges says, so that staff believed it too. The sense of camaraderie that developed supports Chaffee and Jacobson (1997), based on their work on subcultures. It is apparent the subculture of oppositional culture that was created through the Division's belief that they were "lone rangers" who came up with a new structural model, thereby meeting funding reductions in a unique and

successful way (therefore, in "opposition" to the majority of the institution's management structure).

Supportive Culture

The question, "Did the culture support the change?" sought to determine if the rest of the institution supported the change, either through acceptance of the changed hierarchy, or by proactively helping the new organizational structure succeed. Evidence of departmental support would have included changing their own requirements so that the new organization could survive with a radically different organizational structure.

Summary of Responses

Thirteen interviewees did not think there was any support for the changed hierarchy. Four interviewees thought there was some support from the Vice-President Academic, small support from the service sectors, and lesser support from other academic departments. None of the staff thought there was any support from the President's office. None of the staff thought the executive committee of the institution supported the change. With regard to the service sector, such as the Registrar's office, "the service sectors were bewildered." "There was confusion about who had signing authority." "Outside people didn't know who to contact, and they didn't understand the term Team Leader." "No support from the institution." These comments came from all stakeholder groups.

With regard to other departments in the institution, there "was some skepticism at the same levels in other schools. They wanted more homework time to make sure it was going to work." "The rest of the institution was concentrating

on their own need to meet funding cuts, and therefore weren't interested in what we were doing."

Those who thought they had support tended to be in the administrative support category, and had the following comment: "no problem getting service, but I have always liaised with the Registrar."

<u>Stakeholder Analysis</u>

Respondents from every stakeholder group felt the same way, i.e., that there was little support from the institution. Interviewees did not think what they did was taken seriously by other departments, either academic or service groups. Instructors commented that they were "not supported by external organizations, such as advisory groups."

<u>Discussion</u>

Schneider, Brief and Guzzo (1996) concluded their research with the statement that "changes were more likely to stick when the organization is ready." In this case, the organization was not ready because it was not change-hardy (see Chapter 1), and the various Divisions were not supportive. Kirkman and Shapiro (1997) predicted resistance to change if the culture was not supportive. However, in this case, the resistance to change was not evident.

Pawar and Eastman (1997) identified several factors that link culture to transformational leadership as it relates to the ability of leaders to influence change. One factor is the requirement for a strong, visionary leader when the environmental influence (validity for change) is strong, but the desire to be traditionally stable (no cultural support for change) is strong. The staff clearly did

not believe there was cultural support for the change. Therefore, according to the Pawar and Eastman study, these staff supported the vision of their leader, formed a boundary around their Division, developed their collegiality, and worked cooperatively to succeed in this new team venture.

The concept that the culture of this organization did not support a change of this magnitude is the most significant finding of this study. Change literature reviewed for this study is clear that change will not be sustained if the culture does not support the unit instituting the change. However, most change literature refers to for-profit business. There was limited literature in the education field that dealt with change in organizational structures. Fullan (1982-1993), for example, tends to deal with changes in curriculum. Further, theorists from the business literature appear to have assumed that changes in organizational hierarchy are the same in every administrative organization, regardless of service or product.

The change under study was precipitated by a government decision to hold postsecondary institutions accountable, just as any major corporation is held accountable to its shareholders. However, it is clear that a postsecondary institution is not the same as a business. The fact that one Division could sustain change even though a key factor was missing may indicate that postsecondary Divisions are different than units/departments in a business organization. Divisions of postsecondary institutions are autonomous entities that exist to meet the needs within the program or faculty that they serve. Agreement among the staff of the Division that the education they provide is solid, meets the needs of

the public, and provides excellent graduates is the factor that sustains change regardless of what the rest of the institution is doing.

Behaviour Processes

The literature regarding the role of behaviour processes in organizational change revealed several processes that contributed to sustainability. These are: (1) relations among groups and individuals such as team leaders, teams, union, accrediting bodies and customers (students), staff, service areas, and program advisory committee members; (2) cooperation between team members and teams; (3) conflicts between team members and teams; (4) communication from leaders, peers, and monitoring teams; (5) controlling and rewarding behaviour; and, (6) problem solving - was it participative or top-down.

Organizational effectiveness, says Harrison (1994), "is enhanced when work groups are cooperative and cohesive, communication is honest and multidirectional, group norms support productivity, decision making is participative, and supervision is both task oriented and supportive of individual effort and learning" (p. 63). The question, "What were the key processes that contributed to sustainability?" sought to discover if the behaviours outlined in the literature were present in the case under investigation. An analysis of responses and a stakeholder analysis are presented. The section closes with a discussion of the findings.

Relationships: Cooperation, Conflict, and Communication

This element combines the relationship issues of cooperation, conflict and communication. The question "How did behaviour contribute to the success of

the change?" incorporated probes for each of these relationship issues.

Summary of Responses

When probed about the behavioural process of relationships, such as among team leaders, teams, union, accrediting bodies and customers (students), staff, service areas, and program advisory committee members, there were no outstanding issues. Everything seemed quite pleasant during the transition, and continued through the period of sustainment -- three years. Specifically, there was cooperation, little conflict, and open and positive communication. The major difference observed was the improvement in communication. All interviewees thought the communication was good, or even better, based on the Transition Monitoring Team and the emphasis placed on keeping the lines of communication open.

Stakeholder Analysis

As reported, there was no significant difference across stakeholder group beliefs and observations in the area of relationships, cooperation and conflict. However, there was a significant difference in the executive stakeholder group with regard to communication. These quotations also give an insight as to how the clusters viewed each other.

Executive. Executive was more concerned about accrediting bodies. They prepared meticulously for accrediting reviews, but were soon relieved. "There were smooth relationships with accrediting bodies and advisory committees." With regard to staff complaints, the executive was expecting to hear some but there were communication processes in place to hear complaints.

"There were some concerns expressed by the staff, but they had the TMT to voice concerns and get answers." In general, "learning is taking place across clusters, and this enhances curriculum growth." Second-year students were surveyed but the consensus was: "No problems with students." The union was kept informed of changes as they occurred. There were no grievances. So, while the executive answered "no difference," to the question of relations among the various interest groups, what was meant by this was that they expected things to be worse, but it was "business as usual." Therefore, there was a positive response to this question.

The executive and at least one representative of each other stakeholder group thought the communication had improved. Since it was the executive who was accountable for communications, it was not surprising that they noticed the increased efforts at communication. One executive remarked:

> "It wasn't just a CQI team and a CQI report. They went on to create a Transition Monitoring Team, which is fairly unusual. Usually after a CQI activity some changes are recommended and maybe even some large changes are undertaken, but not many times has there been a formal transition monitoring team to ensure the feedback is being heard from all employees. They followed in a pretty good form in making sure that the TMT was not just a management team. In fact they consciously avoided it being a management team. It was representative of the sectors in that school that were being impacted by this change."

Instructors. Instructors were involved in meetings and retreats to get to know each other and to understand the problems and constraints of the other clusters. This knowledge led to a greater understanding and a desire to help. "There was more cooperation between teams and clusters, sharing of equipment, and less feeling of isolation because there were several meetings held between groups." There were no complaints from students. "Students didn't know who

the team leaders were before the change anyway. This fact was analyzed from a student survey, and it led to a recommendation that team leaders be more visible."

Some pride was shown by instructors in one cluster who said: "Our program will be accredited for the first time, directly due to efforts of the team leader." Instructors did not believe the union had a problem with the changes since union staff were "invited to TMT meetings but never attended." One instructor summed up the feeling in the Division among instructors as "there are good relations because of the high dedication of the staff." As with the executive, while the instructors answered "no change," when asked about relations among groups, their comments indicated that the response was positive in the overall feeling of pride in what they had accomplished.

Some instructors thought "teamwork had skyrocketed." In general, comments such as "good sharing of ideas and equipment," "excellent cooperation in staff and between clusters" were indicative of the overall generality that cooperation was good, excellent, or "skyrocketing." All stakeholders experienced an attitude of cooperation. Examples were given regarding sharing of resources. In fact, some instructors thought the reason they were finding it easier to obtain resources was precisely because "they can be shared by more than one cluster."

Some instructors had been concerned about conflict with the advisory committees or accrediting bodies. They were pleasantly surprised when no conflict emerged. Of the responses that reflected some conflict, they were minimized by respondents, saying that "there were some historical conflicts." Another comment was that there was some initial conflict with former program

heads that did not "get the leadership nod." However, the general feeling was that this type of conflict had since sorted itself out and that there was no current conflict on those grounds.

Administrative and Technical Support. Quotes from the administrative support and technician staff about cooperation reflect their response that there was no difference in cooperation from previous relationships. "There were no problems with the union. There were no problems with accreditation." One administrative support staff noticed that "there are no relationship problems because overall there is a better use of resources."

Non-Divisional Staff. "There were some problems with old Program Heads, but the Dean was consistent and firm." Some problems were evident with workload issues, as outlined in Chapter 4 on the Division. However, an observation by one interviewee was that "there was a problem with workload with existing staff, but there is no problem with new staff." Another interviewee said "the staff pulled together very quickly to support their team leaders. They supported the person if not the structure at first. The team leaders also became very close."

Discussion

Relations among groups and individuals, cooperation, and conflict responses were observed to be about the same after the change as before the change. The major difference in behaviour noticed was the improvement to cooperation. Responses indicated that cooperation had improved due to the fact that programs began to share equipment, space, and other resources. Formerly,

some programs did not know what resources other programs had available to them. In the past, budgets were kept confidential to the Program Head and the Dean. Often program staff didn't know what the budget contained. In the new configuration, all of this information was made available, and significant effort was made to share reso·urces. The response that cooperation had "skyrocketed" came from such knowledge. Response to observed communication indicated that communication was op·en. All interviewees said they knew, or had access to, knowledge about what ˉwas happening for the entire three years under study. Monitoring teams, in their reports, indicated that the leadership team was responsive to recommendations. The monitoring teams said they had validity and that they felt their work was acknowledged and appreciated by both leadership and staff. These findings support Harrison (1994), in his work on the importance of communication and participation to create high levels of trust.

<p align="center">Controlling and Rewarding Behaviour</p>

The next element or type of behavioural process that sustains change is controlling and rewarding behaviour.

Summary of Responses

Some interviewees thought both rewards for positive behaviour and controls for negative behaviour existed in this Division. Overall, there was no clear feeling about rewards or controls from any individual interviewee.

Stakeholder Analysis

The comments from stakeholders reflected their feelings regarding the type of controls or rewards given.

Executive. Executive noticed initial problems with reporting issues or with the Dean and Associate Dean "working hard to meet their agenda." Executive was also reticent about providing rewards in case they would be seen as "playing favorites."

Instructors. Instructors thought the behaviour of the Dean and Team Leaders was controlling at first, but less so as time went on. Instructors also thought there was little budget available to give rewards, but appreciated those rewards that were possible, such as "rewarding though lunch twice a year at school meetings." Some negative rewards were noticed, such as "negative behaviour got rewarded: the more resistance [to the change], the better the computers."

Administrative and Technical Support. Administrative and technical support staff thought there was not enough controlling behaviour from the Dean and Team Leader, and that "problems were ignored." They also thought there were rewards through "retreats, and attendance at seminars." The administrative support staff had also been successful at reclassification, for which they felt support from their colleagues.

Non-Divisional Staff. Non-Divisional staff felt the Dean and Team Leader behaviour was "more coaching than controlling," or "not exactly controlling -- more pressure to perform." Also, non-Divisional staff thought that when it came to reward and recognition, the organization as a whole had a problem in this area.

<u>Discussion</u>

Respondents generally agreed that neither controls nor rewards were evident in the department. Some thought there was negativity at the beginning, but there was none in evidence at the time of data gathering. This finding does not support Porter, Lawler and Hackman (1995), who found that rewards of money motivated sustained change. Since no extra money was available, the minor reward of annual lunches and positive feedback from the Dean and peers was the sole reward. Neither was there any indication of punishment nor controlling behaviour.

Problem-Solving -- Participative or Top-down

The last behavioural element in this study was problem-solving. This study sought to find out if the staff participated in solving problems of mutual concern to the Division on an ongoing basis, not only when the funding reduction issue surfaced (CQI team), but also when other problems arose over the three-year period.

<u>Summary of Responses</u>

This section addresses interviewees' beliefs and observations regarding problem solving. Was problem-solving participative or top-down? A significant majority of interviewees (11 of the 17 interviews) reported that decisions had become participative. Further, they indicated that participation in problem-solving had become a normal expectation of both the Team Leaders and the staff.

<u>Stakeholder Analysis</u>

Executive. Executive said they involved staff in problem solving when a

problem affected all staff. Some felt participative decision-making was "ensured by the establishment of a TMT." Another commented that "I don't necessarily know all the history behind an issue, so I'll go back to the program to find out how it came to be an issue, and then find out what the staff would like to do with the issue." Therefore, problem-solving had become participative.

Instructors. The instructors saw a difference between the old style and the new team leadership model. "In the old style the team leader handled everything and you didn't know there was a problem." Another said "problem solving is participatory generally, with some hierarchical imperatives."

Administrative and Technical Support. This stakeholder group viewed "problem solving top-down only when needed, or it can't be solved at the program head level." Another felt there was "no difference in problem solving, but there should be more accountability for staff whose teaching was downloaded, i.e., let them sign their own forms and make their own decisions." Overall, this group saw more sharing of decisions at staff meetings.

Non-Divisional Staff. This stakeholder group saw more participative decision-making, and more facilitated decisions. But one member thought there was "less participative decision-making due to pressures of time."

Discussion

Respondents generally agreed that the old, hierarchical structure leant itself to top-down decision-making. They also agreed that the new structure leant itself to participative decision-making, especially when decisions affected all staff. The success of participative decision-making supports the views of

Pomrenke (1982), who said "people can get a clearer idea of how their tasks relate to the goals of the organization, and are much more likely to accept those goals as their own" (p. 39).

Variable Four: Outputs

The output in this study was sustained change. Indeed, the change, i.e., an organizational structure change, had been sustained for three years (1994-1997). The documentation to support this finding was the organization chart, published by the institution in 1998.

This study explored the factors that led to sustained change rather than the nature of the change itself, i.e., the Team Leadership organization structure. One finding that was not expected, but which emerged in the study, was the sense of community that resulted from sharing the experience of the change process. This finding is covered in more detail in Organization Impact in the section on Variable Five.

Variable Five: Impact

In this study, the fifth variable to be researched was the impact the change had on the organization, and its contribution to sustainability. To explore the impact on the organization, three subsidiary research questions were asked:

(a) What has been the impact of the change on students;

(b) What has been the impact of the change on instructors; and,

(c) What has been the impact of the change on the organization.

Student Impact

Interviewees were asked if there were any benefits accruing to students as

a result of the organizational change. The following reflects their responses.

Summary of Responses

Eight of the 17 interviews perceived positive benefits to students, such as curriculum changes and teaching methodology. Curriculum was enhanced through the sharing of resources because there were fewer boundaries between programs. Also, staff was challenged to teach in a different way, so began more use of powerpoint presentations, which could be exchanged among staff members. Nine interviews did not report any benefits to students, but this was not considered a negative, since one mandate of the change was that students would not be affected negatively. Of the nine, three people (non-Divisional staff) did not teach in the program, so were not as likely to know about curriculum differences.

Stakeholder Analysis

The executive does not teach so it is not surprising that they did not notice any impact from the change, either positive or negative. Those who were teaching (instructional staff), however, and in direct contact with students, said there had been an impact as a result of the change, and that the impact had been positive. Administrative and technical support also generally viewed the impact as positive. This reflection was because they worked with equipment and ensured resources were shared, wherever possible. They viewed this sharing as a good thing. They noticed that when one instructor invited a speaker to deliver a lecture on a special technique, all programs were invited to take the opportunity to use the guest speaker.

One interviewee reported that a survey of second-year students had been done by the TMT, with the result that there was "no difference to student learning." Typical comments from non-Divisional staff were they "didn't know if there was an impact on students," or that "there was no impact." This stakeholder group was not involved in daily operations, so were unlikely to have information that would contribute to this question.

Discussion

Most of the respondents did not think students were impacted by the change. This did not mean that students were negatively affected, but that they were probably not aware of any change. Of the respondents who felt students benefitted from the change, it was generally because of "indirect benefits through integration of programs and therefore additional dimensions to learning."

Instructor Impact

Interviewees were asked whether instructors had received any benefits regarding instructor development.

Summary of Responses

Eight of the 17 interviews thought the opportunities for professional development had improved since the change had been implemented. Four instructors reflected a concern with not having enough time to plan or attend any professional development activities, including inservice (a six-week internal offering of various strategy planning or technical upgrading workshops and seminars offered in the May-June time frame). The main reason instructors could not attend these offerings was that they taught throughout the May-June session.

Five interviewees did not see any change.

<u>Stakeholder Analysis</u>

Executive. Executives tended to think the professional development opportunities had improved, because of increased opportunities to share, learn about the quality management model, and be part of cross-functional teams such as the CQI and TMT teams. One executive expressed the opinion that "maybe the long-term gain will only be the staff development, understanding of quality management processes, examination of process improvement techniques, and team dynamics, all of which are pretty important."

Instructors. The instructors did not feel there was enough time for professional development activities, since they were spending more time in the classroom than before. However, two instructors had specific experience with resources being made available to attend conferences which, in their field, was important in order to keep up with the latest technical developments. Also, instructors could still apply for education leave.

Administrative and Technical Support. This stakeholder group answered for itself, rather than for instructor development. The group generally reported that training opportunities were given so that they could become "local experts," a term given to administrators who received technical training and then acted as trouble-shooters for the rest of the department.

Non-Divisional Staff. The responses for this question varied depending on this stakeholder group's understanding of what was being offered. Some thought professional development was enhanced because "there are better ideas

about how they can work together because of sharing of ideas between clusters."

But others felt that there was not a lot of professional development activity

because "blood was shunted to the core for survival."

Discussion

There was a fairly even split in responses regarding instructor professional

development. Those who felt there were more development opportunities

generally thought so because they "picked up new responsibilities." One

interviewee thought that staff gained through "understanding the quality

management process, examination of process improvement techniques, and team

dynamics." A majority of respondents thought their contribution to the team

movement was not having any effect on the rest of the organization compared to a

smaller number who thought it was. More respondents from outside the Division

thought the organization was moving in the team direction, but they interacted

with other parts of the organization on a regular basis.

Organization Impact

Interviewees were asked "what benefits were realized through increased

interaction or teaming in the organization?"

Summary of Responses

Interviewees were fairly evenly split regarding their view of the change

effect on the organization. Some felt the organization was moving towards teams

in order to "get away from long-term continuous permanent appointments. But

the issue becomes workload, not a desire to move to a new model." In any event,

most staff had been approached by other Divisions in the institution to try to

understand what was done and how it was working. This was seen as an interest expressed by other Divisions to understand the team leadership model in order to implement it or some of its better attributes.

Stakeholder Analysis

The two interesting stakeholder group answers for this question were the executive and the non-Divisional staff because both groups had a broader view of the organization than the instructors or administrative support and technical staff. While the executive majority believed there was not much movement toward teams in the rest of the institution, some had received calls from the other Divisions. Callers from other Divisions thought the response to funding cuts was unique, but once the budget was met, interest in how it was met had become a moot point. "The Divisions expressing interest tend to be the business-oriented Divisions." But the "apprenticeship kinds of activities -- their thinking is still quite historical and quite traditional." These comments reflected the different needs of the different Divisions within this postsecondary institution. Business-oriented Divisions would be interested in a team model of leadership, since that was what the instructors were teaching in their curriculum. Also, "there is a desire by staff to find some way to contribute to the leadership of their team." Apprenticeship programs are set up on the premise that in the workplace there is a foreman, or supervisor, and the workers are separate in that they provide specific skills not related to leadership. So it made sense to the executive that there might be different models for the leadership of Divisions, based on the model they would be expected to follow in the workplace.

The non-Division staff, however, felt that even though there was a "reluctance to change in the rest of the organization," some had seen teams begin to surface. Many programs wanted to know more about the process and, although they might not want the exact replica of the team model in the Division in this case, they might want to duplicate all the positive attributes, and side-step any negative ones.

Discussion

I expected to find that there had been a positive impact on the institution since teams are often used in business as a means to working effectively and efficiently. Indeed, interviewees were 100% adamant they would not go back to the old, hierarchical system, even if they could. They liked the current structure because it provided more autonomy, and provided synergies among all programs. They liked the team spirit and the support they experienced -- almost a sense of camaraderie in an "us" (the Division) versus "them" (the rest of the institution). No doubt this result was a contributing factor to the sustained change, because the change had created a sense of community in the Division that was not apparent before the change.

Summary

Variable one, environment, found that a dynamic environment, both external and internal to the organization was in play, and this environment led to the impetus for the change to occur.

Variable two, inputs, found that the people, or organizational structure had changed from a traditional hierarchy to a flat Team Leadership model, and that all

participants in the interviews knew, and understood this change. They also understood the reason for the change, i.e., reduction in funding, as well as the short time frame required to make the decision and implement it.

Variable three, key factors and behaviour processes, found the key factors of leadership, change agents, and validity were all present. These were the key factors that sustained change in the Division. The interviewees did not think there was support by the culture. Therefore cultural support was not a factor influencing sustainability. At the same time, the lack of support did not hinder the change in any way. Regarding behaviour processes, there were prevailing patterns of behaviour, interactions, and relations among groups and individuals -- including cooperation, conflict, communication, controlling and rewarding behaviour, decision-making, and problem solving that were positive. In this study, interviews revealed that all staff were very positive about the behaviour exhibited during and after the change. They reported a high commitment between the leadership team members and between teams to making the change work. People willingly took on extra work if they thought it would help the team leaders survive. Interviewees thought they had more autonomy to make decisions that in the past seemed petty approval requests. Even though some people lost status by losing their Program Head or Assistant Program Head position, there were only a few instances where this led to a problem within the clusters. Whenever a conflict occurred, if the team leader could not resolve it, he/she had several resources, i.e., the Dean, Associate Dean, or Human Resource facilitators to mediate. In addition, several retreats for the leadership team members helped to build a cohesive Division, all

intent on making the change successful.

The literature indicates that communication, cooperation, and positive conflict resolution contribute to sustained change. Clearly, the Division respondents indicated that all these communication skills were in place, and that the Dean or Associate Dean or Team Leader gave immediate attention to solve any conflicts or communication problems as they arose.

Variable four, outputs, was the sustained change (organizational structure) that provided the reason for this study. This particular change was an organizational structure that went from a traditional hierarchy to a team leadership model, reducing administrative staff from 21 Program Heads and Assistant Program Heads to 4 Team Leaders. The change had been sustained for a three-year period.

Variable five, impact, found that there had been a positive impact on the Division. There were benefits to instructors, students, and the institution, through increased interaction and sharing of resources within the Division community. This supported Fullan's (1982) belief that an evaluation should be conducted to determine if there was any impact so that all the effort and energy placed on change would be worthwhile. However, the major outcome was an unexpected outcome for people in this study. Whereas the impact literature described the impact in terms of benefits to the ability of students to learn, instructor professional development, and increased teaming in the organization, the findings reflect benefits of a different nature. What was found instead was that the Division had developed a sense of community not previously experienced. The

sense of community developed through the closeness required by several facilitated team building sessions, and a sense of "us" (the Division) versus "them" (the institution). So benefits were realized, but from a different perspective, and for unexpected reasons. The perspective was that students and instructors benefitted through shared resources, rather than because of the change (organizational hierarchy). The organization benefitted because it learned that Divisions could operate independently from each other, and that leadership teams could be a concept to pursue, but not necessarily in exactly the same format as the Team Leader model under study. This finding would not surprise Mohr (1992), who said that evaluation should be done, not only to find out if the impact was positive or negative, but also if there were any impacts that were unintended.

CHAPTER 6

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND

IMPLICATIONS

An overview of the study of a sustained change in a postsecondary institution is presented in this chapter. Conclusions that contribute to change theory as it relates to postsecondary institutions are offered. This includes key factors, processes, and impacts of change on postsecondary institutions as they relate to sustained change. Where differences in perceptions of stakeholder groups has an influence on the outcome or recommendations, these differences are identified. In the final section, recommendations for practice, and implications for further research are proposed. This chapter closes with personal comments, reflecting personal reasons for undertaking this study.

Summary of the Study

A major change to the organizational structure of a Division in a Western Canadian postsecondary institution was sustained over a three-year period (1994 - 1997). The impetus for this change was a significant (21%) reduction in funding from the Provincial government. This organizational change was completed even though no other Division used the same approach to solving their 21% funding reduction challenge. The context of the study indicated how serious were the pressures placed on postsecondary institutions, and how dramatic was the need for change in education institutions. This section presents the purpose of the study, methods employed in addressing the research questions, and a summary of the findings presented in Chapter 5.

Purpose

The purpose of this study was twofold. One purpose was to identify the key factors and processes that contributed to a sustained change effort. The second purpose was to assess the impact of the change on the postsecondary institution, in order to provide an insight into whether the change, albeit sustained, had an effect on students, instructors, or the organization.

The two specific research questions to address this purpose, therefore, were:

(1) What were the key factors and processes that sustained change in a postsecondary institution?

(2) What were the impacts of the change on students, instructors, and the organization?

Justification

This study was justified on the basis that postsecondary education was facing major changes in the environment through changing public expectations and resulting government funding reductions. Postsecondary educational institutions had not previously been challenged with change of the magnitude required to meet this case's funding reductions.

Method

The study employed a case study strategy using 17 semi-structured interviews, coupled with document analysis available from the institution studied. The data were coded in such a way that it could be sorted both by individual and by stakeholder groups. Stakeholder groups were identified as executive,

instructional staff, administrative support and technical staff, and non-Divisional staff. The purpose of coding in these two ways was to determine if the findings reflected differences in opinion by individual respondents or by stakeholder group, (given their status in the organizational hierarchy).

Findings

Findings in relation to Specific Research Question 1, "What were the key factors and processes that contributed to sustained change?" were somewhat different from the literature findings. The key factors were leadership, change agents, and validity, but the key factor of cultural support, identified in the literature, was not evident in this study. The key processes were open, consistent, and ongoing communication and opportunity for the creation of trust between and among executive and staff. The major contributor to these processes was the provision of facilitation strategies that allowed for an opportunity to build communication and trust initiatives.

Findings in relation to Specific Research Question 2, "What were the impacts of the change?" were positive. Interviews revealed student curriculum was enhanced, instructor professional development occurred, and institution organization structure change was evident in small amounts. However, the key finding was not incremental structural or management change, but the benefit that accrued from increased interaction. Reduced resources meant that more sharing of office and classroom space and equipment, and increased access to the Dean provided unexpected benefits. Students benefitted from an interaction with students of other disciplines with a similar background to their own. Instructors

benefitted from the removal of barriers to communication. They gained

knowledge of working in teams using participative decision-making. The biggest

benefit was likely the empowerment and autonomy achieved through the removal

of levels of hierarchy. The institution benefitted through a realization that the

entire organization does not have to structure itself in the same way in order for

each Division to succeed.

Conclusions

On the basis of the findings derived from the data and their relationship to

the conceptual framework presented in Figure 2, the following conclusions are

offered. For the purpose of clarity, conclusions are presented in bold print.

Key Factors

The first question regarding which key factors and processes contributed

to the sustained change found that three of the four key factors suggested in the

literature were significant in sustaining the change. They were leadership, (in the

form of the Dean and Associate Dean); change agents, (in the form of the CQI

team and TMT); and validity (in that staff believed a change was necessary and

that the Division's particular approach to the change was valid). The fourth key

factor, a supporting culture, was not present in this institution. The final probe

asked staff to identify what they thought had kept the change from backsliding.

The overwhelming response was the dedication and commitment of the leaders

(Dean and Team Leaders), and the resulting trust and commitment of the

instructional and administrative support staff.

The findings match the literature for three key factors that contribute to

sustained change: leadership, change agents, and validity. One key factor, named in the literature, was not present and evidently was not needed: support of the culture.

Four conclusions are a result of these findings:

(1) Leadership was the primary key factor in sustaining change in this postsecondary Division. A change cannot be sustained without the support of key stakeholders. Those involved believed the leadership wanted a particular change, and they accepted the leadership influence.

(2) Participants in the solution need to understand the reasons for the change intellectually. The participative decision making used to find the solution, coupled with ongoing participation in decision-making committed support to sustain the change. For instance, while the change was valid, other Divisions in this institution did not choose the same method to meet the funding cuts. If the staff did not understand the change and felt part of the solution, they could have resisted the change, stonewalled the attempt to move to a different organizational structure, and in the end the change might have reverted to the old structure. In the final analysis, postsecondary institution staff is educated and welcomes a collegial approach with participative solution building. As long as staff understand the need, and are a part of the solution, they will support the decision, as found in this research.

(3) Cultural support is not necessary for change. This management change was sustained without the support of the culture. This is contrary to what several authors believe. For example, Walton (1995), cites several examples in her study

on transformative culture where organizations first change the culture, then undertake other changes in the organization (pp. 151 - 168). The culture change has occurred when *all* members of the organization have a shared understanding and commitment (p. 166). According to Walton this is necessary for change to occur and to be sustained. In the Division studied, a committed organizational culture was not apparent, even though the change was sustained.

(4) Divisions operate independently, and therefore don't require the entire support of the institution to carry out their business. Each Division has the same goal: to provide quality education through quality curriculum development and delivery. Even if one Division was to be totally removed, the whole system would not fall apart. This is a major difference between an educational institution and a corporation. In a corporation, each department, in order to meet the objective of the company, must work with other departments. In a postsecondary institution, the overall goal is to provide quality education, but no Division is totally dependent on any other Division to provide this outcome. In fact, there are rivalries for resources based on how each Division sees its importance in the institution and to the community.

This conclusion differs from the conclusions of several authors, including Chaffee and Jacobson (1997), Pawar and Eastman (1997), and, Schneider, Brief and Guzzo (1996) who addressed organizational change strategy based on preparing the climate and culture for sustainability. They show in their research of various large organizations that changes are more likely to stick when the organization is ready, and the change strategy refers to the entire organization.

They note that a change, such as the organizational hierarchy change in this study, is effective when these structural changes are associated with changes in the psychology of employees.

Behavioural Processes

The first question regarding which key factors and processes contributed to the sustained change found that the key behaviour processes observed during and after the change reflected cooperation, closeness, and, as one person interviewed commented, "stubbornness." Everyone drew together to make the change work. The contributing factor for the close cooperation seen in this study was the tremendous efforts the leadership undertook to ensure communication was continuous. Several communication interventions were engineered. The creation of a CQI team, which involved a cross-functional staff in proposing the solution, was the first intervention. The second communication intervention was having the Continuous Quality Improvement (CQI) team present its recommendations to the executive: Vice-President Academic, Dean and Associate Dean. The third communication intervention was the creation of a Transition Monitoring Team (TMT) that set up several communication passages, such as an anonymous telephone "hot line," survey instruments, a report with recommendations to which the Team Leadership formally responded, and continuous meetings and facilitated retreats arranged under the auspices of the TMT. A fourth intervention was the second TMT, using new staff. A fifth intervention was the workload study done in response to a recommendation from the second TMT.

Three conclusions are a result of these findings:

(1) All the communication activity clearly worked to create a tight-knit group that began to see themselves as a community separate from the institution as a whole. This resulted in a "we/they" scenario. This scenario began to play itself out in an issue of recognition, meaning "we accomplished this difficult feat, and gave ourselves up for the good of the institution -- now, where is our reward."

(2) People will work hard to achieve a goal, but they want to be recognized in some way for their achievement. The documentation provided by the 1998 review indicated that staff did not want to return to the old hierarchy, corroborating the interview findings in this study. However, it pointed out that staff felt they had never been acknowledged for the tremendous effort they had contributed to the institution by accepting a greater workload than instructors in other Divisions. They had downsized in the area of administration rather than in the classroom, and they had accepted administrative work redistribution as a result. This may reflect the desire people have who enter the teaching profession to provide an excellent education experience to students, regardless of the amount of work it takes to do so. However, human nature suggests people want acknowledgment for this effort, especially if there is a disparity perceived across, in this case, various Divisions.

(3) Excellent facilitation strategies are necessary to sustain change. The communication activity was deliberate, continuous, and supported by the leadership. This activity reduced or eliminated opportunity for false rumours. It

also ensured everyone understood anything that was happening, why it was happening, and provided the opportunity for all staff to question motives.

Consider that the CQI is a tool for generating solutions, which are then taken to management for a decision. In this case, management made the decision to accept the recommendation presented. In addition, readers of this research must understand that there was no collegial model at this institution. Decision-making was considered the privilege of the management. Therefore, it was apparent that the decision to accept the recommendations of the CQI team generated trust and commitment to the leadership team.

Impact

The second question regarding the impacts of the change on students, instructors, and the organization, resulted in a finding that all elements benefited, but the unexpected benefit was development of community.

The conclusion as a result of these findings is:

(1) **A Division in a postsecondary institution can develop and sustain a subculture of "community," wherein all staff (including executive, instructional and administrative support staff), working together, can accomplish more than individuals working separately.** Team Leaders and staff drew together as a unit for survival against outside forces, i.e., the government reduction in funding. This was necessary so that they maintained a quality program for students. This accomplished two goals: the credibility of the institution and, therefore, the instructors, was maintained. The credibility, of course, then spills over to the student. The student comes through a quality

program and therefore is employable. Everyone wins in this scenario.

Cooperation and improved relations had a positive impact on the Division, including students, instructor development, and the organization as a whole. The impact on instructors was that they benefitted from successfully working in teams. Instructors became familiar with the processes necessary to involve peers in decision-making and solution building. Further, as a result of this change, instructors were more autonomous and would be more empowered to be contributors to the survival of any program in any future program facing severe funding reduction. They did not rely solely on the leadership to solve all the problems and make all the decisions. Instructors from this Division are truly leaders themselves, acting to ensure their Programs of Study survived. This finding represents a positive impact on instructors. Empowering instructors was not a stated goal, but it was likely an implicit expectation that logical, educated, committed people would support the participative solutions of their colleagues.

(2) There is no requirement for every Division in a postsecondary institution to operate the same way. While there has been some movement in the rest of the organization toward team leadership, no other Division has opted for the same approach. What the institution learned, then, from the process is that Divisions could operate differently, and the overall instructional goals could be achieved. The trend has been to design a team that suits its Division, and no team looks the same as the one created in the Division studied. Therefore, the major impact on the institution is the realization that Divisions do not need to look exactly alike in organizational structure. The impact of the change on the institution has been

positive, but unintended. This Division thought the institution would move toward the same model they designed, and hence expressed disappointment when it did not happen. But the Division was successful in demonstrating to the institution that each Division could operate independently from each other in management matters.

(3) Students benefit from sharing resources with students of other disciplines. The impact on students was that they benefitted through an integration of programs and sharing of facilities, equipment, and space. Therefore, they learned more about related disciplines, which they were able to take with them into the workplace. Students from the Programs of Study of this Division are often required to work with each other in the workplace. It is therefore a benefit that students became more familiar with the value a graduate from another discipline would bring to the work place. This impact on the students is positive. While it was a goal to ensure there were no negative impacts on students, the type of positive impact in the Division was unintended, as it could not be foreseen that students would benefit from a sharing of facilities, space, and equipment.

Contributions to Theory

This study set out to contribute to change theory in postsecondary institutions as it related to the intervention between a (former) existing state and a new state in a change process. A conceptual framework (Figure 2) was used to determine key factors and behaviour processes that sustain change, and determine if there was a resulting impact on the institution. This framework was based on

the work of Harrison (1994) and Fullan (1982).

The vast literature on change in the workplace outlined a broad range of factors and processes that sustain change. Two variables reflect differences between current theory and current practice, as determined in this study. Table 6.1 reflects these differences for the element of key factors that contributed to sustained change:

Table 6.1

Key Factors: Current Theory Versus Current Practice

Current Theory	Current Practice
Key Factors Leadership Change agents = Sustained Change Validity Cultural support	***Key Factors*** Leadership Change agents = Sustained Change Validity

Table 6.1 reflects current theory, wherein key factors that were identified as those expected to be present if change was to be sustained, were leadership, change agents, validity, and, cultural support. Based on the findings of this study, current practice for postsecondary educational institutions to sustain change appear to be leadership, change agents (specifically, participative decision-making such as CQI, followed by TMT during the transition from the previous situation to the new, or changed, situation), and, validity.

As can be seen in Table 6.2, the key processes identified in Current Theory indicate that relationships must be positive, including cooperation,

communication, conflict resolution, controlling and rewarding behaviour and participative decision-making and problem solving. The Current Practice reflects the need for ongoing communication initiatives, not just at the direct time of change, and that opportunities need to be sought out to ensure continuing trust so that the change can be sustained.

Table 6.2

Behaviour Processes: Current Theory Versus Current Practice

Current Theory			Current Practice		
Key Processes			*Key Processes*		
Relations among groups and individuals: cooperation, conflict resolution, and communication	=	Sustained Change	Relations among groups and individuals must remain open, through consistent, ongoing communication	=	Sustained Change
Controlling and rewarding behaviour					
Participative decision-making, and problem solving			Create opportunities for trust between and among executive and staff.		

These findings agree with Harrison (1994), who indicated that change will be more effective if there are "high levels of trust, open communication of feelings and needs between ranks, and a de-emphasis of status differences" (p. 40). Cooperation enhances trust issues and therefore smoothes implementation effectiveness. The findings match theory in this case.

The findings do not agree with the conclusions drawn by Hanson (1996) in his work on educational administration and change where he discussed the

resistance to change that can be expected at the individual level due to vested

interests. While several people lost status, and the opportunity for promotion was

reduced, resistance was not evident in the Division.

In Table 6.3, the impact theory indicates benefits to students, instructors,

and the organization.

Table 6.3

Difference Between Impact Theory and Practice

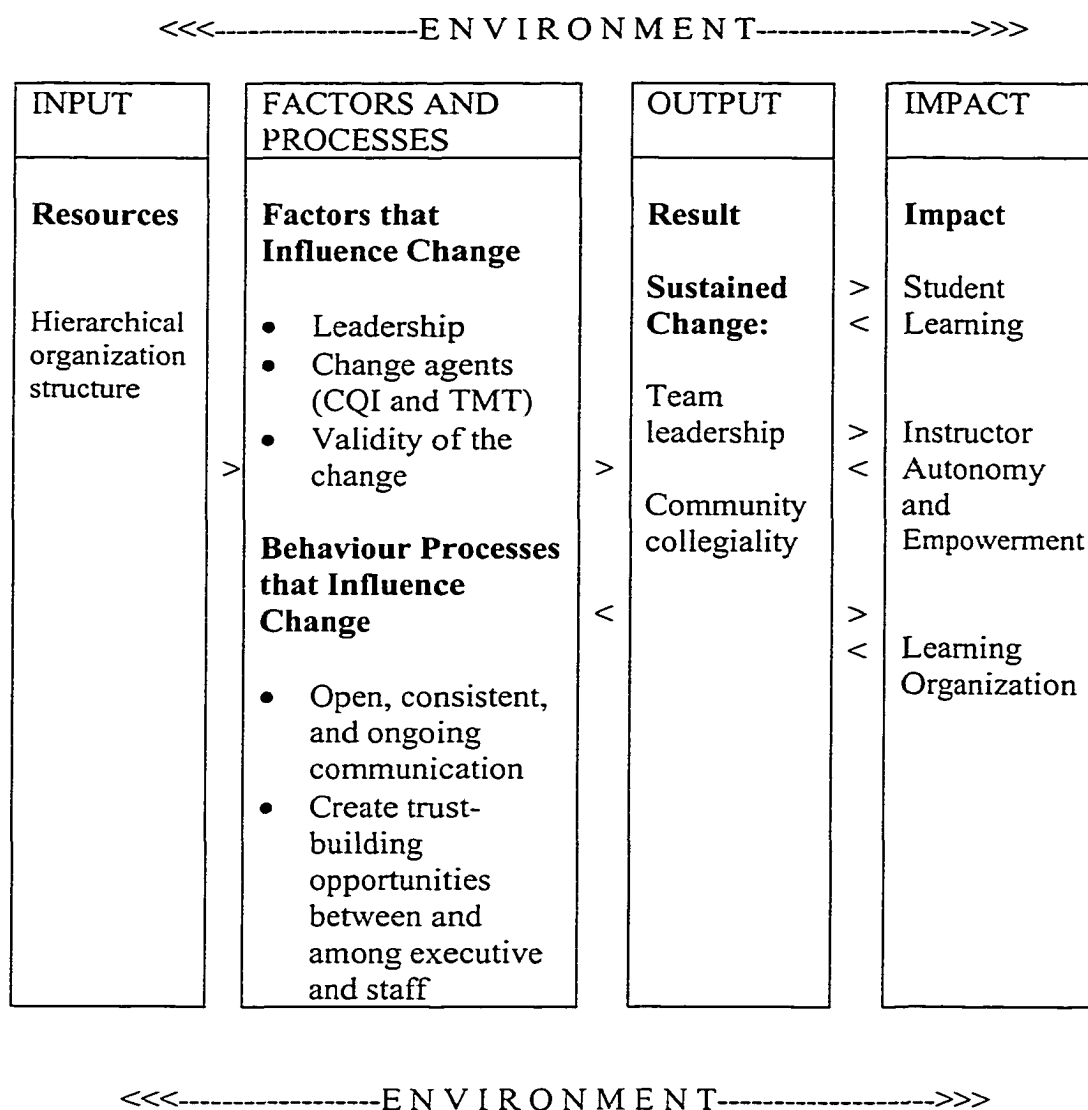| Impact Element	Expected Result of Implementation Fullan (1991)	Specific Result of Implementation in this Study
Student Learning	Changes will have a positive effect on student learning, through a positive learning [i.e., curriculum] environment (pp. 170 - 176)	Change had a positive effect on student learning, through sharing and through interaction with other disciplines.
Instructor Professional Development	Change may affect opportunity for leadership roles in decision-making opportunities or in supervision opportunities (pp. 138-139)	Change affected opportunity for instructor autonomy and empowerment.
Increased Interaction in the Organization	The change positively affects the larger community, or organization (pp. 348-349)	Change in the Division under study did not affect the organization directly. Indirectly, it has provided a window of opportunity for each Division to operate independently in administrative structure and in decision-making.

The findings agree with Fullan's (1991) concept of how change in

education affects students, because the learning environment is positive.

However, the learning in this case was enhanced <u>further</u> by the type of interaction

and sharing that was made possible, in effect, by reduced resources. With regard

to instructor professional development, Fullan missed the opportunity to explore

autonomy and empowerment, preferring to discuss leadership on the basis of

supervision rather than peer leadership. The impact the change had on the entire

organization was covered somewhat in the discussion on Chaffee and Jacobson

(1997) with regard to a subculture created in the organization. However, the

concept of each Division operating as a separate entity was not covered by these

authors.

Based on the findings of this study in a postsecondary Division, the

following model, Figure 3, more adequately reflects change theory as it is applied

to postsecondary education in this case.

Figure 3 depicts a model that is linear; i.e., resources enter, key factors and

processes take place, and the result is change. But change itself is not linear.

That is, the change can and will be dynamic as external conditions (the

environment) vary. In addition, the impact wrought by the change can cause a

dynamic environment. If the impact is negative, the change may slide back to its

previous state. Another possibility is that change will continue incrementally as

participants in the change process try to fix the current state.

Figure 3: A Proposed Model for Postsecondary Change

<<<------------------E N V I R O N M E N T------------------>>>

INPUT	FACTORS AND PROCESSES	OUTPUT		IMPACT	
Resources Hierarchical organization structure	**Factors that Influence Change** • Leadership • Change agents (CQI and TMT) • Validity of the change **Behaviour Processes that Influence Change** • Open, consistent, and ongoing communication • Create trust-building opportunities between and among executive and staff	**Result** **Sustained Change:** Team leadership Community collegiality	> < > <	**Impact** Student Learning Instructor Autonomy and Empowerment Learning Organization	> < > < > <

<<<------------------E N V I R O N M E N T------------------>>>

Recommendations for Practice

If a postsecondary institution were to undertake a major change, it may

consider the following formula in order to prepare for sustained change:

1. Make the change in response to a bona fide need (validity).

2. Lead through commitment. Leaders are required to be committed to see the

    change through to sustainability. All participants in the change need to

    perceive that leaders are committed and will be there for the long haul (to

provide leadership).

3. Plan several interventions, including participative decision-making, where solutions are invited and used. This agrees with Levin's (1998) research that indicated a reduction of administration and sharing of power resulted in more cooperation in colleges attempting change.

4. Institute systematic transition communication strategies such as a Transition Monitoring Team. Ensure the Team has a purpose, is valid, and produces a report to which leadership responds.

5. Because of the autonomous nature of postsecondary programs or Divisions, it is not necessary to expend extensive effort on culture change since, at least in this case, it was not necessary to have the culture "buy in" to the change.

The most positive outcome in this study was a stronger sense of collegiality in the Division, as staff accepted and "embraced" the change. Synergies between programs became evident. The funding cutbacks did not affect students or programming because the instructors were dedicated and committed to their profession.

Recommendations for Further Research

In addition to the standard recommendation of replication of the study in other contexts, the following recommendations are offered for further research:

1. The majority of the literature on change is available in the management literature. The reason for this appears to be that researchers believe management of organizations is the same regardless of the organization. The fact that one key factor was missing from the postsecondary culture in this

case provides some indication that postsecondary organizational cultures may be different from other management structures. Therefore, the recommendation is offered that postsecondary organizations should be researched to determine other differences between postsecondary organizations and business organizations.

2. The impact of change on educational institutions has received little attention in the literature. Most of the impact literature has to do with the change in curriculum. Therefore, the recommendation is offered that the impact of change to the organizational structure be given greater research attention.

3. It seems as though the lack of support in the culture created a "we/they" scenario. All participants in the Division became even more dedicated to making the change work. The Division became more close-knit. It appears that this lack of cultural support became a facilitator of change. It united the staff. Therefore, the concept of creating relationships where a we/they scenario is encouraged is an enabler of sustained change that could be researched.

4. Current chaos theory suggests that changes happen haphazardly. Did this change happen haphazardly or strategically; i.e., was the institution moving toward team leadership anyway? An opportunity for research would be to determine if there are certain conditions in a postsecondary institution that lend themselves to this type of change.

5. The Transition Monitoring team did not receive remuneration, but the members of this team played a key role in the outcome. Would staff have

been as willing to trust a paid TMT and/or an external TMT? Also important is the question of how to staff a TMT. Is it through volunteer efforts or by carefully selected cooperators?

Implications

There are increasingly more forces at work in the environment that will require postsecondary institutions to change. Fullan (1993) suggests these forces are inevitable, such as "government policy changes or gets constantly redefined, key leaders leave, important contact people are shifted to another role, new technology is invented" (p. 19). Postsecondary institutions will need to prepare for the changes to come.

When a program of study is terminated, or shut down, in a postsecondary institution, it takes tremendous resources (money and staff) to start up again. Institutions would find it difficult to get funding for a program once it has been shut down. The implication is that postsecondary institutions must be very careful not to be influenced by government funding or the economy. The tactic of "keeping the pilot light burning" has turned out to be useful for the Division studied. Other provinces shut down similar programs because of the economy, and are now sending their students to the one or two existing programs that continued (at the sending province's expense).

The culture of a postsecondary institution is different from the culture of a business organization. Educators are great creators of knowledge, but they often work in isolation in the classroom. The opportunity to share their knowledge among staff is an impetus for even better curriculum design and delivery. New

ways of cooperating with each other were discovered. In business organizations, staff usually work together to achieve the strategy of the department or corporation, with frequent meetings to ensure targets are being met.

Implications for postsecondary managers and senior administration are:

1. Stable leadership is required for sustained change to gain commitment and trust. If participants perceive leaders are short-term, perhaps placed specifically to effect a change, then the change is also likely to be short-lived. One executive commented "if the Dean were to leave or retire, it would be interesting to see how long the change would last."

2. Change agent interventions require participative decision-making. Managers and senior administrators would benefit from a mentor or organizational development facilitator to work with them over a period of time (in this case it was one year), constantly coaching managers so that their behaviour can change from hierarchical decision-making to participative decision-making. Without this coaching, managers run the risk of reverting to the old style of decision-making because it is familiar and therefore expedient. Once participants perceive their involvement is not being solicited, or that their recommendations are not being implemented, trust and commitment may be lost.

Personal Comments

I have a background in business and industry, specializing in change and organizational behaviour. For five years I was a training advisor for a major resource company, where I developed and delivered workshops on change. I

noticed that it was difficult to institutionalize change. Either the process never began, due to confusion about the requirement for a department to change; or if the process did begin, it was often defeated in favour of the old way of doing things.

Upon moving to teaching and administration in postsecondary institutions, I observed that many of these institutions lagged behind business and industry in their view of what should be a reasonable return on investment, or audit of the budget from a cost/benefit point of view. Upon investigation, it appeared the attention that for-profit industry paid to business processes was due to current economic or other environmental forces. Rarely had these forces affected the traditional postsecondary institution as they were dependent almost solely on government funding to operate; and, government funding had remained stable for many years. Therefore, the institutions continued to operate in a traditional manner. Suddenly, in the 1990s, postsecondary institutions faced funding reductions. I was interested in how a very traditional institution would respond to the environmental forces which business and industry had already addressed. Would response be in the same manner, using the same methods as outlined in management change literature.

In planning the research, I selected the case and then formulated the research problem, based on the literature review. This study is not meant to be a comparison between business and industry and postsecondary institutions regarding organization behaviour. However, much of the literature was available in the management area, which addressed business and industry. In business

organizations faced with funding cuts or other resource issues, the rule has been a downsizing measure. In this postsecondary case, everyone was assured they would keep their jobs, and the leadership team made every effort to meet this commitment. When staff understand the goal is to meet funding cuts but in the process no one is going to lose their job, it appears there is less reason for resistance to change.

Coupled with the promise of zero job loss, a mandate of the CQI was to ensure the Program of Study would remain solid. Students would receive the same excellent education as in the past. Instructors met and exceeded this goal, again demonstrating zero resistance.

What I learned from this research was more than how to sustain change. I also learned what can be accomplished by a dedicated group of individuals, if they are convinced what they are doing is the right thing to do. I also had an insight into the teaching profession. People who opt for a teaching career generally seem to have the interest of the student paramount. The teachers in this institution studied clearly are proud of the institution and their association with it. That is one reason for their long service and committed and dedicated service.

Another insight was the importance of the leadership of a change thrust. The leader of the change had two strong beliefs: that what he was doing, i.e. saving the program through meeting funding reductions; and, saving the jobs of the dedicated teachers in the program, were worth doing for the good of the profession and the institution. This strong belief propelled him to action. His leadership garnered the trust and commitment of the staff. This strong belief in

the "rightness" of the change requirement has some differences from what I have observed in changes in industry.

In industry change, when there is a business requirement, such as funding reductions, a leader might strategize how to meet the requirement, but the change process tends to have a negative outcome, such as downsizing. Leaders are often brought in to effect a change, but they have no long-term plan to see the change through, since once their role is complete, the leader may move on to another challenge. Hence, leaders in this scenario are hired for their ability to shake up a division, make harsh but necessary cuts and changes, but they do not stay for the maintenance phase once the division settles.

This case shows the human side of participants as they struggle together to meet the requirements of the institution while balancing the needs of the teaching profession: to produce skilled graduates who will carry on the profession in society. I anticipate this sustained management change in this Division will prove to be a significant long-term benefit for this postsecondary institution.

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APPENDIX A

INTERVIEW GUIDE

INTERVIEW GUIDE

General Research Question

What makes change sustainable in the context of an Institute of Technology over a three-year period?

Specific Research Questions

(The following five questions will gather data about the *factors* that are key to sustainable change)

1. What was the organizational structure before the change began?

2. How was organizational structure identified as the thing to be changed?

3. Which key people influenced the change?

4. Did management and staff believe the structural change was a valid response to the need for funding cuts?

5. Did the culture support the change?

(The following question will gather data about the *processes* that are key to sustainable change)

6. How did behaviour contribute to the success of the change?

   - Relations between groups and individuals, e.g. Team leaders and new teams, union and accrediting bodies and customers (students), staff, service areas and other programs. Also advisory committees.
   - Cooperation between team members and between teams?
   - Obvious conflicts?
   - Coordination of budgets?
   - Communication up, down, as well as between clusters and team leaders
   - Controlling and rewarding behaviour
   - Problem solving (top-down or participative)
   - Goal setting and meeting the goals

(The following question will gather data about the *impact* of the change on the institution)

7. What benefits were realized

- Student learning
- Instructor professional development
- Increased interaction or teaming in the organization

8. If you could change one thing, what would it be?

9. Is there anything I haven't asked you that you expected to have asked? Have I missed any key points you would like to include?

10. What do you think has been the sustaining factor?

APPENDIX B

RESEARCH PROPOSAL

AND

APPROVAL

I propose to conduct research in the area of sustainable change for my doctoral thesis at the University of Alberta. During my employment I have become aware of the change in leadership to a team approach in the Division. This change has had a ripple effect in other departments who have also tried the team approach, with varying degrees of success.

PURPOSE

The purpose of the study will be to find out those things that have made change sustainable in the Division. The study will be limited to a three-year capsule including the forces that encouraged change (government cut-backs) to the end of this school term (June, 1998). The outcome will be to advance theory on leadership activities that contribute to sustained change.

TIME FRAME

The time frame for the study will be May to August during which time I expect to gather data as follows:

- Read background notes taken by those involved in the change (it is very well documented through the efforts of the leadership and Organization Development Services).
- Interview key members of the team involved in the change taking place to understand what factors were involved in making the change happen.
- Interview all current department members to determine what key factors are seen as contributing toward sustainability.
- Interview external contributors as the change unfolded (ODS and external consultant) for the purpose of gaining external insights.
- Interview people who serve in a support staff role to discover the role of infrastructure in supporting the change process.
- Identify key turning points in the change strategy and the key factors in sustainability of this particular case.
- Identify and evaluate the impact of the change on the Division and the institution.

PROFESSIONAL EXPERTISE

I expect to have the input of professors of education administration in analyzing and describing the data collected. My committee is currently comprised of Dr. Paula Brook, Associate Professor, whose area of expertise is adult and higher educator. Dr. Mike Andrews, Associate Professor, whose area of expertise is postsecondary education and a former Division head, as well as immediate past-president of AVC-Edmonton; Dr. Eugene Ratsoy, Professor, whose expertise in the are of change in posts4econdary institutions is well documented in literature.

STUDY RESULTS

The results of the study will be shared with the institution and with my supervisory committee at the University of Alberta. I understand that it will be a requirement to ensure the institution is not identified in the thesis.

Date: March 19, 1998

To: Judy Harrower

From: The Institution

Just a note to advise you that your research topic entitled <u>What Makes Change Sustainable</u> does not conflict with any Institutional research priorities. You are hereby given approval to commence your investigations.

This approval is contingent upon you obtaining approval for your project from the U of A ethics committee and you sharing the results of the study with the Institutional Research office.

Approval from the areas you intend to study will have to be obtained independently.

APPENDIX C

CONSENT TO PARTICIPATE IN

SUSTAINABLE CHANGE RESEARCH

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Supervisor: Dr. Paul Brook
University of Alberta
Department of Adult and Higher Education
Edmonton, Alberta

Phone: 492-7949

April, 1998

Dear Participant:

RE: Consent to Participate in Sustainable Change Research

I am a graduate student in Educational Administration at the University of Alberta. I am conducting research on the organizational change that took place in the Division from 1994 to 1998. The purpose of the study will be to explore what has made the change sustainable for the three- to four-year period. The study will be informed by determining what the impact of the change has been on the Division and on the institution as a whole.

I would like to invite you to participate in an interview about your experiences with the change. The method I will employ to gather data will be to interview each participant from a pre-determined set of interview questions. I expect the interview to take approximately two hours during which time I will tape record and later transcribe the interview. You will be asked to review the transcription to ensure validity and trustworthiness of the date. You have the right to veto, change, or delete any information from the interviews and conversations you are involved in. The transcriptions will then be analyzed for themes.

To maintain complete confidentiality of the information, I will not identify you or anyone else. In the final presentation of the data and in the dissertation there will be no reference to the name of the institution or to individuals. You may at any time withdraw your consent to participate in the study. Should that be your decision, refer to my phone numbers or write to me at the above address.

If you are willing to participate in this study, please indicate this by signing in the space provided below and rturn this sheet to me in the enclosed envelope.

I_____ GIVE PERMISSION FOR JUDY HARROWER TO INCLUDE ME IN THE RESEARCH AS DESCRIBED ABOVE.

_____   _____
Signature   Date