# SCHOOL-TO-WORK TRANSITION: BLENDING EDUCATION AND TRAINING THROUGH CONTINUOUS IMPROVEMENT AND TEAM LEARNING

by

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**ABSTRACT**

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This study is a participant observation study of a school-based demonstration school-to-work project developed and implemented by a team of teachers in an Ontario, Canada high school. Questionnaires and interviews were conducted during the implementation of the project when the people involved in the process were simultaneously developing, implementing, reviewing and refining their implementation process. The study also attempted to demonstrate the contextual realities of a school as a workplace and the innovativeness and creativeness which exists among a staff who embark on a cross-curricular, school-wide task.

The data suggest the existence of a shared desire among all study participants to make connections between curriculum areas, develop outcomes, and to improve continuously. The data explicitly describe the lack of coordination and continuity of policy within and between levels of government within the school-to-work framework. Education falls within the jurisdiction of provincial, not

Education falls within the jurisdiction of provincial, not federal, government. The data revealed how, in spite of governmental policy uncertainty, those in a school where they were supported by the administration, created a project team to implement and develop an innovative, relevant, activity-based applied curriculum. The extent of the creativeness demonstrated by the implementation team and its shared commitment to develop an initiative within a school-to-work framework suggests the existence of a stable, supportive external political environment. This was not the case. The project implementation team was successful because of individual expertise they shared to reach a common goal.

Transformative followership is a term which evolved in this study from illustrations of front-line workers who are given the responsibility to innovate and are supported unconditionally when they do. There are unlimited possibilities for teacher innovation in schools if all levels of government and their administrations were able to provide consistent, coordinated and continuous support to policy and project initiatives.

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I also wish to thank the members of the Personal and Career Counselling Process Team for their contributions as participants in the study.

In particular, a very special thank you is extended to my husband Bob and my mother for their understanding, support and encouragement during my doctoral program.

## DEDICATION

This thesis is dedicated in memory of my father, Ivor George David who constantly demonstrated just how interrelated success, commitment and understanding can be.

This thesis is also dedicated to the memory of my mother-in-law, Betty who was proud of the accomplishments of her daughter-in-law.

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# CHAPTER 1

## INTRODUCTION

In 1995 as a response to private and public sector demands and recommendations, Human Resources Development Canada (HRDC) announced funding was available nationally for demonstration "Youth Initiatives Programs" (HRDC, 1995, p. 1). These projects form a significant "part of the federal government's Youth Employment and Learning Strategy to prepare young people for the workforce" (HRDC, 1995, p. 1). A budget of $25,000,000 was allocated for three-year school-based demonstration programs. Funds for the program's first year, 1995/96, supported projects designed "to test a variety of entry-level training programs" (HRDC, 1995, p. 1) which connect school and workplace learning. This study is a participant observation case study of one such school-based innovation where a team of teachers volunteered to simultaneously develop and implement relevant learning activities for students.

This is a formative period of development for new

initiatives and innovations that focus on school and workplace learning (Dutton, 1995; HRDC, 1995; School-to-Work Opportunities Act, 1994). As a result, it is important to investigate the organizational contextual elements and features that are necessary to shape and embed new practices and programs in secondary schools (Fullan, 1993; Leithwood, 1996; Little, 1993). As well, an understanding of the actual occupational community which, having "developed a shared set of basic assumptions about itself, its work, its relationship to its environment, and its clients" (Schein, 1992, p. 278), is integral to understanding the development and implementation of any project but specifically this school to work project. In addition, the extent to which the occupational community has built a continuously improving work culture with "all staff working collaboratively to achieve shared purposes and goals" (Barlosky & Lawton, 1994, p. 3) is significant as schools need to have a firm grasp of how to embed new initiatives.

This study is a participant observation case study of one such innovation. The contextual factors of the organization and the interdependence of these factors must be considered as well. Therefore this study is also an application of contemporary continuous improvement and learning philosophy in action within a school-to-work framework.

## Purpose of the Study

The purposes of this thesis are, first, to develop a deeper appreciation of the roles played by the various participants, especially the front-line workers (teachers) who adapt and create ideas in order to develop meaningful, relevant learning experiences for students; second, to reflect on that case study to develop insights into those learning activities which connect schools and the workplace; third, to report a case study of the development and implementation by a team of teachers of a federally funded school-to-work initiative in an innovative Ontario secondary school. This innovative school, described in the Royal Commission on Learning Vol IV, Making it Happen (1994) as a success story, "...is the product of a three-year collaboration of the principal, staff, and individuals ....the school has identified goals for its programs (p. 36).

The site for this study is a secondary school where the first year of a HRDC school-based demonstration project was being planned and implemented simultaneously by a voluntary team of teachers. The project had a technological emphasis as the school "has the infrastructure in place to provide our students and community with a valuable service because

of our network link to the internet" (HRDC Proposal, 1995, p. 1). The secondary school opened in September, 1994 with 630 students and 42 staff members. At the time, the enrollment was projected to increase by approximately 200 students per year until the school capacity of 1300 was reached. The school organization is unique as the school was not organized into subject departments; instead key process areas are central to the school organization. Program Leaders rather than traditional subject department heads are responsible for process areas. Teachers volunteer to participate on a process team in which they are most interested. As a result, process teams tend to be cross-curricular in composition and in the activities they implement for the whole school. Management teams comprised of volunteer staff members are formed within the process areas. The management teams develop, implement and administer activities which are either part of a process area or another specific school function such as graduation.

My own role in the school reflects the school's organizational design in practice. In June, 1994 I applied for the position of Leader, Personal and Career Counselling. This position included responsibility for the following curriculum areas: Guidance, Special Education, Cooperative Education and Business Studies. While the integration of these curricular areas was seen as quite unusual by most,

the job posting for Personal and Career Counselling (PCC) illustrated the across school emphasis on processes established by the principal,

> As a member and/or coordinator of a key process team...this leader will...provide the curricular and co-curricular supervision necessary to ensure that the exit outcomes for graduates are achieved. (Board of Education, 1995, June 14)

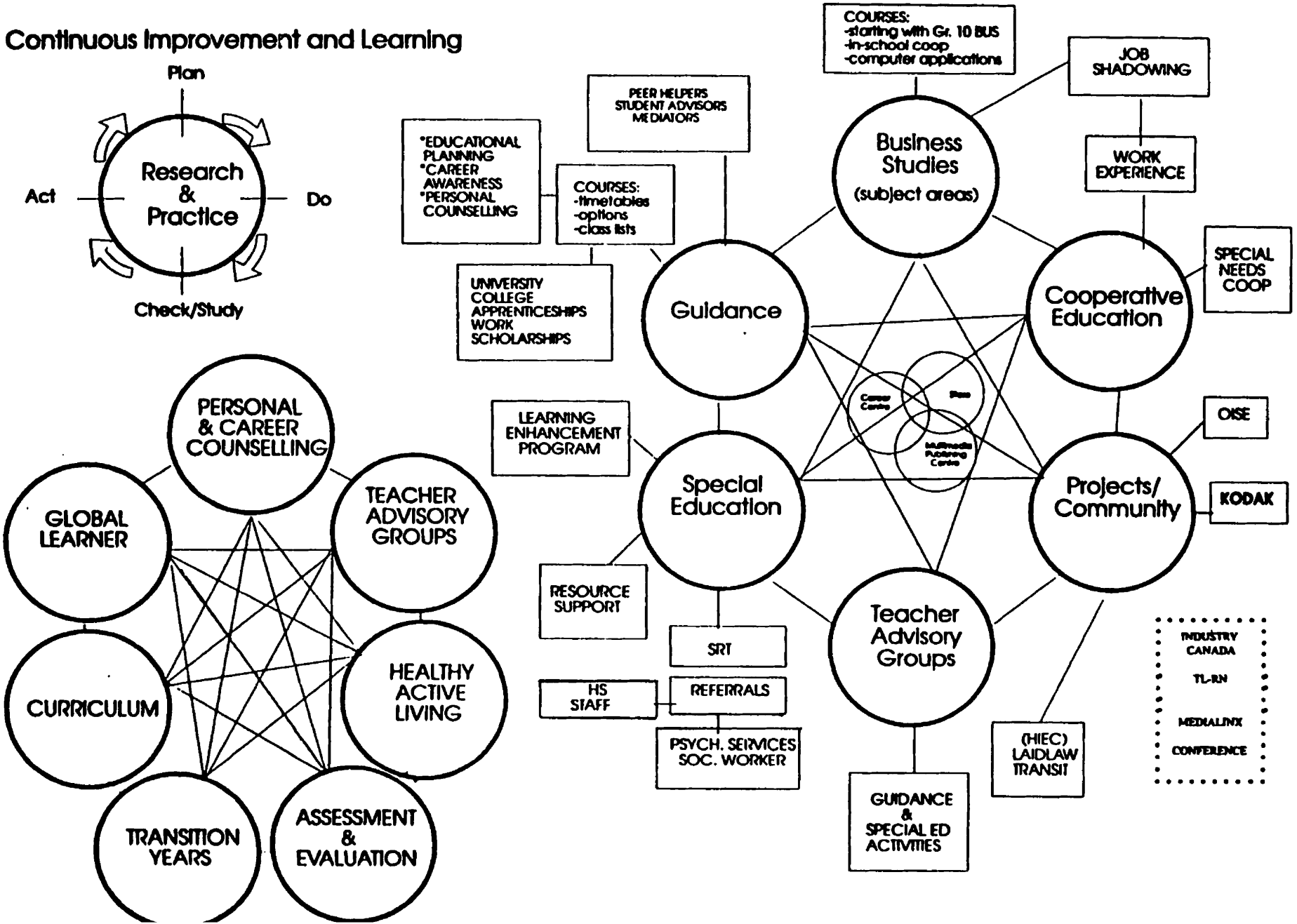
Even though I was qualified in both guidance and special education, the position I held at a neighbouring school at the time of my interview and just prior to the new school opening was Head of Business Studies. The focus for PCC team members in the new school was to develop and implement educational planning and career awareness activities for all the students in the school. To implement the goal, the PCC process team, which I chaired, of 12 voluntary staff members from across the school was established. In the first year of the school and one year prior to the start of the demonstration project, the PCC process team members had a commitment and interest in enhancing educational planning, career awareness activities and establishing meaningful curricular connections with the world of work. Therefore, congruency between the goals of personal and career counselling as a process area and the intent of the school-to-work project existed within the culture of the school prior to the start of the project in September, 1995.

I prepared a map (See Page 7) to see linkages and connections between the curriculum areas listed within Personal and Career Counselling. As well I included a diagram of the other process areas in the school and the cycle for continuous improvement and learning. My intent was to prepare a heuristic, a "visual tool for constructing knowledge" (Hyerle, 1996, p. vi) to conceptually investigate connections between somewhat disparate areas.

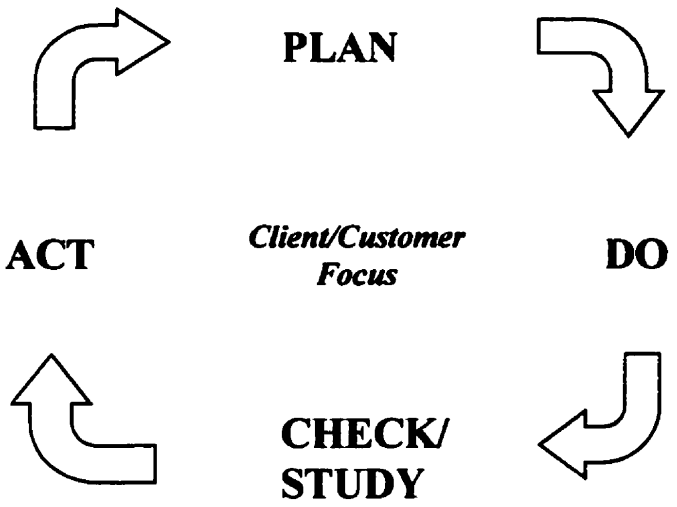
The opening year, 1994/95, of the school was the first time in my teaching career I had direct responsibilities in guidance, special education and cooperative education. During the second year, 1995/96, of the school's operation and the first year of the school-to-work project, I was on a leave of absence to complete the residency portion of my doctoral program. I returned to my PCC leadership position a year later in September, 1996.

While the school site-based project is set within a school which has made an explicit commitment to quality initiatives by design, neither the school or the project management team have incorporated the specific recursive process of continuous quality improvement as outlined by the Deming-Shewhart Cycle (See Page 8) (Barlosky & Lawton, 1994; Walton, 1986) as part of either the organization or the school-to-work project. Quality principles, however, will be applied to the experience base in the formative stages of

# PERSONAL & CAREER COUNSELLING KEY PROCESS AREA



# DEMING-SHEWHART CYCLE
Process for
# CONTINUOUS QUALITY IMPROVEMENT
*(PDCA CYCLE)*




Step 1: The first step is to study a process, to decide what change might improve it. Organize the appropriate team. What data are necessary? Does the data already exist, or is it necessary to carry out a change and observe it? Do not proceed without a plan.

Step 2: Carry out or make the change, preferably on a small scale.

Step 3: Observe the effects.

Step 4: What did we learn? Repeat if necessary, perhaps in a different environment. Look for side effects.

(Walton, 1986, p. 87)

the demonstration project and guides the research design and methodology. Specifically, the construction of an organizational design that supports an evolving and continuously improving workplace culture must provide opportunities for all members of the organization to participate both individually and in groups.

An investigation of the HRDC demonstration project, combined with the organizational context of the research site, provides an opportunity to inquire into the impact the pilot project has made on the school context. As well, an examination of the pilot project within the school context yields an opportunity for inquiry into the conditions which support, shape, sustain and embed new practices and programs in secondary schools (Deming, 1986; Fullan, 1993; Leithwood, 1996; Little, 1995; Senge, 1990a).

## Background Information and Rationale

There is widespread support for Drucker's (1993) assertion, "this is a transition period...this is a time to make the future--precisely because everything is in flux" (p. 16). As well, there is widespread support for the quality approaches described in the management science literature now comprising a "quality improvement paradigm" (Basili & Caldiera, 1995, p. 55). These quality approaches

in administration and management are seen by most as gatekeepers and gateways for organizations to participate in a global economy (American Society for Quality Control, 1996; Garvin, 1991). Basili and Caldiera (1995) describe the quality improvement process as "iterative...an organization's use of the quality improvement paradigm...defines and improves characteristics and goals" (p. 58).

The extent of the changes in the educational system (Fullan, 1993) are representative of the comprehensive changes taking place in broader economic, societal and technological contexts (Deming, 1986; Hammer & Champy, 1993; Juran, 1993; Senge, 1990a). Many initiatives and innovations are occurring collaboratively and simultaneously (Alter & Hage, 1993; Stohl, 1995). Whether or not organizations have made an overt commitment to quality initiatives, evidence of Drucker's (1993) comment that "this is a time for action" (p. 26) is reflected in an array of activities in both public and private sector organizations.

In the Interim Report of the Ontario School Board Reduction Task Force, Sweeney (1995) states, "the level of education programs and services...cannot be maintained under our present governance and funding" (p. 1). They also felt the educational system must be restructured "to provide students with a high quality of education that enables them

to participate and compete in a global society" (Sweeney, 1995, p. 2). To achieve the reform goals especially the reduction of educational costs, all aspects of the educational system including "finance, sharing of services, school councils, curriculum development, testing and reporting on student achievement and teacher education" (Sweeney, 1995, p. 2) were scrutinized within the provincial government agenda.

## Enhanced Connections

The assertion of the need to enhance connections between schools and the world of work on a national level is highlighted in the report, Inventing Our Future: An Action Plan for Canada's Prosperity (1992),

> Innovation is the introduction of new things or new ways of doing things. Innovation implies not only new technology, but also new relationships, alliances and partnerships...to reinvigorate our economic, educational and training systems. (p. 5)

Many other government sponsored reports share variations of a familiar and similar theme as well. Inventing Our Future emphasizes "Canadians want refocused, reinvigorated learning systems with stronger ties to the community and the working world" (p. 35). Lifelong Learning and the New Economy (1994) asserts, "We appreciate that with knowledge becoming the most fundamental resource in the

economy, learning is becoming the most important process in society" (p. 2). The report from the Ontario Ministry of Education, Royal Commission on Learning Vol II, Learning: Our Vision for Schools (1994) places the educational system at the centre of change, "Not only is everything changing, the pace of change is, itself, increasing. And there, squarely at the centre of change, stands the school system" (p. 25). A similar focus from a provincial perspective was presented in a news release (1995, November 2) by the Minister of Education and Training of Ontario regarding the changing economy and reform in schools from a student's perspective:

> Students also have to know that the economy and labour markets are changing. Jobs that are here today may not exist tomorrow. We are committed to providing them with the skills, information and guidance they will need so that they and their parents can make informed choices about their careers and future. (p. 2)

There is some promise that programs initiated by governments may provide the catalyst around which other necessary changes can be made. "Youth Initiatives Programs: A Youth Employment and Learning Strategy" (HRDC, 1995, p. 1) introduced by Human Resources Development Canada and The Tech Prep Education Act in the United States which calls for, "School-to-Work: Career Paths for All Students" (Dutton, 1995, p. 3) are similar in intent. This intent is

to foster the development of an integrated education and training system also described as a school-to-work transition system which would meet broad economic, educational and social needs. Ultimately, "A school-to-work transition system has the potential to meet the needs...and help...students plan for satisfying adult lives" (Bauer, 1995, p. 1); however, a school-to-work transition system won't magically happen on its own. Results of demonstration pilot projects with a school-to-work focus have the potential to inform and then stimulate further system innovation in the creation of school-to-work initiatives.

## Organizing Research Questions

The questions driving the study are: What happened in this particular school when the management team of teachers undertook the simultaneous development and implementation of a demonstration, pilot project with a school-to-work focus? To what extent have administrative philosophy and management strategies, consistent with the quality paradigm, contributed to the organizational sustainability of an innovative project? Are the learnings from this project transferable to and transformative for the organizational context?

The following four specific questions guide the study and frame the composition of more detailed questions:

Question I: Contextual Background

What are the initial factors and circumstances external to the organization which contributed to the origination of the school-to-work transition project?

The complexity of this question is defined by the following more detailed questions:

Ia. What factors external to the secondary school educational system contributed to the origination of the school-to-work transition project?

Ib. What factors internal to the secondary school education system contributed to the origination of the school-to-work transition project?

Ic. What circumstances make it increasingly necessary to have a focus on school-to-work transition?

Id. What factors within the school supported the project as a demonstration site?

Question II: The Organizational Context

To what extent have the organizational factors such as the administration, the organizational design, the professional expertise of staff and the community, influenced the development, implementation and continuation of the project?

The complexity of this question is defined by the

following more detailed questions:

IIa. How has the school context supported the development of the project?

IIb. How has the school context interfered with the development of the project?

IIc. To what extent has involvement with the project transformed organizational knowledge and understanding of school-to-work transition concepts?

IId. Who has been involved? Why did they become involved? What is the specific involvement? What was the contribution? What have been challenging aspects of involvement?

Question III: The Impact of the Project on the Organizational Context

To what extent has the school-to-work transition focus of the demonstration project contributed to relevant, continuous improvement in the school organizational context as perceived by the administration, staff, and community?

The complexity of question three is defined by the following more detailed questions:

IIIa. How successful is the project according to specifications of the proposal and signed contract? What are the reasons for success?

IIIb. What kind of impact has the project made on the organization? What is the fit of the project within the whole school?

IIIc. Did the design and implementation process of the project foster continuous improvement and learning?

IIId. What are the accomplishments of the project so far in achieving an expanded school-to-work

transition system for students?

IIIe. What are the project improvement opportunities that still need to be addressed?

Question IV: A Description of Organizational, Team and Individual Learning

What knowledge is acquired, shared and utilized? What learning occurred because of the project?

The complexity of this question is defined by the following, more detailed questions:

IVa. To what extent has the project influenced perceptions of school-to-work transition?

IVb. What are the major areas of personal/individual learning? What are the major areas of team learning? What are the major areas of organizational learning?

IVc. What should be done differently?

IVd. What challenges remain?

The following fifth question, while not specifically asked and/or addressed in the interviews, guides the discussion in the significance of the study and provides further explication:

Question V: What are the Implications of the Case Study?

What are the implications for continuous improvement/learning organization theory/practice in schools especially as applied to front-line workers? What are the

implications for school-to-work initiatives and programs?

## Definition of Terms

The following terms, used in the study are defined below:

Customer: "anyone upon whom the service impacts" (Parsons, 1994, p. 18) but more specifically "a person who buys, especially a regular patron of a particular store". (Gage Canadian Dictionary, 1983, p. 292)

Heuristic: guiding or helping one to discover. Education. having to do with a method that encourages a student to use personal investigation, observation, etc. so that he may find things out for himself. (Gage Canadian Dictionary, 1983, p. 549)

Quality: is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs' (British Standards, 1987a). This covers fitness for purpose and satisfying customer needs. (Parsons, 1994, p. 2)

School-Based Enterprise: Business ventures in schools operated by students...providing entrepreneurial, occupational and academic, education and training. (The Vermont School-to-Work Community Implementation Handbook, 1995, p. 42)

School-to-Work: A program combining school-based learning and worksite learning into an integrated learning experience. The Vermont School-to-Work Community Implementation Handbook, 1995, p. 42)

Total Quality Management: Continuously meeting agreed customer requirements at the lowest cost, by releasing the potential of all employees (TQM International, 1992). It involves a distinct sort of culture, communication and commitment with systems, tools and teams. There is a sense of ultimate service which goes beyond mission and vision to practical steps which lead to the 'helix of never ending improvement'. (Parsons, 1994, p. 5)

## Significance of the Study

The study has theoretical, administrative, sociocultural and technological significance. The research site exists within a school organizational context that has been purposefully designed by the principal to involve a systems approach in which there are,

> ...basic changes in the ways people are recognized and rewarded and fundamental shifts in management--from setting goals and driving people toward achievement to focusing on the continual improvement of the systems that govern how the organization works. (Senge, 1990a, p. xi)

The administrative philosophy framing the school's organizational design and context is congruent with the quality paradigm (Basili & Caldiera, 1995). The quality approaches illustrated in Edward Deming's 14 points (Walton, 1986) combined with "learning organization" (Senge, 1990a, p. 4) theory foster a systems way of thinking about the organization (Morgan, 1986; Senge, 1990b). This systems way of thinking in a learning organization therefore becomes a strategy to, "discover how to tap people's commitment and capacity to learn at all levels in an organization" (Senge, 1990a). As a result, there is a general belief the success of the organization is dependent upon the nature and kinds of relationships between people and systems rather than

independent components (Stohl, 1995). Joiner (1994) also emphasizes the importance of understanding relationships as a management strategy, "to manage our organizations more effectively....we must....think in terms of relationships" (p. 25).

While the importance and value of significantly increased connections between schools and businesses are emphasized, the report, Inventing Our Future (1992), also accents the success of quality approaches in administration and management in private sector organizations: "The quality approach is a major breakthrough in the way organizations are run....The emphasis is on continuous innovation of all kinds...(companies) have been revitalized after making a commitment to quality" (p. 12). Sallis (1994) asserts,

> Quality....is not just another initiative. It is a philosophy and a methodology which assists institutions to manage change, and to set their own agendas for dealing with the plethora of new external pressures. (p. 13)

Specifications for Human Resources Development Canada demonstration "Youth Initiatives" projects include the creation of connections between the school and workplace. HRDC projects have a national focus as HRDC is a department in the federal government of Canada. Opportunities exist for researchers to investigate and study a variety of projects across the country. The information can be used to inform a national initiative on school-to-work transition

and related factors such as Youth Unemployment, in the absence of a National Department of Education in Canada. A national profile can also be provided for Canada within an educational context through research organizations. A Canadian Educational Association and a Canadian Society for the Study of Education, are national educational research organizations interested in "planning a national educational research agenda" (Nagy, 1996, p. 9); however, these organizations are not departments of the federal government with a national policy jurisdiction.

Traditional school-to-work transition programs have not been seen as connecting the worlds of education and business to provide context enhanced opportunities for school staffs, employers and students (Bauer, 1995; Stone, 1991). The ultimate objective of the project was to develop innovative, meaningful and relevant learning opportunities for secondary students to enhance connections between school and work. School/work transition from an educational perspective includes much more than direct preparation for the workplace. Kazis recognizes that (1997),

> ...school to work transition is a progression, an advancement, that is both occupational and academic....a solid school-to-work transition system needs to provide several alternative routes to achieving self-sufficiency. (p. 3)

While legislation in the United States was enacted, development of a school-to-work transition system is still

in the formative stages (Bauer, 1995), even though some program examples of new innovations in school-to-work transition exist. However, legislation and initiatives in the United States provide information which can inform similar initiatives for a Canadian context. Recommendations in the United States (U.S.), School-to-Work Opportunities Act, 1994 are similar to requirements cited in the invitation for proposals to receive funding from HRDC Youth Initiatives.

The U.S. "Tech-Prep Education Act" (Title IIIE of the Carl D. Perkins Vocational and Applied Education Act Amendments of 1990), and the "School-to-Work Opportunities Act of 1994" (Dutton, 1995, p. 5) specify the following three core elements for a comprehensive education and training system for all students: (a) school-based learning, (b) work-based learning, and (c) connecting activities (Dutton, 1995, p. 7). To implement these changes, schools are just starting to make many changes. The most common of these changes include: (a) the creation of teacher teams to develop curriculum pathways from school-to-work and (b) the establishment of community business/industry partnerships (School-to-Work Opportunities Act, 1994).

The continuous improvement process determined and undertaken by the staff of a host school, in conjunction with community partners, becomes a significant "value-

adding" (Walton, 1986) process. This process is consistent with the quality process for continuous improvement and is also an interative process called the Plan, Do, Study/Check, Act cycle called the Deming-Shewhart Cycle (Walton, 1986). Mathewson (Barlosky & Lawton, 1994) illustrates the relationship in manufacturing between a product and the process to create it,

> Deming, a statistician, taught the Japanese that everything that is produced is the result of a process, and that to improve the (quality of) products requires the improvement of the process. (p. 22)

It was anticipated at the outset of the study and throughout that the information gathered from this study would be helpful in the following ways:

1. Increase the understanding of the impact on teachers of active participation on a management team and would increase the understanding of the teaching expertise resident in the organization.
2. Assist educational organizations in the planning and delivery of sustainable school-based improvements and change projects embedded in the organizational context.
3. Increase the understanding of the conditions affecting organizational learning, including organizational culture, process, structure and strategy.

4. Increase the understanding of the interdependent elements which are necessary to provide for a relevant, meaningful and continuously improving school-to-work transition system.

5. Assist government, education and business in the planning and delivery of school-to-work transition systems that accommodate variation appropriate to local communities.

## Overview of the Thesis

The first chapter of the thesis introduces the topic and establishes the parameters of the research. The review of literature in Chapter Two offers a global organizational context and conceptual framework for the thesis. Topics included in this chapter are placed to be congruent with the questionnaire and four major thematic focused interview questions.

Chapter Three, after a description of the research site, outlines the procedures followed in designing the study, collecting data, and analyzing the results. The next two chapters are organized to correspond to the main sections in the questionnaire and follow-up focused interviews. Chapters Four and Five therefore summarize the findings as they relate to the project/research participants, the initiatives of the pilot project and the

impact of those initiatives on the culture of the teams and organization of the pilot project site. In Chapter Six a summary and discussion of the findings is presented in connection with the review of literature. Included as well, in chapter six is a discussion of the significance of the study, implications for education, suggestions for further research and personal reflections.

# CHAPTER 2

# LITERATURE REVIEW

## Introduction

Each of the three organizing parts of the literature review is designed, through the theories and concepts presented, to draw relationships among the contextual factors of an organization. Part I illustrates the history and evolution of organizations and management theory to the present quality paradigm. Part II is an extension of part I with a shift in emphasis to organizational change and improvement with a focus on front line employees. Specifically, the organization of secondary schools and how groups and individuals work and learn within them is integral to part II. Part III connects theories in the economics of education, school-to-work transition and the school effectiveness and improvement movement. Together, these theories illustrate improvement oriented innovations in education. Within each of the three parts, key themes are identified that relate to issues raised in sub-sections and sub-questions.

Parts I, II and III provide a consolidation and integration of literature designed to develop an understanding of the contextual factors of an organization. Connections among these factors are integral to understanding the organization itself. In addition, organizational, team and individual learning, key themes in the synthesis of the context and contextual factors of the research site are outlined. Wheatley (1994) compares this synthesis, the integration of contextual factors, to an interactive energy exchange:

> To diagram the transformative energy of an organization or project, we need to sharpen our understanding of the elements that create organizational energy—staff, time, resources, education, information, etc.,.... We could begin to create organizations of process and relationships. (p. 72)

Theories presented in the literature are not intended to be a description of the environment but theories that are useful in understanding links and interactions between the contextual features of organizations and their environments. Contextual factors include a description of the evolution to quality approaches in the philosophy of administration and management strategies (Barlosky & Lawton, 1994; Deming, 1986; Greenfield, 1991; Hodgkinson, 1978, Juran, 1993); a description of sociological paradigms outlined in a framework to facilitate the mapping of perceptions of reality (Burrell & Morgan, 1979; Greenfield, 1991; Poplin,

1987); a definition and description of culture and culture formation (Hodgkinson, 1978; Kluckhohm, 1961; Schein, 1990); a discussion of how individuals and groups in an organization make meaning of their work context by shaping and reshaping understandings, individually and interdependently in relationships with others, to continuously improve and learn (Freire, 1970b; Fullan, 1994; Hargreaves, 1994; Scholtes, 1988; Senge, 1990a).

## Part I: The Evolution of Philosophies of Administration and Management

The history of an organization's context includes a description of the background and evolution of theories of administration and management. The extent to which the external environment influences and impacts on the organization is significant. As well, how the organization responds to the external influences and hence its broader community is equally important. Over time, both external and internal policies, procedures and events impact organizations and further drive their evolution. Administrative and management theories often reflect the extent of interactivity and connectedness between organizations and their environments.

## The Evolution to the Quality Paradigm

Organizations as workplaces have evolved from the start of the industrial revolution with theories of administration and management of many eras now coinciding. Administrative philosophies and management strategies have their origin in the world of industrial manufacturing and production. In the early 1890's, Frederick Taylor, an engineer, established the principles of scientific management in manufacturing as he focused on improving the industrial efficiency of workers. As a result of his and his contemporaries' efforts in an era of rapid industrial and societal change, workers with lack of skill and education were able to achieve middle class status (Drucker, 1991). Halbertsam illustrated (1986),

> Ford's great success in making a car that the average man could enjoy launched the cycle of mass production and mass consumption in America. Mass-producing the cars would provide jobs and a decent wage for more and more people, and as the cost of the car came down with mass production, the workers could soon afford to buy one themselves. (p. 71)

In factories, scientific management meant division of labour and processes that were reduced into their smallest parts. The metaphor of a machine has been used to describe this mechanistic form of organization (Morgan, 1986) and

objectivist approaches evolved (Burrell & Morgan, 1978). Workers, who functioned in isolation from each other, could be easily assimilated into an assembly line task and then replaced quickly because very little training was needed to perform their specific job function. Management made the decisions for workers who performed. Separation of thinking and doing was complete. The largest criticism of this mechanistic model is that it did not allow for individual innovation and creativity because the structure was predetermined (Drucker, 1991; Morgan, 1986; Ouchi, 1981). In these organizations, a hierarchy of roles evolved to ensure the achievement of the organizational purpose(s). Some of those roles were administrative, more were managerial and most were "front line workers".

In the late 1800's and early 1900's, in a traditional, bureaucratic and organizational setting, the organization achieved its purpose by those in superior roles assigning duties to those in a subordinate capacity. Through the chain of command, those in superior positions had authority, responsibility for and control over those in subordinate roles. Those in superior roles exercised power and those in subordinate roles were not usually involved in the decision making process for decisions which would affect them (Abbot & Caracheo, 1988); however, organizational hierarchy provided an order and was seen to make,

> ...an organization work. It ensures that the variety of jobs in an organization are co-ordinated and that what is done in one is not too far out of step with what is done in another. It holds together the diversity of individuals in the jobs. (Hickson & McCullough, 1980, p. 30.)

Jaques similarly states (1990), "properly structured, hierarchy can release energy and creativity, rationalize productivity, and actually improve morale" (p. 127).

"Weberian theory of bureaucracy places emphasis upon the positive attainments and functions of bureaucratic organisation" (Burrell & Morgan, 1979, p. 185); however, in large institutions of the 1990's criticisms occur, specifically because, "culturally defined aspirations are abandoned, and behaviour is governed by an almost compulsive adherence to institutional norms (in this case bureaucratic rules and regulations)" (Burrell & Morgan, 1979, p. 183).

Bureaucracy as a form of organization within institutions still exists and has become a very uncomplimentary term. Compliance to rules and regulations as a means and an end, and approvals for decisions that involve a vertical chain of command as the way work is done, are the norm. Merton (1975) states,

> ...bureaucratic operations, with their emphasis upon method, prudence, discipline and conformity, may have such an impact upon the bureaucrat that the adherence to rules and regulations, originally conceived as means to wider purposes, become ends in themselves. (p. 185)

Jaques (1990) adds, "bureaucracy is a dirty word even among bureaucrats, and in business...managerial hierarchy kills initiative, crushes creativity" (p. 127).

The field of human relations emerged in the 1920's and 1930's with Elton Mayo and his study the Hawthorne plant of The Western Electric Company, Chicago, Illinois. He found that change in working conditions had little effect on performance but "What really enhanced job performance was the fact that workers were participating in a special project and management was showing an interest in their performance" (Cranson, 1988, p. 168). A workplace focus specifically on technical production needs evolved to integrate human behaviour, particularly in the 1950's, when the Tavistock Institute introduced "sociotechnical theory" (Morgan, 1986). In sociotechnical theory it was argued that the workplace and humans cannot be separated. This relationship is still asserted by Schein (1992):

> ...there is much discussion these days about information technology (IT) and its impact on transforming work and organizations. In order to understand how IT enters organizations and begins to transform some of the practices in the organization, we must recognize that in the implementation process the subculture of the occupational community of IT runs into various functional subcultures within the organization and that the interaction of those subcultures transforms the technology as well. (p. xiii)

The technical and social elements of work are seen as

interdependent as one always has consequences for the other (Morgan, 1988). According to Morgan (1986),

> Work in most parts of the world has now shown that in designing or managing any kind of social system, whether it be a small group, an organization, or a society, the interdependence of technical and human needs must be kept firmly in mind. (p. 44)

Two later theories in opposition to each other called Theory X and Theory Y were developed by Douglas McGregor, a psychologist and management professor at the Massachusetts Institute of Technology in 1960. Theory Y demonstrates the shift to a focus on employees, their environment, and rewards and positive attributes of work.

> Theory X is based on the assumption that average person does not like working and will try to do as little as possible on the job to maintain his or her level of pay.... Employees who do not perform up to expectations should be punished by docking their pay or suspending them for a period of time. Theory Y is based on the assumption that most people enjoy working an if their work satisfies them they will make every effort to achieve the company's objectives...and all employees will work together toward a common goal. (Cranson, 1988, p. 170)

William Wiggenhorn (1990), Corporate Vice President for Training and Education at Motorola, further illustrates the changing manufacturing environment as he mentions employee participation accompanied by relevant workplace education. In reference to an industrial environment, Wiggenhorn (1990) also reiterates the concept of socio-technical theory with

an added dimension of line workers participating,

> All the rules of manufacturing changed...we learned that line workers had to actually understand their work and their equipment, that senior management had to exemplify and reinforce new methods and skills, if they were going to stick, that change had to be continuous and participative, and that education - not just instruction - was the only way to make all this occur. We try to make our education relevant to the corporation, to the job, and to the individual. (p. 72)

A contemporary view describes the organization as a socially constructed reality that functions in relation to the environment like an ecological system. This view also implies that an organization and the people in it must be able to adapt to continuous change (Drucker, 1990; Morgan, 1986; Senge, 1990a). According to Morgan (1986),

> All this has important implications for organizational practice, stressing the importance of being able to scan and sense changes in task and contextual environments, of being able to bridge and manage critical boundaries and areas of interdependence ... (p. 45)

Interactive business and personal relationships have also been formed to deal with challenges and opportunities that present themselves in the changing context of work and education in a global economic environment. For example, a form of Japanese business organization developed after the second world war called "keiretsu", meaning societies of business, provides an example of organizations functioning in relation to their environment and each other. These

businesses may involve up to forty-five companies in various types of partnerships which share financial risks and integrate activities (Anchordoguy, 1990) while at the same time, because of shared business activities, relationships based on trust and commitment form. According to Alter and Hage (1993):

> ...the collaboration encompasses the entire design to market process. Further, this network has important social element. Social bonds develop during many meetings and via the elaborate system of joint borrowing in the suppliers' associations. These social ties are the basis of trust and commitment that move beyond the mutual dependency in exchange relationships. (p. 67)

As well, the importance of relationships as central to the way of designing the activities of a workplace and organizing work within that setting is illustrated by Barlosky and Lawton (1994):

> We are all customers and we are all suppliers.... But we are not self-sufficient. At the most basic level, our survival is dependent upon the complex set of relationships we develop with the world of which we are a part. (p. 49)

Currently, to compete in a global economy, North American industrial and business procedures and processes have undergone significant changes (Ouchi, 1981; Wiggenhorn, 1990) in approaches to administration and management. Some of these approaches are known as Quality Management (Deming, 1986; Juran, 1993), World Class Manufacturing (Schonberger, 1986) and Reengineering (Hammer & Champy, 1993). All

approaches focus on a systems view of organizational activity. In practice, the improvement of the process becomes continuous with a focus on the customer,

> Improve the stuff that comes in, adapt it, provide more and more what the customer needs. That requires cooperation, working together. And continual change, as requirements change. And they will change. In a continual cycle. (Walton, 1986, p. 29)

## The Quality Paradigm

Companies can earn awards for working towards the establishment of an organizational culture based on quality approaches. The Canada Awards for Excellence and the Malcolm Baldridge Award in the United States provide the two most commonly used sets of criteria for quality assessment in North America. In Japan an equivalent award is called the Deming Award (Strus, 1995). In Europe the award is called the European Quality Award "launched during the 1991 European Quality Management Forum's meeting in Paris" (Sallis, 1993, p. 74). Major research projects on quality management are currently being funded by the United States National Science Foundation in conjunction with the Total Quality Leadership Steering Committee and American Society for Quality Control. The research on quality in organizations must be multidisciplinary and based on Malcolm Baldridge award criteria. The research results,

> ...should enable U.S. organizations to implement

> quality improvements more rapidly and successfully. This should lead to improved work processes, products, job security, customer satisfaction, and financial performance. To help focus research, the core values and concepts of the Malcolm Baldridge National Quality Award are used. (ASQC, 1995, p. 63)

In Canada, the Canada Awards for Excellence, formerly called the Canada Awards for Business Excellence, were established in 1984 by Industry Canada.

> The Canada Awards for Excellence encompasses three separate awards: The Quality Award, the Entrepreneurship Award and the Innovation Award. The Quality Award is further divided into seven categories. The three Public Sector categories are Education, Government, Health Care. The four Private Sector categories are Manufacturing - Small/Medium, Manufacturing - Large, Service - Small/Medium, Service - Large. (National Quality Institute, 1995, p. 2)

The awards specify six elements which drive the quality improvement effort in an organization. The six elements are, (a) Leadership, (b) Customer Focus, (c) Planning for improvement, (d) People focus, (e) Process optimization, (f) Supplier focus (Camilucci, 1995).

> The award criteria are indeed strongly prescriptive on philosophy and values and open minded about practices and procedures. To win, companies must have customer-oriented quality programs that are led by senior management, a high level of employee involvement, an understanding of internal processes, and manage by fact rather than instinct. (Garvin, 1991, p. 82)

Initiatives based on quality approaches and principles are in the formative stages of development in public

education. According to Barlosky and Lawton (1994), "...by developing knowledge of the system and processes through which education is delivered, Quality Schools are actively engaged in continuous self-improvement" (p. x). A knowledge of the system and processes provides a focus for potentially "value adding activities" (Basili & Caldiera, 1995, p. 64) which are based on organizational principles and development initiatives, and do not represent "a to-do list or how to proceed" (Garvin, 1991, p. 82).

Barlosky and Lawton (1994) extend the concept of continuous improvement by describing methodology for practice where, "Monitoring improvement efforts for their effectiveness means measuring their capability to reduce the variation that separates intention from practice" (p. 139). Therefore the means is provided for making continuous change a continuous improvement process.

## Quality Approaches for Transformative Followership

Quality approaches from the management science literature within the context of the "quality improvement paradigm" (Basili & Caldiera, 1995, p. 55) provide a framework for studying educational initiatives from many perspectives. In addition, and more importantly, quality approaches provide practical strategies for making

organizational changes. Specifically, a quality process for continuous improvement and learning, customer focus outlines an inclusive, improvement process which involves the individual, team, organization and customers/clients (Barlosky & Lawton, 1994; Scholtes, 1988; Walton, 1986). The quality process for continuous improvement demands staff involvement in work processes which affect them. Employees who are informed in quality management theory also learn the management strategies or tools to, "plan, do, check/study, act" (Walton, 1986, p. 87) in an iterative reflective process. These employees, by themselves and with others, are equipped to continuously improve their own work context. Initiatives and innovations which take place within a quality environment have a greater probability of success as all members of the organization are involved in processual, reflective arrangements. Also, they are involved in the process of making decisions which they will most likely have to implement.

Work teams participate and problem solve in activities which affect them and are relevant to their job context (Ouchi, 1981; Scholtes, 1993). The extent to which a work team can be a vehicle to provide and/or enhance knowledge, skills and relationships so that teachers can participate by themselves or with others in matters which relate to and affect them is significant. Kunc (1992) refers to Maslow's

hierarchy of human needs "where the need for self-esteem can be met through mastery of achievement in a given field or through gaining respect or recognition from others" (p. 28). The extent to which teachers feel they have received recognition from others is significant.

## Quality Approaches in Educational Practice

Chesterton (1994) suggests criticisms for administrative and management approaches in education adopted from the quality paradigm:

> The biggest disadvantage that TQM has in an educational context is that it has originated from an industrial base. Within education this is viewed as industry imposing a mechanistic strait-jacket on schools almost as a practical follow-up to the government's restrictive education legislation. (p. 25)

The terminology of Total Quality Management has industrial origins and is annoying to many in educational organizations. It is appropriate for a manufacturer to refer to a customer and/or a product but rarely, if ever, does an educator refer to a student as a customer or a class lesson as a product. Even the words customer and product have a specific commercial tone (Sallis, 1993). Educators value uniqueness and individuality in both the learning process and the learner. They do not initially see TQM language as

transferable to an educational context (Sallis, 1993).

TQM initiatives in industry are also viewed as heavily resourced comprehensive training programs even if they have been funded through corporate downsizing. Educators in the 1990's have experienced decreased budgets for educational spending particularly in salaries, professional development and classroom materials (Ontario Minister of Finance, 1993). They are inclined to feel resentful at the suggestion of any new innovation that is not supported with resources to help them with the implementation. At the same time in the organization of schools, teachers are involved in classes with students for at least 75% of their day. School staffs therefore have logistical problems trying to meet for training sessions and collaborative problem solving even if they can relate to the concepts and processes in a TQM system (Chesterton, 1994). Problems therefore for an educational application are inherent in most aspects of TQM as defined for industry.

To avoid some of the challenges of applying TQM in an educational setting Sallis (1993) recommends "viewing education as a service rather than a production line" (p. 28). As well, how work is done in a service orientation, shifts to a process rather than a production or end-product orientation. As it is difficult to describe all the ramifications of a complex service organization including

customer needs and benefits from the service, there is usually a significant amount of intangibility for both service providers and receivers. Sallis (1993) describes the subjective and intangible nature within all service transactions as "every interaction is different" (p. 29).

Parsons suggests a definition of Total Quality Management for educators which emphasizes process and involvement (1994),

> TQM is about everyone working to improve all aspects of an organization's functioning...it involves a distinct sort of culture, communication and commitment with systems, tools and teams...practical steps which lead to the helix of never ending improvement. (p. 5)

Education is described as having advantages over industry in implementing the quality process of continuous improvement because,

> ...teaching staff are academically well qualified ....The collegiate style of operation is a firm base to start....the correct type of leadership can have an immediate impact on the culture of the school. (Chesterton, 1994, p. 26)

A value orientation to continuous improvement exists as strategies for improvement are discovered and negotiated by staff as they work together in an iterative cyclical process. Also, according to Fullan, a change process can start with a minimum number of people, "Like minded individuals and small groups of individuals can create their

own critical masses, even if it is only two people" (Fullan, 1991, p. 348). Scholtes (1993) uses the metaphor of a petunia in an onion patch to describe how an improvement effort identified by a few can gain momentum in an organization with a shared, "Focus on getting results that others, even sceptics will respect. Involve fellow workers in your efforts, sharing credit for a successful job. Slowly build a network of supporters" (p. 1-23).

The application of quality concepts and initiatives which have transformed the way work is done in the business and industrial communities holds promise and opportunities for meaningful and relevant planned change based on continuous improvement of processes in educational environments. Conditions which directly affect organizational learning identified in a framework by Leithwood, Dart, Jantzi and Steinbach (1993) are, "(a) vision/mission, (b) structure, (c) culture, (d) strategy, (e) policies/resources. According to Leithwood et al. (1993), "...more than one form of culture in the school seems to suggest the possibility for confusion and conflict about how work is to be done in the school" (p. 68). In a quality framework, the interdependence of the contextual factors of organizations and the simultaneous impact on people and their work are both subtle and very apparent. Morgan (1986) states, "We can know organizations only

through our experiences of them" (p. 341).

A workplace which provides opportunities for people to make meaning of their experiences through discussion and reflection, negotiate shared values, participate in administrative and management practice, and learn with others in the context of work provide insight into what makes a workplace culture collaborative, and able to continuously improve. Dewey (1938) stated, "...community life does not organize itself in an enduring way purely spontaneously. It requires thought and planning ahead" (p. 56). The administrative philosophy and management strategies needed to reengineer educational bureaucracies are found within the "quality improvement paradigm" (Basili & Caldiera, 1995, p. 57)

> ...as they understand Deming's concept of continuous improvement. They know that the entire organization must be involved and committed, that change takes place on a continuous basis, and that staff members must be supported and encouraged. (Dutton, 1995, p. 12)

## Part II: Organizational Change, Improvement and Learning

Organizational administrative philosophies and management strategies and approaches in the analysis of organizations and organizational behaviour have evolved simultaneously. These theoretical analytic approaches offer strategies for the subsequent design of organizational

processes by interpreting perceptions and behaviours as theory is implemented in organizational practice.

## Culture Formation: An Interactive Process

A focus on culture in organizational analysis can aid an "...understanding of what goes on inside organizations when different subcultures and occupational groups must work with each other" (Schein, 1992, p. xii), thus providing an understanding of human interaction which otherwise could remain obscure. Considering the different ways of looking at social reality by using the methodology inherent in subjectivist, sociological paradigmatic approaches more readily tap the concepts of value and culture (Burrell and Morgan, 1979). Schein (1992) defines organizational culture as,

> A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. (p. 12)

According to Hodgkinson (1978), "human interaction with the world discovers facts and imposes values" (p. 106). He also argues, "that facts are objective and values are subjective (Hodgkinson, 1978, p. 104). Schein (1990) provides a relationship between culture and values when he explains the

culture of a group or organization is demonstrated at three fundamental levels: "(a) observable artifacts, (b) values, and (c) basic underlying assumptions" (p. 111). He also asserts a further relationship between assumptions and values as demonstrated in an organization,

> Deeply held assumptions often start out historically as values but, as they stand the test of time, gradually come to be taken for granted and then take on the character of assumptions. They are no longer questioned and they become less and less open to discussion. (Schein, 1990, p. 112)

The impact of the administrative approach on the organizational context of culture and values is direct. The culture of a group tends to change as both internal and external factors impact and impose new situations and information on the existing culture. According to Kluckhohm (1961), "however, cultures do change in direction - that is, change in their basic values" (p. 9). The transformative principle related to culture change in a group is also demonstrated by Kluckhohm (1961):

> No dominantly oriented group ever escapes being influenced by the variantly oriented ones which surround and constantly impinge upon it, and no variant group survives without numerous relationships to the dominantly oriented ones. (p. 28)

When the cultural values, assumptions and ways of looking at reality (paradigms) are shared among a group, they are demonstrated in practice by all members of the

group and are understood as the way things are done. According to Hargreaves (1989):

> Either among the staff as a whole, or among particular groups within it, teachers develop shared ways of looking at and behaving in their world. They build cultures, that is...these cultures of teaching help give meaning, support and identity to teachers and their work. (p. 7)

## Organizational Analysis: Paradigms and Perceptions of Reality

A framework, developed by Burrell and Morgan (1979), explains and then outlines sociological, methodological approaches for analyzing social theory and provides approaches to better understanding organizations and the people who work in them: "...We are arguing that social theory can be conveniently understood in terms of the co-existence of four distinct rival paradigms" (Burrell & Morgan, 1979, p. 36). Burrell and Morgan (1979) provide a means of examining ontological and epistemological assumptions about the nature of the social world from both a subjectivist and objectivist perspective. In the subjectivist approach, "The principle concern is with an understanding of the way in which the individual creates, modifies and interprets the world in which he or she finds himself" (Burrell & Morgan, 1979, p. 3). The objectivist approach, "... entails a view of human beings responding in a mechanistic or even deterministic fashion to the

situations encountered in their external world" (Burrell & Morgan, 1979, p. 2). This framework for examining an organization and the interactions of people within it assists in the development of an understanding of the complexities of workplace environments and the subjective and/or objective aspects of them. As Morgan (1986) illustrates,

> When we observe a culture, whether in an organization or in society at large, we are observing an evolved form of social practice that has been influenced by many complex interactions between people, events, situations, actions, and general circumstances. (p. 139)

The subjective paradigms are called interpretive and radical humanist whereas the objective paradigms are called functionalist and radical structuralist by Burrell and Morgan. The four paradigms have provided a framework or scheme for an "intellectual map upon which social theories could be located according to their source and tradition" (Burrell & Morgan, 1979, p. xi). They add their intent was, "not merely for the purposes of classification but to forge a working tool. We advocate our scheme as a heuristic device rather than as a set of rigid definitions" (Burrell & Morgan, p. xii) for application within the field of organizational studies and analysis. Their framework describes and maps the viewing and understanding of reality from different perspectives, the individual, the individual

as part of a group and the workplace context. Greenfield (1979), who felt the Burrell and Morgan classification of social theory into four paradigms was restrictive, also asserted,

> We live in separate realities. But we live with each other. The line of reasoning in this article implies that we need to engage in a continuing process of discovery aimed at gaining an understanding of ourselves and of others - a process aimed at understanding social reality and its artifacts, which we call organizations. We need to move from the conviction that there is only one social reality to a recognition of the possibility that many exist. (p. 109)

Social reality as an attribute of the interpretive paradigm outlined by Burrell and Morgan (1978), places a participant in the social world where, "social reality...is regarded as being little more than a network of assumptions and intersubjectively shared meanings" (p. 31) while the frame of reference in the radical humanist paradigm advocates that participants be released,

> ...from constraints that are placed upon social development...and transcend the spiritual bonds...which tie them into existing social patterns and thus release their full potential" (Burrell & Morgan, p. 32).

Similarly Poplin (1987) describes a constructivist approach to knowledge acquisition within a subjectivist rather than objectivist perspective:

> Human understanding cannot be reduced, quantified, separated, objectified, easily observed, or simply deduced. Understanding our own education and

> psychology (and hence, those of the systems within which we participate) is a matter of understanding how humans come to construct individual and collective meanings. (p. 37)

When analyzing organizational environments it is important to consider that various perspectives be considered. There are always a multiplicity of circumstances and events which impact on the day to day worklife of employees and employee groups particularly in the late 1980's and 1990's. Industrial and business organizations have re-structured because of economic considerations as outlined by Hargreaves (1994), "Few observers of the social world around them can be unaware of the monumental changes now taking place in the corporate world" (p. 22).

## The Relationship between Administrative Philosophy and Management Strategies

Hodgkinson (1978) developed, "a conceptual continua for the definition of administration" (p. 4) which distinguished between the terms administration and management. He provides a definition of the terms, which are often used interchangeably; however, in his definition they are differentiated:

> ...[by] administration [we mean] those aspects dealing with the formulation of purpose, the value-laden issues, and the human component of organization. By management we mean those aspects which are more routine, definitive, programmatic, and susceptible to quantitative methods. (Hodgkinson, 1978, p. 5)

In the practical application of administration and management Hodginkson (1978) states and also extends the definition of management by describing a means orientation or process orientation:

> ...we can consider administration of the art of influencing men to accomplish organizational goals while management is the ancillary and subordinate science of specifying and implementing means to accomplish the same ends. Administration is ends-oriented, management is means-oriented. (p. 5)

In practice, administration and management usually occur within a specific framework or organization. Administrative philosophy and management strategies form because, "organizations have a purposive character" (Hodgkinson, 1978, p. 28). Hodgkinson (1978) refers to the statement by Argyris (1960), "organizations are grand strategies individuals create to achieve objectives that require the effort of many" (p. 24). The values that the administrator possesses will affect the quality of organizational life while the values of the members of the organization will also affect the administrator. Hodgkinson (1978), by the use of the word integration in the statement, "...the integration of the administrator's values with those of his organization and the extra-organization context" (p. 147), provides a view that the administration both influences and is influenced by the organization resulting in changes to both.

Changes which occur in form, appearance, function, condition or character are often called transformative, both the administrator and organization are transformed as a result of interaction with each other. Greenfield (1991) expresses the transformative principle of human interaction further, "...it is a matter of will and power: of bending others to one's will and of being bent in turn by others" (p. 24). Schein (1990) describes how culture is shaped and developed by referring to the modelling mechanism of culture creation, "when group members identify with leaders and internalize their values and assumptions" (p. 115), those values are embedded in the organization; however, culture formation is an interactive process. Schein (1990) describes, like Greenfield, an evolving transformative process:

> ... as these beliefs are put into practice, some work out and some do not. The group then learns from its own experience what parts of the founder's belief system work for the group as a whole. The joint learning then gradually creates shared assumptions. (p. 115)

## Distributed Leadership

Workplaces of the 1990's, according to Patterson, Purkey and Parker (1986), "...can't afford a segmental orientation" (p. 83), and "must develop a process for energizing the grass roots and empowering them in an

integrative way to strengthen the organization" (p. 79). As integral to a collaborative work culture with a focus on continuous improvement, contemporary approaches in organizational behaviour focus on energizing the grassroots employees or the front-line workers, as they are seen as, "those closest to the process or issue of concern" (Barlosky & Lawton, 1994, p. 131). Morgan (1988) also emphasizes the importance of organizational approaches that encourage and tap the creativity of all members of an organization as he writes,

> In an information society the management of an organization's human resources will become increasingly important. Managers will have to find ways of developing and mobilizing the intelligence, knowledge, and creative potential of human beings at every level of organization. (p. 7)

The Gage Canadian Dictionary (1983) provides the definition of the verb "collaborate", to "work together" (p. 227), and the noun collaborator as "a person who works with another..." (p. 227). Schrage (1990) defines collaboration as a "process of shared creation: two or more individuals with complementary skills interacting to create a shared understanding that none had previously possessed or could have come to on their own" (p. 40). Employees therefore who share common goals, understandings and values, and who work together potentially belong to a collaborative work culture; however, the extent to which the development and integration

of the contextual factors impact and support the creation of a collaborative work culture, and also focus on meaningful organizational improvement, is significant. Ultimately, if there is congruence and balance among the contextual factors, and the work culture is collaborative, that organization is better positioned to continuously improve the way work is done. All members contribute to and learn from a process approach for quality improvement.

In organizational design, bureaucratic structures and in organizational procedures, traditional top-down management methods have shifted and in theory are becoming inclusive and participative. A shift in perception has caused a change in thinking about organizational administration, management, employees and their roles and relationships in organizations.

## From Distributed Leadership to Transformative Followership

Leadership occurs throughout an organization not just from management leadership at the top. Specifically, expertise exists throughout an organization and can be described as distributed leadership (Kelley, 1988; Scholtes, 1990). All people in the organization become leaders as they work together to deal with the complexities of daily worklife. According to Fullan et al. (1990),

Leadership comes from different sources in

> different situations and from different sources in the same situation over time: the principal, key teachers, the superintendent, parents, trustees, curriculum consultants, governments, universities and others. Further, once the model is fully functioning, leadership can and does come from multiple sources simultaneously. (p. 17)

In carrying out the business of the organization, technical, social and environmental aspects are interrelated and interdependent. At the same time, within an organization, while the presence of organizational hierarchy is still very evident in the form of superior, subordinate roles, in practice there has been a shift to view the "front line worker" as a valuable, active participant in the achievement of the goals of the organization. This view is reflected by Morgan (1988),

> The people who really know the business are the people on the line who are servicing the customer, producing the product, and so on.... One of the imperatives is to involve people in the process.... This participative action that creates a direction is important. (p. 51)

A significant focus of much of the management literature has been a focus on the leader or administrator of an organization (Bennis & Nanus, 1985); however, Kelley (1988) states, "Leaders matter greatly. But in searching so zealously for better leaders we tend to lose sight of the people these leaders will lead" (p. 142). Roles in an organization usually connote leadership and followership. The relationship between leader and follower is based on

decision-making power and organizational hierarchy. Usually, a leader has more power and a follower has less power. The organization has been described as a top-down, bureaucratic form; however, in practice, as stated by Kelley (1988),

> Effective followers see themselves - except in terms of line responsibility - as the equals of the leaders they follow. They are more apt to openly and unapologetically disagree with leadership and less likely to be intimidated by hierarchy and organizational structure ... they try to appreciate the goals and needs of the team and the organization. (p. 144)

In practice, if followers see themselves as equals to their leaders, something has happened in the culture of the traditional bureaucratic organization. In the type Z organization, which is similar to McGregor's Theory Y organization, Ouchi states (1981), "Egalitarianism is a central feature...implies that each person can apply discretion and can work autonomously without close supervision, because they are to be trusted" (p. 68). Leithwood (1992) elaborates,

> ... type Z organizations emphasize participative decision making as much as possible ... that power becomes consensual and facilitative in nature - a form of power manifested through other people, not over other people. (p. 9)

In practice, most organizations have both top-down and facilitative forms of power; however, "finding the balance and which to choose becomes the question" (Leithwood, 1992).

Louis (1991) adds, "...change appears to demand a model of organization in which both leaders and subordinates exercise a great deal of influence" (p. 3).

## Learning: A Communicative and Transformative Process

Hermeneutics is described as the process of helping people find out for themselves by using their own observations and personal investigation (Burrell & Morgan, 1978). The definition in practice is illustrated in an organizational setting by Schlechty (1990) where,

> The strategy of the knowledge-work enterprise begins and ends with people - the support of people, the development of people, and the creation of an environment in which people feel free to express themselves as creative individuals and feel supported when they try and fail. (p. 139)

The process of knowledge acquisition for one individual, in a classroom setting, is described by Barnes (1975),

> If a teacher sees knowledge as existing primarily in the knower's ability to interpret...thus making possible a negotiation between his knowledge and his pupil's knowledge. This will open to them a collaborative approach... (p. 147)

Whether or not the learner is in a classroom situation, the learner constructs new personal knowledge by making connections and new meanings through an integration of existing knowledge and new experiences (Barnes, 1975; Poplin, 1988). Knowledge acquisition is a transformative

process. In an organization, there is a both a focus on the individual and the individual as part of a group. Communication skills take on socio-cultural dimensions because few work in isolation; interacting with others is a necessity. Interacting with others usually involves one or a combination of the following communication skills - reading, writing, speaking, listening, viewing, and presenting. Communication is viewed in the context of social transaction. Part of everyday activity necessitates communication in the additional contexts of numeracy or computation and document processing (Venezky, 1990). Barnes (1975) states, "the meanings that we live by change because we insensibly day by day renew them in the course of sharing our lives. The sharing is communication" (p. 31). Schein (1992) provides insight into the emergent culture through a process of working together,

> In any new group situation...much of the initial behaviour for founders, leaders or other initiators is individually motivated and reflects their particular assumptions and intentions. But, as the individuals in the group begin to do things together and share experiences around such individually motivated acts, groupness arises. (p. 190)

He also refers to articulation within a group as one of the most crucial components of learning and "culture creation" (Schein, 1992, p. 190). Senge (1990a) states, "The purpose of a dialogue is to go beyond any one individual's

understanding....a group explores complex difficult issues from many points of view" (p. 241).

Value Adding: Individual and Group Learning through Involvement in a Process

Paulo Freire advocated articulation within a group as the central feature of his methodology to teach the poor how to read and write and thus liberate themselves from their situation. Articulation meant communication in discussions about relevant issues as perceived by the group and further cooperation among group members in order to clarify understandings. He stated, "dialogue, as essential communication, must underlie any cooperation" (Freire, 1970b, p. 168). He felt that the combination of his methodology which was subjectivist in orientation and the skills of reading and writing which were objectivist in orientation would enable the people to transform their lives (Freire, 1970b). He felt that if the group was not involved in a pedagogical process that was communicative, dialogical, relevant and authentic, then the context of the culture would not be changed,

> The oppressed, instead of striving for liberation, tend themselves to become oppressors ... the very structure of their thought has been conditioned by the contradictions of the concrete, existential situation by which they were shaped. Their ideal is to be men; but for them, to be men is to be oppressors. (Freire, 1970b, p. 30)

When relating the concept of "oppressor-oppressed" to "leader-follower", authentic transformational change is not possible unless the situation is transformed, that is both the leader and the follower change through communication and dialogue with each other. Freire (1970b) states, to change a situation, "one must emerge from it and turn upon it. This can be done only by means of the praxis: reflection and action upon the world in order to transform it" (p. 36). Garvin (1993) provides a definition of learning in an organizational context which incorporates the importance of reflection,

> A learning organization is an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights ... without accompanying changes in the way work gets done, only the potential for improvement exists. (p. 80)

Communication becomes the operative principle in generating the kind of organization where not only "management teams can learn how to learn together" (Senge, 1990a, p. 270) but, "all people ... reflect new action values and operating assumptions ... by continuing to aid their own and others' learning ... speaking in their own voice" (Senge, 1990b, p. 377). Senge (1994) also adds, "Nothing sustains people going through difficult change more than their capacity to talk with each other" (p. 20). By this communication process a culture is encouraged to evolve

where the individual expertise of all members in the organization as a collectivity can be accessed thus creating an organizational culture where there is no discrepancy between "espoused values" and "values in use" (Schein, 1990, p. 112). Through self-leadership and management, both individuals and groups are able to map a learning continuum process based on identified workplace specific needs and interests. Dewey (1963) states,

> ...every experience lives on in further experiences ... the central problem of education based on experience is to present experiences that live fruitfully and creatively in subsequent experiences. (p. 28)

Continuous Improvement and Continuous Learning

When Garvin (1993) asserts, "continuous improvement requires a commitment to learning" (p. 78), the concept is applied in the context of the members of an organization. He continues, "in the absence of learning, companies - and individuals - simply repeat old practices" (Garvin, 1993, p. 78). The members' values, assumptions and ways of looking at reality are transformed, and cultural change occurs as through the learning process continuous improvement results in organizational change. The principles of a learning organization as described in the management/organizational literature describe interactive processes like thinking, reflection and team learning through enhanced interpersonal

communication by employees and employee groups. These processes contribute to an improvement orientated, collaborative work culture by building the communicative capacity through the sharing of expertise and information.

> While traditional organizations require management systems that control people's behaviour, learning organizations invest in improving the quality of thinking, the capacity for reflection and team learning, and the ability to develop shared visions and shared understandings of complex business issues. It is these capabilities that will allow learning organizations to be both more locally controlled and more well coordinated than their hierarchical predecessors. (Senge, 1990b, p. 289)

In the environments of business and education, people frequently have opportunities to work together in many different ways (Fullan, Bennett & Rolheiser-Bennett, 1990). According to Hargreaves (1994), working together may take many forms such as,

> ... team teaching, collaborative planning, peer coaching, mentor relationships, professional dialogue and collaborative action research ... more informally, they can be expressed through staffroom talk, conversation outside the classroom, help and advice regarding resources and scores of other small but significant actions. (p. 188)

The concept of the front line worker assuming responsibility and ownership for their work context both individually and with others is the central guiding principle or central focus within a collaborative work culture where values are shared. Senge (1994) mentioned

specifically as descriptors, values such as integrity, authenticity and collective intelligence. According to Senge (1994),

> People working together with integrity and authenticity and collective intelligence are profoundly more effective as a business than people living together based on politics, game playing, and narrow self-interest. (p. 47).

Fullan (1994) adds, "Real reform will come about when individuals, guided by a clear moral purpose, join together to work on the issues meaningful to them" (p. 2). Moral values have been described as "honesty, respect for others and fairness" (Fowler, 1994, p. 1). An essential component of a collaborative, improvement oriented work culture is the involvement of staff in the decision making process in matters which affect their work context. Involvement doesn't necessarily guarantee a successful, conflict free process and implementation but, as stated by Holmes (1986),

> It is not reasonable to attempt to implement a decision without consultation of those involved, whether directly affected or not, have sufficient clout to prevent its completion. No one will deny that implementation is more effective if everyone agrees on what is to be done. But does consultation bring agreement? Sometimes yes, sometimes no - it depends on the personal values and on the political context. But consultation ... is still a good thing. (p. 82)

Specifically, without consultation, the consequences for suppression of individual involvement and discussion "...is to create the conditions for private withdrawal and

submerged resistance at a later stage" (Hargreaves & Dawe, 1990, p. 236).

## Groups: Departments, Committees, Teams

In business and educational organizations, departments within them have been established to achieve a purpose. The people who work in these departments possess the knowledge and skills necessary for accomplishing the work related activities of the department. Departments tend to develop their own culture where members of departments generally share similar types of knowledge, values and ways of communicating and working. This following capsule of a business case study demonstrates variations in departments within a private sector organization around an issue allowing salespeople more autonomy. The concerns expressed provide an insight into the priorities of the individual departments and also illustrate resistance with change from the department heads/leaders:

> Human resources worried that expanding a manager's responsibilities and swapping manufacturing and sales jobs, could destroy the carefully crafted job categories. The finance department was concerned that allowing salespeople to make refunds could create a gold mine for unethical customers. The legal department claimed providing information to salespeople about future products could invite industrial spying and manufacturing felt that salespeople wouldn't understand how complicated manufacturing was and a hot line would

> ring off the hook and waste everyone's time. (Rothstein, 1995, p. 22)

Parallel descriptions can be made of departments in educational organizations, specifically secondary schools, "the school workplace is a physical setting, a formal organization, an employer" (McLaughlin, 1993, p. 70), the school is also an "occupational community" (Huberman, 1993, p. 137) where "subject affiliation and departmental membership powerfully define professional community" (Little, 1993, p. 158). Most secondary schools tend to share a common organizational design. According to Hargreaves, Davis, Fullan, Stager, Wignall and Macmillan (1993),

> The specific organization and structure of secondary schools groups people together or keeps them apart in distinctive ways, and lays the foundation for the creation of particular kinds of work cultures. The typical secondary school structure is founded upon subject departments and their interrelationships. (p. 7)

It is these subject departments with a department head and a number of teachers which, "...come to constitute work cultures in their own right, bestowing identity on their members, and supplying and reinforcing a set of common purposes within the subject" (Hargreaves, Davis, Fullan, Wignall, Stager & Macmillan, 1993, p. 7). An opportunity exists in the extra-departmental structure to develop

interdepartmental teams. Departments have been described as structural in orientation while teams have been described as process oriented (Scholtes, 1993). "Departments which are too autonomous may branch out in uncoordinated and ineffective ways" (Sallis, 1993, p. 83) or may stay very self-contained, self-sufficient and static.

Whether or not departments or employee groups are identified either by themselves or by others specifically as a team, in many ways, in a well functioning department, interactions between people resemble those of a team. "Where departments form innovative communities, they may constitute a home for new ventures of sufficient focus and of manageable enough scale to break old traditions" (Little, 1992, p. 9). Well functioning departments in organizations have the potential to implement the collaborative processes of a self-managing or self-directed work team within the context of that department. Membership in a department or participation on a committee is a natural opportunity within the organization for peers to achieve individual and shared goals. The potential exists for that particular group through increased knowledge and practical experience to evolve into self-managing collaborative status. Collective work towards mutually valued goals provides opportunities for groups to identify issues, make suggestions and participate actively to make changes in their work life

(Patterson, Purkey & Parker, 1986). Colleagues dealing on a daily basis with similar issues often provide one another with an on-going resource, support and professional development system. People working collaboratively have the potential to alter the practice of direct top-down leadership and allows, "self-management to take hold ... substitutes for leadership will become more deeply embedded" (Sergiovanni, 1992, p. 45). People working collaboratively have opportunities to extend their potential beyond what is possible if they work alone. Vygotsky's theory called the "zone of proximal development" described by Cole, John-Steiner, Scribner and Souberman (1978) illustrates:

> The definition for zone of proximal development is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (p. 86)

## Self-Managing Teams

A self-managed or directed work team is described by Moran and Barrey (1993) as one where,

> ...it plans and performs all of the work operations required for that particular product or process... responsibility and authority are placed as close as possible to where the work is done. (p. 2)

> A group of highly trained employees who are fully responsible for a whole product or service. The

> team is self-directed because it plans and performs all of the work operations required for that particular product or process. Eventually, a very mature work team handles the management, supervision, and assessment of its own performance. (p. 1)

An emphasis is placed on individuals, their relationship with others and their involvement in changing and improving the context of their work (Barlosky & Lawton, 1994; Scholtes, 1993). While organizational environments in both public and private sector institutions are changing as a result of economic and fiscal conditions and decisions, the business of manufacturing a product or educating students on a daily basis as the on-going work of people in the organization still must continue. Reform, restructuring and other organizational changes occur simultaneously with daily business activity. For example, in the province of Ontario (1994) the "Report of the Royal Commission on Learning" states, "Not only is everything changing, the pace of change is, itself, increasing. And there, squarely at the centre of change, stands the school system" (p. 25).

Self-managing team approaches have been described in the management and total quality management literature as instrumental to continuous improvement and learning. For example, "George's team was vital for the success of the change effort. He had chosen manufacturing to be the pilot team because, in most companies, that was the area ... which

... made the most rapid progress" (Rothstein, 1994, p. 22). In the environments of business and education, people more frequently have opportunities to work together in many different ways (Fullan, Bennett & Rolheiser-Bennett, 1990). It is felt that the process of working together enhances learning and personal growth (Joyce & Showers, 1987; Killion & Harrison, 1988). Cooperation among adults promotes achievement, positive interpersonal relationships, social support and self-esteem (Garmston, 1987). Removal of the barrier of isolation in the work environment also removes the barrier to change and capitalizes and extends the benefits of on-the-job learning (Johnson & Johnson, 1987).

## Part III: Economics, School-to-Work and Innovation

### Realities: Socio-Cultural Barriers in the Blending of Education and Training

Systemic barriers exist in educational organizations because of "institutional and intellectual distinctions between educational and training" (Thomas, 1993a, p. 1). These institutional and intellectual distinctions are further demonstrated in the subject/departmental structure and context in secondary schools. Little (1992) illustrates some consequences for the separation in secondary schools of academic and vocational subjects and departments provide, "differentiated access to the curriculum" (Little, 1992, p.

10) which also, "reduce(s) the pool of well-educated workers, but also reflect(s) a misunderstanding of the knowledge demands of the present workplace" (Little, 1992, p. 11).

Barriers to the formation of intra-organizational process improvement teams exist because of the subject/departmental structure of secondary schools. The barriers can be illustrated through the separation of academic and vocational subjects in the organizational design and culture of secondary schools.

> Vocational education has limited subject presence in many comprehensive high schools. While the core academic subjects offer a three-or four-year sequence of required courses and associated electives, the vocational program has seen a steady erosion of course offerings. The program in various industrial trades in business or in home economics may amount to no more than a few sections of introductory courses. (Little, 1992, p. 5)

Educational work-oriented programs such as cooperative, business and technical education, perceived generally as directly related to the world of work, provide a natural starting focus for educators and employers to collaborate on initiatives in school-to-work education for students. Work oriented programs, however, are already seen to be in need of reform because of a lack of connections between the world of work and school:

> ...unfortunately, cooperative education programs often fail at providing a comprehensive and

> integrated school-based work experience...co-op programs have little effect on classroom curricula and therefore simply reinforce the gap between the worlds of work and school. (Bauer, 1995, p. 2)

Vocationally oriented, work related, general education curriculum tends to consist primarily of business and technical studies curriculum in the secondary school. It "has obtained a bad reputation and is perceived as preparing students for neither work or post-secondary education" (Bauer, 1995, p. 1). Traditional apprenticeship curricula lacks of entrepreneurial/business content, and traditional business curricula includes few apprenticeship-style pathways between school and work. For example, the "New Brunswick, Youth Apprenticeship Program" (1995, p. 7) does not mention entrepreneurship but does emphasize, in "Training: Phase 3--Occupational and Skill Development" (1995, p. 26) 21 out of 40 hours on beginning keyboarding, telephone equipment, facsimile equipment and photocopy equipment. The importance of office technical skills cannot be underestimated; however, the question remains are they enough when a "...society of rapidly changing technologies clearly signals the need for an educational system that combines the best in vocational and academic learning" (Cuetara, 1995, p. 22).

While vocational programs, in general, are seen as restrictive in opportunities for the future, the potential

exists to make them more inclusive and responsive to student and societal needs. "Schools and employers need substantial flexibility to develop a school-to-work transition that builds on local strengths and is tailored to local needs and circumstances" (Charner, Fraser, Hubbard, Rogers & Horne, 1995, p. 58). A shared relationship between educators and the private sector can provide opportunities to inform and participate in the development of new initiatives in relevant work-based learning that is connected to the workplace and integrated in the classroom.

## The Socio-Economic Framework: An Economic Context for Education with a School-to-Work Transition Focus

Drucker's statement describes from an economic perspective, the new kind of worker, a knowledge worker, required for a knowledge/information based society,

> The basic economic resource-"the means of production," to use the economist's term--is no longer capital, nor natural resources (the economist's "land"), nor "labor." It is and will be knowledge....The economic challenge of the post-capitalist society will therefore be the productivity of knowledge work and the knowledge worker. (Drucker, 1993, p. 8)

This shift from an industrial based to information based society is reflected in current governmental policy reforms impacting on the educational system. A mandate for reforms in secondary, school-to-work transition programs was

announced by the Ministry of Education and Training, Ontario. A press release, (1995, November 2), "Secondary School Changes to Benefit Students and Taxpayers", announced changes in five specific areas of the system, three of which refer to school-to-work transition:

> The Ministry of Education and Training will develop a new, four-year secondary school system with:
>
> 1. high graduation standards for all students
> 2. clear course requirements for students planning to go to college or the workplace
> 3. improved guidance and career counselling policies and programs
> 4. expanded co-op education and work experience programs
> 5. a new, structured, school-to-work transition program called "Bridges". (p. 3)

The Expenditure Control Plan of the Ontario Government (1993) began the process of restructuring in public organizations because of a mandate to increase efficiency: "Given our fiscal realities, we cannot exempt these organizations from the imperative to find more efficient ways to deliver important public services" (p. 3).

A description of the socio-economic approach to human capital theory and labour market segmentation provides a framework for a re-designed school-to-work system on a macro and micro level.

"The problems of economics concern the use of scarce

resources to satisfy unlimited human wants" (Lipsey, Purvis & Steiner, 1985, p. 6). In economic terms, resources, also known as factors of production are described as land, labour, capital and sometimes entrepreneurship. Labour refers to the physical and mental efforts people contribute to the production process. Capital is any manufactured good which can be used for the production of other goods and services. The concept of human capital refers to education, health and individual skills. The ability to organize land, labour and capital into production and innovate is called entrepreneurship (James, 1991).

Scarcity makes it necessary to choose between what commodities or goods and services will be produced and in what quantities, and results in questions around resource allocation (James, 1991; Lipsey et al., 1985). Four questions which usually direct economic inquiry are, "(1) What is produced and how? (2) What is consumed and by whom? (3) What causes unemployment and inflation? Are they related? (4) What causes changes in productive capacity" (Lipsey et al., 1985, p. 9)?

"Some economists view educational systems as instruments...to produce human capital" (Benson, 1988, p. 356); however, the economics of education usually has three main components: (a) valuation of human capital, (b) projection of skills requirements in the economy and (c)

estimation of efficient means of educational production.

1. Human Capital: Computing the yield from the creation of human capital where lifetime income is related to the possession of a hierarchical set of educational qualifications.

2. Segmented Labour Market Planning[1]: Economic analysis of educational data attempts to match the work skills created in educational institutions and labour market skills requirements.

3. Internal Resource Allocation in Educational Institutions: If resources are the means to produce educational outcomes, then decisions involving inputs to increase internal efficiency[2] must be made. "Knowing the relative power of inputs to affect achievement and also knowing the costs of the inputs permits arranging the patterns of resource use to maximize outputs" (Benson, 1988, p. 365).

Education is generally viewed as a social good and, in terms of educational goods and services, it is not viewed as

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[1] This process was once known as "manpower planning" (Benson, 1988, p. 355).

[2]Economic efficiency (in production): "A method of producing some quantity of output is economically efficient when it is the least costly method of producing that output" (Lipsey et al., 1985).

appropriate to exclude anyone in society from sharing in the participation. Consequently, a common view is that education must be paid for by "compulsory levies called taxation" (Benson, 1988, p. 369) but the view of who pays is changing as massive deficit reduction measures which are taking place globally, impact on government spending. Most often areas of spending reductions, according to Schiller (1995) in The Toronto Star article, "A Break with the Past", occur in "(a) health, (b) education, (c) social security, which includes retirement pensions, unemployment insurance benefits and income support (welfare)" (p. f5).

Economics looks at the behaviour of people in three different groups, households, firms and government. Human capital theory suggests that education creates skills that raise productivities[3] of workers by focusing on level of educational attainment. Segmented labour market analysis provides information about the number of persons with specific skills for future market demand.

Levin's (1993) comment, "...an economic concern with education should be more concerned with contributing to the development of capable human beings than with narrow - and largely misunderstood - economic imperatives" (p. 61)

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[3]Productivity: "Output produced per unit of input, frequently used to refer to labour productivity measured by output per hour worked" (Lipsey et al., 1985).

suggests a shift in approaches in the economics of education, from traditional positivist, quantitative approaches in economics to more subjective, qualitative approaches. The economic concept of opportunity cost which is, "the cost of using something in a particular venture is the benefit foregone (or opportunity lost) by not using it in its best alternative use" (Lipsey et al., 1982, p. 147) is also, "a fundamental principle that applies to a wide range of economic and non-economic situations (Lipsey et al, 1982, p. 148). Rather than measuring opportunity cost by applying an assigned monetary value, a consideration of "alternatives or opportunities that are sacrificed" (James, 1991, p. 5) through the act of choosing can be determined.

In a projected cash flow schedule, in a proposal for a government project, a determination of "in kind" contributions must be made by the applicant. An "in kind" contribution frequently is represented in the proposal by assigning a monetary value to the estimated employee time contributed to the project by the host organization. While the monetary commitment is specific, the contribution by the organization in terms of administration and the employees in terms of their contribution by their work and time is difficult, if not impossible to quantify. In reality, the actual in-kind contribution probably far exceeds the actual amount specified in the cash flow statement. Leithwood

(1992) alludes to the non-quantifiable aspects of productivity because of psychosocial and sociocultural aspects of human interaction at work:

> When teachers are helped to find greater meaning in their work, to meet higher-level needs through their work, and to develop enhanced instructional capacities ... this form of facilitative power substantially enhances the productivity of the school on behalf of its students. (p. 9)

The Tech Prep Education Act calls for, "School-to-Work: Career Paths for All Students" (Dutton, 1995, p. 3). The intent of an integrated education and training system such as this is to meet broad economic, educational and social needs. As well, a continuous process of "seamless and progressive curriculum articulation from elementary school through middle level and high school to postsecondary education and/or career employment" (Dutton, 1995, p. 12) is provided. The best possible professional service in an educational culture takes place in the form of instructional service or instruction in the classroom ie. teaching. According to Cooper (1994), "...in the history of American education not a single child has ever learned anything at the district office. Education takes place in the schools and in the classrooms" (p. 19).

Dutton (1995) describes the characteristics of a school where such programs take place that will be transformed,

> ...from a traditional, industrial society curriculum to a career paths,

> technological/information society curriculum experiences a transformation. It does not just add or modify programs, but is in a process of redesigning the curriculum, changing the teaching/learning methodologies, and restructuring the organization. (Dutton, 1995, p. 12)

Sage and Trop (1997) state,

> Educators report that students involved in problem-based learning find learning more stimulating, build critical and creative thinking skills, become more self-directed learners, and make meaningful connections between school learning and learning for life. (p. 32)

## From Effectiveness to Continuous Improvement

Over the past decade the educational environment has been influenced by major change initiatives which have resulted in policies, procedures and strategies with an improvement focus. The "effective schools movement" (Lezotte, 1989) and "instructional leadership" (Leithwood, 1992, p. 8) both have had an impact in the area of school improvement projects and change prior to any emphasis on quality and the process for continuous improvement. The effective school and school improvement movements appear to have "unfrozen" (Schein, 1990) the structure and infrastructure of schools. A study and book,

> ... entitled, Fifteen Thousand Hours; Secondary Schools and their Effects on Children - was important because it developed a methodology to evaluate the effectiveness of schools after having taken account of the characteristics of the pupils entering those schools. (Mortimore, Sammons, Stoll, Lewis & Ecob, 1989, p. 2)

In effective schools the factors which contribute to the positive effects have been identified. Essentially, school matters and effective schools enhance the progress, achievement and self-concept of their students. Three overriding characteristics of school effectiveness have been identified: (a) a common mission, (b) emphasis on learning, and (c) a climate conductive to learning (Lezotte, 1989; Purkey & Smith, 1983). While the effective schools research has identified what schools should be like, the research did not suggest ways for schools to move to greater effectiveness. The opportunity was available for those in the organization who wanted to be involved in school improvement to work together on a common goal. The school growth plan has been identified as the means whereby the characteristics of effective schools are put into practice (Lezotte, 1989; Purkey & Smith, 1983).

An example of an inclusive, learning organization, in theory, designed to focus on schools, teachers and classrooms was established and is called "the Learning Consortium" (Fullan, 1991, p. 321). Initiatives of The Learning Consortium have provided member educational institutions with collabortive opportunties to improve the organization especially in activities which involved teachers and teacher teams.

The Learning Consortium - An Example and Description

The Learning Consortium[4] includes four school boards and two institutions of higher learning in Ontario. A framework for school and classroom improvement has been developed by the Learning Consortium members. Fullan (1991) writes,

> The goal is to design and carry out a variety of activities that make the professional and staff development continuum a reality, and that link classroom and teacher development with school development by coordinating and focusing the efforts of the districts and the universities. (p. 321)

A systems approach to change is reflected in the design while the premise behind the design is that classroom and school improvement and teacher development are linked in a dynamic way in effective schools. The scheme can, according to Fullan, Bennett and Rolheiser-Bennett (1990), "assist educators to inquire into the current condition of their school or classroom situation and predict what factors might need consideration in the components of improvement" (p. 276). The following three themes are shown as interdependent: (a) classroom improvement, (b) teacher as

[4]The Consortium's school districts include the Durham Board of Education, the Halton Board of Education, and the former North York and the Scarborough Boards of Education now merged in 1998 within the Toronto School District. The two former higher education institutions are the Faculty of Education, University of Toronto and The Ontario Institute for Studies in Education which were merged in 1996.

learner and (c) school improvement. The two elements driving the framework are: (a) student engagement and learning and (b) leadership and mobilization. These two elements pervade all aspects of the three interdependent themes. The teacher as learner concept was the first one adopted by the Learning Consortium (Fullan et al., 1990). The attention to teacher technical repertoire initiated "first-order" changes. Simultaneous "second-order changes" such as: (a) building a shared vision, (b) improving communication and (c) developing collaborative decision-making processes evolved (Leithwood, 1992). Involvement of all members of an organization is considered central to the activities of an organization.

Wheatley describes a change in organizational management practices which focus on the necessity and value of contributions from people who work in an organization. Wheatley (1994) states,

> Managers have recently been urged to notice that they have people working for them. They have been advised that work gets done by humans like themselves, each with strong desires for recognition and connectedness. The more they (we) feel part of the organization, the more work gets done. (p. 144)

Theories will continue to evolve within the quality paradigm and as those theories evolve so too will practices in all types of organizations including educational

organizations. This evolution will likely continue along a change, improvement and learning continuum.

## Summary of the Research of the Literature

In this literature review theories were described and examined to illustrate the development and complexities of organizational administration (Hodgkinson, 1978), management strategies (Deming, 1986; Juran, 1993) and culture formation (Freire, 1970a; Schein, 1990) within both public and private sector organizations. This overview is useful in understanding the links and interactions among the contextual factors of organizations and their environments (Morgan, 1988).

The inclusion of a description of the quality paradigm and process oriented change/improvement theory (Chesterton, 1994; Deming, 1986; Sallis, 1993) was integral to understanding the strategies whereby the expertise of people resident in and connected to an organization could be accessed to make decisions and implement improvements for their own work context. To describe how administrative philosophy and management strategies could be translated into a practical guide for the implementation of an innovation, the specific process for quality improvement was highlighted (Barlosky & Lawton, 1994; Basili & Caldiera, 1995).

As well, the research of the literature also examined learning theory from both individual, group and organizational points of view to illustrate the nature and benefits of learning and knowledge acquisition as a transformative and iterative process (Freire, 1970a; Garvin, 1993; Senge, 1990; Vygotsky, 1978).

The research also examined the school as a workplace to understand the context and perceptions of subject disciplines and to present issues which may impact on implementation of a school-to-work transition project or system (Little, 1992; Siskin, 1995). This examination in addition to connecting with and revealing current perceptions of academic and vocational education in secondary schools outlined government initiated legislation particularly in the United States which appears to connect academic and vocational curriculum into career paths education (Cuetara, 1995; Dutton, 1995).

Related theories in the topic of economics of education and human capital theory were outlined to explain the rationale for financial infusion by governments into school-to-work initiatives (Benson, 1988; James, 1991). The issue of funding and its impact is critical for the origination, implementation and sustainability of any innovation (Bauer, 1995).

Finally, two examples of improvement/change oriented

initiatives were described to show the existence of intentional improvement oriented change in education in a different time and context (Fullan, 1991). Past experiences with an innovation therefore have the potential to inform present and future change oriented initiatives.

# CHAPTER 3

# METHODOLOGY

## Introduction

The study was designed to thoroughly investigate the activities of a group of "front-line" employees as they simultaneously developed and implemented initiatives of a pilot project. This chapter outlines the research design, site, participants and sources of data and data gathering procedures. The interconnected research framework is illustrated in a map on page 91. A questionnaire as well as four thematic organizing questions described in this chapter provided the basis for data gathering. The data gathering process was designed to encourage reflective comments by participants specific to their own experiences and perceptions. The chapter also includes a discussion of ethical issues, analysis of data and limitations of the study.

## Research Design

A case study was conducted at the proposed research

site in order to "take account of the context and also the relevant forces outside the unit being studied" (Merriam, 1988, p. 2). A "case study's unique strength is its ability to deal with a full variety of evidence--documents, artifacts, interviews, and observations" (Yin, 1989, p. 20). Specifically, the case study approach also allowed multiple strategies with a variety of data-collecting procedures and instruments (Merriam, 1988; Yin, 1989). Importantly, a case study approach is also congruent with the application of principles suggested by a conceptual quality improvement framework. "Questions about process (why or how something happens) commonly guide case study research, as do questions of understanding (what happened, why, and how?)" (Merriam, 1988, p. 44).

In a conceptual quality improvement framework, "all the elements of a system contribute to its success" (Joiner, 1994, p. 32) through the "value added" (Barlosky & Lawton, 1994, p. 146) by the quality process for continuous improvement. The specific recursive and iterative process of continuous quality improvement occurs through attention to a "Plan, Do, Study/Check, Act or PDCA Cycle" (Walton, 1986, p. 87)(see Page 8). The PDCA Cycle also acts as a heuristic for those involved to coordinate planned intentions and practice. The process is also consistent with a formative evaluation process where,

> ...the purpose of the evaluation is to improve an ongoing process through continuous reporting of the evaluators' findings. Information is shared with participants quickly, more informally, and in a spirit of congeniality. The evaluators may meet with subjects on a regular basis, present findings, and discuss the implications for change. (Bogdan & Biklen, 1982, p. 203)

While the case study process has the potential to be evaluative, this case study is both descriptive and interpretive as data were used to "analyze, interpret, or theorize about the phenomenon" (Merriam, 1988, p. 35).

## Selection of Research Site and Gaining Access

The primary research site and school-to-work transition project chosen was a site-based project at a public high school (HS) in a community near a large urban centre. "Building Opportunities" was the name of the demonstration project funded by Human Resources Development Canada (HRDC) under its Youth Initiatives Program. At this particular site, the intent of the project was to embed school-to-work transition innovations within the context of the school and community rather than to operate the project in isolation. How the project related to and was influenced by the larger organization of which it was a part was critical to the study. Examination of the project in the intra- and extra-organizational context also had the potential to provide,

for others, an example in the design of a school-to-work transition system (Thomas, 1993b). The shared educational expertise of the project management team was seen as integral to the successful simultaneous development, implementation and on-going review of the project. A request letter for permission to conduct the study at the school was completed and sent to the principal (see Appendix A).

This particular school was chosen for some significant reasons. The school organization was intentionally designed and based by the principal on the management philosophy of W. Edwards Deming, "a system of improvement" (Walton, 1986, p. 32) or the quality process for continuous improvement, and "The Art and Practice of the Learning Organization" written by Peter Senge (1990). It is an organization which focuses on "processes instead of functions" (Principal, personal communication, July 4, 1996).

The school is very technologically advanced as the school is networked not just for faculty but for students. The computers purchased for the school for its opening in September, 1994 were Intel 486's. Each staff member received a laptop computer. Two students won the home page contest for a major daily newspaper (Spectator, 1996, July 26). As well, my own role in the school and my role as a doctoral student are integral and must be described.

Essentially, my personal involvement in the HRDC/HS transition project has implications consistent with "interpretive biography" (Denzin, 1989) and "participant observation" (Merriam, 1988; Yin, 1994). I am both a staff member and researcher participant, one--"who participates in a social situation but is personally only partially involved, so that he can function as a researcher" (Merriam, 1988, p. 93).

This case study approach where I am a researcher participant provided me with an interesting task: "the challenge is to combine participation and observation so as to become capable of understanding the program as an insider while describing the program for outsiders" (Merriam, 1988, p. 94).

## Subjects

The subset of participants who completed the survey and were subsequently interviewed were the fifteen teachers who volunteered to participate on the in-school project management team. These staff members also participated on the management team for one of the project centres. The interview comments, therefore, reflect their perceptions after participating on the project implementation team for ten months. Another subset of participants, those who were

not part of the in-school project management team, were interviewed only. Their interview comments reflect their involvement and understanding of this demonstration project and its context. The students who were interviewed in a focus group format expressed their perceptions of experiences after participating and/or working in the career centre and school store.

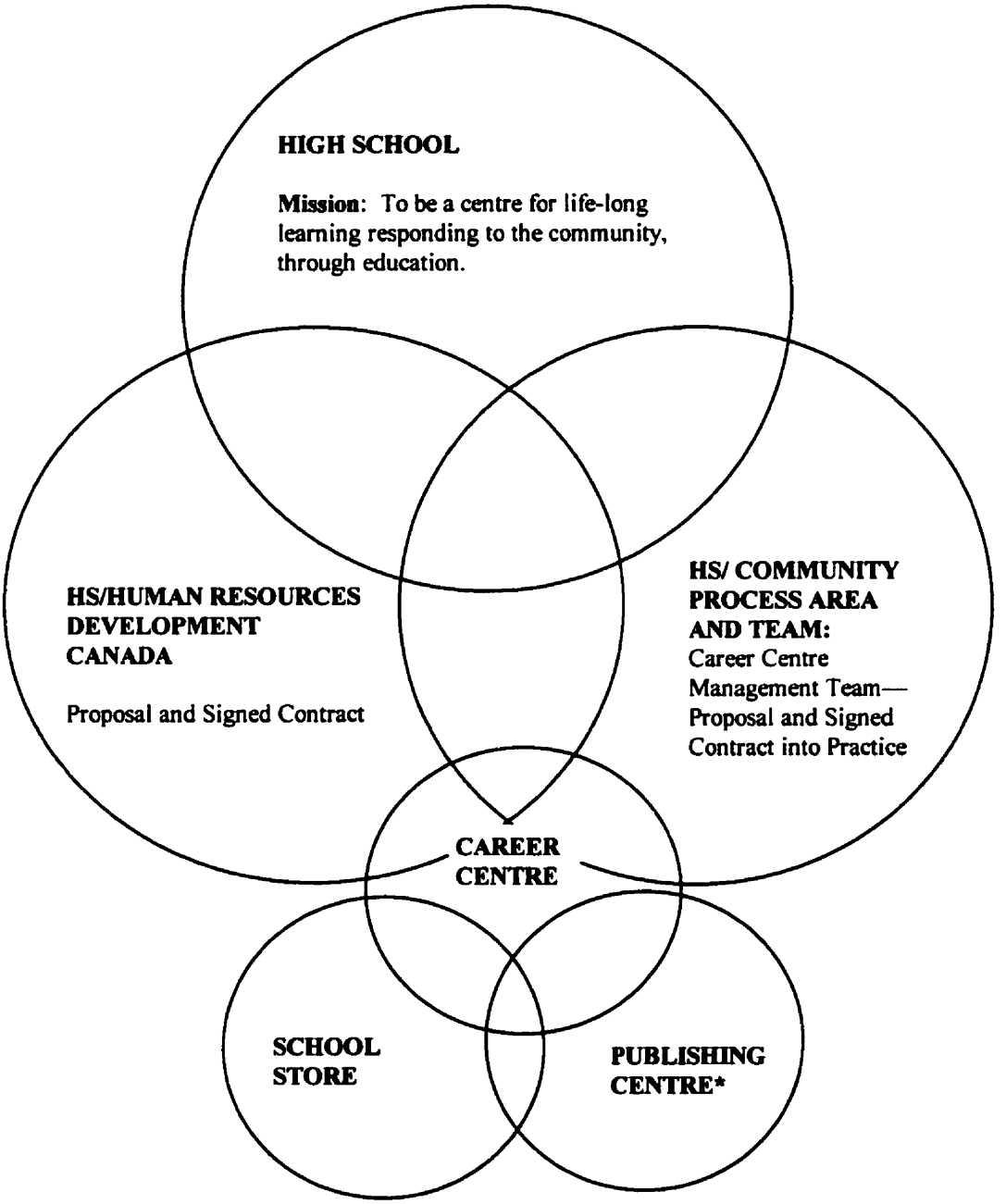
In presenting the interview findings, direct quotes from the participants are used to exemplify and illustrate the themes and patterns which emerged from the data. Connections and relationships with survey responses are made as appropriate. As well, quotes from documentary materials such as the HS proposal, the HRDC/HS contract and the minutes of meetings will be included.

## A Map of the Research Site: The HS Project: Building Opportunities, Year One: 1995/96

The creation of a map (see Page 91) for the project and research was a learning activity for several reasons. The map became both a research framework and also a schematic for translating theory into practice.

# MAP: BUILDING OPPORTUNITIES

## HS/HRDC - YOUTH INITIATIVES
## Site Based School-to-Work Transition Project: (Year One: 1995/96)




* Business Office was on the sign when the school opened

The HS Building Opportunities map is a heuristic design which represents the research site and a developmental profile of a school-to-work transition program framed within a quality approach to administration, management, self-management and work. The map with "feedback loops that represent cyclical interdependencies in a system" (Hyerle, 1996, p. 82) shows how "Building Opportunities" was established in the school context. The map provides a visual representation of the project. The extent of the project as a stimulus for learning (Leithwood, 1996) or a catalyst for a school-to-work focus in the organization was then investigated.

In July, 1995 a contract was signed between Human Resources Development Canada (HRDC), the High School (HS) and the Board of Education (BE). The essential details of the contract specified that HRDC would transfer $150,000 for the first year of a possible three year $300,000 funded demonstration youth initiatives, school-to-work transition project to HS. The project funding was not renewed by HRDC at the end of the first year 1995/96.

The task of a management team, formed in September 1994 and comprised of approximately fifteen volunteer HS staff members, was to implement the specifications of the proposal and signed contract. At the end of year one the project was to be evaluated for possible continuation of funding for

year two. The HS would implement a demonstration, an intervention and a school-to-work transition program for 15 to 19 year olds based on criteria outlined in the signed contract. Provisions for the continuation of the project were to be included after the contract termination date. The shared educational expertise of the HS project management team was seen as integral to the successful development, implementation and on-going review of the project both within the school and with an HRDC representative.

Description of the Map (See Page 91) - Research Framework

A map of the research site (see Page 91) was designed to show a "view of patterns, interrelationships, and interdependencies" (Hyerle, 1996, p. 10). The map also provides an interpretive framework of the project and participants' activities within the context of the research site.

Circle labelled HS. The High School opened in September, 1994 with a student population of 623 and a staff of 40. Courses and students were accommodated at all grade levels - grades 9 to Ontario Academic Courses. Ontario Academic Courses are university preparation courses and six must be completed to qualify for offers of university admission. The school was designed for a student capacity

of 1300. The leadership team was comprised of eight program leaders (department heads), one vice-principal and one principal for a total of ten members.

The school mission statement, "To be a centre for life-long learning responding to the community through education", reflected the desire to establish a permeable school culture with a community focus. The school is organized into key process areas rather than traditional subject departments. The key process areas for the school year 1995/96 were called Curriculum, Community, Assessment and Evaluation, Healthy Active Living and The Global Learner. The administrative philosophy was informed by Deming's 14 points (Barlosky & Lawton, 1994; Walton, 1986), learning organization theory (Senge, 1990a) and the belief the success of the organization was dependent upon values and shared understandings developed as a result of relationships (Stohl, 1995).

Also, staff initiative and expertise to enter into the proposal writing process for the HRDC demonstration project was encouraged and supported administratively. Work activities in the school result from bottom-up, top-down and collaborative approaches. Management teams of volunteer staff members are formed to perform tasks in the school such as graduation.

Circle: HRDC/HS. The circle labelled HRDC/HS represents the proposal writing process which was started in October, 1994 and ended with a signed contract in July, 1995. This circle is positioned to show the philosophy (mission) of the organization as outlined in the contents of the proposal and signed contract. Strategies for project implementation were discussed through the creative process of proposal writing. For example, an in-school management team of fifteen volunteer staff members was formed to implement the project and further develop a school-to-work focus in the school.

Circle: The High School Management Team. The task of the fifteen management team members was to be one of interpretation, implementation and development in the transition and transformation of the proposal and signed contract into organizational practice. The management team members together shared expertise from all curriculum areas.

During September, 1995, the project management team was divided into three sub-teams--the publishing centre, the store and the career centre teams. The task of each of the sub-teams was to meet on a regular basis to plan, implement and coordinate centre specific activities.

The management team was called the Career Centre Management team and was one sub-group of the Community Key Process Area for 1995/96. Three centres were outlined in

the proposal and signed contract as focal points and sites for student school-to-work activities. The three activity centres were called: (a) the career centre, (b) the publishing centre and (c) the school store. The three activity centres are shown as integrated as the intent for the centres was to provide school-based learning that connects to work-based learning.

The three centres were created to either provide for activities independent of each other or integrated activities, depending on the needs of the student or students involved. The Conference Board of Canada: Employability Skills Profile and Ontario Curriculum guidelines (specifically, Business, Technological and Computer Studies as well as Cooperative Education and Guidance) provided a supporting rationale for the proposed activities in the centres. A Board of Directors comprised of six community business representatives and four school staff members was formed.

Circles: Career Centre, Publishing Centre, School Store

The specific project centres are placed below and at the intersection of HRDC/HS circle and HS Management Team. The centres were named in the proposal and signed contract, and are the focal point for the management team. The task

of the project management team was to determine, with the community business partners, the school-to-work learning appropriate for centre specific and integrated activities.

Career Centre. The career centre in the school was designed to provide for on site career awareness activities. Some technology-based programs and activities considered were: Discover from Nelson Canada, which relates directly to the NOC's (National Occupational Classification), Choices '96, Wondertech Simulation and Bridges - An internet Career Awareness program. The Career Centre was also the site of a TVOntario Curriculum Project called Worksearch. Career centre activities were designed to provide the link between educational planning and career awareness.

Publishing Centre. A number of circumstances converged to make the establishment of a publishing centre viable. The school was networked for computers during the construction phase. The space originally named "Business Office" was designed off the main concourse called "The Street" and provided an ideal location for a publishing centre. The acquisition of some computers for the centre was supported because of staff commitment to information/instructional technology and the related curriculum application. The staff were also aware of labour market demands and know that competence with information technology is integral to employability.

The Store. School store operations, on a very small scale, started during 1994/95 school with the business studies retail class students working in the store. With the signing of the contract with HRDC, and the school store as an integral part of the proposal, funds were available to fit the store with counters, racks and bins. The school store is designed to be a site where students practice employability skills in a retail, entrepreneurial setting.

## Sources of Data and Data Gathering Procedures

A survey questionnaire comprised of close-ended questions (see Appendix B) was completed by the each member of the project management team immediately prior to their participation in a semi-structured interview. The purpose of the questionnaire was to collect demographic information and to make a determination of the extra time committed to the project by each management team respondent. An opportunity for the initiation of a project related discussion and clarification of their specific connection to the project was provided through the questionnaire completion process immediately prior to the interview. The interview questions extended the initial conversation and questionnaire responses into the individual realm and context of each member of the management team. Responses

were required that involved personal reflection on the topic.

The perceptions of all other research participants were examined in semi-structured interviews while the students were interviewed in a focus group format. At the conclusion of the interview, participants were asked if there was anything they would like to add or comment on that was not already included in the interview. The intent to request questions from participants is also consistent with a "quality" (Walton, 1986) approach and a focus on the front-line worker. Sallis (1993) recommends, "Ask(ing) staff which systems and procedures are preventing them from delivering quality to their customers--students, parents, co-workers" (p. 90). Observation and document study by the researcher augmented the questionnaire and interview data. The researcher attended project meetings and took field notes to provide formative data for presentation to participants. Copies of minutes for all the meetings were given to the researcher.

## Timelines

Questionnaires, interviews and focus group sessions began late in June, 1996 and continued to October, 1996.

The initial stage of data collection involved the

collection of responses with a questionnaire completed by the In-School Project Management Team in the Building Opportunities Project, as a preliminary activity immediately followed by a focused interview. The semi-structured interviews conducted with the In-School Project Management Team also included an invitation to suggest any additional questions or comments they wanted to add. The follow-up interview questions have been developed based on both a specific and general analysis of the literature; all the questions evolved from the four thematic questions. Semi-structured interviews have been conducted with the following stakeholders with the exception of the students:

Administration

1. Member of Parliament
2. Human Resources Development Canada Consultant
3. School - Principal, Vice Principal

Staff

1. Project coordinator
2. Project treasurer
3. In-school project management team

The students, listed under Community, item one, were interviewed in a focus group format:

Community

1. Students - Store Team, Publishing Centre and Career Centre
2. A member of the School's Parent Advisory Council

Question I: The Contextual Background is designed to

address environmental factors such as economic, political, technological and sociocultural conditions which may have impacted on the school to provide the impetus for applying for the project funding. For example, the political context includes, The Report of the Royal Commission on Learning, Vol II, "Learning: Our Vision for Schools" (1994), which provides the following recommendation for older students or students who have completed grade nine: "The emphasis must be on making subject-based learning meaningful and useful....Course delivery at the local level must involve the business and labour community" (p. 95). Economic and sociocultural conditions are described in relation to three levels of program difficulty in secondary schools. Whether or not the program is academic or vocational in orientation is also a factor "...as long as there are different streams, students from less advantaged circumstances....will obtain a lower quality and quantity of formal education, to their long-term economic and social disadvantage" (p. 72).

Data have been gathered through interviews with project/research participants and summaries were made from documents produced by the Ministry of Education and Training, Human Resources Development Canada, the high school, and relevant journals, periodicals and newspapers.

Question one is consistent with plan in the PDCA cycle "Step 1: The first step is to study a process....Do not

proceed without a plan" (Walton, 1986, p. 86) in the Deming-Shewhart Cycle (Barlosky & Lawton, 1994; Walton, 1986).

Question II: The Organizational Context is answered with data gathered by a questionnaire, semi-structured interviews and documentary materials. A focus on an investigation of the organizational contextual factors determines the extent to which connectedness and operational congruence exists in the school. The pilot project has evolved through the implementation stages. Question two is consistent with "do", step two of the PDCA Deming-Shewhart cycle where, "a well thought-out plan that is then carried out or tested, ideally on a small scale" (Barlosky & Lawton, 1994, p. 185).

Gathering data on implementation plans and issues is crucial. "The success of implementation is highly dependent on the establishment of effective ways of getting information on how well or poorly a change is going in the classroom and school" (Fullan, 1991, p. 87). The establishment of a "processual relationship" (Fullan, 1991, p. 79) specifically, continuous quality improvement processes rather than a series of episodic events, is thought to help to ensure that innovations become part of the context and curriculum of the school. According to Fullan (1991), particular attention to the following, "the principal, the budget, personnel assignment, curriculum

support activities, and the instruction program (Fullan, 1991, p. 89)" determines the probability of a successful continuation of an innovation after the duration of the project funding. Fullan (1991) relates the implementation process to a learning process, "Implementation, whether it is voluntary or imposed, is nothing other than a process of learning something new" (p. 85).

Question III: The Impact of the Project on the Organizational Context requires that data be gathered on the contribution that the project and related activities made to the school context. Also, question three is consistent with study/check, step three in the Deming/Shewhart PDCA cycle.

> The results of the piloting are then studied or checked in order to determine what was learned, and then we act upon this learning by redesigning the planned change and adopting it. (Barlosky & Lawton, 1994, p. 185)

As well, data have been gathered to examine the project implementation management team as both an organizational structure and a strategy through which new initiatives are embedded in the school. Specifically, the extent to which the initial practical activities of the management team members has led to simultaneous "second-order changes such as: (a) building a shared vision, (b) improving communication, and (c) developing collaborative decision-making processes" (Leithwood, 1992, p. 9) is significant. The second order changes as indicated by Leithwood (1992)

embed the first order "technical/instructional" (p. 9) in the life of the organization (Schein, 1990). The aspect of the sustainability of the innovation is addressed.

Question IV: A Description of Organizational, Team and Individual Learning has been designed to be congruent with step four "Act" in the Deming-Shewart PDCA Cycle where, "we act upon this learning by redesigning the planned change and adopting it. The adoption itself becomes the beginning point for future improvement cycles" (Barlosky & Lawton, 1994, p. 185). While the acquisition of knowledge is important, the dissemination of what has been learned so the learning can be accessed and utilized generatively in new situations is critical (Nevis, DiBella & Gould, 1995).

In a continuous improvement quality process, data provides formative assessment information. Further decisions are possible as formative assessments, in contrast to summative determinations, show employees how well or poorly a plan is progressing. Assessment information augments existing individual and shared knowledge and increases the potential to build capacity for learning. Ultimately the organization:

> ...can change in major ways as people experience success with more modest, focused, and specific changes.... Large-scale change requires that many initiatives be put into place in a carefully designed, integrated sequence. (Nevis et al., 1995, p. 84)

## Ethical Issues

According to Merriam (1988), "In a qualitative case study, ethical dilemmas are likely to emerge at two points: during the collection of data and in the dissemination of findings" (p. 179). The research site for this study is located in the board and school where I worked prior to a leave of absence to complete the residency component of my doctoral program and to which I returned after the leave. Care was taken to listen attentively and calmly any time aspects of the HRDC project were discussed and decisions made to ensure the focus was kept on the participants and their responses. Bogdan and Biklen (1982), state, "...ethical decisions ultimately reside with you, your values, and with your judgements of right and wrong" (p. 51). Care was taken to "treat subjects with respect and seek their cooperation in the research" (Bogdan & Biklen, 1982, p. 50) and to listen attentively to participants during the focused interviews. Participants were assured of confidentiality and real names were not used. All direct quotations were shared with participants prior to the completion of the study. All participants were requested to complete an informed consent form (See Appendix C) prior to entering the study and could leave the study at any time.

## Data Analysis

Data collected were examined around the four organizing thematic questions: (a) What contributed to the origination of the project, (b) To what extent have the organizational contextual elements and features contributed to the success of the project, (c) To what extent has the demonstration project contributed to the continuous improvement in the organizational context of the school and (d) What organizational, team and individual learning has occurred? Data were analyzed according to qualitative, case study methodology, with quantitative analysis conducted where appropriate.

Analysis started with data collection (Bogdan & Biklen, 1982; Merriam, 1988; Yin, 1989). Questionnaire responses were read and notes made. Suggested additional questions by respondents added at the end of the questionnaire or suggestions made verbally were written and included in the semi-structured interview guide sheet. Semi-structured interviews were taped after approval was provided on the Informed Consent Form by participants. Notes made during interviews were entered on the transcripts to help with the sorting, categorizing, and consolidating of data which occurred later.

A project file was established which contained documentary explanatory materials from meetings of the project team(s), articles on school-to-work transition, memos and other documents created in the school. All materials were filed alphabetically with cross-references made to other files which are related including notations on transcripts.

Data analysis for each of the focusing questions included a frequency count of very similar or same comments made after the data were coded, sorted into categories and reduced. As well, the questionnaire's demographic section, were analyzed using Microsoft Excel.

Data analysis for each of the focusing questions included a frequency count of very similar or same comments made after the data were coded, sorted into categories and reduced. As well, the questionnaire's demographic section was analyzed and tables prepared.

## Limitations of the Study

This study examined a pilot school-to-work transition project in one high school. It was difficult to generalize the results of this case study because it dealt with one site (Merriam, 1988; Yin, 1989). As well, the fact that the site is the subject of a study may have had some impact on

the activities undertaken by the participants.

The research site was also the work site of the researcher prior to a one year leave of absence to undertake the study and was again at the completion of the year. Concerns were considered about biases because of the researcher's involvement with the proposal writing process for the project to be studied, the subsequent observation of the project, and attendance at project meetings. The researcher is potentially in the position to undertake a formative evaluation as a participant observer. That the researcher took a leave of absence provides a distance from the day-to-day operation of the school; however, extreme care has been taken to be objective, participate in the school project meetings as an observer and think carefully about all data.

Participants' perceptions were relied upon in the questionnaire and interview data collection process. The potential for a discrepancy between reality and perception especially as events evolved over time was likely. To account for this discrepancy and possible researcher bias, set within the combination data collection methodology of a survey instrument and follow-up focused interview was an additional check against possible participant misrepresentation and inadvertent researcher bias. In survey responses participants listed specific project activities in

which they were involved. These same specific activities identified by participants were then illustrated and expanded further by the participant in the follow-up interview. By identifying the activities themselves initially on the survey and then again in interviews they provided the specific examples for theory building in the later findings and conclusion of the study. Participants demonstrated whether or not the findings matched the reality not the researcher (Merriam, 1988).

The application of management science quality principles to an educational context tends to be disconcerting to some educators as management science is seen as a positivist business/industrial strategy. Extensive literature reading was done by the researcher to find relevant links for educational settings and contexts.

A large quantity of data was collected because of the complexity of the project and the organizational context. It was imperative that the researcher was thorough, read and re-read all data and organize an efficient filing system for the handling of this limitation.

# CHAPTER 4

# FINDINGS: DESCRIPTION OF QUESTIONNAIRE RESPONSES

## Introduction

The members of the pilot project management team, one of the group of participants in this study, volunteered to participate in a questionnaire and a follow-up focused interview. Other study participants were interviewed in semi-structured interviews while the students were interviewed in a focus group format. The subject of the study was a federally funded school-based demonstration pilot project in a secondary school. The secondary school context, the project management team and the implementation process itself, were the integral focus of the study.

In this study, the findings of the questionnaires are presented in chapter four and then the individual and focused interviews are presented in chapter five. Findings from documentary materials such as minutes of meetings are included where most appropriate and relevant as supportive information. Direct quotations

from the open-ended survey questions, interview and documentary materials are incorporated as they illustrate findings in the study.

The findings based on survey responses and described in chapter four are intended to provide a profile of the participants themselves, and their activities in connection with the project. The findings reported in chapter four also appear to relate best to the second thematic interview question, a description of the organizational context of the school and/or research site. Also, further connections can be drawn to the third thematic question, a discussion of what happened as described by the participants. The participants listed specific activities as responses on the questionnaire.

## A Description of the Project Management Team

Responses to short answer questions were designed to provide a description of the project management team in terms of: (a) gender, (b) years of teaching, (c) degree attained, (d) additional qualifications on Teacher's Record Card and (e) project teams participated in. Current organizational and management science theory attributes the ultimate success of an innovation to the front-line workers

or teams who have the responsibility for implementation. The uniqueness of this particular team was partially demonstrated by the combination of teaching qualifications, age and current preference to participate on this project team.

Fifteen management team members participated in the survey. Three additional members of the project management team, the principal, project coordinator, and school business manager, did not participate in the survey but were interviewed. My own role as project treasurer is not included in the tables but in anecdotal information where appropriate.

Table 1

Summary of Participants in the Study

| | Male | Female | Total |
|---|---|---|---|
| Number of Survey Participants | 4 | 11 | 15 |
| Number of Interview Participants | 7 | 15 | 22 |
| Number of Focus Group Participants (Students) | 9 | 8 | 17 |

A general description of any group, particularly a group of educators, tends to create an image of a homogeneous group of people; however the information listed in Table 2 provides an illustration of the heterogeneity of the group. The group is differentiated by years of teaching experience and subject specialization and teaching

qualifications.

Table 2

Project Management Team - Years of Teaching Experience and Additional Qualifications

| Years of Teaching Experience | Number | Total Represented |
|---|---|---|
| 0 to 10 | 5 | |
| 11 to 20 | 4 | |
| 21 to 30 | 5 | |
| Different Degrees Represented | 9 | 23 |
| Different Additional Qualifications on Ontario Teachers Record Card (OTQRC) | 18 | 24 |

The number of teaching and non-teaching staff involved in the project are outlined in Table Three. The members of the management team were members of at least one other sub-team--called the career centre, school store or publishing centre. The total number of staff members on the management team was 19; however, when considering their representation on sub-committees, that number accrues to the equivalent of 42 individuals. The time these staff members/participants in the study devoted to the project was volunteer time. Specifically, this was time allocated to the project that was additional to their teaching responsibilities and time they chose to commit in other school involvements such as extra-curricular activities.

Table 3

School Staff Participation on Project Team and Sub-Teams

| Team | Teachers | Other Staff | Total |
|---|---|---|---|
| Management Team | 15 | 4 | 19 |
| Career Centre | 6 | 1 | 7 |
| School Store | 5 | 1 | 6 |
| Publishing Centre | 5 | 1 | 6 |
| Board of Directors | 1 | 3 | 4 |
| Total | 32 | 10 | 42 |

Currently, in the Province of Ontario, a secondary school credit is defined as the equivalent of 110 hours of instruction. Teaching assignments usually include the equivalent of 330 hours of instruction per teacher, per semester. A teacher in Ontario with a full-time timetable will teach three classes per semester or six for a full-time, full year schedule. The number of volunteer hours, for meetings only, as outlined in Table Four provides an illustration of the time committed by the study participants in addition to their teaching assignments. In meetings only, the team contributed the equivalent of 4.58 or 5 sections of teaching time (504/110 hrs). Five sections of teaching time equates to 5/6 of a full time teacher or $41,666 assuming a full time teacher earns $50,000. In this study, nine of the 14 teachers were in the highest salary range ($68,000).

Information which is not subsumed in the table includes the additional allocation or the equivalent of three teaching sections by the principal to the project. This addition amounts to 330 hours of teaching time or the equivalent of a full time teacher for one semester. The additional staffing allocation provided the project with the equivalent of a total of 1.2 teachers. An in-kind contribution to the project by the school equates to $66,666 if $50,000 is considered as the cost for a full time teacher. If each teaching section is assumed to cost $10,000, then the total in-kind contribution is $80,000 ($10,000 x 8).

In Table Four, in column one labelled "Team", Board of Directors included four business people from the community who met with four school staff members on two different occasions.

Table 4

Number of Project Meetings and Time Spent by Team Members in Meetings

| Team[5] | No of Meetings | Time @ 1.5 hr | No of Staff | Total Hrs. |
|---|---|---|---|---|
| Management Team | 14 | 21 | 15 | 315 |
| Career Centre | 4 | 6 | 6 | 36 |
| Store | 12 | 18 | 5 | 90 |
| Publishing Centre | 8 | 12 | 5 | 60 |
| Board of Directors | 2 | 3 | 1 | 3 |
| Total | 40 | 60 | 32 | 504 |

Time was spent by the team members outside of meetings, implementing activities to meet the objectives and goals of the project. Participants were asked to itemize activities they were involved in outside of the actual meeting time working in one or more of the centres. A number of activities occurred simultaneously. Table Five outlines the frequency of activities itemized in question five, column four of the table. This tabulation of activities is designed to itemize project related involvements by participants in addition to their actual time spent in meetings. Participants were asked to comment on the frequency of activities they participated in outside of team meetings. Needless to say, most participants felt the way

[5]Team refers to the in-school project management team. While members of the management team, the following persons have been excluded from this sample: Principal, Coordinator, Treasurer and School Business Manager.

that one participant expressed their opinion about time, "I'm taking time for granted...I take the laptop home and work on it, stuff that I don't have time to do here".

Table 5

Itemized Simultaneously Occurring Activities in the Centres Beyond Team Meetings

| Centre | Frequency of Itemized Project Activites |
|---|---|
| Career | 27 |
| School Store | 21 |
| Publishing | 20 |
| Total Activities | 68 |

## Project Activities for the Career Centre

In planning for the Career Centre, details were mentioned such as, "Bought black holders for brochures, literature, helped in set-up and organizing career literature, and used the centre for scholarship information". Activities related to the classroom and curriculum were described. Specifically mentioned were the, "career awareness units in Grade 10 Business, and Grade 11 and 12 English with references to resumes, interviews, job shadowing and investigation of college courses." As well, the use of information technology for career awareness activities was implemented. Brand names of career awareness

products on the market were tested including an application developed for use via the internet.

Project Activities for the School Store

While school store had been officially opened during the 1994/95 school year, the store consisted of only an empty room with one cabinet on casters and an electronic cash register. The acquisition of the project funding provided the funds to fit the store with counters and display shelving. This authentic setting provided the site for practical retail-oriented activities for students.

The activities mentioned by participants around the operation of the store included, "working/supervising school store (2 shifts per week approximately), banking-Canadian Imperial Bank of Commerce, books, inventory/replenishing stock-work at home as well, books mainly, displays/promotions-coordinating team meetings, photocopying, design, coop student, and performance appraisals". Activities that involved working with students were, "OAC students, ISU (Independent Study Unit), raffles,

prizes, decorate for Careers Unlimited[6], and worked behind counters". The varied range and scope of the activities reflected in the project micro-culture the variety of events which occur simultaneously in the broader macro-culture of the whole school.

Project Activities for the Publishing Centre

The Publishing Centre was equipped with nineteen Pentium computers. The responses related to information technology, include, "visit to Kodak, Valentine Cards, set-up, programs, shirts, assisted in 'Mother's Day', t-shirt completion, encourage and motivate students who are part of the publishing club, helped decorate the centre with wallpaper."

Participant responses in the questionnaire, when they were asked to "list briefly in point form", captured a wide variety of activities. The activities they were involved in were particularly centre relevant and specific. For example, the career awareness activities took place in the career centre and the "replenishing stock" took place in the store.

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[6] Careers Unlimited is an annual event of the Industry Education Council, the Public School Board and the Roman Catholic School Board. Representatives from each secondary school and a staff member of the IEC plan the event. The year of this study, Career's Unlimited took place on Wednesday, February 21, 1995 at HS.

Similarly, a visit to Kodak was prompted by an interest among team members to investigate the possibilities and challenges in the installation of a colour photocopier in the publishing centre. This "visit to Kodak" by the publishing centre team was consistent with that team's focus on information technology and their working towards creating a publishing centre.

## Commitments Not Previously Considered

Participants were asked to list the activities in which they were involved that they had not previously mentioned in the questionnaire. The list, generally, was comprised of activities related to the functions in one of the centres and in which they were involved. Most frequently mentioned was an organizational aspect of an event they were involved in, which they mentioned in responses to question five.

Table 6

Extra Commitments/Involvements

| Focus | f |
|---|---|
| School | 13 |
| Community | 9 |
| Total | 21 |

School related involvements included, "assisted with financial aspect of project, i.e., purchase orders,

payments, special orders; talking to students in halls/lunch etc. about meeting dates, particulars about events; marketing unit in class, one week; a lot of running around; training peer helpers; teacher advisors and photocopying".

Community related involvements included and listed by participants include, "conferences, career related--Choices into action, Secondary Reform, Getting Our Heads Together, Dialogue- Ontario Secondary Counsellors' Association; Industry Education Council Career Centre-Career Nights and Career Education Development Committee".

Questions Which Should Be Asked

The final question on the questionnaire asked respondents to suggest questions that would fit with the study, which they considered important and hadn't been asked. The suggestions follow, "(1) Litzens-How does it fit with project? (2) How many students were involved? (3) What sorts of things could be done differently? (4) Evolved, feedback-how things were set up and how things were allocated and (5) Focus group with the publishing centre kids".

During the questionnaire completion process the school store team was consulting with Litzens, a sportswear retailer and wholesale supplier. The question suggested by a study participant indicates a general intent among

participants to readily connect potentially separate activities to the project.

## Summary of Questionnaire Findings

The first initiative in this study included the administration of a survey to 15 participants, (a) to collect demographic information, (b) to provide relevant background information on years of teaching experience and additional qualifications, (c) to tabulate the amount of time school staff participated on the project team and sub-team (d) to count the number of simultaneously occurring activities in the project centers and (e) to tap the participant involvements outside the project but still considered part of the school. This initiative showed the respondents had a total of 23 university degrees further enhanced by a total of 24 additional teaching qualifications as represented on their OTQRC (Ontario Teachers Qualifications Record Card). As well, the tabulation of total hours in Table 4 revealed that the time spent by staff in the first, and only year project implementation, was approximately 504 hours of volunteer time or the equivalent of an in-kind contribution of $80,000.

The principal's comment provides a contextual perspective and value to the quantitative data reported in

the tables. He describes how project team members worked together,

> Look at specifically what the project team is doing in terms of their own projects with the publishing centre and the career centre and the store. Now there is discussion all the time, how to improve and reach more people.

The concluding Table Six on the survey provided a listing of the number of simultaneously occurring activities, outside of team meetings, the aggregate of which was 68. The variety of activities mentioned was not surprising considering the variety of qualifications possessed by the team members. The 23 university degrees and 24 additional teaching qualifications possessed by the team members were further enhanced by years of experience in the profession which ranged from zero to thirty years. There was a general tendency for team members to work on an aspect of the project which correlated with their teaching qualifications and experiences. Specifically, team members with counselling and guidance qualifications worked on the Career Centre sub-team, and team members with business qualifications worked on the School Store and Publishing Centre sub-teams. However, as measured by the open-ended survey responses all team members demonstrated a shared commitment to the pilot project implementation process.

# CHAPTER 5

## FINDINGS: DESCRIPTION OF INTERVIEW COMMENTS

### Introduction

Four thematic questions provided the framework for the focused interviews. Findings are presented in the same order in which the questions were presented in chapter three and the order they were asked in the focused interviews. Question I dealt with the external context, Question II focused on the context of the high school (HS), Question III was concerned with the impact of the pilot project on the organization and Question IV had a focus on participant perceptions of continuous improvement and team learning.

### Part I: The Contextual Overview

Participants were interviewed to see how they felt factors external to the school context influenced the origination and subsequent development and implementation of the project. Not surprisingly, while comments centered

around a common theme, the comments reflected the workplace role of each participant. Because of the complexity of the information received, patterns were developed which evolved from responses. The patterns include: (a) federal government policy, (b) public and private sector shifts and (c) technological innovation.

## Federal Government Policy

Human Resources Development Canada originated the demonstration school-to-work projects on a national basis. The demonstration projects were described by a manager with the HRDC Toronto office, "as a tool in a larger strategy". The manager for HRDC said the projects were started as a result of concerns with, "Unemployment rate among youth and to facilitate the transition from school-to-work to integrate youth into the labour market". The member of parliament whose riding included the demonstration site which is the subject of this study expanded and outlined further the rationale for "the larger strategy".

> It seems to me that Canada is falling behind in its ability to turn students into workers and we are calling that problem nationally a problem of school-to-work transition. Funds were set aside to fund projects and people who are willing to tackle that problem in a very direct way, and engage students in a school or schools into some kind of an arrangement with local businesses...and say how can we equip these people to better make

> that transition...we are hopeful that we are being able to develop a body of expertise that if applied more generally would resolve this phenomenon.

The federal role was seen by both as "awareness and educating communities that there is a concern for school-to-work education and all the provinces have a large role to play". As well, "a national program", was described by the MP as, "adding to the cohesion of our Canadian society and could act as an equalizer of opportunity for Canadian young people and children across the country". Both the MP and HRDC manager expressed conceptions of teaching and learning, "embedded in policies themselves...implicit or explicit notions about aspects teaching and learning that are most reachable by policy action" (Knapp, 1997, p. 232).

The regional manager for HRDC described conditions of the current climate in public and private organizations, "uncertainty as a result of downsizing, deficit reduction, people aren't sure where and what they will be doing". The member of parliament described major shifts in governmental power between the federal and provincial government, "certain federal powers are being handed off to the provinces and it is understood certain provincial powers might be handed back".

Public and Private Sector Shifts

The HRDC manager, the MP, the school principal and the school vice principal provided responses to the question, "What is happening externally to the school to make a school-to-work focus relevant".

The vice principal connected shifts in global economic patterns to education:

> All the trade agreements that are set up continually emphasize the global perspective and the need for students to be trained. How a global perspective is incredibly important, how different languages are important, ability to communicate with others, work in teams, to understand how organizations in other countries work is going to be key.

The principal referred as well to the macro context as he provided a connection with the changing nature of work and the educational system he ventured into micro dimensions as well,

> The nature of work has changed so significantly that students who were once guaranteed work regardless of whether or not they were skilled are no longer guaranteed that work. The mandate that we had in education which was to essentially educate those going on to higher levels of learning has changed.

The vice principal illustrated a significant stimulus for change. She indicated that government was responding to business and industry in their demands for employability

skills for graduates.

> In government people continually talk about how we are paying a great deal for education and they question whether we are getting the quality of education for the money they are spending. At the same time they don't articulate what they mean by quality of education but they seem to imply that industry and business are not getting the high school grads, the college and university grads that they want.

Teachers on the demonstration project management team also made comments which illustrated their perceptions of the changing nature of work and conditions in private and public sector organizations. C referred to the changes that she perceived as holistic:

> It seems there is a whole change in business, government and industry which is demanding a lot more accountability of us and they are changing so quickly and downsizing and they are growing - it sounds like it is contradictory but there are things that are changing and new things are evolving and all those different things that are happening...

K, another teacher, described the nature of the changes more specifically in terms of the scale and complexity of current changes in public and private sector organizations:

> In my perspective I see so many changes going on. In the workplace in all different types of business whether it's industry or some sort of business itself or entrepreneurs or whoever but there are so many changes going on, downsizing, for example, changes just with job descriptions. People are taking on more but still having maybe that one portfolio and others. There are a lot of different things if you want specifics, amalgamations, companies and corporations; there's

> expectations for longer hours of work but for the same amount of pay, expectations to become life-long learners.

Another research participant, L, described in her view that it was important for teachers to be as informed as possible about the nature of changes taking place. L's comment focuses participant perceptions of those changes;

> Because of the drastic changes in the way business is being done today, it is very important for teachers to keep up with those changes. Any opportunity that we can send out a student to get the real experience as well as sending out teachers to get that experience, that is experience that can only benefit.

Participant responses reflected an awareness of massive changes in organizations. According to Leithwood (1995),

> Recent research in schools suggests that many phenomena have the potential to act as stimuli...the mandate assigned a "task force" is another example of a common, if not routine, organizational event which also serves as a stimulus. (p. 4)

James Burke (1994), in the Northern Telecom 1994 Annual Report: A World of Networks, wrote, "We are experiencing a transformational surge of innovation and convergence of information technologies"(p. 11). Burke (1994) further links technological innovation to education,

> The key to grasping the opportunities presented by the next information surge will lie in education. Only an educated electorate will be able to make informed decisions about the social changes that will be triggered by information surge in the next century. (p. 13)

## Technological Innovation

References to technological innovation and the necessity for schools to focus on technology were made by a number of participants even though no question specifically asked for comments about technology. The principal alluded to technological advances as the reason for the changing nature of work and pressure on educational systems for reform (For the Love of Learning, 1994).

> There became a general discomfort with the educational system in society. There are few who have truly the big picture and seeing why jobs are drying up and losing them. A lot of it is a result of technology. It's not that our kids are not prepared well enough; it is just that the nature of work has changed so significantly. That ties in with the fact that we are doing our kids a disservice if in fact we do not make them technologically literate. If you look at core learnings for kids now and the basics and the use of technology and the comfort with the use of technology becomes a basic for the kids.

K, a management team member, described the pervasive impact of technology on the workplace and, like the principal, emphasised the importance and necessity of students to be technologically capable. K makes a personal observation:

> As a co-op person who is out in business and industry, I see the technology they've got--some new technology that they are having to deal with. In some cases, it might be a computer place itself, and they are having to network systems for other companies. Not only do they have to be informed but they are informing other companies. I think in education we have to make sure our kids

> are prepared for all these changes; the constant change so they can handle it and they don't become stagnant.
>
> J: From what you just said, you think technology is really driving a lot of the changes?
>
> K: I think it is definitely. There are very few placements that I can think of that are not working with some sort of computer systems--whether its a stand alone PC or a network system in itself.

The principal attributed the current fiscal conditions in education to reductions in transfer payments. He also provided the underlying rationale for seeking the HRDC funding to acquire more technology as traditional funding sources from the provincial Ministry of Education and local municipal taxpayers were being significantly reduced or eliminated entirely. He also introduced the concept of partnerships. Specifically, the school would reach out to the community for support:

> I think we can't start early enough. Look at the curriculum that needs to be presented in schools and it must incorporate the technology and then you look at the cost of doing so and you realize that, at the same time, the resources that had been given to boards and to schools to educate kids are decreasing significantly. Therefore we have a conundrum. We have to educate kids through technology in order to prepare them for a world which in fact is going to be technologically rich, but we don't have the money to do so. Therefore we must rely on our partners in the community for this extra support which ties in the whole idea--who is really responsible for educating kids--and I think all of us are responsible.

Administrative support and encouragement was present to enter into the proposal-writing process to acquire funds to purchase more technology and create related educational opportunities for staff and students.

## Part II: The Organizational Context of the School

Participants' perceptions of why they saw HS as a potential viable site for a pilot school-to-work transition project was the focus of the second line of inquiry. Responses clustered around the following three themes, (a) Administrative Philosophy: The Mission, Goals and Organizational Design, (b) Interface with the Community and (c) Information Technology.

### Administrative Philosophy: The Mission, Goals and Organizational Design

The appendix of the original proposal submitted by HS to HRDC on June 8, 1995 contained documents which were prepared by the principal to illustrate the administrative philosophy and framework of the school. These documents were prepared for use with the parent advisory council, the school staff and for presentations with other organizations. The documents are: (a) School Advisory Council, (b) Exit Outcomes for all HS graduates and (c) HS School Organization

and Key Processes.

In the interview with the principal, he offers an administrative philosophy that envisions an organizational environment where the expertise of staff is tapped and utilized in a whole school context. The principal had the opportunity to design a new school. His opportunity included all facets of the organization, from the design and construction of the physical plant to the organizational design and philosophy around which the operating principles would further evolve.

> J: When you were thinking about this and your own perspective, when did really start thinking about the learning organization (Senge's work) and Deming's work and Margaret Wheatley? How did that happen?
>
> P: It is interesting because I think I have always had these beliefs about what it would look like. It was really based upon relationships and high expectations for kids and enough structure so they felt comfortable within it but opened up so they could as far as they could go. All kids and staff could go as far as they could go. They were treated respectfully and all those things, then basically I looked for a model that I could use to frame that. I started to read more and more about organizational theory and started to synthesize a lot of the work of the theorists, the model just kind of came to be. There are parts of Deming's stuff that fit in and there are parts of Senge's that were applied and Wheatley's in terms of the strength of relationships. That's how all that came to be. It worked almost like outcome-based learning. This is what I mean. I had a good idea but I didn't know what it looked like. Now how do I frame that in a way that people might understand it, we could put some processes in place. It really is a process driven system. It just naturally made sense.

Examples of administrative philosophy contained in the practices of the organization are illustrated by comments from the vice principal and staff members on the project management team. The vice principal outlined the impact of the creation of process areas instead of traditional subject departments. The impact is seen when opportunities are available in the structure of the organization to provide opportunities for people to be involved in innovative activities. As the principal commented, "All kids and staff could go as far as they could go". As well the vice principal outlines her perception of the impact of key process areas,

> J: What...what in your opinion, makes HS as a school, an ideal site for something like this Human Resources Development Canada Project
>
> VP: I think one of the things that happens when you have key process areas is that you don't have the traditional subject barriers. You don't have the traditional ownership of resources, and some of the ideas about curriculum. People at HS think schoolwide. They think process and because that is the thinking, that is the approach to things that allows many people to contribute to a concept of a project. The goal of the project is a school-wide goal. What people do is, they look at the goal and they say: these are skills that we have that we can contribute, this is energy, this is time, this is expertise that we have. It's not necessarily subject based. That leads to a much more fluid movement, a lot of cross fertilization, and a lot of talk on a professional level. I think that is something that happens at this school that may not happen to the same degree in a lot of other schools.

The principal responded to a specific question about the appropriateness of the school as a site for the HRDC pilot project. He relates the organizational context to the concept of sustainability of an innovation. A specification in the School-Based Youth Internships call for proposals from HRDC, and a component of the HS proposal in response, was provision for continuation of the project initiatives after the termination of the project and funding. The principal provided an overview of the organizational context which would not only support of the proposal's promise of project sustainability but added that the learnings as a result of the pilot project would become a natural inclusion in the culture of the organization.

> J: What do you think has been happening here that makes HS a convenient site to look at school-to-work transition?
>
> P: It is an absolute fit with HS with our graduate outcomes. We are preparing our people to be confident and ready to move, so I mean it is part of our reason for being, and part of what we all believe in.
>
> J: What are some specific things you felt made the site particularly appropriate for the HRDC project.
>
> P: One of the downfalls of projects is that they have been projects that are finite. They don't have a long term effect. They don't integrate with other aspects of the system which they need to be integrated in order to have a long term

> effect. I think that is what made HS appropriate because everything we do is related. We couldn't bring in a project and have it function as a self-contained unit because that is not the way we function. It would need to have a lot of involvement of staff therefore to permeate the organization, and have an influence on the organization and kids in a way that an individual project would. I think that's the long term benefit.

Interface with the Community

The requirements of the HRDC call for proposals specified that schools provide connected learning work-oriented experiences for students, "Proposals under YIP should...stipulate the provision of developmental work/study experience for secondary students" (Youth Internship: School-Based Stream, 1994). Even though an expectation existed that connections with the community would be formed and developed, a school-based project has to start somewhere and that place is the school. An example of school-based project similar to the study pilot project initiative outlined in a Youth Employment Strategy: Backgrounder (1997, February) describes how students were involved in a relevant, authentic and experiential learning in the school,

> Grade 11 students will be involved in all concepts of the planning, preparation, and production of a TV show including lighting, filming, set design, editing, writing, producing and directing. (p. 24)

The research study project was located in a school where

even before it was built had community involvement,

> HS does not exist yet, except on plans drawn from hundreds of hours of discussions among students, teachers, parents, community members and, especially, in the mind's eye of principal-to-be....(Mawhinney, 1994, p. 101)

During the interviews participants commented on the community focused orientation of the school. However, the school's interface with the community was more as a result of the principal's work with the community and parent advisory council than with the developing cooperative education program and school-to-work project initiatives.

A member of the parent advisory council commented on the school's dynamic nature of existing connections with the community:

> One of the main things that make it more receptive as a school, it is a community-based school. It is taking time to look around at what is topical and needed. Because of those changes we mentioned earlier, the school is saying these are things that students, parents and business people and everyone is saying we need and want and therefore we need to address them. That's made them as a school much more receptive and open.

The teachers on the management team also were aware of the existence and importance of connections with the community. In responses they specifically mentioned community even though the question was very general. They expressed the feeling the community was part of the school and the school part of the community.

> J: The next question is about HS: What is it about HS that you feel makes it a good site for this kind of a project?
>
> G: We feel that the community needs to be involved with the school and the kids. Therefore the community plays a major part in school, and of course we have our parent advisory committee to help.
>
> J: Yes.

Participants did mention specific school/work oriented programs but their emphasis tended to focus on the school's philosophical approach to community rather than the specifics of any program,

> G: One of the things we feel is important as a school on a whole is co-op and giving students some skills they need for work. As a result of those things, we have a number of partnerships in the community. Actually, the community feels a part of the school because we ask for their input and also we ask them to help us as well. Well, the project in particular....
>
> L: Because it is a school that's very interested in the community and the community is an active part, is aware of what is going on. So it works both ways, to serve the students and all of us. The whole picture can only be better because of that.

This participant's comments about school/community relationships indicated the extent to which the culture of the school already supported beliefs about the community and school interface.

Information Technology

A significant feature of the HS is technology. Management team members referred to technology recurrently, even though technology was not specifically raised in the question, and the question was not asked exactly the same each time.

> J: What in your opinion makes HS as a school an ideal site for the school-to-work transition project?
>
> G: We are really fortunate to have a new building and a new facility, equipment and technology, the computers and so forth. We have been fortunate to be updated so that we are closer to what businesses have than some of the other schools. Just with the internet and computers and we are already part way there.
>
> J: The next question has to do with HS itself as a school, the factors, the elements at HS that make it particularly attractive for the project, and for the school-to-work focus in the school. Maybe just a few thoughts about why HS is a good site?
>
> K: It is an excellent site, fortunately because we are a new school we already have the technology built in. We have (network) ports in every classroom including the food lab. We have the technology here, and each year we seem to be upgrading the technology so the kids are keeping on track.

The comments reflect an awareness by project team members of what is happening in a global community, "We are in the midst of a digital revolution that promises profound change. Enabled by technology, these changes result not

only in new learning concepts, but ultimately in systemic and cultural changes in our educational institutions (da Costa, 1996, p. 2)". The members of the project management team personalized the impact of technology to their HS context in their responses.

## Part III: The Impact of the Project on the Organization

The original HS proposal for the project portrayed the implementation and development of three centres as a focal point for the demonstration project within the whole school personal and career counselling plan. Specifically, the proposal identified, "the establishment and use of the following facilities located in the street area or main concourse of the school: (1) The Cooperative Education Office and Career Centre, (2) The Store and (3) The Business Office and Internet Publishing Centre" (HS Proposal, 1995, p.1). The program which would be developed for the centres was described in the proposal as well: a program that "focuses on school-based enterprise which connects theory, practice, and activities that infuse entrepreneurial skills, multi-media and electronic publishing skills, educational planning, and career awareness in the curriculum" (HS Proposal, 1995, p.1). Therefore, the framework for the

project implementation and development was already in place prior to the formation of the management team. The task of the management team was to implement and develop the promises of the proposal into the practice of the organization.

In-school project management team members, who were volunteers, were asked what stimulated their interest in involvement, and what they actually did, both on the management team and the sub-teams, which were centre-specific. Participants described the project related activities they were involved in. The following patterns evolved from project members' responses describing personal involvements: (a) Project Centres: Development and Implementation Activities, (i) The School Store, (ii) Career Centre, (iii) Publishing Centre and (b) Project as a Catalyst for Change.

As the project centres were focal points for the project sub-teams, responses clustered around activities in the school store, career centre and publishing centre.

## Project Centres Development and Implementation Activities: (i) The School Store

The school store sub-team responsibilities included preparing the school store for operation. As members they decided one of the tasks was to institute a school store

student team that would conduct the daily operation of the school store. To replicate business hiring practices they asked interested students to apply with a letter of application and resume. Therefore, management team members were instrumental in developing and implementing a letter of application and resume writing activity to solicit school store student employees.

> VP: The school store also was essential to providing leadership opportunities resume writing interviewing skills because it was a mini-business within the organization.

The activity then became a whole school focus through the teacher advisory group structure.

> J: As far as the resume writing workshop, did that start at the Personal and Career Counselling meeting or the project meeting?
>
> K: That started at a project meeting. I think at a management team level, it was mentioned. I know it was a result of the school store hiring kids for the school store. I think we said at that point, why don't you have the kids do a resume and cover letter, everybody said that is a great idea and that should become standard practice. Well, if we are going to do that, every student in the school should know how to put a resume together, and how to write a letter of application and cover letter. That kind of snowballed from there and John and I took it upon ourselves to volunteer to coordinate that, deliver it to advisors at a staff meeting so they could deliver it to the kids in their teacher advisory session.

Project team members who participated on the school store sub-team further expanded and described their activities. The interviews followed directly after

questionnaire completion and the estimations for time spent on project related activities was illustrated further in the follow-up interview. It became apparent that the students were encouraged and supported in the organization and day-to-day operation of the store. Participant responses indicated a congruency between what actually happened and what was stated in the signed contract between HS and HRDC. "participants (students) will acquire entrepreneurial skills through being responsible for the development, establishment, and operation of the Retail Store" (HRDC contract, 1995, Schedule A).

> J: Tell me a few things about how you have been involved. I know we already mentioned some things in the questionnaire...
>
> KB: There were about five teachers that were involved in the school team. We worked about two shifts per week. Basically you go in, supervise, help out mainly with the students. It was neat to see how the student's took control of the whole deal. They were making out signs, what inventory was low, what we would have to reorder and that was on a daily basis. They go through this. They made forms they would have to fill out. They suggested, before we even started anything, a system of them making orders and coming here and placing them, calling. They sort of started everything, it was just amazing to see. So it's just impressive to see what some sort of responsibility or trust that you can give somebody. What a difference you can make.

The curriculum expertise of the staff was tapped to provide authentic experiences for the students. Team members expressed an awareness of other staff member's

curriculum expertise and were creative in making connections with the project centre, the team member and at the activity to meet the needs of the students.

J: Who taught them about the money?

KB: We had a training session. What happened was when we found that students were having problems sometimes understanding if an error would mean the cash was short or over. We had another training session where we would do scenarios to help them figure out. That was G's idea. Being a math teacher, she said, "Let's go through some problems". That worked as well. We gave them different scenarios and then they figured it out. Things just gradually evolved like when we noticed a problem.

An emphasis in the school is cooperative education as the final stage of an educational and career awareness continuum. It was recommended that all students in the school choose cooperative education during the option sheet process as part of their grade 11 or 12 year. One of the participants commented, "We had a co-op placement in the school store."

One of the contractual "expected outcomes" stated, "participants (students) will acquire the necessary skills for entry level positions in...customer service" (HRDC/HS, 1995, Schedule A). During one of the interviews it seemed appropriate to ask the question, "Have any of the kids got a part-time job because of their experience (in the school store)?" The question, which probed the aspect of connections between school related learnings/activity and

work, became apparent:

> KB: That's interesting. A student was actually going on a number of job interviews. He was so excited just because of some of the things he could put on his resume as a result of the experiences in the store. He put assistant manager, did a lot of inventory, stock and that sort of thing replenishing stock. What else? Scheduling. Like it's impressive. It takes a lot of work because some of the students have really put in a lot of time, almost every lunch. He was much more confident going in because he could actually talk about real life.

Project Centres Development and Implementation Activities: (ii) Career Centre

The original HS proposal to HRDC specified that, "learning outcomes related to...career education will be developed (HS, 1995, p. 1)". The proposal also stated that, "this program is to facilitate the definition and creation of clear opportunities to further education and/or work for students" (HS, 1995, p. 1). One of the three sub-teams, called the Career Centre team, assumed the responsibility for developing and implementing activities in the Career Centre. The Career Centre team helped prepare for the Industry Education Council Career Fair on February 21, 1995. The Industry Education Council is an organization which involves both the public and separate school boards as well as number of businesses in Halton County. Participants described activities with a macro and/or a micro focus. They

outlined how the career centre team and their focus on career awareness involved the whole community.

> G: I think that the Career Centre also pulled people together, people in the community. We had career fairs that brought a lot of people together. People could see what we have here and how we are using it.

Team members also described how valuable the career awareness focus was for the students. G, who has a background in Guidance, commented, "In addition it has been invaluable for some students who are trying to make decisions about what they want to do, and informed decisions using some of the programs that we have".

The impact of technology was once again apparent in comments by the sub-team members, even though no question was asked about technology specifically. As well, team members indicated that opportunities were initiated for students who would not have otherwise been successful. Sub-team members stated that the combination of a career awareness focus, the availability of technology and the curriculum expertise of the school staff provided opportunities for students:

> The students who were selected for the career part of the project (had access) to technology and information that they might not have had the opportunity to have. In fact that course, they wouldn't have had a credit, in that course if we didn't have the project.

The sub-team also made comments that demonstrated an

awareness of staff development. Members saw the career centre as a location for providing learning opportunities for teachers and then students.

> ...that the career centre came about because of the project because of the ability for us to use people resources, hardware, software and set up a centre that we could then use to train teachers and then train students.

Career centre team members also described how the HRDC/HS demonstration project altered their approaches to the delivery of a program for students. The career centre was designed with sections which focus on aspects of educational planning and career awareness as determined by input from management team members. Sections include (a) universities, (b) colleges, (c) workplace and (d) resources.

> C: The resources are all nicely put together. When you are putting together an assignment for the kids, you are thinking about the computer kinds of things they could do, besides just the career information. We have been able to have in place various computer things, the internet and all the programs that are there. We can invite the kids into the career centre and they can explore individually, and we can help them where they want to go. In the past it would have been more teacher led--and they take it and listen or not listen. This way you are able to let them go and work on that more. So they thought it was a lot better.

## Project Centres Development and Implementation Activities: (iii) Publishing Centre

In the initial HS proposal, the Publishing Centre was

called the "Business Office and Internet Publishing Centre" (HS, 1995, p.1). To be consistent with promises made in the proposal, 19 Compaq Pentium (Intel) computers were purchased for the publishing centre. A phrase in the body of the proposal provides the framework for the subsequent activities the Publishing Centre sub-team were to develop:

> The provision of graphics computers will allow our students to assemble internet publishable documents, as they have the opportunity of become content providers in the exponentially growing field of multimedia communication and network management. (HS, 1995, p.1)

The framework for technology mentioned in the HS proposal was not repeated in the HRDC/HS contract, other than to mention that "facilities such as the information technology centre are available to the students and community" (HRDC/HS, 1995, p.1).

Participant comments, when talking about relevant skills for the workplace, tended to connect to technology. There were references to the importance of the acquisition of technological knowledge and skills for both the teachers and the students.

> L: The publishing centre is also extremely important. We were able to get that up and running and begin to see some of the students skills start to develop. They could see that this is the kind of state of the art hardware and software that is in the workplace that we need to become familiar with.

Team members also facilitated an event with students,

where the students assumed a leadership role in an entrepreneurial activity.

> S: Within the school we set up a couple of little projects like the publishing on t-shirts, this type of thing. This was a work team that actually did this and it was headed by students. Students took responsibility for the leadership, for generating clients, and actually running a little mini-business around a couple of situations. That was really important.

The Publishing Centre sub-team also expressed comments which demonstrated how they used their teaching and curriculum expertise to provide school-based activities for students. These activities, according to team members, prompted the students to really think about further educational plans and directions.

> L: I also think that having an opportunity to run a few students through an integrated package that had them actually working in the career centre and publishing centre doing some work and visiting different workplaces and having some speakers come in was essential as well. It compelled some of them to take a long hard look at what they were doing in school, and how they were using their time. This was happening at a particular crux in their lives so they could make a decision about moving forward or moving out. I think that was very essential and allowed them an opportunity for a semester of some really good personal growth and development through this project.

A copy of the minutes of the Publishing Centre Meeting on April, 2, 1996 reflected the intent to provide relevant, contextual, authentic activities for students. The educational objective of the HS proposal (1995) stated that students would be encouraged "to take the responsibility for

their own learning" (p. 2). The minutes of the Publishing Centre meeting on April 2, 1996, supported the objective of the proposal:

> ...students participated in a small scale test project for the publishing centre...students designed posters for small local businesses and bands...students liked the idea of their work used in public. Local business and bands were quite enthusiastic as well.

Similarly, the second project was a "t-shirt sale event" for 'Mother's Day'. The sub-team, along with students, organized and produced t-shirts using the equipment in the publishing centre. The advertisement to the staff of the school and daycare centre said, "Photos of your kids, your pets, or your own sweet smilin' face on a t-shirt". To produce, students had to learn how to use the scanner, computer, and ink-jet printer. Project related activities in all three centres were congruent with the integrity of the commitments and outcomes specified in the proposal. However, there were challenges which had to be dealt with on an individual basis and among team members. Change and learning has been described as "messy" that forces people to work together through "trouble" (www.fastcompany.com, 1997, p. 2).

## Project as a Catalyst for Change

The intent of the demonstration projects was to provide

some field sites for further investigation into school-to-work transition for youth. Evidence of this objective is supported by the HS proposal and the HRDC/HS contract. Specifically, both the proposal and contract reflect the integrity of HRDC policy in an application context. "The institutional and normative framework in a given polity sets the limits within which state and societal actors take initiatives" (Pal, 1992, p. 109).

One of the Human Resources Development Canada goals, according to the Ministerial Task Force on Youth (June 15, 1996), is to work "in active partnership with provinces, the private sector and young people to enhance youth job opportunities" (p. 1). The HS proposal reflected the school's interpretation of the HRDC goal: "The intent of this program is to facilitate the definition and creation of clear opportunities to further education and/or work for students" (p. 1). The HRDC/HS contract included an agreement to provide for students, "A structured pathway from school to work or to further education through continual development and attention to action plan development" (schedule A).

The principal articulated a perspective that linked the goals of the project to what actually happened in the organization as a result of the project. A focus on career awareness is consistent with one of the exit outcomes for

all HS graduates: "Makes career plans based upon an understanding of self and societal needs" (HS, 1994). He saw the project as being a catalyst for change in the context of staff development and learning around activities to enhance student opportunities to be involved in activities. His perception was that all staff, not just project staff, were now aware they should be involved in supporting career awareness activities.

> J: Do you see the project has been a catalyst for change and integration?
>
> P: No question. I think at a number of levels for staff, the number of people who have been through the project have come to grips with the understanding that career planning for kids is an integral part of their work and job.

Also, the vice principal felt the project was critical to the implementation of a school-to-work focus across the curriculum. In her response she outlined that the project was a catalyst in terms of time but also in terms of some of the activities even happening at all. She referred to connections that were established with the community that wouldn't have occurred. She also mentioned authentic learning activities now seen as significant components in the development and delivery of meaningful curriculum. The school-to-work focus of the project necessitated a discussion and development of authentic, relevant and work related activities for students.

> J: The next question is the project in the school. From your perspective has the project itself been a catalyst for other things in the school? What happened that wouldn't have happened if we didn't have the project?
>
> VP: I think there are a number of things that have happened that certainly wouldn't have happened in such a timely way. It may have been about three or four years down the road when some of these things would have gotten off the ground. The fact that we were able to bring other teachers from other boards through this and demonstrate some of the programs to them as well, is planting seeds for them as it reaches beyond HS. We are trying to do that constantly with the formation of this school, we are trying to reach beyond this school and try to effect some change or shake up the establishment in a way so that people will think, "Why are we doing things this way; is there not another way we can do things"? To have the Career Centre was very important and was another way for us to reach out. The issue was, "Ok, what are we going to do in order to make school more authentic in order to provide a transition which will augment co-op and a lot of the other things that traditionally we have been doing?" Although we are trying to do them in a non-traditional way, I think that these things have been very important. These things wouldn't have happened without the project.

Management team members expressed opinions which demonstrated the connectedness of the project with the subjects they taught as part of their teaching assignment. As the questionnaire responses have already revealed, management team members tended to gravitate to the project sub-team which was more closely aligned with their teaching qualifications. The business teachers tended to be involved in the school store and the guidance/cooperative education

qualifications tended to be on the career centre sub-team.

> K: I believe there is a fit and it will only get better once we've sort of had it going on for a while. In terms of learning and relating to the classes, their [students] courses, mainly business I would say just because of some of the things with the school store, the career centre--it's a life-long preparation for the world of work. I think it has been truly amazing. It does fit in with what you learn with the classes and the marketing and that sort of thing.

Team members referred to the number of students who had opportunities to visit the career centre. These team members then connected the experience to the portfolio process which was part of the on-going advisory group continuum of work from their entry into grade nine and on to graduation.

> S: We brought students through the career centre and had them run through their youth program. We knew we wanted something like this to happen as part of our portfolio process with our advisory groups, but whether we would ever get it to happen in such a formalized way, in such a short space of time, was very doubtful.

The advisory group structure provides students with a teacher advisor. This connection is particularly significant because it provides for students, "...to be known by one teacher who has a commitment to their on-going welfare and progress" (Royal Commission on Learning, 1996, Vol. II, p. 92). Comments also indicated an enhanced awareness of the project activities with respect to graduate outcomes for all the students in the school.

> We have been able to do that and now we can build this in to the whole process so our graduates will come out of HS knowing much more about career search engines; what it is specifically they are interested in; where it is they would like to work; kinds of skills that are necessary. They'll be more focused in their future education as a result of that.

**Part IV: Perceptions of Learning and Continuous Improvement**

Drucker (1972) compared the concept of the purpose and nature of learning which prevails in the West with those in China in the Confucian tradition and the Japanese concept called [by Drucker] the "Zen approach" (p. 248) [to learning]. The Western approach and Confucian tradition state "within a certain period of time the student reaches a plateau of proficiency where he then stays" (p. 248). In the Zen approach, "while there is a learning curve there is no final and fixed plateau. Continued learning leads to a break-out, that is, to a new learning curve, which peaks at a new and higher plateau, and then to a new break-out"(p. 248). Senge (1990a) reiterated the concept of continuous learning when he described,

> ...learning organizations [as] organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together. (p. 3)

Within the context of responses to question IV which dealt the concepts of learning and continuous improvement, participant responses were clustered around groups of participants themselves (a) Students and (b) Project Team Members.

The HS principal's direct reference to the work of Senge and his conceptions of a learning organization explain the administrative philosophy around which the school was designed. The principal's specific intent was to break down the traditional bureaucratic layers and barriers in order to tap the talents of the staff and students. He believed that the work of Deming, Senge and Wheatley provided the conceptual framework to achieve these new organizational goals.

> I believe in strongly, at a macro level, conceptually as many connections as we can possibly make, benefits those who are involved. It demands higher levels of thinking. We can all function in very concrete specific unilateral fashions and we often have in the past; however, that is not the way the world is anymore. The type of organizations you need in order to bring those experiences to fruition--well you don't need a highly compartmentalized organization, you need an organization that reflects your beliefs. Therefore one that is much more ambiguous and demands the most of relationships in order to function effectively, but models the behaviours that you want to see in kids, that ensures people must interact and must understand the connections in order to be successful, is an organization that bodes well for the learning work that must take place in the school, in preparation for the kids.

> It was from there that became a basis for the adoption of a lot of the quality principles and Deming's work and Senge's work and the nature of the learning organization, the constant reflection on what we are doing and the adjusting all the time, involving more people in the process, and Wheatley's in terms of strength of relationships so that's how all that came to be.

A member of the parent advisory council commented on the innovative nature of the organization:

> Well, I think it is the timeliness of it but I [also] think it is the people. I mean the school could have opened and said we are going to be a school like everyone else. It is the leadership that said this school is going to be different and so on. We don't know maybe that leadership in a school that was ten years old would be looking around and saying we need to change with the times, I don't know that, but it made it a lot easier that it was a new school opening at this time.

Members of the project team referred to the administrative philosophy, and felt it permeated the whole school. At the same time the concept of a team was included as an integral way of working. G, a teacher on the management team, commented:

> The teachers were hired with a particular philosophy in mind so we have the same philosophy, and are working together as a group as opposed to working against each other.

Members of the project team also referred to the administrative philosophy related to their own classroom contexts. Their comments reflect that the demonstration project is not just an add-on and separate from all the other things in the organization but a natural part of what

is happening as teachers work with students.

> B: Fortunately, when you are in a new situation that you are hired for what you believe, and so we have a team of people a team of forty educators that believe in this being important and teach that way. We infuse that kind of thinking in their everyday classroom experiences. This isn't kind of a lay over program its part of what everybody does everyday, it's just a natural way of life here.

The vice principal described her perceptions of the way staff members were working together. Her comments reflect the philosophy in action. Specifically, opportunities are provided for people to work on a team where they work collaboratively, strategy talk and problem-solve around issues and share in decision making.

> VP: The collegiality here is not forced and the people can talk and support each other. They meet around particular issues--systems issues or processes. They come to the table with a clear agenda and not hidden agendas that are rooted in subject or territory or that kind of thing.

The same ways of working were transferred to the students. Student teams were organized to run and participate in authentic and relevant learning activities for the three centres which were the focal sites for the demonstration project and the subject of this study. Authentic learning activities provide opportunities for students in, "exploring, experimenting, creating, applying, and evaluating their ways of learning, as well as

interacting actively with the content and concepts they are studying (Guild, 1997, p. 31)".

Student's Perceptions of Learning and Continuous Improvement

Focus group sessions were held with the students involved in the school store and career centres. A small group of students who worked on a project related to the Publishing Centre were interviewed. The sessions with students followed after documentary information from the minutes of meetings, memo and letters had been read, and after the questionnaires and focused interviews with the management team members had been completed. Prior to all communication with the students, I had information from staff and a documentary perspective about the scope and nature of activities for and with students.

The literature review contained information about school-based learning, work-based learning and connected learning (School-to-Work Opportunities Act, 1994). The issue of connected learning is particularly significant because this is one area seen as needing significant improvement. The focus of connected learning is "to integrate academic and occupational learning, and establish effective linkages between secondary and postsecondary education" (School-to-Work

Opportunities Act, 1994, p. 108 STAT 576). The need to provide for connected learning was recognized in the HRDC/HS contract. The HS proposal made a commitment to the integration and connection of school and work-based learning: "The process will integrate education, experience and employment for our students" (p. 1). Therefore, in the sessions with students an attempt was made to continually deal with the aspects of the project which provided for "connected learning".

Members of the school store team said they became involved in the school store because of a class project, a friend's influence or a personal desire to learn what they perceived as a work related skill:

> K: JH and I started last year with the accounting part of this, our accounting OAC. We had to do an audit of the school store and I got interested that way and this year we came back and did the management of it.
>
> JH: Last year K and I did an ISU (Independent Study Unit) in accounting, an audit in the school store so that brought us into the school store and then this year we came back and that's how we got involved.
>
> E: I got involved last year when a friend of mine joined so I joined too.

The students also explained they chose to work in the school store for potential work experience opportunities and future possibilities:

> K: That's one of the reasons I first joined myself, originally. I first joined to get the

> cash register experience and use it on a resume. I thought it would look pretty good. Now the leadership and management stuff is even better. Helped me a lot actually.

The interviews with the management team members revealed that the cover letter and resume writing process was transferred to an across-the-school activity. As a spontaneous initiative of the project management team, two team members presented a session on writing a letter of application and resume to the whole staff at a staff meeting. The staff, as teacher advisors, were then able to deliver the information to the students in their advisory group. An excerpt from the Wednesday, October 18, 1995, Advisor Session Memo show how the activity originated in the Project Management Team and was transferred to the whole school:

> It is the first concrete example for kids of something to include in their portfolios and reflects parts of curricula traditionally taught in a number of courses. It meets the needs of kids ready to apply for positions at the school store using their resume and is an example of the kind of application process we wish to include for student involvement.

The students in the group said they found this a very valuable activity not just for themselves but for other not involved in the school store. L illustrated the importance of knowing how to prepare a letter of application and resume "for anything".

> J: Did you write out a cover letter and resume when you went to apply? How did feel about doing that?
>
> L: It was good practice just to find out. Well, I think I had written a resume before, but just for another student to find out how to write it properly and a cover letter. You have to do that for anything.

The students also said they felt the experiences from the school store helped them get a job. They were also aware of and illustrated further the importance of having a complete resume:

> J: Do you feel working with the school store, gives you much more confidence when applying for a job?
>
> L: Yes, because instead of just leaving a section blank in a resume or not filling it up very much--you are able to say you worked in the school store, served customers, and stocked shelves things like that. You also have basic knowledge of the cash register too, so that can get you a job almost anywhere. Having references from the supervising teachers is better because the employer can find out how you were as an employee in the store.

In an additional question which probed the concept of connecting school-based learning directly to work yielded more detail about what the students thought and how they felt.

> J: Can you tell me a little more about that? I know we talked about it the other day. What I'm interested in is talking how practical activities in the store can connect to work, like real work.
>
> K: In the ISU [Independent Study Unit], we had to audit the school store and check the books. Miss B had done the books. She had done a spreadsheet

of all the sales, invoices and stuff and a list day-by-day. We had to look at it, journalize, check it and make sure everything was ok. We made any corrections that we saw fit to make, to make it balance, then all the financial statements and a report to the store [management] team. We got a chance to get in and see what the store was doing, what it looked like and got to know some of the people--Mrs. E, Miss B and yourself.

J: Did you do a report at all? How long was the report?

JH: We did a presentation to the school store team and to Mr. F, Miss B, Mrs. E.

J: What were some of the things that you said?

JH: Get better cash control procedures. K: Yes.

JH: Petty cash fund.

K: Recording cash over and short. A lot of things were kind of...

J: Do still have a copy of your report?

K: It wasn't really a written report. It was a presentation. We had an outline for a presentation and that is about it.

J: Is there anything that gave you some opportunities to connect with actual work? An in-school project that connected to work?

JH: In the school store you deal with very demanding customers. That is the same thing that is in real life. You have to make sure you will have things when you say you are going to have things. I guess when you are in small business you are at the mercy of your supplier. It shows you have to rely on lot more people than the people that are just working (in the store). You have to rely on a lot of outside people as well.

As the students talked about demanding customers, their comments prompted me to ask about demanding employees,

intentionally referring to their peers on the school store team. In additon, the team expressed an awareness of the number of people involved in a venture beyond the actual employees. The focus group format encouraged a two-way exchange of probing questions. JH's comments about demanding customers provided an opportunity to introduce interpersonal skills into the focus group discussion. The HRDC/HS contract refers to the "Employability Skills Profile: The Critical Skills Required of the Canadian Workforce" developed by the Corporate Council on Education, a program of the National Business and Education Centre (Bloom, 1994, p. 2). The contract states specifically, "Employability Skills developed by the Corporate Council on Education and the Conference Board of Canada will be integrated into this curriculum" (HRDC/HS, 1995).

The next question was asked with the intent of pursuing the interpersonal skills as outlined in the guide. "You talked about the demanding customers, what did you learn from that, or demanding employees?" The students responded initially by describing the specific tasks they were involved in and people just happened to be there.

> JH: There are some people and they buy the same thing every day and they always want that thing in there. If its not there, they are going to ask you when it will be. You have to tell them when it is going to be in and it better be in that day because you told them it is going to be in that

day. Things like that.

J: Customer expectations then?

JH: Making sure that things look nice, nice displays.

As the conversation appeared to be evolving into a focus on interpersonal skills, I purposefully introduced a further discussion topic and connected the discussion with their perceptions of a workplace. "In terms of the interpersonal skills, would you say that is reflective of a real work place" (Store Team, May 15, 1997)?

J: K, you were going to mention demanding employees?

K: Just the whole management aspect of it. I did the scheduling for the first few weeks. I did the scheduling part of it and it was interesting trying to make everyone's needs looked after--when they were available. People got mad and stuff. Just keeping employees, people are working together like a pretty good team I thought. The whole management part, managing the store, doing the scheduling, making sure everyone is there, talking to employees, discipline and trying to fix problems people aren't there etc. and keeping an order.

As the discussion appeared to evolve with a focus on two skill areas--task oriented skills and interpersonal skills I pursued the job specific, task-oriented skills with the question, "What has been the most valuable learning for you from working in the school store that makes a connection to the workplace?" (Focus Group, May 15, 1997). The students responded with skills that had an interpersonal

skills orientation. One of the students connected her experiences in learning how to deal with people to helping her with her sisters.

> E: Dealing with people. I found that after I've been working at the school store I can handle my sisters a lot better so it doesn't always erupt in fights, us hitting each other. I'm sort of the peacemaker. I'm always talking instead of fighting and that helps.

We started talking about specific job skills but the students responded simultaneously with references to working on a team and interaction with others. They saw the experiences and skills that they were learning in the school store as connecting directly to the workplace.

> JH: Working a team, on the management team because that's what you do in a lot of businesses. You work in a team and that is one thing you have to learn how to do. We started doing that right from the beginning.

One of the students made a summary of the discussion but also added a comment that indicated the students had the opportunities to use their initiative and take risks, "find out what works and trying to get people to work, how you can motivate them" (Focus Group, May 15, 1997).

> K: Working with people and managing people working in the store helps a lot--but for all jobs the management and the interpersonal stuff is in any kind of job. [You have to] find out what works and try to get people to work [by learning] how you can motivate them.

Students also referred to their experiences in the

school store as helping them get a job and also helping them in a part-time job they already had.

> J: Did it help you at all with a job you are being paid for?
>
> JH: Dealing with customer complaints in both my jobs. It happens and you have to know how to deal with it. I learned through both jobs, working in the store and working at night, in the paying job. Both overlapped and working with people in general--important things.
>
> J: Your new job?
>
> K: In a way, it was just the way I was able to talk to them. Fact is talking to the teachers and everyone else, the interpersonal part there. I guess the way I put myself across probably helped and of course it was kind of original the way you have to run a store. It is a good experience. I think he recognized that. The skills in terms of that and the accounting I was doing for the store, helped quite a bit.

Specifically, in the interviews, the students revealed that their experiences in the school in authentic tasks initiated some very relevant, connected learning, learning which connects educational experiences in the school directly to the workplace. Unless the specific question had been asked in the focus group this information and insight might have remained hidden.

The students also made some suggestions for improvements and recommendations for the school store for the next year's team. The comments also demonstrate the element of sustainability of the project. Whether or not

the funding is available, the school store will continue and the school store team will evolve. As well, a connection to the philosophy of continuous improvement is drawn, "involve the front line people in matters which affect them" (Deming, 1986).

> K: If we had done the whole team building thing earlier it would have made a difference. It not necessarily would have, but to work together as a team you have to be a team. Maybe for next year [we could start] doing some team building exercises, or something like that. We are not naturally friends outside the school store; we don't always do social things.
>
> J: Next year we should start with team building activities. Would it have helped you get things going faster, had you done that?
>
> E: Yes.
>
> L: To make the connection between the management team and the store employees better and faster, but be sure it's not any of those cheesy things they do in class the first day of school.
>
> J: You want sophisticated team building activities?
>
> E: Yes.

## Project Team Members' Perceptions of Learning and Continuous Improvement

The principal outlined how the demonstration project fit with his administrative philosophy and organizational design of the school. He spoke in terms of learning and continuous improvement. He also described his perspective on the importance of teams as an organizational structure to

support the development of initiative and, concurrently, help develop staff members professionally. The principal noted that the demonstration project was "part of our learning" to "become part of the way we do things to improve". He also referred to other things already happening in the school, but the demonstration project provided a focus for integration of isolated activities all with the common purpose, or "a natural extension of what we are already doing for kids".

> P: For me it's part of our learning where we bring in whatever we can. We analyse it and it's synthesized to become part of the way we do things to improve. It became a natural extension of what we already doing for kids and that's why it really made sense.

The principal also talked about how he felt the project had benefitted the whole staff and the curriculum of the school. The project activities resulted in uncovering and connecting teaching activities previously done in isolation. The impact has been felt in natural connections in the curriculum because project members were able to see links for themselves. The grade 10 business course is a hybrid centered on the following outcomes, (a) career awareness, (b) economics for everyday living and (c) a venture project (entrepreneurialism).

> P: The project has been very beneficial in a nutshell. Also, at another level for staff, to look at the integration of the program within the

> school to see where those connections are. It has actually influenced our curriculum. In the school where we started to adjust what we are doing in a number of courses in order to bring in those positive aspects of the project for all kids. Our grade 10 business program, if you really look at it, it has touched a whole number of areas.

As the demonstration project was implemented by a management team of volunteers, our discussion included a description of the principal's perception of teams working within a continuous improvement framework. The question intentionally introduced the topic of tension between team members (Senge, 1990a). This tension results from the desire to work collaboratively but also maintain one's individuality.

> J: A lot of the literature reflects the way we all feel about teams. It is marvellous to work as a team and share and work collaboratively but there is a tension because you have to give up and let go. You still want recognition so there is still the individuality but you also want to be part of a collaborative team. Could you talk about that tension?
>
> P: Yes, the tension is there primarily because you are not yet to the point in being really well grounded or comfortable with functioning independently.

The principal alludes to professional development that occurs individually and in support of others. He continues,

> P: That becomes one of the benefits of the team as well because the team supports individuals in ways that allow you as an individual to become stronger and as an individual allows you to function more effectively as a team.

He also relates the way teachers learn in teams to goals for

students.

> It's the same thing for kids. This whole idea of independence and interdependence is that what we are constantly striving toward. We want them to be more intellectually autonomous when they leave us but, at the same time, that kind of autonomy will allow them to function very well in an interdependent way.

Our continuing discussion described the essential reason for the strength of a team as initial competence within individual subject area and expertise,

> It's the same thing for staff. You look at teams of subject disciplines and in fact you can't function well on an interdisciplinary team unless you are very strong within your subject area. Those who struggle there are struggling because of that, because they are not strong in their field.
>
> J: So it's their skills and knowledge.
>
> That's right. [It's also the] level of comfort with themselves and confidence.

The vice principal referred to the importance of relationships as the essential catalyst in building team capacity for innovations.

> I also think one of the key things about this school and the way it operates and about the teams is that they are built on relationships and the relationships are absolutely essential in the organization. You work with people that you wouldn't normally work with in a subject-based setting and because of that you have people who think in different ways and approach issues from different perspectives. A synergy develops within the group that uses the expertise and the personal strengths of the various people.

The project management team members were asked the

question or a slight variation of the question, "After working on a project like this, what are some of the things you have learned? What are some of the challenges, not from the point of view of a challenge, but a focus area for improvement for next year"?

While many comments were made, comments clustered around themes of, (a) communication, (b) reflective time, (c) challenges and (d) capacity building.

Communication: Participants related an anticipatory and enthusiastic feeling that comes with contributing to the creating of an innovation:

> G: When you start planning you have all that enthusiasm, and the ideas. It makes you want to go in there and do it, whereas in the past, people are giving you roadblocks all the time. You tend to say, "Oh well I'll do what I can, but....There is always the 'but'. This way it's always up-and-up because people are pushing from every different direction--not pushing in a negative way, pushing as in being enthusiastic and encouraging and supporting. All that just allows everyone to carry on and go further than they would have gone before on their own.

Project team members also described the way they initially worked and communicated in the project meetings. They felt it was important to share information from a number of sources to determine the steps in the project. Team members also demonstrated they understood the concept of working within a continuous improvement framework:

> The large project team is able to get feedback from students and staff and from their contacts in

> business, and so on. They then sit down at the table and say we thought this was going to work well but it's not reaching or doing what we thought it would do. Why don't we try, and so that process continually trying to improve. I think it is an excellent one; it's not something we said we want to do and leave it out there. It's evaluated every meeting--how are we doing.

Also team members did not ignore the fact that there would be problems but they recognized that communication was essential to work through the issues. G stated:

> We all worked together to solve some of the problems, which I think is really important, I think that we are all in it together and we all want to make it work together.

Reflective Time: Project team members mentioned the necessity and importance of having reflective time where they could discuss project activities, find out what other team members were working on and then plan the next steps together.

> C: Just going, going, going. You need to have some kind of time for what have I learned and where have I gone. Even if I took a wrong path, what would I do differently, so that concerns me a bit.

They saw available time outside of their regular duties as a constraint for reflective time.

> D: I think it's a matter of time and the amount that was on the plate for the individual groups.

Participants, while they acknowledged they saw themselves as a team, also were aware of the organizational constraints, "imposed by individual, functional, and hierarchical

boundaries" (Katzenbach & Smith, 1993, p. 25). Team members mentioned these constraints as affecting the on-going continuum of their work in the implementation of the project. They saw reflective time together was integral to the implementation of the project.

> D: I know the picture and the focus and direction. I know the groups that were involved and all the subgroups and everything they have to work on. I think at one point, when we came together on a monthly basis, to bring ourselves up to speed we were all together, we had a focus. After the first two or three meetings, where I think....

When the sub-teams stopped meeting together regularly, the sub-teams lost sight of the larger focus possibly, because they were not aware of events that were happening on a day-to-day basis.

> You started to lose what was happening in those splinter groups. You know you couldn't keep up with what was happening in the store, in the Publishing Centre, in the Career Centre, depending on which one you where basically assigned to, or which one you volunteered so you lost...
>
> J: The big group.
>
> D: You lost direction of the overall.

Reflective time was seen be team members as essential for the on-going continuous improvement process of the project. Lack of reflective time was seen as a challenge.

Challenges: Any project implementation contains challenges. The questions dealing with challenges

encountered in this pilot project were framed within the context of continuous improvement. As a result, participants were quite frank when discussing challenges. One of the challenges was time. Participants shared comments about the time needed related to a variety of contexts such as conflicting demands, attendance at meetings, formal communication, informal dialogue and the preparation of curriculum activities:

> J: Continuous improvement. What are some of the challenges you dealt with?
>
> G: To make the meetings. I really enjoyed being a part of it and I had to miss some of the meetings because of other commitments.
>
> C: You need to have time.
>
> D: As long as you have the time...for communication, dialogue the meetings.
>
> B: This is something I haven't had time to...

As one of the project goals was to embed project initiatives in the curriculum of the school, a question probed the extent to which participants perceived integration of project initiatives and the curriculum.

> J: Then you see it the lack of coordination between the project and the school?
>
> L: Between the project and curriculum, the tie is lacking.

In an effort to acertain why L said the tie into the curriculum was lacking, I reverted to a previous comment which described the project responsibilities as above and

beyond the day-to-day teaching responsibilities. In other words, to some extent a few of the participants felt the project activities were an add-on to everything else that was being done rather than a new way of looking at course content and making revisions to more established teaching practices.

> J: You know, you mentioned that the project was above and beyond. How do we make it not above and beyond? The idea is to make it integral to what we do.

The response, however, indicated not a reluctance to make curriculum changes or integrate project initiatives in the curriculum, but rather a lack of communication. The lack of communication could be described as a shortcoming in the communication process between the management team and the school staff. As well, the lack of communication between the three project teams was also apparent. The HS pilot project team, like other teams, are then in "a new and undefined situation that requires them to work collaboratively with other individuals who may only nominally be their colleagues" (Barlosky & Lawton, 1994, p. 102). A suggestion for improvement was also forthcoming and demonstrates a desire for more communication. While HS is a school which supports a collaboration, remnants of school work cultures which support individuals working autonomously became apparent in interviews.

> L: There could be an overall clearer picture of the project given to all of the staff. I think that's a part so then all the staff are more aware. I think if all the staff are aware of it, but then again, it is over and above all of the activities that they do. I don't think it's a matter of them not wanting to use it, I think if they have been given direction from someone that can give that kind of direction, then it doesn't have to be above and beyond, it would just be a natural fit for them.

Team members felt they needed more direction; however, direction essentially should be coming from within the management team. The absence of meeting with the whole group took its toll on further implementation and integration of the project.

> J: Do you feel there needs to be improved communication between the project team and the rest of the school or within the project team?
>
> L: Because the fit for curriculum in basically all areas is there, I mean with the software we have, and the scanner and the art area could be doing some things, you know with the craft sale, the music department puts on there could be a tie in there. You know it's just a natural tie in, just a little bit of direction for the other people in terms of how to set it up or even some ideas from outside the project as well.

The previous response by L indicated one of the essential tenets of the knowledge held and ready to be actively demonstrated by front line workers individually and as members of a team. Front-line workers are placed in a situation which allows their talents to surface, as well as tapping the knowledge, skills, and talents of their peers.

"Teams defined in this way become the vehicles for surfacing the hidden talents and knowledge embedded in organizations (Barlosky & Lawton, 1994, p. 102)".

A further question tried to capture if technological expertise was seen as critical to the success of the project,

> J: Just a bit about the technical expertise. So what is the technical expertise that you think someone has to have for the publishing centre?

The response indicated that a level of sophistication was necessary:

> L: You have to have software knowledge, definitely, before you can bring in community people to offer services or even to do desktop publishing or pamphlets or things that attach to report cards or the newsletters or those kinds of things. You have to have someone that has the background, even to direct the students on how to set it up properly, some design background. Definitely the software background.

Building Capacity Project Team Members: The comments by G serve to demonstrate the comprehensive nature of the project and the perspectives of the team members as they not only learned how to work together, but also as they undertook start-up activities as the first steps in implementing the project.

> G: This year was a major step. We had to decide how to use that money, and then to get some people to play some roles in the whole thing to make it all come together. This year we have our facility, we've got our people who are in charge and we have gone a little bit further than that.

> The next year, everything is just taking off because we are ready, whereas this year we had to get ready.

Team members were asked to reflect on their own learning specifically because of the project. Responses generally demonstrated that members felt they learned a lot but had a lot more to learn.

> J: In terms of the project and your own learning, do you recognize what you have learned yourself because of the project?
>
> G: I've learned a lot and I have a lot more to learn. I've learned a lot working with everyone on how we can work together with the community and school. I've learned a lot about setting up a career centre, running a store. We made decisions, for example, how involved the school should be in money making affairs and what our philosophy is and trying to bring it together. These two issues of being progressive but still being an educational facility. I think that has made a lot of people think about issues. I think with all of the cutbacks as well, we do have the potential here (I'm not saying turn the school into a business) to generate some income to better the school. There is possibility or potential to augment our own income to continue running some of the programs we want to run. I've really learned a lot about the whole business. I have found it really interesting.

Frequently, participant responses included comments that demonstrated a level of enjoyment and sense of accomplishment that comes with a job well done. Further comments demonstrate what Barlosky and Lawton (1994) state:

> Teamwork is part of a culture of continuous improvement that advances: staff empowerment, an active sharing of vision and responsibility, surfacing of staff expertise, and collaborative

achievement. (p. 131)

G's comments further illustrate the feelings that people should have about their workplace whether or not they are educators. The project appears to be a catalyst for renewed energy and enthusiasm among project team members.

> G: I really enjoyed the discussions that went on and the decisions about what we were going to do. To see something grow [is] just so exciting and I want to be a part of that. The whole challenge of the career centre and what we wanted to focus on there. I guess it was challenge for me to get away from the idea of print and going to computers, and I think that computers are great. I would have a few more print things as well, but I realize they get out of date. So there is just that whole challenge and having time to test the program and make decisions about what our needs are and what programs are best suited for them.

Perhaps the reason for some of this new energy and enthusiasm is reflected is a result of what K described in her interview. K's interview response provides an example of the project related activities that were more generally felt by the whole staff,

> J: What were some of the project ideas that particularly appealed to you?
>
> K: Initially the school store and the point of sale system, the students would be totally involved in it as a real life experience. Also the Career Centre, I wanted to see how that would work and what would happen and if it would made a difference.

One of the interview participants, D, who was instrumental in designing the course, demonstrated how

innovativeness in one project can be integrated into another area of the curriculum to enhance student learning,

> D: There wasn't one kid that had a negative response, they said it's the only course where things were integrated with computer applications, all the assignments we did were related to those software packages. We would like to take it next year to some of these other areas. Integrate an assignment where the kids in a math course, do some kind of statistical gathering data assignment. I'll help them with the software application part of it.

B describes his feelings of the process for continuous improvement and how it appeared in practice for him,

> B: We thought this was going tc work well but it is not reaching or doing what we thought it would do. Why don't we try and so that process continually trying to improve I think is an excellent one. It is not something we said we want to do and leave it out there, its evaluated every meeting how are we doing.

A member of the school store sub-team unintentionally mentioned this same connection between project involvement and employability when she commented,

> KB: There were times when the students weren't getting along and some students weren't working their share. We would have to call meetings and talk about procedures. How to actually conduct a meeting because there were times when they were cutting in and not listening to each other. We went to a lesson on how to actually go through it, taking minutes, thinking of things, preparing an agenda.

## Federal Government Procedures and Practices and Impact on the Frontline Program Deliverer

The ultimate potential outcome of the project funding continuation/discontinuation was congruent with what one of the interview participants commented about the fate of government funding in general:

> C: The government can decide to stop the funding at any time and you are left high and dry.

This is essentially what happened to the HS/HRDC project in terms of funding. The project was left high and dry, in a fiscal sense, because of the rejection in July 1996 of the second year proposal. Policy literature is replete with statements which can be applied to the HS/HRDC demonstration project, e.g., "a course of action or inaction chosen by public authorities to address a given problem or interrelated set of problems" (Pal, 1992, p. 2). The public authorities (HRDC) initially chose a form of action which was to institute demonstration projects and, after the first year, surreptitiously discontinue any one or all of the projects.

In June 1997 a change in federal policy procedures between HRDC regional offices and jurisdictions versus local communities, we were left without any direction on how to proceed with a request for second year funding. We learned that 20 letters of support from community businesses were needed when I hand-delivered our second year proposal to our community contact person in late May, 1997. The person, who

immediately became our local community contact person, decided not to send our proposal to Ottawa, apparently because of these 20 missing contact letters. We had included five contact letters, so according to their new directive we were still missing 15 letters. These letters had to specify that 20 employers would hire our students in full time jobs after the school-to-work program. We were unable to get these 15 contact letters on very short notice because of the complexity of the relationship which had to be established between the students, school and employers. The following events transpired as noted in my own reflection journal in the process of acquiring second year funding:

> June 28, 1996: Received a telephone call from contact person at HRDC saying that proposal had not been sent to Ottawa because of 20 missing community contact letters.
>
> August 1, 1996: Received a telephone call from contact person at HRDC saying proposal had not been sent to Ottawa because we did not have twenty letters from the community saying they would give our students jobs.
>
> August 30, 1996: Received a telephone message saying she was sending our proposal to Ottawa.
>
> September 15, 1996: Received a call saying that our proposal wouldn't be forwarded to Ottawa as second year projects were not being funded.

It surprised me then, and still surprises me, that a local HRDC office would not support in its own community, its own department's federally funded demonstration project,

especially when the original project proposal had been successfully approved one year earlier under the auspices of a regional HRDC office. The local MP'S (July, 1996) commented on, "Why funds were set aside to fund projects and people who are willing to tackle that problem (school-to-work transition)" seemed to go unheeded by the community HRDC office. Opinions of the government bureaucracy is further illustrated by the principal:

> P: I think that the sense of direction and expectations federally...with respect to the project--there isn't unanimity of voice there, as we have seen through meeting with a number of people, who have been involved. They all bring a different perspective and expectations--even at a big picture level from one who wants a project focus, to one who, wants a much more integrated large picture focus affecting all kids. I think that is the kind of thing that is frustrating, and also ultimately not beneficial in terms of the effective use of these dollars.

The apparent lack of communication and coordination demonstrated by the local HRDC office was certainly different from events at the school pilot project demonstration site. The overriding conceptual issues of this study were consistent with the philosophical framework within which the staff and project team worked and transcended the bureaucratic inflexibility of the local office of HRDC. At the research site, because of the combined expertise of members of the staff and project management team, "a body of expertise" was developed "that

if applied more generally" could have enriched more than the organizational context of the school. According to one member of the project team,

> B: I have certainly seen the value of people working together, not that I didn't know that was there, but I've seen it in action. I've seen it take off, and see how, having a chance, a project was the focus, and having the chance to sit around, and talk about things that work for kids, and how we are going to use what we had in the project to develop these various directions.

Polanyi (1994) describes the possibilities for education in such a setting,

> The possibilities for innovation in education in the coming years exceed any that we have seen in the five centuries that separate us from the invention of the printing press. (p. 33)

This school-to-work pilot project became a focal point where a team of teachers integrated their knowledge, skills and attitudes in the development of this cross-curricular project. A relevant activity-oriented work related curriculum was created and developed by them and then taught in the school. After the students had been involved in various project curriculum activities in the school they described examples of how their work related learning in a school setting was directly applicable to their own work and other interpersonal contexts.

# CHAPTER 6

## SUMMARY

### Introduction

The simultaneous interaction of events, people, levels of government, innovative environment and particular focus of the pilot project made it difficult to summarize and discuss the findings. My challenge also as researcher, after uncovering meaningful connections between variables, was to try and determine exactly what happened and what would hold promise for the sustainability of not just the study initiative but other initiatives.

Question five guides the content of chapter six which is designed around implications for the case study in terms of continuous improvement/learning organization theory/practice in school as applied to front line workers and the implications for school-to-work initiatives. Therefore, chapter six contains a summary and conclusion suggested by the findings of the study. Also, recommendations and suggestions are given for the development of future programs and initiatives. As a result

of the management team of teachers, the findings and achievements provided solid evidence that front-line employees because of their pedagogical and curriculum expertise and experience are integral to sustainable on-going implementation and innovation.

## Summary

This study, conducted within the context of a secondary school, examined participants' perceptions of participating voluntarily in a school-to-work transition pilot project. The pilot project was conceptually designed in a proposal written to HRDC to secure $150,000 in first year (1995/96) funding under the School-Based, Demonstration, Youth Initiatives program. Located in a town of 120,000, the secondary school was one of 17 within a public board of education adjacent to a large urban area. By using project funding, the original intent of the school implementation team was to develop and provide students with opportunities to learn or enhance skills and knowledge in the area of school-to-work transition.

Research Process

In this study, data were obtained from the following sources: (a) a survey administered and follow-up focused interview to 15 team members, (b) focused interviews with seven additional participants, (c) two focus groups with the school store student team and (d) documentary sources, especially minutes of meetings.

The first initiative in the study was a survey conducted with 15 team members followed by focused interviews. Four organizing questions provided the framework for the second initiative in this study, 22 focused interviews. Data from these interviews supported and augmented the initial findings from the survey responses.

Question five on the survey revealed how individual participants were involved in terms of their choice of activities that connected their curriculum and teaching expertise with the implementation of the project initiatives. This last survey question, particularly, provided a natural connection to the four guiding thematic follow-up interview questions. Then the thematic questions then established opportunities for participants to express

their feelings about the context within which they worked to accomplish the implementation tasks of the project.

Specific Study Questions

Four organizing questions framed the focused interviews. In question I initially factors and circumstances external to the organization were examined. Participants were asked to determine if they believed that circumstances beyond the school contributed to the origination of the school-to-work transition project. In the interview process as well they were asked to make connections between what was happening in the broader society, in the school and in their own job context.

Three other framing questions identified are: (a) II: The Organizational Context, (b) III: The Impact of the Project on the Organizational Context and (c) IV: A Description of Organizational, Team and Individual Learning. These three questions identified and investigated the extent to which the pilot school-to-work project developed or enhanced perceptions of continuous improvement and team learning among the staff and students involved. The four organizing questions also became major themes in the study as, during the data collection process

and discussion, the questions became thematic organizers for participant responses. Question five acted as an organizer for chapter six, the conclusion of the study.

## Case Study Approach

In a summary letter, after my proposal hearing, my thesis supervisor stated, "Ultimately, the study is of a philosophy in action.... The overriding conceptual issues are part of what makes or allows things to happen" (Lawton, July 6, 1996). The conceptual issues in this study are congruent with the organizing four questions/themes, specifically, circumstances external to the school, the school organizational design, the school culture and the philosophy of continuous improvement and learning.

A case study approach, where my own role was included both as a researcher and participant-observer, allowed the integration of first-hand observations and experiences. The duration of the demonstration project was approximately ten months or one school year. Through this particular project opportunities for all students and staff to innovate, learn and share within a school-to-work framework became the goal. Participants were asked their perceptions

of opportunities provided to them which tapped their professional expertise within the context of the pilot project.

This case study, with a focus on the implementation teams (Scholtes, 1993) and the process for continuous improvement (Deming, 1986) allowed the investigation of participant perceptions of the research environment.

## The Innovative Research Site

The school's organizational design is consistent with current beliefs and practices within the quality paradigm in management science, organizational behaviour and industrial relations theory (Morgan, 1986; Senge, 1990a). Initially the school's organizational design was developed by the principal, who was influenced by "learning organization theory" (Senge, 1990) and systems thinking (Wheatley, 1994). Because of the daily activities of the staff and students, who worked within this administrative philosophy, the organizational culture was further created, developed and then adapted over time (Kluckhohm, 1961; Schein, 1992). In the school, the momentum of project

activities occurred because of voluntary staff members on the management implementation team and their commitment.

Human Resources Development Canada's only role was that of a funding source, which consisted of a $150,000 infusion. This infusion of federal funds and resulting pilot project was the catalyst for the investigation of issues within the context of the economics of education. Also, the activities of this particular grassroots initiative demonstrated that federal government policy can be transposed to and then transformed through an implementation process in one school, in one community, in one province.

The administrative philosophy in the school combined with the process of continuous improvement (Deming, 1986), provided a loosely defined framework and strategies for the way of working on project activities for the study participants. The study participants who shared the pilot project focus, employability skills for students, then shared their expertise to create relevant, meaningful connections in school to work oriented activities.

## Significance of the Study

The pilot project was established in the school because of the convergence of opportunities both external and internal to the school. Specifically, HRDC issued a call for proposals under Youth Initiatives funding to implement demonstration school-based school-to-work transition projects in communities across Canada. Three members of the research site staff contributed to the proposal and were successful in securing the school as a demonstration site for project funding. Prior articles, reports and studies included (a) information on why school to work transition programs should be done (e.g., HRDC, 1995) and (b) suggestions and samples on how new programs could be organized (School-to-Work Opportunities Act, 1994; e.g. Garnier, 1996).

### Economic/Organizational Factors

Garnier (1996) described the differences between Cooperative Education Programs and Youth Internship Programs (p. 21). Specifically, Garnier (1996), comments that her experience in the field revealed that declining finances from all levels of government as well as current

trends and issues influencing the delivery of education will leave little choice but to take advantage of programmes in the community.

Programmes in the community can be problematic. Employers usually don't have the time or the skills to teach a student and frequently, if they don't feel philanthropic, they need bottom-line oriented arguments to convince them to participate (Bailey, Hughes & Barr, 1998). In addition, there is a presumption that business/industry knows and has what is best for education regarding technology, equipment and materials. As a result, government initiatives and policies are tending to disallow grant expenditures in those areas (Stasz, 1998) and include other requirements in proposals (Ontario MET, 1998). While business partnerships are a necessary part of a whole school-to-work transition policy initiative, this study also shows business partnerships are not needed for a few of the reasons they are initially encouraged: to train educators and to supply used computers and equipment to schools (Price, 1998). Unfortunately, general perceptions aren't consistent with the realities of schools and awareness of the current and potential sophistication of secondary school curriculum.

This study highlights that secondary school teachers have a most significant role to play in the development of a school/work transition initiative and therefore should be visible in policy initiatives. Teachers with subject expertise in vocational and/or elective subject curriculum areas such as business, family studies, physical education and the arts should be highly visible. Resident within the attitudes, skills and knowledge of these respective occupational/subject groups are the fundamental keys to integrating relevant, authentic, applied curriculum activities and theoretical learning.

As outlined in the review of literature, in economic terms, government is an integral part of the cyclical flow of goods, services and money in an economy comprised of households, firms and government itself. A very important and critical question remains. How do schools acquire and upgrade materials, equipment and technology? The issue of levels of government providing funding to seed projects, and then later to upgrade equipment, materials and technology, is not new. Government needs to continue to contribute to further demonstration projects and include provisions for capital expenditures along with targeted activities. As well, whether or not a project is a pilot

project, budget allocations must support equipment upgrades and maintenance schedules for equipment and technology. Cycles of innovation, maintenance and upgrading of equipment and technology cannot occur without on-going government fiscal support. The research site school was well equipped technologically from its opening day; however, in 1994/95 the local public school board was only allocating around $20,000 dollars per secondary school per year to spend on technology.

The situation in many secondary schools regarding lack of instructional technology is desperate. With the exception of the pilot project school, the school I left in 1993/94 and most other secondary schools in the board still had to use at least one lab of ICON II computers which were purchased in the mid to late 1980's. Also, these other schools were not networked. The yearly budget for technology was simply not enough to meet even the minimal demands by teachers and students without considering networking costs and the cost of hiring technicians.

Fortunately, the project contract allowed the purchase of equipment as outlined in line item 23 "special costs" on a typical HRDC claim form (See Appendix D). The contract provision for the purchase of equipment was extremely

supportive to school innovation and creativity. Project team teachers were able to develop creative learning activities with the integration of equipment and technology in those activities for students. As project team members consistently identified the importance and significance of access to information technology to use in their teaching practice, this study emphasizes the critical importance for all schools to be sufficiently equipped and supplied.

Participants in this study knew of the technological changes taking place globally and articulated their perceptions of how these changes were impacting the school and curriculum. By including technological applications they demonstrated an explicit interest in developing innovative curricular activities. Even though the abrupt cancellation of project funding for this particular project halted further capital expenditures, the project management team still maintained a continuum of organizational and curricular innovation. For this reason, the initial expenditure and investment on technology and equipment was critical and significant, contributing eventually to the scope and nature of the school-to-work connected learning activities. However, it was the research participants in

this study who demonstrated the overall impact of funding for special projects goes far beyond capital acquisitions.

The provision of funding which then allowed the project team to purchase the tools it needed to be creative and innovative also tended to shield it from the complexities of the external environment. While the current provincial government was announcing sweeping secondary school reforms to officially commence in 1999, these study participants were already maintaining that were making innovative changes. They felt a high degree of confidence as they had determined new directions based on shared expertise and input from the project team members, all the while realizing that their changes would lead to further changes. They felt they were already ahead and in a position to be able to manage their own destiny.

## Continuous Improvement/Learning

To the knowledge of the researcher, this present study is unique because of its focus on a team of teachers who volunteered their time and described their experiences of their interface with a school-to-work project. This study is also unique because of the research setting where the

focus of the school's organizational design is on process areas rather than traditional subject departments. The innovativeness of the organizational design of the school coupled with the "empowered" teacher team gave opportunities for the researcher to truly investigate the "philosophy in action" (Lawton, July 6, 1996).

So much has been written about leaders and principals of schools as leaders (Bennis & Nannus, 1986; Leithwood, 1992), but little about the people who leaders will lead (Kelley, 1988). These aspects of a school as a workplace are important for pragmatic reasons. Schools, as both places to learn and work, must muster the abilities of human resources within them. As stated in the SCANS Report for America 2000 (1991), "high performance workplaces stand as a model for the future...labour is not a cost but an investment" (p. 3). Learning as demonstrated by the project management team does and did not not take place in isolation. Through reflection, communication and relevant application, new skills and knowledge became integrated into existing as new meanings were made (Barnes, 1975; Freire, 1970a). The process was transformative. The practices of the process for continuous improvement provide a formal process to assist people who are going through an

innovative process and ultimately help increase the capacity of the innovation. Participants' perceptions regarding the continuation of project initiatives revealed they wanted to look at ways to improve the project and get more staff and students actively involved in the following year.

Similarly, this study also initiates the concept of transformative followership where a team of teachers can be characterized as creating innovative cross-curricular activities in the curriculum of the school. Their traditional beliefs about subject based curriculum combined with school departmental organization were integrated with the new organizational design of the school and project focus. As a result they created new, different and innovative activities and strategies by integrating past and new experiences. At the same time, they also demonstrated the administrative philosophy of the principal could be transformed into organizational practice.

Participants were asked to reflect on "challenges" they encountered as team members in a pilot project. When challenges were identified, they became topics for further discussion and items which could be addressed. This process is consistent with Deming-Shewhart cycle process

for continuous improvement, particularly step three "study/check" (See Page 8).

Participants commented that the three sub-teams needed to meet as a whole group more frequently for continuity of project implementation as they wanted to feel informed about the whole project. The issue was communication as participation in one aspect of the project wasn't enough. While it was not stated specifically in the interviews, some participants indicated more management team meetings would have alleviated the communication issue. Possibly the decreasing amount of time for reflection and discussion with others, as cited by team members was linked to the growing infrequency of management team meetings as well. One of the essential tenets of the continuous improvement process is that management leadership must also be present to support and guide team processes. The challenges with communication and time suggest that project management leadership could have been more effective.

Team members also reported that all team members should have in addition to subject specific curriculum expertise, a level of technological computer application skills which could be integrated into project activities. Specific skills mentioned were word processing,

spreadsheets, data bases, desk-top publishing and Power Point. While it was not specifically stated but implied, some team members possessed better curriculum writing and technological skills than others. Therefore, because of their team structure and project goal orientation, they were unintentionally able to discern various staff development needs that would in other contexts remain obscure.

All the challenges as articulated by study participants indicated considerations and interesting opportunities for potential improvements to an essentially iterative process in the continuation of the implementation (Basili & Caldiera, 1995).

## School, Connected and Work-Based Learning

Like Garnier's (1996) findings, the results of the present study demonstrate that school-to-work transition programs require the establishment of new relationships between schools and the community.

This study also shows that new relationships are needed between schools themselves and, most importantly, within the structure of individual

schools. School-based learning which is connected and applicable to the workplace also potentially makes the work-based learning meaningful and connected to the school. However, learning has to start somewhere.

This study demonstrates how the origination and development of connected learning activities started in the school initiated by teachers who understand pedagogy and possess subject expertise. Also, this present study shows how the expertise of staff, who are goal oriented and possess subject expertise, must be drawn upon to create and implement an innovation so that the innovation is integrated into their work context over time.

This study emphasizes the contributions of the implementation team of teachers to the quality of the learning activities available for the students in the school. A career awareness unit for a Grade 10 business course was developed primarily by the business studies teachers who were on the project management team. This particular career unit also intentionally contained outcomes from the guidance curriculum and portions of the in-school cooperative education program. After it was marked by the business

subject teacher, the career unit was placed in the student's teacher advisory group portfolio. This example of the career unit is a practical example of the innovativeness which can result from a self-managing, cross-curricular team. People who work with students in classrooms on a day-to-day basis demonstrated that traditional academic/vocational curriculum and cultural barriers in secondary schools can be transcended. In this study, the pilot project can be seen as providing the catalyst. The results are indeed transformative and demonstrate in practice how systems thinking connected with an organizational design and philosophy has the potential to tap the intellectual capital of the staff (Stewart, 1994).

This study also describes students reflecting on activities which had an educational purpose related to and at the same time as they were involved in productive work in the school (Stasz, 1998). For example, the students revealed how their OAC accounting independent study unit was based on their audit for the school store. Because of this subject-based activity, they volunteered for a student store management team, which then gave them further

opportunities to learn specific employability skills in both a school and store setting.

Examples of school-based enterprise combined with relevant learning activities created by teachers are presented in this study. From these school-based experiences, the students articulated connections between their school learning and the workplace. This combination, therefore, relates directly to the definition of connected learning i.e., learning that is initiated in the school which then connects the school to the workplace.

This study highlights the significance of connected learning as an aspect of school-to-work transition. School-to-work programs already conjure up images of many types of programs such as apprenticeship, cooperative education, various vocationally oriented courses and work experience. Links between school curriculum, school-based enterprise and work as described by both the teachers and students without an emphasis on an existing targeted work-oriented program such as cooperative education are demonstrated. Historically, "...preparing students for work meant sorting out the sharp ones from those deemed less able" (O'Neill, November, 1994, p. 3). Results of this study show that preparing all students for work cand

and does start in the school with opportunities for all students.

## The Institutionalization of the Project

While this study is not longitudinal in the sense that the research process continued over a period of years, enough evidence exists to claim the project initiatives continued well past the abrupt discontinuation of federal HRDC funding. Staff members considered the Career Centre as a specialty room to be used for and within various curriculum activities. Some uses which continued are: meetings, curriculum projects, career awareness activities which are internet based and educational planning. The Grade 10 complusory business course contains a career unit. Plans were made among team members to augment the content for the next semester, including further integration with the curriculum content of the cooperative education pre-service hours. The school store student team was expanded as was the variety of products for sale in the store.

Institutionalization of project initiatives in the Publishing Centre were more challenging to determine; however, a very significant incident occurred which demonstrated the institutionalization of the publishing

centre philosophy. After my residency year at the Ontario Institute for Studies in Education, involvement with a major corporation and experience with this federal project, I submitted a proposal to a major international corporation. An interesting development was the addition of three students to the proposal writing team. The HS was successful in the competition and became one of four Canadian schools to be awarded the grant. The HS proceeded to participate in the corporation's international technology grant program commencing in the 1996/97 school year.

## Implications for Further Research

In this study, the data showed that participants felt involvement in a pilot project, on a team and in a school culture which supported both systems thinking and a process for continuous improvement provided the requisite conditions where they could use their professional expertise to implement new activities for students. At the same time, the participants enhanced their own work context. They felt they were working together for a shared goal which the department and curriculum structure in many schools make difficult. "We are working together as a

group as opposed to working against each other", as one staff member observed. A participant observation study of the participants in this study could investigate issues around implementation of initiatives over a longer period of time. Another study could investigate participation on a team as a vehicle for professional development for teachers. Yet another could consider how the school changes in an adaptation process with succession in the principalship if the administrative philosophy is different from the previous.

In this present study, participants were interviewed after their initial one year experience working on a pilot project. The data revealed they felt the experience was beneficial in many ways. The participants understood the concept of continuous improvement but not in the specific intentional cycle as outlined by the Deming-Shewhart Cycle (Deming, 1986). A follow-up participant observation study could be undertaken to determine the extent of the impact if a specific continuous improvement process was followed. Also, another comparative study using the findings from this study could be undertaken to see how a similar project would evolve in a school organized into subject departments rather than process areas.

Another aspect of this study was to investigate the element of connected learning for students. Connected learning is described as learning which can be linked and /or transferred to the workplace from school and from the workplace to the school. In this present study, two main focus sessions were conducted with students who volunteered to work as a team and run the school store. The students were asked questions to prompt their investigation of perceptions of the connectedness of what they had learned in classes and the school store with workplace skills. A further participant-observation study of students who participated in extra-curricular activities or a specific work-oriented program such as co-operative education to see the extent to which these activities or courses offered connected skills would be important.

## Implications for Education

Throughout this qualitative case study I used the terms "pilot project" and "demonstration project" both interchangeably and sometimes together, i.e., "demonstration pilot project". Human Resources Development Canada used the term "demonstration" in some of their

literature while educational and social science literature uses the term "pilot". While the two terms are somewhat synonymous, I used both for a reason. The project was a pilot project for the research participants and the school. It provided a focus for an innovation and a chance to test out theories in practice. The project could have served as a demonstration for others outside the school through the auspices of HRDC; however, this did not happen as federal government policy and personnel changes affected regional and local procedures.

The focus of the study has been on the activities of the project implementation team(s) and data collection captured the emphasis on activities, not the financial infusion of $150,000 from HRDC for one year. Even so, the fact that funds were made available across Canada for school-based sites to apply indicates, in this federal government policy initiative, an intent to find a solution to a national problem. This "national problem" was also mentioned in the interview with the local MP (1996) who stated that "Funds were set aside to fund projects and people who are willing to tackle that problem in a very direct way" (p. 1). The intent was to "...help young people prepare for the challenges of the 1990's labour

market and the new global economy by improving existing school to work transition measures" (HRDC, 1994 04 15, p. 2). Therefore the intent of this federal policy initiative appears to have been to seek solutions among many sectors of society and implement transformative changes,

> ...that they can sometimes reach across the barriers that normally separate the conversations of practitioners, policymakers, and the public to seek more comprehensive, transformative changes in the structures and possibilities for teaching and learning. (Darling-Hammond, 1998, p. 5)

Federal funds certainly provided the initial impetus for the project; however, it was not the funds which sustained the momentum of the project throughout the 23--month duration of the official project. Practitioners, the participants in this project, with others from other demonstration projects, had the potential to inform policymakers, the federal government, of the solutions and progress they made in their efforts "to build stronger communities and a better Canada" (HRDC, November 28, 1994). The management team of teachers who contributed their intellectual capital to the project development process had important information to share about their experiences. Their experiences would then provide policy makers with important information about interpretation of the policy in

practice and the collective work needed over time to implement policy specifications.

Some initiatives around school-to-work transition tend to overstate the value of workplace and understate the value of school learning (Price, 1998). At the same time business/industry is concerned about education as they have a perception that students lack employability skills (Moore, 1998). The results of this study show that students because of the curriculum designed by teachers did learn employability skills in school classrooms, in specialty rooms like the Career Centre, and in the School Store, a school-based enterprise. The students recounted how some of the project related activities in which they were involved connected to the workplace.

This study shows that learning with workplace applicability started in the school and then connected to work from the school. Experienced secondary school teachers developed the learning materials and activities. Even though the crafting of curriculum units and relevant activities within the school project provided "connected learning" (Dutton, 1995) with a school/work orientation, the students involved increased their academic and interpersonal skills and abilities for other contexts.

The project management team worked within an unintentional process for continuous improvement in the implementation of the pilot project. I mean 'unintentional' in that team members understood the concept of continuous improvement but did not work within the specific, "Plan, Do, Check/Study, Act" cycle (Deming, 1986). However, the concept alone seems to have given participants the feeling they were including, "a kind of organizational understanding into...whatever we are planning....You are adding to the learning...theory, demonstration, practice, feedback and follow-up" (Interview, July 4, 1996, p.7). Continuous improvement as a process embeds intentions through successive iterations (Basili & Caldiera, 1995) into the culture of the organization (Schein, 1992). The principal argues that the concept was understood in the school in connection with the project implementation as "implementation includes constant improvement" (Interview, 1996, p. 6). In a staff-development context, continuous improvement has the potential to develop, "approaches that are curriculum-based, sustained over time and linked to concrete problems of practice and built into teacher's ongoing work with their colleagues" (Darling-Hammond, 1998, p. 9).

The evident success of the project implementation and extent of student involvement demonstrates a philosophy in action. The school structure is "fluid and open to negotiated change, affects the extent to which innovations can be adapted realistically to teacher's classrooms" (Spencer, 1996, p. 17). This particular group of study participants adopted the implementation of an innovation which had not been shown to be either effective or ineffective; however, data showed a significant degree of success with the implementation because they worked together for a common goal. An organizational design which supports interdisciplinary sharing among a staff also maximizes the potential of a group rather than a lone person acting individually. This "group-with-a-focus" can better deal with many educational variables which teachers have to deal. Variables include: (a) the subjects they teach, (b) the type and size of their school, (c) the demographic composition of the community of their school, (d) the differing school cultures, (e) organizational structures and (f) their knowledge and experiences (Spencer, 1996).

Within the school organization the project provided a focus which, "created the conditions in which teachers can

teach and teach well" (Darling-Hammond, 1998, p. 6). This school-to-work focus was congruent with an existing focus on career awareness across the curriculum and all those activities which take place to support the focus. Work of the teachers in the project was connected with their students by activities and units which were developed and organized around problem-solving. The project implementation was sustained over time in ongoing meetings and conversations and information sharing. Data revealed that what participants experienced was very much like what Darling-Hammond describes:

> Teachers consistently report that they experience much more powerful learning when they participate in new vehicles for professional development such as...teaching teams, action research projects and study groups within their schools. (1998, p. 9)

This pilot project established the impetus for teachers to develop new ways of looking at traditional curriculum and the cultural perceptions of it as well as gave them their own staff development vehicle.

## Reflections

The pilot project, the subject of this study, comprised of a team of teachers who volunteered their time

to participate in the project implementation, committed time which was over and above their regular teaching assignment. While only a few of the 22 participants mentioned "time over and above", all the participants were willing to share their experiences and perceptions. Each of the participants interviewed could see the added value of their participation for their own teaching context. Notwithstanding the complexity of their own teaching jobs, combined with the added project activities, required a serious personal commitment from each of them.

The site of the study was a school with an innovative organizational design which focused on school processes and where systems thinking was "the way we do business around here" (Patterson et al., 1986). Fortunately, because of the contemporary nature of the administrative philosophy of the principal, the informal application of inherent aspects in "the quality paradigm" (Basili & Caldiera, 1995), learning organization theory (Senge, 1990a) and the process for continuous improvement (Deming, 1986) were seen as a natural fit by study participants between the study questions, and the context in which they worked. The participants recognized they worked in a fluid environment where innovations were adapted by teams of teachers to

their environment. The school context made this study particularly relevant for both the conceptual framework of the study and the school itself.

It cannot go unmentioned that teachers in general have consistently been subjected to "bashing from the public" which is not "fair to the bulk of the teaching workforce who are well qualified and professional in their work". Sadly, whether or not official reports are filtered through the media, "When official reports are issued they are filtered through the media, which in turn serves as a conduit for framing public perceptions of teachers" (Spencer, 1996, p. 17). Within this negative frame,

> Teachers must also take into account changing and complex social conditions of their school communities. Yet policy-makers do not take these factors into account when they call for unilateral blueprints for reform in all schools. (Spencer, 1996, p. 17)

The participants in this study worked creatively and positively on the project implementation in spite of the external political situation being incredibly uncertain. Throughout the duration of this study, the provincial government was making significant changes to the educational system while the federal government was making major changes in their youth employment policies and

procedures. Yet the school project team and staff continued to be innovative, creative and committed.

While policies have to be seen as equitable, experiences from teachers such as the study participants should be shared to inform policymakers on how to incorporate variability into reform agendas. Time after time in this study, I saw the value of grassroots input for the purpose of a greater benefit to many.

This thesis and study have been so beneficial to my own learning and sense of personal satisfaction that I find it difficult to explain. One of the aspects of this study that I will incorporate into my own work context is the "process for continuous improvement" with the intentionality of the Deming-Shewhart Cycle. I am convinced that in these turbulent times, this process provides a conceptual framework within which to make sure intentions are congruent with practice and a focus can be maintained. Most importantly, this experience has afforded me with many very significant learning opportunities throughout the process of trying to make sense of and connect theory and practice.

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# Appendix A

## Gaining Access-Request Letter

2012 Parklane Crescent
Burlington, Ontario L7M 3V6
June 14, 1996

Barry Finlay, Principal
Iroquois Ridge High School
1123 Glenashton Drive
Oakville, Ontario L6H 5M1

Dear Barry:

The purpose of this study is the preparation of a thesis topic, "SCHOOL-TO-WORK: BLENDING EDUCATION AND TRAINING THROUGH CONTINUOUS IMPROVEMENT AND TEAM LEARNING. This thesis is a final requirement of Doctor of Education degree at the Ontario Institute for Studies in Education. The intention of this qualitative study is through the examination of a federally funded, site-based, collaborative, developmental, demonstration, school-to-work transition project in a secondary school, concurrently investigate the organizational contextual elements and features that are necessary to shape and embed new practices and programs.

Since your school is the site of a demonstration project, the school Iroquois Ridge High School is an ideal site for research. This letter is a request for permission to administer a questionnaire and conduct interviews with staff who are both directly and indirectly participating in the project.

I would like to collect data for the study from the following sources:

1. Qualitative survey of staff members followed by a focused interview with some of those teachers.

2. One interview with you where we discuss the school context and your role.

It is my hope to officially start the data collection process after my proposal is approved in June, 1996. Thank you very much for your assistance.

Yours sincerely,

Judy David-Wilson

# Appendix B

## Questionnaire and Follow-up Focused Interview Guide

A SCHOOL-TO-WORK TRANSITION DEMONSTRATION PROJECT

The purpose of this study is the preparation of a thesis, "SCHOOL TO WORK: BLENDING EDUCATION AND TRAINING THROUGH CONTINUOUS IMPROVEMENT AND TEAM LEARNING".

The purpose of the questionnaire is to gather information regarding your perceptions of the experiences you are having while participating in the school-to-work transition project.

Your responses are very important. Please record any additional comments you may have about particular questions or the questionnaire as a whole. Your comments are very important.

You may discontinue your participation in the study at any time.

Thank you for your assistance!

BUILDING OPPORTUNITIES: A PILOT PROJECT

September, 1995 to June, 1996

Questionnaire for Educators

Please complete the following questionnaire and return to J. David-Wilson. Thank you very much for your responses.

1. Gender: M__ F__

2. Years of Secondary School Experience ( /check one)
__1-5 __6-10 __10-15 __16-20 __21-25 __26-30 __31-35

3. Teaching qualifications:

(a) Degree(s):

(b) Additional Qualifications on Ontario Teacher's Record Card:

4. Please indicate (/) the project team(s) in which you participated?

Management ___ Career Centre __

Publishing Centre __ School Store __

Board of Directors __ Other __

If you checked OTHER please elaborate:

5. Please estimate how much time in HOURS PER MONTH you spent in the following project activities:

| Team | Meetings | Specific Meeting Prep eg. (Agenda items) | Project Activities outside of Meetings (List Briefly in Point Form) |
|---|---|---|---|
| Management | | | |
| Career | | | |
| Store | | | |
| Publishing | | | |
| Bd of Directors | | | |
| TOTAL HOURS | | | |

6. OTHER TIME COMMITMENTS NOT CONSIDERED IN ABOVE TABLE:

Thank you for completing the questionnaire. I will be asking you to participate in a one hour follow-up interview regarding your experiences with BUILDING OPPORTUNITIES.

BUILDING OPPORTUNITIES: A PILOT PROJECT

September, 1995 to June, 1996

Some of the specific questions to be discussed and areas to be explored are:

1. What are the main reasons you chose to participate in the project development.

2. What are the main reasons for your decision to participate on a specific sub-team?

3. How have you been involved?

4. What are some of the challenges you dealt with?

5. Your assessment of the project and the fit within the whole school curricula.

6. Your perceptions of whether or not the project design and implementation has continuously improved and why.

7. If the students are the customers, and the project requires a customer focus, what have been most valuable opportunities either occurring now or are planned for the future?

8. What do you consider the major areas of enhanced learning for yourself?

9. The most challenging aspects of your involvement.

10. Knowing what you know now what suggestions would you make to ensur the success of on-going implementation of the project?

# Appendix C

## Informed Consent Form

INFORMED CONSENT FORM

1. The purpose of this project is the preparation of a thesis topic, SCHOOL-TO-WORK: BLENDING EDUCATION AND TRAINING THROUGH CONTINUOUS IMPROVEMENT AND TEAM LEARNING.

2. The procedures used in this study will be a questionnaire given to those who have participated in the development of the project and follow-up personal interviews.

3. A benefit which is hoped will result from this study is an increased awareness of how to design and implement a school-to-work transition project which becomes a natural part of the organizational context.

4. You are being requested to participated in the study because:

   a. You are able to provide relevant content information on the thesis topic.
   b. You have made a significant contribution to participating in and/or developing aspects of the school-to-work project.

5. The comments (and transcripts from tape recordings) expressed by you will be treated in a confidential manner. Although the ideas you express will by used as part of the data, and in some cases, actual comments made, quoted, there will be no use of names or statements made in the paper, which identify whose comments are being used.

6. Participation in this project is voluntary.

7. You may discontinue participation at any time.

8. I am fully aware of the nature and extent of my participation in this project as stated above. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement.

_____ _____

Signature of Participant Date

_____ _____

Printed Name of Participant Signature of Investigator

## Appendix D

## Canadian Jobs Strategy: Advance or Payment Claim

Human Resources Development Canada / Développement des ressources humaines Canada

CANADIAN JOBS STRATEGY
PLANIFICATION DE L'EMPLOI

ADVANCE OR PAYMENT CLAIM
DEMANDE D'AVANCE OU DE REMBOURSEMENT

- ☐ PROJECT-BASED TRAINING / FORMATION AXÉE SUR LES PROJETS
- ☐ SCHOOL-BASED YOUTH INTERNSHIP / VOLET SCOLAIRE JEUNES STAGIAIRES
- ☐ SELF-EMPLOYMENT ASSISTANCE / AIDE AU TRAVAIL INDÉPENDANT
- ☐ COMMUNITY-BASED YOUTH INTERNSHIP / VOLET COMMUNAUTAIRE JEUNES STAGIAIRES

1 FILE NUMBER / N° DE DOSSIER

2 PERIOD COVERED BY THIS CLAIM / PÉRIODE VISÉE PAR CETTE DEMANDE
D-J M Y-A TO / AU D-J M Y-A

3 IS THIS YOUR FINAL CLAIM? / EST-CE VOTRE DERNIÈRE DEMANDE? ☐ Yes / Oui ☐ No / Non

4 IS THE ADDRESS SHOWN BELOW DIFFERENT FROM THAT LAST REPORTED BY YOU? / L'ADRESSE CI-DESSOUS DIFFÈRE-T-ELLE DE LA DERNIÈRE ADRESSE QUE VOUS NOUS AVEZ DONNÉE? ☐ Yes / Oui ☐ No / Non

100 OFFICIAL USE / RÉSERVÉ À L'ADMINISTRATION

101 RESP RC / CR D'ORIGINE

102 RENEWAL NO / N° DE RENOUVELLEMENT

121 SOURCE 122 DOC NO / N° DE DOC

123 124

125 126

5 NAME OF COORDINATOR - NOM DU COORDONNATEUR

6 MAILING ADDRESS - ADRESSE POSTALE

7 CITY/TOWN - VILLE 8 PROVINCE 9 POSTAL CODE / CODE POSTAL

| 10 WAGE COSTS / FRAIS SALARIAUX | NO OF PERSONS / NBRE DE PERSONNES | HOURS CLAIMED / NBRE D'HEURES RÉCLAMÉS | HOURLY RATE / TAUX HORAIRE APPROUVÉS | CLAIMED FOR THIS PERIOD (To nearest dollar) / MONTANT DEMANDÉ POUR CETTE PÉRIODE (Au dollar le plus proche) | OFFICIAL USE / RÉSERVÉ À L'ADMINISTRATION |
|---|---|---|---|---|---|
| COL 1 | COL 2 | COL 3 | COL 4 | COL 5 (COL 3 x 4) | 127 TYPE 4 / GENRE 4 |
| STAFF - PERSONNEL | | | | | COL 6 |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | 11 | |

| | | | | |
|---|---|---|---|---|
| 12 | MANDATORY EMPLOYMENT RELATED COSTS / CHARGES SOCIALES DE L'EMPLOYEUR | | 13 | |
| 14 | OVERHEAD COSTS / FRAIS GÉNÉRAUX | | 15 | |
| 16 | TRAINING COSTS / FRAIS DE FORMATION | 17 EXCLUDING TRAINING COURSE FEES / À L'EXCLUSION DES FRAIS D'ACHAT DE COURS | 16 | |
| | | 19 PUBLIC INSTITUTIONS COURSE FEES / FRAIS DE COURS ÉTABLISSEMENTS PUBLICS | 20 | |
| | | 21 NON-PUBLIC INSTITUTIONS COURSE FEES / FRAIS DE COURS ÉTABLISSEMENTS PRIVÉS | 22 | |
| 23 | SPECIAL COSTS / FRAIS SPÉCIAUX | 24 EQUIPMENT PURCHASE/LEASING / ACHAT ET LOCATION D'ÉQUIPEMENT | 25 | |
| | | 26 ADDITIONAL COSTS FOR THE DISABLED / FRAIS SUPPLÉMENTAIRES POUR LES PERSONNES HANDICAPÉES | 27 | |
| | | 28 AUDIT / VÉRIFICATION | 29 | |
| 30 | PARTICIPANT ALLOWANCES / ALLOCATIONS DES PARTICIPANTS | (ATTACH SUPPORTING DOCUMENTATION / JOINDRE LA DOCUMENTATION PERTINENTE) | 31 | |
| | WAGE SUBSIDIES / SUBVENTIONS SALARIALES | (ATTACH SUPPORTING DOCUMENTATION / JOINDRE LA DOCUMENTATION PERTINENTE) | 32 | |
| | | TOTAL | 33 | |

34 PARTICIPANT MIX - RÉPARTITION DES PARTICIPANTS

| PARTICIPANT TYPE - GENRE DE PARTICIPANTS | | | |
|---|---|---|---|
| UI - A-C | BAR - BAS | REGULAR - ORDINAIRE | TOTAL |
| | | | |

35 COORDINATOR CERTIFICATION - ATTESTATION DU COORDONNATEUR
I/WE CERTIFY THE INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY/OUR KNOWLEDGE AND CLAIMED IN ACCORDANCE WITH THE AGREEMENT
JE(NOUS) CERTIFIE(CERTIFIONS) QUE LES RENSEIGNEMENTS DONNÉS SONT EXACTS AU MEILLEUR DE MA(NOTRE) CONNAISSANCE, ET QUE LEUR DIVULGATION EST CONFORME À L'ACCORD

SIGNATURE DATE

PRINT NAME - NOM EN LETTRES MOULÉES

TYPE / GENRE 4: EIC TYPE / GENRE EIC | AMOUNT / MONTANT | CR

OFFICIAL USE / RÉSERVÉ À L'ADMINISTRATION

TYPE / GENRE 8: CHEQUE STUB INFORMATION / RENSEIGNEMENTS FIGURANT SUR LE TALON DU CHÈQUE

TYPE / GENRE 7: DUE DATE / DATE (D-J M Y-A)

CERTIFIED TO BE IN ACCORDANCE WITH SECTION 38 OF THE E.A.A. / EST CERTIFIÉ QUE CETTE DÉPENSE EST CONFORME AU PARAGRAPHE 38 DE LA L.A.E.

SIGNATURE DATE

PRE-AUDIT / VÉRIFICATION PRÉALABLE

DATA CAPTURE / SAISIE DE DONNÉES

EXPENDITURE VERIFICATION / VÉRIFICATION DES DÉPENSES

THE PRE-AUDIT HAS BEEN PERFORMED AND IS ACCURATE / LA VÉRIFICATION PRÉALABLE A ÉTÉ EXÉCUTÉE ET ELLE EST EXACTE

CHIEF, ADMINISTRATIVE SERVICES - CHEF DES SERVICES ADMINISTRATIFS DATE

APPROVAL OF SYSTEMS / APPROBATION DES SYSTÈMES

EMP 5009(11-94)B

Canada