A STUDY OF THE SELF-DIRECTED LEARNING ACTIVITIES OF FACULTY MEMBERS OF A POST-SECONDARY PROPRIETARY EDUCATIONAL INSTITUTION IN ONTARIO

by

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A thesis submitted in conformity with the requirements
for the degree of Doctor of Education
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ABSTRACT

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Much of the literature on adult learning suggests that adults generally prefer to learn in ways that allow them to maintain control over the learning process. They want to determine the content, the methods used, and the ways in which their learning activities will be assessed. The literature also suggests that organizations expect their professional educators to be self-directed and independent in their efforts to remain current in their area of expertise, and be responsible for their own professional development.

This study considers the question: what role does self-directed learning play in post-secondary teachers' efforts to maintain both personal and professional growth during their career? Growing out of the primary question, are the following: what self-directed learning activities did the educators participate in over the past twelve months? what reasons did they give for engaging in these activities? what methods did they use to learn? what did they perceive as inhibiting them from becoming more active in their learning? what personal characteristics either enabled them or limited their ability to participate in self-directed learning? and, what resources did the educators use to meet their learning needs?

In order to answer these questions, the researcher interviewed twenty-eight members of a post-secondary faculty of a proprietary institution in

Ontario using a semi-structured interview protocol. The individual taped interviews lasted approximately one hour each.

The findings suggest that by a significant margin, this group of educators were active learners who preferred the self-directed approach for both their personal and professional learning. They engaged in a breadth of learnings, many of which were of a personal nature rather than job-related. The educators, however, were often able to apply some benefit from a learning to their own teaching context.

The study suggests that self-directed learning does play a significant role in post-secondary teachers' efforts to maintain both personal and professional growth during their careers. Professional development activities, therefore, might be more effective if they were designed to accommodate the self-directed learning tendencies and perceived needs of those who are to be "developed."

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

Background to the Problem

At no time in history have individuals and organizations needed the skills and tools to access information to the degree that they do now in this information or knowledge age. Donald Baker, in his review of Revitalizing Higher Education, states that "...the gathering force of the electronic information age has underlined the urgency for more and better education" (1995, p. 111). Because of this, the education of all members of society has become increasingly important, since the ability of the educational institutions to provide them with the necessary tools for today may seriously affect society's ability to continue to successfully compete in the world market. In fact, George (1996) argues that "Under investment in higher education may well be the most significant challenge to economic renewal in a globally competitive, knowledge-based economy" (p. 6). Extending this concept further, Baker (1995) states that "...it is the common coin of governments and international agencies that human resources are the most valuable resource in any society" and whether college and university faculties are willing to accept the notion, "...those of us in higher education are in the resource development business" (p.111).

The crucial need to develop people is becoming clearer, however, at a time when there appears to be a marked dissatisfaction with the delivery of education at all levels, including higher education. According to Tucker (1984), "Unfortunately, public confidence in higher education is declining at the same time that financial support is eroding. The public is telling higher education to

do more with less" (p. 265). Also, critics such as futurist Alvin Toffler have expressed their concerns about the education system. Tucker (1984) indicates that Toffler is "....highly critical of current education and refers to it as 'a hopeless anachronism' because of its orientation toward the past rather than the future. He argues that education appropriate for an industrial age is no longer adequate for the post-industrial age" (p. 265).

In addition to the system responding as a whole to the criticisms leveled at the system, there are challenges for individual teachers to address. For instance, curriculum is being constantly modified to accommodate technological changes, and this requires that the teachers find ways of updating their own technical knowledge and skills. Also, in the larger population centers, the student body is becoming more heterogeneous as it more closely represents the diverse ethnicity of our population; at the same time the number of students who are older and more experienced with life is growing. Tucker (1984) indicates that "This 'new clientele' for higher education is composed of different kinds of learners with wide ranges of abilities, interests and life experiences. They may have more experience than the instructor and be as knowledgeable in some subjects" (p. 264). Grabowski (1981) finds that "some individuals are entering professions at a period later in life than the usual lock-step progression through school; and some are making mid-career changes in profession; and some are developing an avid desire to learn at a time later in life than traditional education permits" (p. 91).

Because of their depth of experience in life and the world of work, we cannot assume that these students are either able or willing to accept the traditional approach to formal education. They are adults who will want to strongly influence the structure of the curriculum and how it is presented to them. This is the 'new clientele.' Their level of satisfaction with the programs

they are enrolled in can be measured, at least in part, by the attrition rate from them. Because attrition rates are a concern of many post-secondary institutions, it may be that this is a result of the level of dissatisfaction with what the students encounter at these institutions.

The foregoing raises the question of how the educational system is responding to these challenges relative to teacher development, particularly at the post-secondary level where good teaching is expected, but where the teaching role receives less attention than it does at the elementary and secondary levels. How does the teaching faculty perceive the opportunities for professional growth provided by their institution, and what action does the individual take to adjust to the 'new clientele' and to the constantly changing teaching/learning environment?

Purpose of the Study

This study considers the key question: What role does self-directed learning play in a post-secondary teacher's efforts to maintain both personal and professional growth over his/her career? In order to assist in answering this question, the study considers the self-directed learning activities of some of the faculty members of one proprietary (i.e. private, for-profit) educational institution over a twelve month period.

Subsidiary questions that assist in answering the key question are as follows:

1. What self-directed learning activities did the faculty members engage in over the last year?
2. What reasons do the faculty members give for engaging in these activities?

3. What methods did the faculty members use to learn in a self-directed fashion?
4. What do they perceive as inhibiting them from becoming more active in their learning?
5. What do they perceive as personal characteristics and/or skills that either enable them, or limit their ability to participate in self-directed learning?
6. What resources did the respondents use for their learning needs?
7. To what degree do the respondents perceive success in their learning activities?

Scope of the Study

A current search of the literature has not revealed any studies of the self-directed learning activities of the teaching faculty of post-secondary educational organizations and, in particular, non degree granting institutions. This study brings together these two aspects: the professional growth of the post-secondary teacher, and the post-secondary teacher as a self-directed learner. It provides some insights as to the extent to which this group of teachers participates in both personal and professional (job-related) self-directed learning activities. In particular, it identifies: a) the number and type of self-directed learning activities the faculty engaged in, over a twelve month period, b) their reasons for their participation in these learning activities, and c) their perceived success in, and degree of completion of the activities.

This study is founded on research and literature that identifies the learning activities of post-secondary faculty members who are adults, professionals and teachers. It will be unique in at least two ways. First, whereas previous studies have focused on a number of professional

occupations including teachers, pharmacists, engineers, clergymen, nurses, and others (Tough, 1978), the source of the data for this study is the faculty of a for-profit post-secondary educational institution.

The faculty is multicultural, with a variety of international educational backgrounds and teaching and/or professional practice experiences. Secondly, the study concentrates on the self-directed learning activities of some of the faculty members in order to more fully understand the dimension of this aspect of their learning and its perceived impact on their role as teachers.

From previous studies on adult learning, it is reasonable to assume that the faculty members have been engaged in self-directed learning activities during the past year. No assumption is made, however, about the number or focus of these activities. The study also assumes that the context, i.e. the working environment, has had an impact on the faculty's learning activities, and this is captured by requesting the teachers' perception of its impact.

Teacher Preparation

If we want our teaching professionals to be more effective, we need more than just his or her technical ability to be developed. Cranton (1996) refers to the process of developing teaching practice as involving both personal and professional growth (p.76). She states further that, "Educators' individual development and their role in work and social contexts cannot be separated. Learning is both a process of socialization and a process of change"(p. 142). In their discussion of professionals, Cervero, Azzaretto, and Associates (1990) argue that "technical rationality does not adequately describe the forms of knowledge that distinguish the excellent practitioner from the merely adequate one" (p. 167). Steffy (1989) points out that "The calling of teaching is not to attain technical brilliance, but to 'do good' with (students)" (p. 2).

The question then arises as to what can be done to adequately support teachers so that they can cope effectively with the "....complexity, diversity and uncertainty (which is) central to (their) professional and personal lives" (Hargreaves, 1994, p. 28). This, in turn leads us to ask what forms of faculty development are appropriate, available and fiscally accessible, particularly to teachers in institutions of higher education.

At present, "Most teacher education and development initiatives rest on efforts....to get teachers to improve their knowledge and skills of teaching and thereby also raise the status of the profession" (Hargreaves, 1994, p. 7). Steffy (1989) states that, "Traditional staff development....views teachers as inanimate objects, without a free will, or without the means to refuse to use what has been explained to them" (p. 6). However, this traditional approach "....does not acknowledge or address the personal identities and moral purposes of teachers, nor the cultures and contexts in which they work" (Hultmann and Horberg, 1993, in Hargreaves, 1994, p. 8).

Following traditional approaches and limited by fiscal constraints, most professional programs are designed to accommodate large numbers of participants as a group. Steffy (1989) states that, "Large group lectures are still a dominant mode of teacher in-service activities. Teachers are told and told and told" (p. 7). This type of professional development, however, may not produce the desired results. In fact, Steffy (1989) suggests that this approach benefits only a few teachers, and these are the ones who need it least (p. 7).

Munson (1992) refers to the disadvantage of using presentations or lectures to instruct or train staff. He states that,

> Although lectures reach large numbers of people efficiently, the lack of listener participation encourages mind wandering and impedes learning. Such a result would be of particular concern in the case of employer-initiated training where the participants'

> attendance is a requirement imposed by the employer and not due to a self-generated interest in the subject matter. (p. 5)

Kops (1993), however, suggests that there is possibly a better way to accomplish an organization's goals in relation to its staff. He refers to some of the benefits of embracing the notion of self-directed learning:

> A great deal of time and resources are invested by organizations in management training and development. By and large these resources are invested in formal training programs and activities, i.e., learning which is controlled by others. By paying more attention to the self-planned learning, organizations can expand management development and learning without a significant investment of additional resources. (p. 3)

A reasonable assumption arising from this statement would be that post-secondary teaching faculty and the institutions they work for might also benefit from this approach to staff development without consumption of large amounts of fiscal resources.

Teachers as Learners

A significant body of research exists describing the learning activities of adults as self-directed learners, both as they learn independently and as they participate as students in formal educational settings. Also, there have been studies of groups from various occupations, including the professions, with regard to their learning behaviours. The common goal in this area of research is to extend our knowledge of the learning activities of adult learners in various situations in order that the most effective approaches be used to assist these adults in their learning quest.

Though much research has focused on teachers and their critical role in education to assist others in their learning program, there has been relatively little that has viewed the teachers as learners, themselves.

In reference to his efforts to locate other studies related to his study of elementary school teachers as learners, Fair (1973) stated that, "A search was undertaken to discover documented evidence that other people had also witnessed the deliberate learning efforts of teachers. Examples were difficult to locate" (p. 4). He also indicated that "....little is known about how the teacher learns....there is virtually no empirical data on the learning behaviour of teachers" (p. 7). In addition to this worthy area for research, most of the studies of teachers have concentrated on the teacher at the elementary or secondary level with relatively little attention being given to the teacher at the post-secondary level.

The report of the Holmes Group, Tomorrow's Teachers, (1986) states clearly that there has not been sufficient study on the subject of teacher learning. They suggest that, "A(n) important line of work should focus on teachers' learning.... There is more to be done here than in the study of pedagogy, for research on teachers' learning is still weakly developed" (p. 17). In this report they refer not to just elementary and secondary school teachers, but even to our universities where there are similar problems. "Universities....strive to hire highly qualified academic specialists who know their subjects well....But few of these specialists know how to teach well" (p. 16).

Post-Secondary Teachers

Teachers at the post-secondary level are not required to have any formal teacher training. Cranton (1996) states that, "...most educators in colleges are not prepared teachers, but rather experts in a content area" (p. 8). However, "even new educators....have many years of experience in educational systems (including being a learner) and learn through questioning their

experiences" (Cranton, 1996, p. 46). They express a high level of confidence in their ability to teach in a manner that is at least as effective as the instruction they received during their years of formal education. In their earnest desire to meet their students' needs, they recognize the need to continue to grow both professionally and personally in order to improve the way they teach. "Behaviours are simply very limited extensions of a belief system, a concept of self and an orientation to life and work..." (Steffy, 1989, p. 8).

Post-secondary teachers appear to have very clear preferences as to how they want to learn, and are aware of how they learn best. They, in fact, provide another example of how adults go about learning what they want and/or need to learn. They acknowledge the importance of the formal training that they have received, but this does not condition them to be totally dependent on structured learning approaches such as coursework, while ignoring other forms of learning that they might find more effective. They use a variety of approaches to learning, selecting the one they feel is the most appropriate for the task at hand.

There are differing positions taken with regards to whether teachers are made or born, but regardless, anyone who teaches has had thousands of hours of observation of teaching practices before he/she stood in front of students. Unlike any other profession, most people have had first hand experience with teaching, and, therefore, have an opinion about how it should be practiced.

Post-secondary teachers will often have a depth of practical experience to draw from, tempered by their personality and the positive and negative experiences they had in the classroom. They likely had a reasonable experience in school, however, or they would not have chosen to teach.

It is possible for a teacher to have either the same teaching experience year after year with no apparent professional growth, or show a steady

improvement over a number of years. The difference may result from several factors, but two that will be significant are as follows: a) the teacher's ability to self-evaluate his ability to meet the needs of the program, the students and himself, and b) by reflecting on his practice and taking action to learn what is needed in the circumstance, a teacher can take charge of his professional growth and improve his teaching continuously.

Learning Projects

Central to the study is the concept of self-directed learning. Brookfield (1984) defines the process as, "....the intentional pursuit of clearly-specified learning goals with the learner's exercising control over the content and method of learning" (p. 67). The concept was further clarified by Tough (1971) who described a learning project as:

> ....one or several clearly related episodes occupying a minimum time of 7 hours (although often 50, 100, or more hours), during which the learner's primary intent was to gain and retain for at least two days certain clearly identifiable knowledge, skills, or attitudes. (p. 1)

He defined an episode as

> ....a well-defined period of time that is held together by the similarity in intent, activity, or place of the thoughts and actions that occur during it....Many episodes are between 30 and 60 minutes in length, but some are shorter or longer. (p. 7)

From these two definitions, we can realize the notion that when engaged in a learning project, the learner has a primary intentionality to gain knowledge, a skill or an attitude, and that the learner sets aside specific times in which to accomplish this task. This captures the essence of what can be referred to as the learning process and is defined by Sorenson (1964) as, "....a change in responding that involves abilities, emotions, attitudes, and all other behaviour that results from the activity of the learner" (p. 404). In order to accomplish

this learning in the manner suggested by Tough (1971), the learner would have to have something specific in mind to learn about before he began the process, rather than discovering something interesting just because he happened to be at a particular place when it was presented to him.

Also, in order to consider that the learning is purposeful, the individual will spend definite periods of time (episodes) actively involved in this project and so indicate a clear commitment to the task. This limitation is to separate clearly identified learning episodes from incidental learning, which we all experience on a regular basis as a result of living.

To further indicate intentionality on the part of the learner, Tough set a minimum time limit of seven hours on a learning project, in order to clearly identify those projects that were significant efforts. In this study the seven hour time limit is used as a guide rather than a control.

Motivation to Learn

If an adult is to set out a particular time to learn something specific, there must be some form of driving force that would cause this to happen. The learning activity would have to be a deliberate action, and when it occurred, it would have to have been a high priority in the person's life. Tough (1971) in his study of why adults learn, suggests that there are factors that influence an individual's decision to learn. In his study, he identifies three significant contributing factors. The first is the person's major conscious goals. This meant that what they were trying to do, accomplish or get was clearly of significance to them. The second factor was that he was facing a major question that had been raised, or a problem he had identified, that resulted in puzzlement on his part. Third, was his perception of appropriate, normal or desirable behaviour in the given situation (p. 54).

The period of time that we are living in is known as the knowledge or information age because we are producing knowledge at an unprecedented rate. There is no lack of knowledge that can, or could be learned, so each individual has to select from this body of knowledge those aspects that are significant to him. However, even when that knowledge could be significant to the individual, he or she may choose not to learn it. It is only when, as Tough has suggested, something sparks that desire to learn, and causes the person to make the effort to acquire the knowledge, skill or attitude necessary to address his need that the learning process starts.

The adult is motivated to learn by a number of factors which could include the following: the need to solve a work-related or personal problem, work and life transitions and the impact of previous learning situations. As an individual is able to clarify the nature of the problem and determine one's potential position when it is solved, there is a strong driving force set up in the individual to resolve the problem. Brundage and Mackeracher (1980) state that "motivation is based primarily on the learner's knowing where he is now and where he wants or needs to move to" (p. 39). Knowles (1968) indicates a very similar position. He argues that

> learning occurs when an individual experiences a problem or recognizes a gap between where he is and where he wants to be, and then institutes a self-inquiry in which he draws on whatever resources are available....to acquire the learnings necessary to solve the problem or close the gap. (p. 2)

Reaching a transition in one's occupation or in life and having to adjust to the new culture and/or context that presents itself may generate a motivation to learn. Also, since we can learn from both positive and negative events in our lives, how an individual feels about previous learning experiences will have a bearing on how that individual approaches a need to learn. As

indicated by Brundage and Mackeracher (1980), "knowledge of success or failure is accompanied by feelings of satisfaction or dissatisfaction, and it is these feelings which then become powerful motives for further learning or for withdrawal" (p. 39).

Progress in a desired direction is another motivator because, as Knowles (1968) states,

> ....when an individual can see evidence of progress toward his goals, he is more willing to invest additional energy for further progress....Continuing self-development, therefore, depends upon a process of continuing self-evaluation. (p. 3)

This would require that an individual identify his needs, determine how best to meet those needs, and become actively engaged in doing so, on a continuing basis. Because this work would never be 'finished', achievement would have to be measured by self-determined indicators that would demonstrate progress.

Teachers who are interested in their own self-development would likely engage themselves in a program that would involve continuing self-evaluation. There would be no need for teachers to work in isolation to accomplish this growth, but could identify colleagues, experts both inside and outside the system, (and even outside teaching) and administrators to assist them.

Biographical

My interest in this study stems in part from my own background as a professional educator for over thirty years, which required that I continuously acquire knowledge and skills to effectively fulfill my role both in and out of the classroom. This process involved many demands including the following: content had to be learned and updated; concepts had to be understood and strategies had to be devised and implemented; coaching and leadership skills

had to be developed; techniques of dealing with multiple demands and volumes of paper over short periods of time had to be acquired. Most of this learning was not readily available in a format suitable for my purposes, and when it was, the timing or location were obstacles to my benefiting from it. As a result, the onus for recognizing and addressing these professional demands fell on me.

Two major potential sources for in-service assistance for my professional growth were formal education courses, and conferences or workshops. Courses were generally inadequate for providing answers except to problems involving content or technical delivery of that content. Conferences and workshops were often disappointing because they failed to measure up to the pre-conference write-ups.

Running parallel to this need for professional growth was a need for personal development. As I matured as an individual and took on additional responsibilities in the home and in the community, there was a continual pressure for me to become more skilled, and more aware, so that I could perform to the best of my ability in these new (to me) situations. In very few, if any, of these situations was I able to find suitable courses or formal training conveniently available, and even written material was not always plentiful.

As I reflect back over my own experiences, I realize how frequently I engaged in learning activities that were appropriate for me and my situation. They were often unique because of the people involved and the circumstances, and even though general learning principles could have often been applied, they were a help, but they were not sufficient. This resulted in my seeking out resources to meet my needs as indicated to me through what Schon (1983) refers to as "reflection-in-action." These resources included more senior colleagues, network contacts, friends, experts, films, tapes, reading material and anything else I could locate which I determined would assist me.

As an example, when I was required to develop a course outline for data processing fairly early in my career, I first of all checked with my department head for guidance as to how I might tackle this task. He referred me to the Ministry guidelines, several textbooks and outlines in other subject areas as general guides. Very few schools in the area were teaching this course, so peer assistance was limited. Through one of them, however, I was able to make contact with an instructor at Mohawk College who made a number of helpful suggestions, and who later processed mark-sensed cards for the students through Mohawk's computer. Business contacts provided me with suggestions and printed material relating to forms and other data procesing supplies. These various sources enabled me to write the first draft of the outline which was approved by my department head as a working document. Over the first year of its use, it was modified as experience in the classroom dictated.

Even when I was able to locate a useful resource, at no time was it directly applicable to my situation, so the process of adaptation became a skill in itself. Over time, a combination of reading and reflection became the major learning resource. The process began with reflection to identify those areas of teaching and life that suggested deficiencies. This was followed by reading to absorb the thoughts of others on the topic. Finally, further reflection led me to decide how to apply those ideas to the area concerned.

Connections were often made between needs and appropriate resources through browsing in libraries and/or book stores. At times, nothing suitable was available, so I had to rely on my own inventiveness supported by my knowledge and previous experiences to provide a solution to a problem.

My life and career constantly produced challenges that demanded attention. Often, however, the responses which provided a level of satisfaction

in the situation, raised even more questions that required answers. This led to an exciting self-generating pursuit of a subject over a period of time.

Apart from courses required to meet the basic qualifications to teach, and upgrading courses to pursue career opportunities, most of my learning was initiated and controlled by me to meet either my professional or personal needs. Of necessity, it occurred outside any formal setting. The more I learned in this mode, the more I became aware of how I learned best and was able to apply this approach to a wide range of learning situations.

Over time, this process of learning evolved naturally for me, with no obvious guidance than that provided by necessity. It was only through reading that I discovered that those interested in adult education, in particular, had been exploring this concept for some time. Writers such as Tough, Knowles and Candy had identified the phenomenon as 'self-directed learning.'

At the time of this study, I was fortunate to be engaged in a position in a post-secondary for-profit educational institution. This setting provided me with an opportunity to explore further the concept of self-directed learning with the faculty of this organization.

This was a new position for the Institute, so I was challenged to discover the most effective ways of supporting the teaching faculty in their primary area of responsibility. I would have to develop my own learning strategies in order to cope with a curriculum, as well as both a culture and teaching/learning context with which I was totally unfamiliar.

I was strongly motivated, however, to be successful in this endeavour by at least two considerations: one, the fact that I would be putting my professional reputation on the line; and two, that I wanted to prove to myself that I could be effective in an educational setting that was new to me and, therefore provide me with a unique learning experience. I, therefore, decided to

pursue the position, and, following lengthy negotiations, was able to arrange suitable terms with the institution.

In my position as Director, Instructional Development, I would work with the faculty on a part-time basis while I continued with my studies. Both the organization and I were optimistic that I could bring my experience and skills in working with staff, primarily at the secondary level of the public education system, to support the faculty here. This had all been made possible by the fact that I had been able to arrange a leave from my school board for a period of time.

I was pleased to soon discover that teaching had strong commonalties at both the secondary school and this post-secondary institution. As far as its purpose, planning, problems, assessment, and other features, teaching was just about what I had thought it might be. Its outstanding difference was its generally unique style designed to meet the needs of this particular educational culture. My task became one of learning how to communicate my skills in, and understanding of teaching to a faculty that was not aware, in many instances, of the complexity of the teaching task, even if they were teaching effectively.

Significance of the Study

There are at least three reasons why I believe this study will be of value. In the teaching/ learning context, a great deal of study has been conducted on the skills and techniques necessary to communicate to the adult learner, so the research would be richer as a result of placing greater focus on the behaviour of the teacher of adults. Secondly, given the proper audience and circumstances, teachers can benefit from discussing their role, and this would be one of those rare opportunities to do so. Thirdly, the study would provide the respondent with a unique opportunity to see his/her learning behaviour in a new light.

Much of the time, teachers would not even be aware that what they were doing was significant because, as Borg and Gall (1989) state, "....the most obvious aspects of everyday life in educational settings tend to become invisible because they are so habitual" (p. 407).

Over the past thirty years, I have observed teachers, primarily at the secondary level, as they struggled to adjust to changes in their teaching assignments, their extra-curricular commitments, their changes from one school to another and their acceptance of positions of responsibility. In each of these cases, the teachers had to go through a sharp learning curve in order to make the adjustment to the new situation.

Most of the time it was the teachers' choice to take on these new assignments even though they knew they would receive minimal or no human assistance to adapt to them. The teachers were simply expected to apply themselves to the task and perform as a professionals, regardless of their previous experience in the area. In most cases they did remarkably well. They set about to learn what was necessary, either by recognizing it at the beginning of the activity, or discovering it as problems developed along the way. If human resources were used, great care was exercised in their selection and any communications exchanged with them, since the teachers had a reputation to maintain, which was closely tied to the tradition of teaching being an isolated occupation.

I have observed teachers who were required to take on new courses even when the background of the teacher was either weak or non-existent in that area. Some even accepted the responsibility for student activities such as a wrestling team, a cross-country team, the students' council, or yearbook advertizing without even receiving an introduction to them apart from observation at a distance.

In some cases, formal courses are available to assist the teachers, but are not necessarily given at a suitable or convenient time (especially if the teachers are busy with students over and above their teaching assignment), nor at a location that is reasonably accessible to the teacher. In addition, there is no guarantee that the material presented at these courses will meet the needs of the teacher attending.

This raises the critical question, then, of how, under these circumstances, do teachers learn what they need to know in order to do the job they have set out to do in a professional manner? It seems reasonable to assume that the answer to this question might lie in the fact that they somehow create their own personal learning experience(s) to enable them to cope with each new challenge.

To accomplish this, they would have to go through several stages of the learning process: recognize and identify the problem or problems they are facing, determine the resources they would need to solve the problem, and become active to acquire the knowledge, skill or attitudes they required from these resources.

Ethical Considerations

My relationship with the faculty had been developed over the year prior to the study. During this time, I had been able to establish a high level of trust with them, so that any concerns they might have had regarding the maintenance of confidentiality of information had been removed. They entered the study with full confidence that any revelations they made would not be communicated to anyone else, particularly those within the organization, even though they were aware that I was in a position to do so. This trust level was critical in that it removed any potential barriers to discussions, and it assured

their willingness to share ideas and experiences as openly as possible. It also allowed them to verbally reflect on their activities in ways that were new to them--a potentially risky venture. As a result, some of the discussions led to individuals revealing personal and/or professional weaknesses or inadequacies; this required a very high level of trust in the researcher. With this trust, however, would come an openness by the participants which would yield a high quality of responses, and therefore improve the validity of the results.

The Following Chapters

The remainder of the dissertation is organized under four chapter headings: Literature Review, Methodology, Findings and Conclusions and Implications. Chapter 2 provides an overview of research and other material that establishes a basis for this study. Chapter 3 deals with the selection of the particular methodology used in this study. It outlines the reasons for this choice, along with the rationale and process in the selection of the study group, and the manner in which the data were gathered. Chapter 4 lays out the findings from the study. Chapter 5 focuses on the conclusions and implications that are drawn as a result of the findings.

CHAPTER TWO

LITERATURE REVIEW

> 1. What is the most important thing you have learned in the last three years?
>
> 2. How did you learn it?
>
> Experience suggests that if practitioners encouraged each other to reflect on these two questions, more would be done to improve instruction than all the methods and techniques available through popular seminars and workshops.
>
> (Ewert, 1994, p. 27)

The preceding quotation clearly identifies the value of focusing our attention on the teacher as a learner, and suggests that there are significant benefits to the delivery of instruction as a result of teachers considering what they have learned and how they have learned it. It also suggests that causing practitioners to reflect on their own learning strategies is a superior approach to improving instruction than other methods being used.

Allen and Mackie (1981) also consider that there is significant value in having teachers consider how they learn best. They refer to Williams' (1980) support of this concept in their comment on training adult teachers. They state that, "One method of overcoming (the) difficulty in training adult teachers is to adopt Williams' (1980) approach of a 'reflexive' strategy. In other words, discuss with adults how they, themselves, go about learning effectively using the same principles as a basis for discussion" (p. 11).

This review of the literature will reflect on the teacher as learner from three perspectives: as an adult learner, as a professional learner, and as a teacher. In addition, the review will consider the significance of the context or

environment of the learning activities in which the teaching faculty engage, and its impact on the learner.

Visions of Teaching

Most post-secondary teaching positions do not require formal teacher training. They do often, however, require a high level of academic knowledge and/or extensive experience and expertise in the area in which they are teaching. This suggests that the assumption is, that if you know a subject, you can teach it. Derek Allen (1994) reports that some faculties at the University of Toronto are making a serious effort to assist their members to improve their teaching ability, but he also states that, "It is bizarre that a student can earn a degree that qualifies him or her for a career of university teaching and research without necessarily receiving any systematic training in teaching" (p. 12).

However, contrary to the notion of teaching being simply a technical activity, some post-secondary teachers become recognized by their students and peers as being exemplary, combining a set of characteristics such as being knowledgeable in the subject area, enthusiastic, committed to the role of a teacher, an effective communicator, all of which makes them uniquely able to facilitate the learning process of their students. Sometimes, though rarely, a novice teacher can be perceived as being exemplary. More often, it is the longer-term teacher who is so identified.

This raises the critical question of how this teacher achieved this standing, since, in most cases, he or she did not begin his or her teaching with this high level of skill. As desirable as this standing may be, not every teacher can attain it, but in many cases, over time, there is marked growth in the ability of many teachers to guide the learning of the students to a greater level

of understanding in their area of study. How does this change occur; what initiates the change; who are the players and what are their roles in this metamorphosis?

In each teaching/learning situation, the teacher is unique and is dealing with a unique group of students. For this situation the teacher will have learning needs different from any other teacher. This derives from the fact that, "We each hold unique sets of beliefs about teaching and the elements of instruction and we each behave in a teaching/learning setting in fundamentally different ways" (Heimlich and Norland, 1994, p. 22). In addition to fulfilling their role as teachers, they display the characteristics of adults, and , as Virginia Griffin (1979) stated, "Adults differ from one another in how they learn, how they prefer to learn, and in their ability and capacity to be self-directing....This is an obvious statement, but the implications of it are extremely complex" (p. 32).

As Cranton (1996) has indicated, educational institutions expect their teachers to continue to grow and change to meet the challenges of their teaching role. If they recognize and support their teachers' ability to learn as adults and thereby grow, this could have a desirable impact on the teaching/learning environment. The ultimate beneficiaries of this would be the students, the teachers and the organization as a whole.

The literature provides us with a greater understanding of how adults in general go about learning what is important to them to learn; how professionals direct their own learning activities in order to cope with the challenges they face on an on-going basis in their practice; and how the context of the professionals' practice can have a significant impact on the professionals' learning activities.

Faculty Development

Traditionally, many cost-effective faculty development programs have been devised to accommodate a significant number of people over a relatively short period of time with the assumption that when the process was over, the teachers would be better equipped to deal with the teaching/learning situation more effectively than before. Even when teachers were participants at a conference which included an option of topics to explore, many of the presentations were conducted in lecture style with minimal interaction, which is contrary to the way in which most adults prefer to learn.

Some faculty members always have, and will continue to look after their own personal development as part of their professional responsibility. Cranton (1996) writes that, "Most adult educators learn the skills and techniques of their profession through some form of self-directed learning rather than through formal programs or courses" (p. 171). In the literature this is referred to as self-directed professional development, which is characterized by the individual identifying his or her personal and professional needs; selecting and utilizing appropriate human and/or material resources to satisfy those needs; and applying the resultant learning to an immediate situation in his or her practice. Brookfield (1984) defines it as, "....the intentional pursuit of clearly-specified learning goals with the learner's exercising control over the content and method of learning" (p. 67).

The motivating force to initiate a learning activity is the individual's resolve to add to or improve an aspect of his or her personal or professional life. Studies demonstrate that this is not uncommon, and, in fact, according to Tough (1971), about seventy percent of the learning projects that adults engage in, are self-directed. He limits a learning project to a series of related

learning episodes totaling at least seven hours over several days with the person primarily attempting to learn and retain something they want to learn.

Adults' Learning Patterns

There is evidence from research and literature that adults display an approach to learning which is different from that of children, and reflects their life experience and maturity. Knowles (1974) identifies four characteristics of the adult learner:

> 1. Adults have a strong need to be self-directing.
> 2. Adults have much greater experience behind them and increasingly define themselves by this experience rather than by external sources.
> 3. Readiness to learn. This is based, for adults, more on a question of 'need' related to current projects and roles than on questions of 'ought' as in school learning.
> 4. Adult orientation to learning is problem or project-centred looking to immediate application. (p. 303)

Self-directed learning activities, are most often pursued in the hope of solving a problem, rather than learning subject material for purely academic purposes. Knowles (1984) asserts that in contrast with self-directed learning, the "imposed [traditional education] structure conflicts with the adult's deep psychological need to be self-directing and may induce resistance, apathy, or withdrawal" (p. 222). He further argues that:

> one of the most significant findings from research about adult learning...is that when adults go about learning something naturally, they are highly self-directing. Evidence is beginning to accumulate, too, that what adults learn on their own initiative, they learn more deeply and permanently than when they learn by being taught. (p. 222)

This suggests that there are benefits to respecting the desire of adults to be self-directing whenever possible and where it is appropriate.

This desire to be self-directing does not suddenly occur in an adult, but as Knowles suggests,

> I speculate, with growing support from research....that as individuals mature, their need and capacity to be self-directing, to utilize their experience in learning, to identify their own readiness to learn, and to organize their learning around life problems, increases steadily from infancy to pre-adolescence, and then increases rapidly during adolescence. (Knowles, 1984, p. 53)

Learning Projects

Whether it is because of personal or job-related circumstances, adults regularly face the challenge to learn something new. They have to develop their own coping skills because formal programs are either not available or are inconveniently scheduled. One might wonder how adults respond under such circumstances. Tough (1971) suggests some answers by providing useful information about the involvement of adults with what he refers to as "learning projects." He defines these as "highly deliberate efforts adding up to at least seven hours, to gain knowledge or skill, to change one's behaviour or to break a habit" (p. 1). He continues that "almost everyone undertakes one or two major learning efforts a year....The median is eight....involving eight distinct areas of knowledge and skill" (p. 1).

People are anxious to learn and willing to make a significant effort to do so. Some of their efforts to learn will result from unfortunate circumstances such as a serious illness in the family in which they may learn about a serious disease, like cancer. Other efforts will be the result of a personal desire to know how something works or how to make or to do something. The critical point in these findings is that adults appear to have the ability to initiate and follow through a search for resources to assist with their learning in an area that is important to them.

Significant is the fact that by far the majority of the efforts to learn are directed throughout by the learner, him- or herself. "About 70% of all learning projects are planned by the learner himself who seeks help from a variety of acquaintances, experts, and printed resources" (Tough, 1971, p. 1). Not only are adults motivated to acquire knowledge for their current personal use, but they also apply the same skills to their jobs.

> Attempts to update and upgrade one's knowledge and skill are only part of job-related learning efforts. Many other learning projects consist of just one step in dealing with an immediate problem, case, or task. In this situation, the knowledge and skill are required for some immediate and definite use or application....not for some rather vague situation in the distant future. (Tough, 1971, p. 34)

Teacher as Professional

Grabowski (1981) argues that "the consumer has become increasingly concerned about the widening gap between what professionals can deliver and what the public expects them to cherish" (p. 85). Ideally, the public would want all professionals to be excellent practitioners for all their clients at all times. This unrealistic goal cannot be achieved, but unless the emphasis in the training and development of professionals changes, their performance will likely not improve significantly and, therefore, the level of satisfaction with professionals will not change. The professionals themselves must take the major responsibility for their continuing education, but if they are not supported by a philosophy that allows them to acquire what they really need to be effective, we will not see any marked change in their delivery.

There needs to be a shift toward an underlying philosophy in which the learner is being considered from the 'critical viewpoint.' Cervero et al. (1990) argue that,

> basing the model of the learner on the critical viewpoint implies that the primary goal of continuing education should be to improve professional artistry or the professionals' ability to operate in the indeterminate zones of practice. In contrast, a model of the learner based on the functionalist viewpoint stresses the importance of acquiring as much technical knowledge as possible to apply to the problems of professional practice. (p. 54)

The concept of a profession has been defined using a variety of approaches from a very broad, general statement, through to a highly precise definition for a very specific occupation, but no one of them suffices for all situations. Grabowski (1981) notes that "among researchers....there is no agreement on what constitutes a profession, despite numerous attempts at a definition" (p. 84). In this study we will select from some of the definitions given, a number of characteristics, which, collectively, lead us to a better understanding of the concept.

The literature suggests that a profession may be viewed as an occupation, or a vocation, or a skill. To be defined as a profession, the literature also suggests that, depending on the definition, certain conditions must be met: there is a scientific or theoretical foundation on which a profession is based; a profession includes a code of conduct; technical expertise is expected; a period of intensive and lengthy training precedes practice; each member of the profession has a responsibility to the governing authority; licensing may be required; and practice is modified following scientific analysis which leads to theoretical conclusions.

There is significance in the fact that none of these definitions explicitly requires the professional to engage in a process of continuous professional learning. Yet as Grabowski (1981) states, "there is no question or debate about the need for professionals, in every field, to be involved in some form of continuing education" (p. 85), because, "without continuing education, a

professional's half-life may be only six or seven years" (p. 85). Because of the changing environment in which the professionals are practicing, it would be reasonable to expect that they would continue to grow as part of their professional commitment. In fact, "there is an assumption and expectation among the leaders of most professions that the need for lifelong learning is so obvious to practitioners that they will pursue it" (Grabowski, 1981, p. 85). Smutz and Queeney (1990) state the situation quite clearly when they argue that "continuing professional education is no longer a luxury, but a necessity" (p. 183).

Darling-Hammond and Wise (1982) report in the Encyclopedia of Educational Research that

> Professionalism depends not on compensation or status, but on the affirmation of three principles in the conduct and governance of an occupation:
>
> 1. Knowledge is the basis for permission to practice and for decisions that are made with respect to the unique needs of clients.
> 2. The practitioner pledges his or her first concern to the welfare of the client.
> 3. The profession assumes collective responsibility for the definition, transmittal, and enforcement of professional standards of practice and ethics. (p. 1359)

Based on this definition, technically, no teacher can be called a professional. However, as a basic requirement for being hired, the faculty of this institution are required to possess a depth of knowledge of, and be current in, their subject area. Also, they indicate a commitment to doing all they can in the time available to assist the students to acquire an understanding of their subject material.

This would strongly suggest that their practice is knowledge-based and client-oriented. Therefore, to the extent that they have control, they behave in

a professional manner toward their clients, the students. They also engage in learning behaviours which are not specifically required of them by the organization, but that enhance their ability to function more effectively in the classroom. This indicates their acceptance of the responsibility to increase their knowledge of their subject, their students and teaching, in order to communicate more effectively the course material to their students.

In this sense, they also behave as professionals, since as the next section clarifies, professionals engage in learning activities in order to meet their needs as identified through their daily experiences. Therefore, in so far as the faculty members display the commitment to their clients and to maintaining their knowledge base, because they are behaving in a professional manner, they will, for the purposes of this study, be classified as professionals. Rowan (1994) supports the concept of teachers being professionals when she states that, "....the professional status of teaching is closely tied to the complexity of teachers' work...." (p. 4).

Professionals as Learners

If we consider the learning strategies of some professionals, we will get a clearer picture of what they conceive as their needs for education to deal with their practice. Grabowski (1981) reports that "many....professionals are engaged in independent continuing education and learning, without the help of any institutions, agencies, or organizations ....through reading journals and books, informal contacts with colleagues, consultations, reading sales literature for new products, and self-directed learning" (p. 91). Baskett and Day (1980) point out that "in contrast [to the traditional approach] ....professionals learn to solve professional problems in a variety of ways only one of which is participation in formal continuing professional education programs" (p. 55).

Additionally, Smutz and Queeney (1990) report that, contrary to expectations, professionals' "experience suggests that few professionals explicitly follow....a systematic process in their continuing professional education activities" (p. 191). This does not diminish the value or effectiveness of the effort since, "learning may go on with or without conscious plan or direction" (Kidd, 1973, p. 15). Therefore, formal, rigid programming would not be consistent with what many professionals prefer to practice for themselves. This would mean that to stay current, professionals would have to engage in some other form of learning.

This fact should, however, not be a reason for concern because, as Cross (1981) states, "professional people....are among the most active self-directed learners in the society" (p. 193). She defines "self-directed learning [as]....deliberate learning in which the person's primary intention is to gain certain definite knowledge or skills....[arguing that] organized group learning constitutes a small portion of the total effort" (p. 187).

Changes and Phases

Some studies suggest that throughout life we encounter a number of phases or stages in our growth (Cross, 1981; Sheehy, 1976); we will pass through some, but there is no guarantee that we will pass through all stages. In our careers, we encounter a similar phenomenon of phases or stages, and, depending on a number of factors, we may find ourselves either stationary, or moving through one phase or stage and on to another. Academically, there is a parallel experience.

The notion of stages and phases in life has important implications for program delivery. Cervero (1988) argues that "different instructional strategies are necessary for each level of proficiency because knowledge is

acquired differently at each level" (p. 49). Hargreaves and Fullan (1992) point out that "teachers at different points in the life cycle have characteristically different orientations to change and improvement as well as different needs of professional development" (p. 8).

Because each professional is unique, any change or improvement in the organization, or any anticipated professional development program should be planned in such a way as to minimize the impact of these personal differences, in order to accommodate the learner as well as possible. This implies that those responsible for the planning of professional development programs need to be aware of how these proposals will be viewed by the participants, so that the organizers can plan intelligently, even though it is unreasonable to expect that they will be able to accommodate everyone's wishes perfectly.

This points to the need to involve the participants in the planning of the program. The effect of this involvement will be a tendency to minimize the difficulties, as well as to ensure a higher level of commitment from the participants. Obviously, from the preceding material, a single standard program would not be suitable for all participants, since they would be at various stages and phases in the different dimensions of their life.

The ability to benefit from educational programs varies with each individual. This is attributable to a number of factors including previous level of learning, personal motivation, the learning context, external motivators such as possible career moves or promotions, and, the mode of delivery (which implies the preferred learning style). Because of factors such as these, it is unreasonable to assume that any group of professionals would be homogeneous and, therefore, that their learning needs could be met by only one approach. The chances of success under these circumstances are very low.

In order to accommodate a larger number of learners, continuing education programs can be delivered in a variety of ways in a number of settings, each of which will have advantages and disadvantages for the participants. Three common ways of delivering these programs include: the formal lecture which is a common mode of disseminating information to a large group in a short period of time; smaller interactive groups which engage the participants in the process in a much more overt fashion; and finally, individuals may work on a project on their own, with or without assistance from others.

Ambiguous Problems

The real challenge for professionals comes when they face an ambiguous problem. According to Cervero et al. (1990), "one often hears professionals claim that most of the problems they see are not 'in the book'" (p. 162). These are the ones for which no formal education would be adequate. They require that the professional be able to work effectively even when there is insufficient information, the symptoms are inconclusive, or a new scenario presents itself. Schon (1983) refers to this type of problem as being one that resides in the "swampland".

> In the varied topography of professional practice, there is a high, hard ground overlooking a swamp. On the high ground, manageable problems lend themselves to solution through the application of research-based theory and technique. In the swampy lowland, messy, confusing problems defy technical solution. The irony of this situation is that the problems of the high ground tend to be relatively unimportant to individuals or society at large---while in the swamp lie the problems of greatest human concern. (p. 3)

For Schon, the education of professionals is not complete if all they have received is technical training, because they would not be effective in dealing

with the "messy", but important problems they would have to face in their day-to-day practice.

Cervero (1988) notes that

> most situations of professional practice are characterized by uniqueness, uncertainty, and value conflict. Therefore, more often than not, knowing-in-action will not solve a particular problem. Rather, one needs to construct the situation to make it solvable. The ability to do this, to reflect-in-action, is the core of professional artistry....the key to successfully completing this problem-solving activity is to bring past experience to bear on current action. (p. 44)

Unless the professional has experience from some other occupation that has a bearing on the situation being faced, the beginner will not be able to cope with it as well as a more experienced practitioner. Pre-service training or instruction would not be of assistance beyond making the beginner aware of the possibility of this type of situation arising. As he or she encounters more and more situations, he or she has the opportunity to develop this skill, but this will only happen if he or she has the ability to view them from a deeper perspective than knowing-in-action. Unfortunately, with the pressures of the practice, the beginner may not be able to do much more than cope, initially.

In order that the professional "develop the forms of knowing essential to continuing professional education we must start with the notion that they can be learned but cannot be taught....[and the key to doing it is] to provide experientially based methods, such as case studies or....coaching" (Cervero et al., 1990, p. 179). The question the professional will face if he or she wishes to pursue this path is that of access to appropriate resources. It would not be impossible for the professional to develop the ability to reflect-in-action on his or her own, because as Schon (1983) has indicated, "when professionals learn the artistry of professional practice, they learn new ways of using the kinds of competence they already possess" (p. 56). Peer or expert support, however,

would be an invaluable asset to them in providing them with coaching assistance as they learn to acquire this artistry.

Getting Started in Self-Directed Learning

In order to embark on such an ambitious task of taking control of his or her own continuous learning, the professional needs initially to seek some form of direction, in order to achieve a sense of where he or she needs to focus attention, as well as where he or she will be going. To assist in this task, Cervero et al. (1990) outline a series of processes that the self-directing professional learner would engage in. These are not intended to be a formula for action, but rather a guide to help the professional reflect on his or her practice, as well as providing feedback on his or her progress toward his or her personal professional goals.

> Assessment....the use of multiple devises to help professionals uncover practice deficiencies, identify immediate professional interests....
> Analysis and Reflection....professionals can clarify their professional development priorities in the context of their profession, their employing organization, and their personal lives....
> Professional Development Activities....Learning experiences may be formal or informal, undertaken individually or with fellow practitioners; and focused on knowledge, skills, or both....
> Integration of Learning into Practice....
> Evaluation and Reassessment, requires periodic consideration of progress made toward accomplishment of professional development goals...but also of progress toward effective self-management of the professional development process. (Cervero et al., 1990, p. 193)

The learning style of professionals tends to be casual rather than formalized and well-planned. The informality allows individuals to respond to an immediate situation rather than preparing for some possible event in the future. Because this is a common practice, long-term, formal learning plans for professionals would be at least contrived and of little value to them.

> Experts in staff and personnel development contend that an organization's effectiveness depends heavily on an ongoing, self-renewing program of human resources development. In the same way, an academic department's effectiveness depends largely on *faculty development* , a term coined to denote self-renewing activities for faculty members" (Tucker, 1984, p. 263).

When we consider faculty development, we tend to think in limited terms, possibly from the point of view of the administration or a discipline. Tucker (1984) helps our thinking by referring to faculty development as "....establishing activities and procedures that assist faculty members in acquiring knowledge, skills and attitudes that enable them to become more effective in performing all functions related to professional academic life" (p. 268). Unfortunately, it fails to provide any notion of how this should be accomplished. Some would argue that they are doing this already, so they see no need for any change.

Employers of Professionals

The context in which one works will have a strong influence on how one operates, but the employer can control the effectiveness of any learning program in a number of ways. Therefore, if the learning is going to be introduced to the work setting, Cervero et al. (1990) argue that "the effect on practice frequently is limited without employer support for adaptation in the work setting" (p. 188). They further caution that "on-site reinforcement of learning following continuing professional education participation, while critical to implementation, too often is ignored. Individual professionals should not be isolated learners; encouragement from peers, employers, or supervisors seems necessary" (p. 188). In fact, Hargreaves and Fullan (1992) point out that "critical reflection will not take place if there is neither time nor encouragement for it" (p. 13). Yet this is a vital component of continuing education.

Cervero et al. (1990) argue that "reflection-on-practice must become an explicit part of continuing education [for professionals]" (p. 170). They continue that in order that a learning program achieve its goals, there should be collaboration in the workplace. There are "three key elements in a [successful] collaborative approach--the individual, learning resources, and organizational support" (Cervero et al., 1990, p. 194).

The support of the employer is not automatic, however, even if the program has merit. It is vital, therefore, to ensure the participation of the organization right from the initial planning stage, even though it may require valuable time and effort. Cervero et al. (1990) confirm this, noting that, "involvement of employers in the development and delivery of continuing professional development is crucial" (p. 188). The likelihood of their agreeing to become a partner in this endeavour is, however, fairly good because, as Grabowski (1981) points out, "employing agencies and institutions.... are concerned, to a large extent, with increasing the effectiveness of the professional on the job" (p. 89). However, unfortunately, "the education function often suffers from a lack of regular and substantial support from the parent body, particularly in difficult times" (Houle, 1980, p. 409).

In addition, "Higher education has a number of weaknesses as a provider of continuing professional education. The weakness having the most comprehensive effect is that because continuing professional education is not a primary function of the higher education institutions, substantial and reliable funding is not generally available" (Sneed, 1972, p. 407).

Context

The work context can provide an on-going source of support and encouragement if it can be organized for this purpose. It is a key to motivating

individuals and groups to pursue further development. Cross (1981) points out that, "the humanist assumes that there is a natural tendency for people to learn and that learning will flourish if nourishing, encouraging environments are provided" (p. 228). Kidd (1973) argues that "the objective is to provide the climate and atmosphere and freedom and self-discipline in which learning is promoted" (p. 14).

Change is not something that most people enjoy or even appreciate, yet changes in the work context can provide a stimulus for growth. Cross (1981) notes that "research supports the notion that environmental challenges provide times when adults are especially receptive to new learning" (p. 230). As they go through a period of re-adjustment to a new situation, they are, in fact, going through a transition period which is a key learning time. Cross (1981) continues that "challenge and stimulation are inevitable conditions of life, but they can also be deliberately invoked" (p. 231). If the context is not conducive to professional growth, however, it may be neutral or may even be an inhibitor. Kidd (1973) argues that "a man or woman who has learned to live with a detrimental environment is not a person who will readily undertake another learning experience" (p. 35).

Hargreaves and Fullan (1992) make reference to this concern as it applies to teachers. A collegial context is one that "....is sadly lacking in many teachers' professional lives" (p.11). They continue that "focusing on the person....overemphasize(s) personal responsibility for change and draw(s) attention away from controversial questions about the context in which teachers work, and the ways in which it enhances or inhibits personal or professional development" (p. 13). There are obviously some aspects of the teachers' work environment that can have a significant impact on their level of performance. Examples of these might include telephone access at times

when they are not teaching, very hot or very cold classrooms, and insufficient or outdated resources.

Resources

For the person with a learning need, whether personal or professional, the lack of, or the inability to locate and have access to quality, appropriate resources can be very de-motivating. If this condition continues for any length of time, the potential learner will end the search in frustration. If the individual is operating independently he or she may have exhausted the list of possible sources, but not been aware of others which could have been explored. Cross (1981) argues that "self-directed learning is likely to be inefficient if the learner cannot define what he wants to know or needs help in locating the relevant resources" (p. 194).

In order to prevent this from happening, or at least to reduce its occurrence, resources, both human and material, need to be made available and easily accessible to all those who may require them. Providing material resources may not be too much of a problem if the cost is not too great; providing human resources, however, may create a challenge, because as Cross (1981) indicates, "finding competent help....turns out to be one of the major problems in self-directed learning projects" (p. 195).

If professionals are truly self-directing, they will require an extensive array of options if their various needs are to be met. Some of the activities will be in the form of traditional lectures for those who determine that this is the best approach for them at this time; others will see advantages in participating in smaller group activities whenever this is appropriate; at other times and for other purposes they may wish to work independently, but they will make contact with others as necessary.

One of the surprising benefits of self-directed learning is that it encourages people to work together more often than at present. In fact, according to Cross (1981), "while most self-directed learners decide to maintain complete control over the direction of their learning project, this does not mean that they work alone. Indeed, much self-planned learning involves *more* human interaction than classroom learning does" (p. 195). This is due, to some extent at least, to the desire on the part of the learner for active participation in the learning process. Cross (1981) points out that "the message should not be lost that the most frequently used methods in self-directed learning are all active, involving the learner directly; the least commonly used techniques are passive--watching or listening to someone else do something" (p. 197).

Time and Place

In order that they be able to meet their learning needs within a reasonable time frame, professionals will also require available space and flexible time. Preferably, if the professional is part of an organization, that space should be on-site or very near for possibly two reasons. First, Kidd (1973) notes that "studies have indicated that adults will take part in educational activities that are close at hand rather than those in which they claim to be interested but which may be more difficult to reach" (p. 34). We can conclude from this that they do not wish to waste their time in traveling if such can be avoided. The second reason for having the learning take place nearby, as Grabowski (1981) points out, is that "programs should be based and integrated within the practice of the professional, ideally, at the place where most problems occur" (p. 92). Under these circumstances, the learning is taking place in its proper context.

The professional also needs flexibility in his or her time schedule, and flexibility in the learning program schedule so that he or she will not have to miss any aspect of the learning program. If professionals have some control over this time factor, they will be more inclined to make a commitment to it knowing that they will be able to meet their obligations. Cross (1981) argues that "strongly motivated learners seem to have the greatest problems with scheduling--perhaps because....they tend to be professional people with crowded and irregular work schedules....[They] ranked the desire to determine their own learning schedule and pace as the most important reasons for learning on their own rather than taking a course" (p. 216).

Upgrading and Training

Because teachers are adult learners, in order to create the best possible learning conditions, there must be a recognition of how they learn best. "Acknowledging that teacher development is also a process of personal development marks an important step forward in our improvement efforts" (Hargreaves and Fullan, 1992, p. 7). However, the fact that each teacher develops uniquely is not usually reflected in the programs designed for them. In fact, Hargreaves and Fullan (1992) argue that "standardized development programmes do not meet the needs and desires of many different teachers in many different settings" (p. 9). As a result, the chances are great that little or no learning will result from these programs. Teachers do have professional concerns and have a keen desire to learn, but according to Hargreaves and Fullan (1992), "seldom are teachers involved in decisions about the content and structure of the workshops they have to attend....[and]....scant consideration is given to how teachers' work circumstances help or hinder the complex process of what they do" (p. 85). The Holmes Group (1990) also referred to this issue

by stating that the training that teachers are required to take "....is seldom connected to the problems that teachers see as most urgent" (p. 61). Teachers will not learn as effectively when they cannot influence the issues being addressed, and the ways with which they are dealt. This should be a major concern when opportunities for professional growth for teachers are extremely limited, and at the same time society is suggesting that there is a great need for it.

Learning Through Practice

Unlike these more formal approaches to their learning, teachers, like other professionals, learn through their practice. Cervero et al. (1990) note that "teachers have no unique, specialized methods by which to develop practical knowledge, but must use their powers of observation, comparison, trial and error and reflection in practice situations....they learn new ways of using competencies they already possess" (p. 177). Hargreaves and Fullan (1992) also point out that teachers reflect on their practice in order to learn from it. They refer to a "way of coming to view teaching, even one's own teaching, differently, and seeing in it deeper significances and possibilities than a usual passing glance might permit" (p. 8).

Providing Assistance

Teachers often work in isolation from other teachers, and as a result, receive very little feedback on their practice. Much of what they do is intuitive or knowing-in-action. Cervero et al. (1990) note that "as is true of other professions, however, many teachers do not know what they know, so that a first step would be to help teachers uncover the rules of practice, practical principles, and images that guide their practice" (p. 177). Hargreaves and

Fullan (1992) refer to the isolation and uniqueness of the teacher, encouraging him or her to seek assistance from others. They argue that

> ....each teacher's path and pattern of development is a solitary journey....[but] there is no rule that requires us to pursue this solitary journey without outside help. The paradox is that becoming a fully developed, autonomous individual is a process that we cannot make happen alone. (p. 82)

They also refer to the fact that, like members of other professions, teachers have great difficulty asking for help, even though they need it.

We can conclude even from the few examples given here that teachers have much in common when it comes to their needs for continuing education and the manner in which they receive their education. Therefore, one might conclude that they would also be able to benefit from self-directed learning, even though they might have some difficulty moving away from the current professional learner philosophy which strongly reflects the pedagogical model.

Clark (1992) finds that

> ....research on teacher thinking supports the position that teachers are more active than passive, more ready to learn than resistant, more wise and knowledgeable than deficient, and more diverse and unique than they are homogeneous. (p. 77)

Clark's (1992) answer as to what we can do to make professional development programmes work for professional educators is deceptively simple: "we must give the responsibility for professional development to the teachers themselves" (p. 77). Also, according to Grabowski (1981), "continuing education for professionals should emphasize self-education, individualized educational diagnosis, and individualized response rather than instruction and coursework" (p. 92).

Some businesses have already recognized the value for their employees of their taking charge of their own learning needs, both personal and work-related, and are providing working time for them to do it. Eurich (1985) states

that, "Company catalogs increasingly list training courses for personal growth and satisfaction that enhance the quality of life....Trends are away from mass-oriented programs; movement is toward encouraging individual development on company time." (p. 35)

Summary

In summary, the literature suggests that there is a need to focus on the teacher as a learner, and to encourage teachers to identify how, and under what circumstances they learn most effectively. In order to do this, a number of factors that could contribute to teachers' learning were considered: the nature of teaching; how adults often learn; what professionals in general do in order to learn; the factors that contribute to more effective professional learning and the implementation of that learning; the role of self-directed learning; and increasing the effectiveness of professional development programs.

The literature presents teaching as being far more than a technical activity, and that each teacher holds a set of beliefs about teaching which strongly influences the way he or she teaches. These two concepts have significant implications regarding what teachers could be learning to enhance their teaching, and what they consider to be important in their professional growth.

Adults tend to learn in ways that differ from the learning behaviours of children in that adults want to be in control of their learning activities, and that they focus on learning that can meet a current need, rather than for the future. Many adults are active learners, undertaking, on average, eight learning projects in a year in a self-directed fashion, a strategy that usually involves a high degree of human interaction.

There is a need for professionals to recognize the necessity of being involved in continuing education, because of the short half-life of their current knowledge. They can be encouraged to extend their professional learning by engaging in self-directed learning, which can help them reflect on their practice, and develop appropriate strategies to improve their effectiveness.

The literature supports the notion that professionals learn to solve professional problems through a variety of ways only one of which is formal education programs. This may be a direct result of the fact that professionals have to deal with many contextual problems for which no formal education programs can prepare them. The professionals' ability to develop the "artistry" of their profession so that they can deal with these contextual problems can be enhanced through the provision of adequate resources, especially human resources.

A number of factors external to the individual can have a significant effect on his or her professional growth. First, if professionals are to implement their learnings, support from their employer, their peers and supervisors is a critical element. Secondly, the environment in which a professional works can have an influence on the professional's learning program. Thirdly, a higher level of success of professional learning will take place if the necessary resources are readily available; these resources include time during the normal working day to engage in learning, along with a location for the learning activity that is convenient for the learner, and conducive to learning. Fourthly, the way professional development programs are designed is a critical factor in professional growth. To maximize the results desired, the programs need to be able to accommodate the variety of concerns presented by the professionals who are to be developed, and in order to facilitate the design of these programs, the professionals should be involved in planning them.

In many respects teachers behave as professionals, including accepting the need to be continuously learning in order to be effective in the classroom or lecture hall. More often than not, they take responsibility for their own professional development, and tend to learn in a self-directed fashion. Teachers, however, need to learn new ways of using the competencies they already possess; unfortunately, they are not necessarily aware of their competencies.

The attitude on the part of teachers toward their professional growth suggests that an approach to professional development unlike the traditional approach would be appropriate. In business there is a trend away from mass-oriented programs and toward individual activities; a similar approach would seem advantageous for both the teacher and the organization that employs him or her.

CHAPTER THREE

METHODOLOGY

Chapter Outline

Chapter three will present a rationale for the selection of the method that was used in the study, indicate how the particular study group was identified, describe the process that led to the identification of the individual respondents and outline the procedure that was followed in order to collect the data from the respondents.

Introduction

This study was designed to further inform the knowledge base concerning the learning processes that professional adults use to increase their knowledge and skills, and to maintain or improve their ability to perform in their unique, dynamic teaching/learning context. The data for the study were obtained through personal interviews with the members of a group of post-secondary educators. The group selected for the study were highly educated faculty members who were all teaching at a post-secondary institution in the Toronto area. The interview was arranged to draw from these educators the perceptions that were created as they engaged in a number of self-directed learning activities or projects over the last twelve months. A protocol was used as the basis of the interview, but the respondents were encouraged to expand on their experiences as they wished, and as time would allow.

The purpose of this study was to determine the role that self-directed learning plays in a post-secondary teacher's personal and professional growth. The literature informs us that adults want control over their learning in order

to meet their current needs; that professionals have to deal with complex contextual problems which cannot be adequately addressed through formal education; and that teachers accept the need to be continually learning and often take responsibility for their own personal professional development This suggests that the faculty members in this study will likely display at least some of the characteristics described in the literature. This was an area of adult education, however, that had not been studied before, so the yield was not predictable. There was a need for the researcher to explore with the respondents in such a way as to determine what they had done, and what their understanding was of why, and how they had engaged in these particular activities.

Borg and Gall (1989) suggest that

> ....qualitative researchers place more emphasis on tacit or intuitive knowledge. They believe that such knowledge must be given legitimacy because of the complexity of the situation and the fact that much of the interaction with the subject occurs at the subjective or intuitive level. (p. 386)

Case Study

The method being used in the study can be described as a qualitative case study because we are limiting our study to a particular group who were engaged in the learning activities. Borg and Gall (1989) suggest that "The case study, in its simplest form, involves an investigator who makes a detailed examination of a single subject or group or phenomenon" (p. 402). Merriam (1988) refers to "The unit of analysis, or 'the case' (which) can be an individual, an institution, a group, an event, a concept" (p. 44). She states further that "The decision to focus on qualitative case studies stems from the fact that this design is chosen precisely because researchers are interested in insight, discovery, and interpretation rather than hypothesis testing" (p. 10).

Merriam (1988) refers to Stake's (1981, p. 35-36) position concerning the impact of the knowledge from a case study, suggesting that it is unique in a number of ways. He

> ....claims that knowledge learned from case study is different from other research knowledge in four important ways: case study resonates with our own experience....our experience is rooted in context, as is knowledge in case studies....readers bring to a case study their own experience and understanding ....in generalizing, ...readers have some population in mind. (p. 15)

The expectation is that there will be a similar type of reaction from the readers of this study as they consider its findings.

Merriam (1988) highlights the value of using the case study approach when she makes reference to Bromley (1986, p. 23) who ".... writes that case studies, by definition, get as close to the subject of interest as they possibly can....whereas experiments and surveys often use derivative data, e. g. test results and/or official records" (p. 29). In this instance the value in the findings was enhanced by the fact that they were obtained from a one-on-one interaction between the researcher and the respondent, a procedure that has the potential for obtaining intimate personal data.

The study was unique in that, in regards to self-directed learning activities of teachers in Canada, according to Tough (1979), only elementary teachers (Fair, 1973) and physical and health education teachers (McCatty, 1976) have been studied before. Tough (1979) also reported that in the United States, Kelley (1976) studied secondary school teachers, and Miller (1977) interviewed teachers in New York. The only other related study, according to Tough (1979) was conducted by Denys (1973) who interviewed secondary teachers in Ghana. In addition, apart from the inclusion of a group of university professors in a comparative study conducted by Tough (1979), no post-secondary teachers have been studied to determine their self-directed

learning activities. Because of this, the study was treated as an exploratory one, looking at an unknown, though not necessarily new, phenomenon.

Finally, in order to ensure that the study method being used maintained the level of reliability required of research, three forms of data were triangulated: the data obtained from what the faculty said they did, their interpretation of what they did, and the trends indicated by the activities of the entire group. I then compared these findings with my observations of the respondents and their presentations to me. Anderson (1990) states that, "Many critics of the case-study method argue that it lacks reliability....Case studies use triangulation to interpret converging evidence, pointing to a clear conclusion" (p. 163). Merriam provides additional support for this position by stating that combining quantitative and qualitative data "....is, in fact, a form of triangulation that enhances the reliability and validity of one's study" (p. 2).

This was a study of a particular group of teachers as they engaged in learning activities that they assumed would assist them in their personal and/or professional growth. It was bounded in several ways: first, it was limited to the study of those learning activities identified by the respondents as self-directed, as opposed to those that were designed, implemented and evaluated by another party. Unlike Fair's study (1973), however, in which "Only learning projects related to the person's role as a teacher were considered" (p. 1), this study included self-directed learning activities that were for both personal and professional (or, job-related) purposes. The personal learning activities were included for two reasons: so that the type and number of learning activities engaged in could be discovered; and in case they had an impact on the teacher's behaviour in relation to the teaching/learning context.

Secondly, the study was bounded, in so far as the respondents were concerned, by the fact that they had to be one of the approximately sixty

members of the teaching faculty of this particular post-secondary institution in order to be invited to participate. There were, however, no imposed restrictions on which members of the faculty could be involved, so all of them received a personal invitation. Best (1970) stresses the value of directing the attention of the study to a clearly identifiable small group by stating, "When the focus of attention is directed toward a single case or a limited number of cases, the process is personalized" (p. 127).

The third area that was bounded was the period of time during which the learning activities were to have been engaged in. This was limited to the past twelve months. This was done so that there could be a comparison of learning activities among faculty members.

Validity

Merriam (1988) states that, "To have any effect on either the theory of the practice of education, these (qualitative) studies must be believed and trusted...." (p. 164). In order that this study 'be believed and trusted' it must do what it purports to do, and that is to honestly represent the way the informants viewed themselves and their experiences. The responsibility for this happening lies with the researcher who must accurately represent the experiences as the respondents viewed them and reported them. This will be the 'reality' that will be captured by the study, because "one of the assumptions underlying qualitative research is that reality is holistic, multidimensional, and ever-changing" Merriam, 1988, p. 167). She also states that "Most agree, that when reality is viewed in this manner, internal validity is a definite strength of qualitative research" (Merriam, 1988, p. 168).

Anderson (1990) states that by establishing a secure atmosphere, "....the interviewer facilitates free expression thereby enhancing validity" (p.

228). I anticipated that I would have little difficulty with this aspect of the interview, because at some time during the past year, each of the respondents and I had had at least one(and for some, many) confidential discussion about their teaching role at the institution, and either in spite of that fact, or because of it, they had volunteered for this interview.

Confirming that what I heard the respondents say was what they meant to say, increased the possibility that the data truly represent their perceptions and, therefore, has more validity. Anderson (1990) states that, "Paraphrasing takes what the interviewee has just said and repeats it back in different words....it increases the validity by checking what you heard the interviewee say was the intended message. Where your paraphrase differs from the interviewee's intent, he or she will clarify the statement...." (p. 230).

There were times when the respondent had to correct my perceptions of what he or she intended, but for the most part, repeating or paraphrasing a respondent's comments resulted in either an affirmative reply, or further clarification through the use of examples.

Participants

My interest had already centered on the learning behaviours of teachers, so there was no decision to be made in this regard. However, there was a question initially as to the level of practice of the teachers--would it be secondary school teachers who have had the pre-service training and regular exposure to professional development activities, and with whom I am quite familiar; would it be post-secondary teachers who do not have the formal teacher training, may not have the same number of opportunities to hone their teaching skills, and with whom I am not at all familiar? I chose the latter, because my lack of familiarity with them would reduce the degree of my

personal bias in the study, and I saw this as an excellent opportunity to develop my own professional expertise beyond the secondary school level.

Since this study was to be limited to one setting, it was desirable that all faculty members be invited to participate. Because the study was to be an exploratory one, an attempt was made to be as inclusive as possible. By not placing external restrictions on the selection of respondents, the researcher argued that he would "....be more likely to uncover the full array of 'multiple realities' relevant to (the) inquiry." (Borg and Gall, 1989, p. 386)

Because of the interest demonstrated already by the faculty in participating in discussions about their teaching, the appropriate method of selecting participants was to extend an invitation to all of them. The exact makeup of the group was not critical, but an assumption was made that the more representative the study group was of the total teaching faculty, the more informative the findings would be. Those who indicated an interest in the study would be used as the starting point and, if the need for further categories of participants became evident as a result of the interviewing process, others would be approached. The hope was, however, that a representative mix of volunteers would come forward without further prompting. This proved to be the case. As the findings will show, there was a good overall response from the faculty which exceeded the initial goal of one third, and, in fact, came very close to fifty percent of the teaching faculty.

It would be important, for instance, to have women included in the study, as well as members of the various ethnic and cultural groups which are represented in the faculty. Also, there are four distinct departments in this organization varying in size, and it would be necessary to have members of each of them included in the study. In order to fairly present the learning

activities of the faculty, the assumption was made that the number of participants should be at least one half of the total.

My recent experience with them has indicated that most of these faculty members enjoy discussing their teaching activities, and have expressed appreciation that someone will take the time to hear their stories. Their comments would suggest that being heard lends credence to what they are doing, and encourages them to reflect further on what they do as a teacher. Ewert (1994) confirms that, "The simple process of helping practitioners reflect on their own learning suggests a new way of thinking about the teaching and learning process" (p. 27).

There were a number of reasons for anticipating that this particular setting would yield rich and meaningful data: both the management and faculty were acquainted with the researcher as a result of a part-time assignment the researcher had had at the institution over the past eighteen months; the faculty had willingly participated in a number professional development activities initiated by the researcher; the relationship between the faculty and the researcher was very positive and professional; the researcher had demonstrated to the satisfaction of the faculty that he was able to maintain complete confidentiality of information shared with him; since there were about sixty-five faculty members, the chances of participation of a significant number of them seemed reasonable; professionally, they represented a wide range of backgrounds both in their education and in their work experience; they also reflect a high level of ethnic diversity.

Response to the Invitation to Participate

Approval to proceed with the study was given by the president of the organization close to the end of November, 1994. A letter had been prepared

which explained the purpose of the study, invited the faculty members to participate in the study, gave them an outline of the planned procedure, and ensured them of complete confidentiality of the data obtained through the study. Because of my part-time position on campus, I was able to personally distribute copies of the letter to each faculty member by placing them in their mailboxes.

Almost as soon as the letters were delivered, one of the faculty members came to my office and enthusiastically expressed his willingness to participate in the study. He stayed to discuss some of the ideas he had, and to inquire further about the study. His quick response was surprising in that we had had a few conversations prior to this time, but on an irregular basis. This was to be the first of many similar reactions to the letter.

By the end of the first day, several faculty had been able to catch me to express their interest in the study, and several others had left the tear-off section on my desk. The total number of faculty indicating a willingness to participate in the study the first day was eight; by the end of the second day, this number had risen to thirteen.

Over the next few days a number of faculty members sought me out to discuss the study with me, to provide opinions and clarify some aspects of it, but all were very positive about it and seemed genuinely excited to be a part of the research. Others commented to me in the hallways or just in passing that they were pleased to be participants in the study. One faculty member said that one reason he was happy to participate was that I had been so helpful to him during his first semester. Another was willing to sit down there and then to be interviewed, but unfortunately, I had to leave to observe a class.

By the end of the first week I had received a total of twenty-six positive replies from the faculty, and most of them had made a point of speaking to me

about their decision to make sure I would include them. One even apologized for not having submitted her response sooner, and hoped that she was not too late; another one spoke about his interest and asked if I could delay his interview until January, 1995 because of his heavy schedule.

After the first couple of weeks the number of responses to my request dropped off sharply, but faculty continued to tell me that they would like to participate and that they would get their reply to me soon, even though very few actually did. I spoke to several of them from time to time, but put no pressure on them to make a commitment to the study. The last of the positive replies arrived about the middle of January, 1995.

The final number of written commitments totaled thirty, but eventually only twenty-eight were interviewed because one had resigned by the time the interviews were started, and after several unsuccessful attempts to arrange an interview with another faculty member, we agreed to not pursue it further. In addition, one faculty member did not have a complete interview; he was able to provide a list of his learning activities, and we were able to discuss two of them, but because of his tight schedule, we were not able to complete the discussion of the others.

For many of the faculty the study became a topic of conversation on a regular basis. They approached me often to inquire as to its progress whether or not they had been interviewed. A number of the respondents indicated that they were interested in the study from several perspectives, including the fact that they found the concept of self-directed learning fascinating, even though they had never thought of their personal studies in this way before.

As individuals responded to the invitation, they were each contacted directly to set up a personal interview time. All of the interviews were held in the same office, even though each interviewee was given the option of having

theirs held at another location if that had been more convenient. At the time the interview was set up, time was taken to answer any questions he or she had about the study and the interview process. The notion of self-directed learning was clarified again in order to reduce the possibility of misinterpretation, and also to help them to start to recall their learning activities from the past twelve months.

Many of them expressed a high level of enthusiasm for the topic of the study, along with the hope that what they had to offer would make a positive contribution to it. They would be giving their personal time, before or after their teaching time, voluntarily, but no one indicated in any way that this was a problem. Most of the interviews were conducted before the exam week in December, with the remainder being held over until January and early February of 1995.

Value of the Interview

Whenever research is conducted that requires some form of input from people, the level of participation by the respondent will be affected by a number of factors, including their interest in the topic, their perceived ability to make a useful contribution and the timing of the study. However, the method used to gather the data, could prove to be very significant in the eyes of the respondent. If an interview process is used, this sends a clear message to the interviewee that the researcher is willing to spend 'real time' to obtain the needed data.

In order to capture the essence of the learning experiences of this faculty, there had to be an opportunity for private communication between the respondent and the researcher. This factor eliminated the possibility of using survey questionnaires, telephone interviews or a number of other data-

collecting approaches. There was a need to understand who the respondents were, what had caused them to have engaged in the learning activities, and what difference their learnings have made in their personal and/or professional lives.

The best vehicle to capture the potential depth and complexity of the process of the learning activities is the interview. Anderson (1990) states that "Interviews are prime sources of case-study data. Not only does one typically interview a range of respondents, but the researcher attempts to identify key informants who are part of the case and have inside knowledge of what is going on" (p. 160). He goes on to say that, when used as a means for gathering information in a research study, "An interview is defined as a specialized form of communication between people for a specific purpose associated with some agreed subject matter" (Anderson, 1990, p. 222).

There is good reason to use the interview, because as Anderson (1990) also states, "The interview is probably the most widely used method of data collection in educational research. Interviews....(can be) the primary source of information used in a research study. When used with care and skill, interviews are an incomparably rich source of data...." (p. 222).

Though this was an organized inquiry, it was not rigid, because the respondents would be allowed a great deal of latitude in how they responded to the questions asked. Because this was a face-to-face discussion, there would be ample opportunity for the respondent to ask for clarification of anything that was not understood. The researcher, on the other hand, would have to be listening intently, and be ready to ask for help in understanding anything that was not clear. Anderson (1990) refers to the advantages of the interview in regards to this type of interaction. He reports that,

> People are more easily engaged in an interview than in completing a questionnaire; the interviewer can clarify questions and probe the answers of the respondent, providing more complete information than would be available in written form. It is this opportunity for in-depth probing that makes the interview so attractive when dealing with informed respondents. Interviewing enables the interviewer to pick up non-verbal cues, including facial expressions, tones of voice....(p. 222)

Best (1970) also supports the high value of using the interview for gathering data in a qualitative study. He indicates that,

> With a skillful interviewer, the interview is often superior to other data-gathering devices....people are usually more willing to talk than to write....(and) after the interviewer gains rapport....certain types of confidential information may be obtained that the individual might be reluctant to put in writing. If the subject misinterprets the question, the interviewer may follow it with a clarifying question. At the same time he may evaluate the sincerity and insight of the interviewee. (p. 186)

The previous statement includes some key factors when considering the necessity of obtaining the greatest depth of information possible from the respondents. It is essential that the respondents' comfort during the interview be a high priority, and this would include the way that they are asked to communicate their experiences. Once they are settled into their seat and encouraged to relax, they are much more inclined to talk about their activities, than they would be to write about them. Also, once they begin talking, with the proper atmosphere being maintained by the researcher, they will become less inhibited as the interview progresses, and this will allow them to be more open in what they say, to the point of revealing confidential information, even if it is being tape recorded. There is something about writing one's comments that can prove to be a great inhibitor, especially in regards to confidential information--speaking it seems to present much less of a problem (Best, 1970).

Disadvantages of Interviews

The material in the previous section outlines why the interviewing process is so critical to this study and therefore why it was used. To ensure that the value of the approach is not lost or minimized to any great extent, great care must be taken to address the disadvantages of using interviews to gather information.

First of all, it requires 'real time' of both the respondent and the interviewer. To reduce the impact of the time spent, the interview must be arranged by mutual consent in such a way as to interfere with both individuals' schedules as little as possible. Also, if the time is given, then the perception must be that it was well spent. The nature of the study, the way in which the interview was conducted, the personal satisfaction that the respondent derives from the interaction, all contribute to nullifying the effect of the 'loss' of time. The researcher can also contribute directly to ensuring that the time given is appreciated, by first of all being prepared to start the interview on time, by clearly making a statement of appreciation at the beginning of the interview, and then concluding the interview as scheduled.

Secondly, Best (1970) points out that it "....is one of the most difficult (techniques) to employ successfully" (p. 187). Fortunately, I have had a great deal of practice in interviewing during my career. These interviews were for a variety of reasons, and included students of all ages, teachers, and other educational personnel. The number of interviews conducted, however, does not guarantee proficiency. The best indicators include such things as the quality of information obtained for the purpose intended, and the satisfaction of both the interviewee and the interviewer at the conclusion of the interview.

Thirdly, Best (1970) points out that "The danger of interviewer bias is constant" (p. 187). This is a factor that can never be eliminated, because even in the selection of the topic and the creation of the interview schedule there is bias. However, during the giving and receiving of information, the interviewer bias can be minimized by allowing the respondent to clarify, to correct, and confirm the data that is being recorded. Also, by keeping the questions open-ended, the structure of the interview is less controlling of the interviewee, and therefore can be less influenced by the interviewer.

Anderson (1990) refers to a fourth disadvantage of the interview as being that, "It is often difficult to record responses, particularly if the interviewer is also responsible for writing them down" (p. 223). This was overcome, in part, in at least two ways: by preparing multiple copies of the interview schedule with space left for recording responses, and by backing up the notes with a tape recording of the interview against which the notes could be checked.

Use of the tape recorder, however, is only possible with the interviewee's permission, and consideration must be given to the fact that, as stated by Borg and Gall (1989), "....the presence of the tape recorder changes the interview situation to some degree" (p. 456).

In this study, only one of the respondents did not want the interview to be recorded, so the recorder was removed, and more attention was given to writing as much of the information given as possible. The others were either comfortable with the tape recorder, or enthusiastic about its use.

The final potential disadvantage of the interview that will be formally addressed in the study is "the context.....(which) has the disadvantage of sometimes affecting responses due to interruptions and pressures of time" (Anderson, 1990, p. 223). This is particularly true when, as Anderson (1990)

states, "The typical interview includes two people, and when face-to-face, most often takes place at the respondent's place of work...." (p. 224). In this study, all of the interviews were conducted at 'the respondent's place of work', but in a private office, with the door closed (a signal that this was a private conversation), and all phone calls redirected, so there were very few interruptions.

In order to ensure that the interview protocol was designed so that the respondents would have no difficulty interpreting the questions, and/or the researcher would know ahead of time what, and how to clarify the questions in a consistent manner, it was tested before the interviews began. Two of the faculty were asked to individually listen to each of the questions critically to indicate areas of ambiguity, and to assist in rewording so that the true meaning was conveyed. After each of the two faculty members had responded to the wording of the questions, the protocol was modified to reflect their suggestions.

To reduce any pressure due to time constraints, the interview was test run with a volunteer critic, and a one-hour interview was determined to be sufficient to cover the questions adequately. In a few cases, the interview did extend beyond the hour, but that was because the discussions evolving from the questions were stimulating, and both parties agreed, prior to the end of the hour, to the additional time.

The Interviews

At the beginning of the interview, after the initial formalities were completed, and the respondent was comfortable, approximately five minutes was used to collect personal data from each of the respondents. This included such items as their highest academic degree and where it was obtained, the

number of semesters teaching at the institution and whether they were practicing in another professional area prior to their current teaching role.

Once this first part was completed, the respondents were requested to list all their learning activities for the past twelve months prior to the interview. Each was considered in light of the criteria for a learning activity to ensure a consistency throughout all the interviews. This list then became the basis for the series of questions that followed.

Each learning activity was recorded on a response sheet, and the questions relating to learning activities were posed and the answers recorded by the interviewer. Starting with the first learning activity on the list created, the respondent was asked in turn to identify the reason(s) for selecting the first learning activity, the method(s) used to acquire the learning, the decision-maker regarding the content and method, the degree to which the activity was job-related, the resources used, whether or not the activity was completed, the number of hours spent at the learning activity, the amount of money spent in regards to the learning activity, its relation to previous knowledge, and to the goals of the institution.

When all the learning activities had been covered, the respondents were asked four final questions which were related to learning activities in a more general way. These included a question regarding any learning activities they would have liked to participate in, but did not; the skills they identify which enabled them to participate in their learning activities; the skills they recognize that they lack; and, finally, the degree to which setting deadlines has an impact on their learning. The interviews were completed with a comment of appreciation to each of the respondents.

The relative ease with which I was able to enlist participants for the study contrasted sharply with the difficulty of arranging a time for an

interview with many of them. Most of them had relatively little free time while they were on campus, so we had few options to set aside an hour when both of us were available. My presence on campus on a regular basis did, however, facilitate the arranging of suitable times, and rescheduling for canceled appointments.

I was able to arrange for a number of interviews toward the end of the calendar year, but complicating these arrangements was the fact that exams occurred during the last two weeks prior to the Christmas break, which started on December 17, and ended on January 2, 1995. In spite of these limitations, however, I was able to complete fifteen interviews by the middle of January, and the remainder were completed by the end of January.

Interviews were scheduled for one hour each, but it was difficult to keep some people to the hour, since they seemed to love to talk about what they had done. A number of them spontaneously expressed how much they enjoyed the interview process because it caused them to reflect on their learning activities, and they really liked what they saw.

It is essential in a study of this nature that the respondents be as relaxed as possible and have to deal with limited distractions. This allows them to reflect deeply on the questions being posed to them, and answer them as fully as they can in an unrushed fashion. In this case they would be considering their past year's learning activities in order to give the details of each of them including such aspects as the content, the emotions, any negative experiences and frustrations.

In support of this, the interviews were all held in one office of the institution in which the respondents were comfortable, phone calls were re-directed, and the office was set up ahead of time for the interview. The researcher greeted each interviewee and invited him or her to relax in the chair

provided. The beginning of the interview was unrushed, and a friendly, but business-like approach was taken by the researcher. This was done to respect the individual's time, and also in recognition that there was potentially a fair amount of material to cover within the time available.

Even though the list of questions had been vetted by some of the faculty prior to the interviews to reduce the possibility of embarrassment or misunderstanding, each respondent was given the option of refusing to answer any question he or she felt was inappropriate for any reason, and encouraged to ask for clarification should there be a need.

Each of the interviews could be described as a conversation even though I found it necessary to become somewhat more directive at the beginning of the interviews, and had to work at keeping the interviewee close to the topic without stifling the spontaneity of the responses. For a number of them we agreed that we would like to pursue one or more aspects of the discussion at some future time, so the process opened up opportunities to engage in other professional development activities with them in the future.

During each interview there was constant checking with each respondent to ensure that what had been heard was a true representation of what had been said. This allowed for further discussion of the learning activity and led to clarification many times. This, along with regular probing, resulted in an enthusiastic and intense participation by each of the interviewees. The interview, therefore, became an intimate exchange of information at a level that surprised both the respondent and the interviewer. Also, during these discussions, many were able to recall further learning activities that they had engaged in, but until that time, had not remembered.

After a few interviews I became somewhat better at being ruthless with the participants to keep them on course, although I felt at times as though I

had turned on a fire hydrant, so I had to let them run a bit, because they were genuinely excited to tell me about their learning activities. This appears to have been a unique experience for them in their teaching career, so they participated with a remarkably high level of enthusiasm. Nobody left without telling me in one way or another how much they had enjoyed the interview.

There are many possible ways of capturing the essence of the respondents' learning experiences. Tough (1971) and Fair (1973) elected to predetermine categories of learning activities to which those activities identified by the respondents would be assigned. "....you will usually find that most answers to a given question can be placed in a few categories" (Borg and Gall, 1989, p. 451). However, in this study, the categories were not established until after the data were collected and analyzed.

Another option to obtain the list of learning activities they had engaged in would have been to present them with a list of learning activities to choose from. The advantage of using this approach would have been that this part of the interview might have been accelerated, but some of the more unusual activities might not have been uncovered.

Having the respondents recreate their experiences required more effort on the part of both the respondent and the researcher. This was because the respondents had to recall the details of their learning experience, and the researcher had to not only capture them as fully as possible, but also do it in such a way that they could be analyzed later.

One of the significant benefits of using this strategy, however, was that it gave the respondents a high degree of freedom to reflect on the process that they had gone through during the learning activities, and report in a manner that they considered appropriate within the bounds of the study. This would tend to increase the validity of the data, since we are interested in their reality

rather than one that was imposed on them. Merriam (1988) stated that "....research focused on discovery, insight, and understanding from the perspectives of those being studied offers the greatest promise of making significant contributions to the knowledge base and practice of education" (p. 3).

The Interview Process

Some of the respondents had come to the interview with an initial list of as many as fourteen activities that they felt fit the criteria. The level of preparation of the respondents allowed us to move through this part of the interview quite quickly, except where the respondent required further clarification to be as sure as possible, that only those activities meeting the criteria would be included in their final list.

In order to encourage the participants to recall all of their learning activities from the past year, a list of probe words was read to them rather than having them read the list themselves. This was done to free them to consider each one carefully and independently. The respondents were asked to relax and to reflect on each of the words in turn; as a result, there were short periods of silence in many cases before they either introduced another learning activity, or they asked to move on to the next word. Some had even closed their eyes while they reflected back over the past twelve months with a particular word in mind.

This process led to many more activities being added to the list. Most of the words had already been explored earlier through the discussions and contributions of the respondents, but regardless, the entire list was read to each one to ensure that all areas had been covered.

As a first stage in the process of exploring the learning activities, the interviewer created a list of the learning activities as given to him by the respondent. This was then used as the basis of discussion for the next stage of the interview. During this second stage, the respondents were asked to consider each learning activity and report specifically on twelve aspects of the learning process. They were asked to give:

1. the reasons for engaging in the learning activity
2. the methods used to acquire the learning
3. who decided the content and method of learning
4. to what extent the learning activity was job-related
5. whether the learning activity has made a difference in their teaching
6. the resources used to acquire this learning
7. whether the learning activity is complete
8. the number of hours spent on the learning activity
9. any out-of-pocket expenses
10. the degree of pre-planning of the learning activity
11. the relation of the learning activity to previous knowledge or skills
12. whether the learning activity supports the goals of the institution

Once all of the learning activities had been considered, the final phase of the interview was a series of open-ended questions relating to learning activities in general. They were asked to first comment on any learning activities that they would have liked to engage in but were not able. Then they were asked to indicate what had prevented them from doing so. Next, they were asked about the skills that enabled them to engage in the learning activities. Thirdly, they were asked to identify and comment on the skills that they lack, and therefore, limit their ability to engage in some learning skills.

Finally, they were asked to comment on whether they prefer to work toward a set deadline, or whether they prefer no time line.

Each interview was completed in about one hour, and the proceedings recorded on audio tape with the informant's permission. (Only one of those interviewed requested that the interview not be taped.) The tape recording was particularly helpful in those situations where the informant processes his or her thinking audibly, because, in so doing, a lot is said before finally arriving at the position he or she holds. He or she may not know exactly what they want to say until they have talked out their ideas, and even disagreed with themselves from time to time. Also, since English is not the first language of many of the faculty, important ideas could have been missed if what was heard was initially misinterpreted. The ability to review the tapes later reduced this possibility significantly.

It was not just what was said that was important; how it was said and the accompanying body language helped to clarify or confirm what the respondents intended to communicate. Spradley (1979) confirms this by stating that, "Some.... meanings are directly expressed in language; many are taken for granted and communicated only indirectly through word and action" (p. 5). Therefore, there was a need to reflectively review the tapes to reduce the possibility of missing some of these more subtle messages.

In addition to the recordings, the interviewer made some hand written notes. These notes were particularly useful in recalling non-verbal reactions such as facial expressions and body language. Weber (1990) states that "....content-analytic procedures....miss many important indicators" (p. 10).

Following the interviews, journal entries were made to reflect any personal perceptions of the interviewer such as difficulties encountered,

distractions etc. that could not be recorded during the interview, but that were helpful during the analysis of the data.

Analysis of the Data

In order to present these findings, all of the sources of data related to the interviews were reviewed. These included the personal data sheets for each respondent, each of the response sheets for the learning activities and the general questions, the tapes made during the interviews and the interviewer's journal.

After all the interviews were completed, the information was compiled in order to capture the collective perceptions of this group of post-secondary teaching faculty in regards to their learning activities over the past twelve months.

During the interview, for each learning activity identified, a separate pre-printed response sheet was completed by the interviewer. The information recorded on these sheets was then organized both by each question from the protocol, and by respondent, in order to create a clearer picture of the responses given. At this time, categories were established, based on this data in order that it could be compiled for analysis. From this, it was possible to arrange the individual and collective responses to indicate tendencies in practice in regards to both the individual and common learning activities.

The tapes recorded during the interviews were reviewed in order to draw explanatory comments which would provide a sense of the richness of the interviews. They were also valuable in more fully understanding the intent and meaning of the respondents in reference to the data recorded on the response sheets and personal data sheets.

CHAPTER FOUR

FINDINGS

INTRODUCTION

This chapter will be divided into two sections. The first section will present an overview of the institution, itself, giving the reader a sense of the context in which the study took place. Specifically, it will focus on the organizational structure in its physical setting, the teaching faculty and the attending student body.

The second section will present the information gathered from the volunteer participants in the study who are members of the teaching faculty of this post-secondary educational institution. Included in this section will be the clarifying comments made by the respondents during the interviews, as well as the specific content of their responses to the questions posed by the interviewer.

This section will capture the responses to the protocol reduced to numeric form, so that another dimension of the findings will be realized that will confirm or support the broader picture.

In addition to the numeric data, this section will present a picture of the findings in broad strokes. This is done in order to attempt to capture the fullness and complexity of the experiences of the respondents which they conveyed to the interviewer through their words, their body language, their laughter and other forms of communication.

SECTION I

THE TEACHING/LEARNING CONTEXT

The Organization

Unlike publicly funded institutions, proprietary organizations have to be concerned with the "bottom line' . In the case of educational institutions that are also proprietary organizations, their very survival can depend on their ability to provide a high quality programs to the students, their customers who will, in turn, play an important role in keeping the organization viable.

Over its many years of operation, the organization has maintained a reputation for providing quality graduates to meet the challenges of high-tech industries. It has had to adapt to significant changes in economic conditions as well as changes in those technical fields for which it prepares its students.

The organization is centrally controlled, but operates a number of 'branch' campuses across North America, each of which provides a similar program for its students. Except for minor changes to accommodate specific local needs, the curriculum is common to all campuses. In this way, there is a much higher level of consistency in program delivery across the system.

In order to utilize the facilities to their maximum, the organization operates year round with three semesters of seventeen weeks each. The obvious advantage of this arrangement to the students is that they can complete their program sooner, and hopefully, be working sooner. The down side of a full year program is that the students do not have the summer break, comparable to community colleges or universities, in which to work.

To ease this potential burden, the programs are scheduled so that students attend classes and labs in either the morning or the afternoon, which

gives them a block of time in which they could work part time. Many students take full advantage of this arrangement. To further assist with their finances, about seventy percent of the students receive financial support of some kind. Many students arrange for government loans, and others receive support from organizations such as the Unemployment Insurance Commission or the Workers' Compensation Board as part of a retraining program.

Classes for the more than two thousand day students are held in rented space in a multi-storey building which is located near major traffic arteries in the Toronto area. Parking space is available for the students, but apart from limited facilities for the student organization on campus, the rented building space is reserved for services related to the running of the school. There are no playing fields or gymnasia, and even the cafeteria is privately owned and operated. When large gatherings of students are necessary, such as the first meeting of new students, space is rented in an adjoining building. Graduation ceremonies, which were held in this same location, are now held in another, superior quality auditorium to give it the high profile it deserves.

Four programs are offered by the institute each requiring a specified number of semesters for completion, the longest of which is eight semesters. Certificates or diplomas are granted upon completion of the programs, and in some cases, a degree can be earned from a U. S. affiliate after a further semester of classes has been successfully completed on that campus.

The Faculty

As in most post-secondary institutions, the teaching faculty of this proprietary institution of higher education are not required to have certified teaching qualifications in order to teach, but are, nevertheless, required to have appropriate qualifications related to their teaching assignment.

In the past, permanent positions were readily attainable, and the faculty members who proved themselves, expected to receive one. However, the current trend tends toward the hiring of part-time or adjunct faculty members to fill positions on a temporary basis. This means that we have on the teaching faculty one group of people who cannot afford to make a high level of commitment to the teaching position because of its uncertain future, and another group of longer term faculty who view their position as a career.

This second group of faculty members appears to be older, well-established, and less likely to move out of their position, because there are very few other places to transfer to, or be promoted to. Tucker (1984) refers to this as being fairly common in higher education institutions. He states that there is "a high percentage of tenured faculty members, most of whom are in their forties and fifties" (p. 264).

Though age and lack of mobility in and of themselves may not be a problem, there can be serious problems in the delivery of the programs if the faculty members have not continued to grow throughout their career, and are not able to meet the needs of the 'new clientele' and the changing expectations of the organization.

Because this is a non-degree granting private educational organization, it sets its own guidelines for the selection of its teaching faculty. It has determined that the minimum academic requirement for the prospective faculty member is a master's degree. Beyond this, applicants may also have to have qualifications or experience in a technical or business area depending on the position for which they are competing.

Even though the basic academic requirement for faculty is a masters' degree, there are some faculty members who have only their bachelor's degree. When they were hired, however, they had particular expertise to meet specific

teaching needs at the institution. There is the expectation that, if these individuals wish to have a long term engagement with the institution, they will continue with their academic studies to become fully qualified.

The special requirements of their teachers has resulted in the creation of a faculty which is well suited to the needs of the organization. They are well qualified, with some faculty members having a doctoral degree. Many of them began their teaching career as a second or third career. Even though few have had formal teacher training, they were hired for their technical expertise with the understanding that they would communicate this to their students which is their main responsibility. They are expected to remain current in their area of expertise, but, unlike university professors, they are not required to engage in, and report on research. Some of them are, nevertheless, involved in research and development with organizations both in Canada and the United States. This has led to at least one faculty member presenting papers at a major engineering conference in the United States.

The faculty bring a wealth of experience, training, education, and cultures to the institution. Some of them received their education in Canada, while others were educated in countries around the world. While the language of teaching is strictly English, a wide range of accents can be heard in the classrooms, adding to the richness of the culture of the school. Each of the faculty members brings to the classroom a unique combination of skills, academic training and experience. Some remained in the academic world for some time after they had received their degrees, so that they bring a strong academic emphasis to their presentations in class.

Many of them, however, moved out into the business world to practice their art or profession for a number of years, so they bring a combination of academic depth enhanced by practical experience. Many of these people have

maintained or increased their contact with the business community and are contributing to it, or operating their own enterprises in addition to their teaching. In many cases this provides them with valuable information that keeps them current in their area of expertise, which, in turn, allows them to provide informed direction for their students.

The faculty, much like the student population, includes representatives from a variety of cultures and ethnic groups, and for many, English is neither their first, nor even their second language. Also, a number of the faculty received either all or a significant portion of their education in a non-Canadian setting. These factors mean that there is a richness and depth to the faculty which is probably unique in post-secondary educational institutions.

Each year the teaching faculty at the institution participate in a review of their performance over the past twelve months. A critical element of this review is a plan, developed by each faculty member and submitted for approval by the department chair, of proposed growth activities for the next year. This process requires that the faculty members consider their present and future professional needs, and develop a strategy to meet them in a manner acceptable to management. The following year, the measure of progress in the areas identified becomes an integral part of the annual performance review. Many organizations have this, or a similar procedure, incorporated into their annual review, so the idea is not unique or new, but it does place the major responsibility for personal growth in the hands of the individual rather than the organization.

The faculty members each have a separate working area within one of three common faculty work rooms. This works to the advantage of the faculty in that they regularly come in contact with their colleagues, including those who teach in other programs. This allows for the exchange of ideas, and the

development of a more integrated environment. The arrangement, however, does limit the privacy a faculty member may desire for discussions with students or other faculty members.

Students do not have direct access to the faculty when they are in their work area, but are able to call them on an internal phone network to receive permission to join him or her for a personal meeting. Faculty are each required to maintain a scheduled office time and students are made aware that this is the best time to meet with one of the faculty, but are encouraged to contact them any time they are not teaching.

Faculty are generally scheduled between the hours of 7:30 a.m. and 1:00 p.m. or between 1:30 p.m. and 6:30 p.m. depending on the program they teach in, since the scheduling of the programs is either a.m. or p.m., but not both. Full time faculty will average about eighteen contact hours a week, which will include both teaching and lab work with the students, since every course has a lab component.

During a twelve month period the institution conducts three semesters which extend from July to October, November to February, and March to May. Each pair of semesters is separated by an administrative week which allows for the wrap-up of the business of the previous semester, and preparation for the up-coming one. In addition to this break, faculty have a two-week vacation period at the end of June, and a further recess over the Christmas season. Apart from these breaks the faculty teach through the entire year.

The Students

Any discussion of teaching and teachers is not complete if it does not include the focus of the teaching/learning activity, the students. There is significant value in considering the backgrounds, the level of commitment, the

previous experience of the teachers in teaching and in preparation of materials and other issues from the one side of the podium, but if we want to increase our understanding of the teaching/learning context, we neglect the learner's perspective at our peril. Ewert (1994) stated that if we wish to improve the teaching/learning environment it is more helpful to understand how people learn than it is to assist teachers in acquiring new technical skills. The students are far from only vessels into which we pour discrete packages of information called courses, and in general, they do not sit expectantly in awe of the teacher waiting for him or her to pontificate.

The four major programs of this proprietary institution are designed to meet the needs of a population whose educational goals are relatively specific and leading to challenging careers, many of which will be in the high tech fields.

A large portion of the student population is drawn from the greater Toronto area and its cultural mix is fairly representative of the cultural mix in Toronto. For many of them, their first language is not English, and this provides the teaching faculty with an additional challenge as they present their material to their classes. However, unlike the general population from which the students come, there are relatively few women in the total student population. Women are, however, fairly well represented in two of the programs which include a number of courses referred to as soft courses. The term 'soft' identifies those courses, such as Marketing, which do not focus on the maths and/or the sciences.

The average age of the students is about twenty-seven years. This means that they bring with them the typical problems of the young adult population, including financial difficulties, marital conflicts and child care frustrations. Individual students may have to deal with one or more of these,

each of which can interfere to some degree with their studies either by distracting them, or by actually drawing them away from their program.

The academic backgrounds of the students vary considerably. The younger students are often recent graduates of Ontario's high school system, or international students who have come to the school to study. In the same classes can be a mix of students who have a degree from a Canadian or non-Canadian university in a totally unrelated area of study, along with mature students who may not have been in a formal school setting for a number of years.

The students' reasons for attending this school will vary, also. Very often, those with a university degree are looking for a practical rather than theoretical academic program; their hope is that this will enable them to find rewarding employment. Mature students want a new start; they may have decided that they need more qualifications so that they have an increased number of desirable career options. Local and international students are continuing their studies toward a certificate or diploma in their chosen field. Some of the older students are attending as a result of displacement due to a company's downsizing, or because they need a new career after being chronically unemployed, or as a result of an injury on the job necessitating a change in their occupation.

Classes in most programs tend to have significantly more students enrolled in the first few semesters than the latter ones. This fact creates challenges for both the students and their instructors, because in these larger classes are students with a variety of backgrounds and purposes for being there. Some are re-adjusting to a formal school setting from a workplace, others are struggling with the English language, and still others are exploring the program to determine if it is suitable for them. The final two groups lie at

the extremes of commitment to the course, and with them, students who have had to select this as the best of a number of options, but are not too happy to be here, and with them, students who are well suited to the program and are anxious to progress as quickly as possible.

Because there are very limited facilities beyond the classrooms for the students to socialize in, very few spend time at the school apart from class time; many arrive in time for their first class, and leave as soon as the last class is over. This would suggest that the organization is focusing its energy on providing for only the academic needs of the student. The student body has to arrange for the use of facilities off campus for sports and other social activities.

The institution has high expectations that the students will be in regular attendance, and tracks each student by having attendance taken at each class. Students who fail to maintain the required attendance are contacted by the student services department for counseling, which may lead to their receiving some form of assistance, or a termination of their student status for the remainder of the semester.

If students experience difficulties that interfere with their academic program, they are encouraged to contact one of the faculty members or the student services department for assistance. In addition, the students are expected to take advantage of the personal tutoring services that are available to support their class and lab work if they need it, or apply for E. S. L. (English as a Second Language) assistance if their skill in English communication is interfering with their studies.

The students are evaluated on the basis of their performance in three areas: on assigned homework, which is usually submitted on a weekly basis; on their demonstrated ability on both a mid-term and a final examination; and on their accuracy and completion of their lab work. The faculty are expected to

determine the homework assignments and set the two examinations, but the labs are developed along with the course content, and modified as the courses are changed to reflect the new technologies. Faculty assistants will mark the homework assignments and the lab reports, and maintain a record of the results, but each of the faculty members is expected to mark his or her own examinations and determine the final evaluation of the students' performance.

The primary responsibility for professional development resides with the faculty members, themselves. There are, however, programs built into each of the turn-around weeks at the end of the semesters, which faculty are expected to attend. These would include workshops or lectures on topics related to classroom performance. In addition, short content courses on such topics as C++ are offered during the semester. Attendance at these courses is optional, but the faculty generally take advantage of them if they relate to their teaching program. Also, sabbaticals are available to longer term faculty who wish to improve their qualifications for teaching. As courses are modified, there is a need to provide the faculty members with an opportunity to become familiar with the content changes, and any changes in the philosophy of the new course. In order to accomplish this, those faculty members from each of the campuses who will be teaching the new course, are brought to one site for a concentrated presentation lasting two or three days.

SECTION II

FINDINGS FROM THE INTERVIEWS

Clarification of Some Terms Used

'Professional Growth' included growth in areas other than those in which they were engaged at the institute. For example, one faculty member was furthering her studies in theology, which was a part of her responsibilities to her church as a part-time minister.

'Financial Reasons' for engaging in a learning activity included the cost (many times this was nothing or a just nominal cost), or the anticipation of possible future benefits that would accrue from this learning either on the job, or in a business enterprise of interest to them. In one case, a respondent was developing his familiarity with a software package in accounting with the hope that there might be a way of integrating it into a system he was marketing privately.

Where 'Politics' is identified as a reason for engaging in a learning activity, this included business politics as well as the political arena in society in general.

By 'Experts,' the respondents were referring to individuals with specific in-depth skills, training or knowledge, and included consultants, company representatives, or other professionals with whom they did business such as physicians, accountants, or engineers.

Where the category 'social' is identified, it refers to a broad range of human activity including the desire to improve relationships with others both in- and outside the family and/or to meet the needs of others except for educational purposes.

Planning, as used in this study, refers to a process that results in a series of connected steps leading to the proposed learning objective.

The Respondents

Twenty-eight of the approximately sixty faculty volunteered to be interviewed for an hour to discuss their learning behaviours over the past twelve months. At the beginning of the interview they willingly provided some personal background information which allowed for a greater understanding of the respondents as a group.

The men on this faculty far outnumber the women, so the fact that only 3 of the 28 respondents were women was not surprising.

The organization offers four different programs, and each of these four was almost equally represented in the group of respondents. In addition, some faculty members teach courses common to all programs; this group was also equally represented.

Ten of the respondents had been with the organization for less than 1 year, 11 had been teaching at the institution for between 2 and 10 years, and a group of 7 had been teaching there for more than 10 years, with one even exceeding 25 years.

They bring high academic qualifications to the institution, with no less than 7 of the 28 respondents having earned their doctorate in their respective subject specialties, which include physics, English, electrical engineering, education and business. An additional 13 have earned their master's degree in a variety of subject areas, and the remainder have their bachelor's degree.

In addition to their depth of academic backgrounds, the respondents have a wealth linguistically and culturally. Nineteen of them reported that English was their first language, but even some of these people came from a

number of parts of the world besides Canada; they are from Guyana, India, England and Barbados. Six of the respondents identified English as their second language, and 3 indicated that English was their third language.

All but 3 of the respondents gained practical experience through employment in their area of expertise prior to their teaching assignment at this institution. They were engaged in a variety of occupations and professions which included: accounting, electronic engineering, church deacon, banking, physicist, systems analyst, communications, writing, teaching and production control for a mean number of years of 8. Several of the respondents were involved in research both on campus and in private industry. In addition to their current teaching assignment, many have been able to find other ways of utilizing their knowledge and experience which keep them in touch with the world they are teaching about. A number of them are involved in consulting, while others are writing, translating, editing, developing software and teaching in other settings.

Learning Activities Identified

As an example of the learning activities engaged in by the respondents, one identified 14 learning activities which were given in this order: car maintenance; Pagemaker 4.0; preparing short stories and articles for publication; estimating the cost of making packages; the effects of cholesterol on the heart; knowledge of computer hardware; new approaches for getting interviews for a job; a new way of looking at social change; problem solving productively in a pharmacy setting; fixing a dishwasher; drywall installation and preparation for finishing; putting together business and marketing plans; researching the mail order business; how to run an effective youth program at church.

After reviewing the list of learning activities given by the respondents, I decided to group them into nine categories: Vocational, Technical, Personal, Subject Related, Hobby, Home, Philosophy, Social, and Politics. The largest number of activities were located under the Technical heading with approximately 23% of the total. The remaining learning activities were categorized as follows: approximately 18% were Personal, nearly 16% were related to Hobbies, both Vocational and Subject Related categories had about 13%, 7% of the activities were related to Home, 5% to Social, 3% to Politics, and 2% to Philosophy. This information is set out in Table 1, below.

Table 1

Distribution of Learning Activities

Category	**Number**	**Percentage of Total**
Technical	54	23
Personal	44	18
Hobbies	37	16
Vocational	30	13
Subject Related	30	13
Home	17	7
Social	13	5
Politics	7	3
Philosophy	5	2
Totals	**237**	**100**

The learning activities classed as Technical were those that involved computers and software, such as "Introduction to Power Builder" (a software package), specific areas of interest such as "R and D Controls" (electrical engineering), and practical projects such as making circuit boards. Included in

the category of Personal were such activities as research on schizophrenia, learning how to live with teenagers, investing in mutual funds, and basic communication skills. Hobbies included a variety of activities including archeology, the study of coffee, inventions and golf. The Vocational category included those activities which either furthered the respondents' careers in teaching, or provided them with alternatives beyond their present position. Examples of these activities were: a math seminar in calculus, research into Spanish-speaking markets, how to present at computer shows and new approaches to getting interviews for jobs. The Subject Related category included such activities as preparing to update labs, investigating textbooks for new ideas on teaching, preparation for teaching one or more new courses and learning how to write a curriculum guide.

From these examples of the learning activities that this group of twenty-eight post-secondary educators engaged in over a twelve month period, we can see that they have a broad range of interests, many of which have little or no connection to their teaching role. It is obvious, however, that they do have a keen interest in learning activities which can be classified as technical, because this category is the most popular of the nine identified.

Number of Learning Activities

The total number of learning activities engaged in by the individuals in this group of faculty members over the past twelve months is shown in Table 2. The number of activities for any one respondent ranged from 5 at the low end, to 14 at the high end. Three respondents participated in 14 learning activities, and three participated in 5 learning activities. The greatest number (seven) of respondents engaged in 6 learning activities. The group participated

in a total of 237 learning activities, resulting in an average of 8.46 per respondent.

The table below indicates the number of learning activities the respondents engaged in over the twelve month period of time. In the case of the single respondent who listed 13 learning activities, we were unable to complete his interview because of conflicts with other responsibilities. As a result, the total number of learning activities for the rest of the study will be 226, rather than 237.

Table 2

Total Number of Learning Activities

Number of Respondents	**Number of Learning Activities**									
3	5									
7		6								
5			7							
1				8						
1					9					
5						10				
1							11			
1								12		
1									13*	
3										14
Totals 28	**15**	**42**	**35**	**8**	**9**	**50**	**11**	**12**	**13**	**42**

*only two analyzed

Reasons Given for Learning

Once the list of learning activities was complete according to the respondent, then he/she was asked to consider each independently and to provide more details about them. I read them the subjects of learning activities they had given me, one at a time, and recorded their responses to a

series of open-ended questions about each on prepared response sheets. (see Appendix B)

The respondents were first asked to provide all of the reasons for beginning each of the learning activities. The responses given are presented in Table 3--Note: Not all learning activities were identified as discrete entities; rather, some were extensions of, or closely related to other learnings completed either recently or in the not too distant past.

Table 3

Reasons for Engaging in Learning Activity

Reasons Given	Number of Learning Activities
General Interest	107
Professional Growth	92
Self-Improvement	82
Teaching Preparation	55
To Learn	54
Financial	51
Social	37
Hobby	22
Convenience	11
Other	8
Politics	7
Management Recognition	6
Total	**532**

The total number of reasons given for beginning a learning project was 532, and since there were 226 activities, an average of 2.35 reasons were given for each activity.

Part of the analysis of the data obtained from the respondents was the assignment of each of the reasons to one of twelve categories. These

categories were created by grouping similar reasons given, and then applying an appropriate title to the group. The twelve categories selected were: self-improvement, professional growth, general interest, financial, teaching preparation, hobby, social, politics, learn, convenience, recognition by management, and other. The final category, 'other' was used only a total of eight times to accommodate those reasons given that did not naturally fall into any of the other categories and so were unique. For no learning activity was there only one reason given for beginning it, so in every case, the learning that was engaged in bridged two or more of the categories.

The number of reasons given for engaging in each learning activity was recorded for each respondent. Most commonly the respondents gave two or three reasons for their learning activity, approximately eighty-one percent of the time, and in only one case was the maximum, five reasons given for participating in one learning activity.

The total learning activities of any one respondent included reasons from a number of categories. The minimum number of categories included was four, and the highest number of categories was ten. For all the respondents, the average number of categories included in the learnings was 7.28. This gives us an indication of the breadth of the areas covered by the respondents' learning activities. They were involved in far more than learning for professional reasons; they saw themselves as developing their multiple dimensions rather than just their professional responsibilities. As was discovered, however, even many of those learning activities that had no apparent connection with the respondents' teaching had an impact on their teaching role.

There were a few outstanding concentrations of reasons given by individuals for engaging in learning experiences. For instance, of the twenty-three reasons one respondent gave, over one third, twelve of them, were for

self-improvement. The next two most significant reasons this respondent gave were general interest and financial, with seven each category. This respondent is a young man who is just beginning his career, and who stated that he wants to develop himself as broadly as possible. Since he is a recent graduate with his master's degree, he feels confident in his academic ability, but is aware of a need to be much more than an academic if he is going to be an effective teacher.

Another example of a respondent with a high concentration of reasons for engaging in learning activities is one who is approaching the end of his teaching career. He is not driven to learn for job purposes because his background is of much greater depth than he would ever need in his current teaching role. He has, however, an insatiable curiosity which leads him into many areas of study. His interests are eclectic, but mostly related to the scientific area. The reasons he gave for learning tended to cluster under the heading of general interest. Eleven out of the thirty-five reasons he gave were included in this category.

Only one other faculty member had a clustering of reasons for learning, but unlike the others, this occurred under two headings. He was a younger member of the teaching faculty, and he gave ten reasons for learning which were classified as general interest reasons, and nine reasons which he identified as 'to learn'.

Table 4 summarizes the number of reasons given for engaging in the learning activities. From this table can be seen the fact that the respondents tended to give either two or three reasons for each learning activity. Giving one or four reasons was less common, and five reasons was given only once.

Table 4

Number of Reasons Given for Participating in Each Learning Activity

Number of Reasons	Number of Learning Activities
1	25
2	95
3	88
4	17
5	1
Total	**226**

Selecting Learning Activities

As I proceeded with the interviews, the fact that the faculty choose to control much of what they learn became more and more evident. Also, they tend to avoid or delay learning situations that neither fit in with their schedule, nor meet a specific current need, and therefore have no immediate application.

They are also fairly consistent in their learning strategies, so that skills learned or practiced in academia, such as researching new material, were applied to learning experiences in their personal lives. As an example, in a learning experience related to body building, one respondent soon realized that he would not always be able to rely on the instructor at the gym being available when he wanted assistance; instead of depending on the instructor for guidance, he decided to take over his own program by reading an excellent book "as if he were going to be tested on it."

There also appears to be a very strong sense of the application of any new learnings to their teaching function. As they reflected on their practice, they were often able to make connections between the skills they were

developing as they acquired their personal learning, and improvements in their ability to deliver their material more effectively or respond to their students' needs with more sensitivity or understanding.

There was clearly a willingness to identify areas in which they lack knowledge or skills, and then to respond by locating suitable learnings. One of them had sensed that he was computer illiterate. He said, "Computers are so pervasive now, I just didn't want to become a dinosaur. It was necessary for me to keep up with the latest developments. Besides reading about new developments, I have a friend who teaches in the computer department, and he and I spend a lot of time talking about what is happening with computers."

The respondents' identification of their needs for skills or knowledge resulted from one or more of a number of factors. Professionally, these included metacognitively reflecting on their teaching, anticipating a new assignment in teaching, or recognizing the emergence of a teaching/learning problem. As an example, one respondent stated, "I was preparing for some courses that I would be teaching, and I had certain topics in mind that I wanted to learn and study." Another said, "I wanted to learn more about class management, because student behaviour is becoming less and less appropriate."

In their personal or family life they suggested such factors as a desire to improve their ability in gardening or house repairs, for example, so that they could either save money, create something of beauty or functionality, repair or restore; it was <u>not</u> a desire just to be more informed or aware, except where their interest was more general in nature; for instance, wanting to be aware of the politics of a specific part of the world.

These faculty members were less inclined to take formal courses if they did not have to; only when the taking of a course would either lead to advancement or was required in preparation for a change in program did they

engage in this type of learning. One respondent was unique in her desire for formal courses. She has taken two in-house formal sessions for software understanding. She said, "This has been a busy year. I feel badly not to have done more in a formal way." A more typical comment came from a respondent who said, "I took an accounting course a few years ago. I was really interested in it and enjoyed the classes, but just getting to the classes once a week in the evening required a lot of self-motivation."

Mention was made by only one respondent of the need to pursue further formal education in order to meet the academic expectations of the organization, but apart from this, no reference was made to learning for credit. It would, therefore, appear that the notion of learning for academic credit was not a high priority for these people, even though they were actively engaged in a variety of learning activities which included technical studies. This was particularly significant in this field of high tech, where being current was critical to their being able to deliver a high quality program.

Whereas one might have expected that people who teach in a high tech educational institute would concentrate their learning activities in technical areas, these respondents displayed a very broad range of interests for learning both individually and collectively.

Several respondents indicated that they had engaged in a learning activity in order to be able to take advantage of an opportunity to teach in a related area, and therefore to grow professionally. One of the respondents stated, "The reason I studied in the areas of ethics and history was because I was asked to teach two courses--a job opportunity."

Where respondents had indicated an interest in learning more about staying healthy, they had also seen this as a professional responsibility so that they could perform their teaching role with more energy and with minimal

interruptions due to their absence from class. One respondent expressed his position as follows: "If you are healthy you can perform your job more efficiently. If I am not in good health, I am under stress. My emotional condition is not in very good form, and this affects my performance at work."

Sometimes the reason(s) for engaging in the learning activity was not obvious to the participant prior to the commencement of the activity, but he or she sensed an urgency in their professional or personal lives that had to be addressed. For example, one respondent expressed his thinking this way, "I try to be aware of what I don't know, and then I figure out how to remedy that, and sometimes there is a number of false starts before I do it." Another said, "I knew something had to be done about my communication skills, but how to do it became clearer as time went on."

In many instances, the main subject area of teaching of the faculty members had little direct connection with the selection of learning activities; because they teach mainly math, for instance, did not mean that they limited themselves to learning about mathematics. One of them expressed his rationale for his interest in a variety of learnings in this way, "When I'm in the classroom, I'm helping my students learn about the subject, but when I'm out of the classroom, I'm no longer a teacher, but a friend helping them with their personal lives." Also, there appears to be no commonalty among those who teach in a particular subject area as far as the learning activities they have engaged in. Their selections were quite unique in every case.

Management recognition was mentioned by only two respondents, so most of them were not influenced to participate in these activities by the management or the company policy, with the expectation of either retaining their position or improving their status with the company. The reasons one respondent gave for engaging in subject upgrading included the need for

professional growth and personal motivation along with management expectations to upgrade. She had formally set herself goals to be met by June, and more formal upgrading was one of those goals.

Convenience was rarely given as a reason for the selection of a learning activity, but it appeared to be a consideration in a number of cases, since the respondents did their learning either at the institution, or in their own home or community; they travel to learn in only a few instances. One respondent stated emphatically that he would rather not have to travel to take a course, but he said with a smile, "If someone had wanted to give me a personal homework course on this programming language (C++), I would have taken it." Another stated that, "The convenience of having the program on site was very significant to my participation."

In each of the instances where they traveled to learn, their purpose was to attend formal courses most of which were of short duration in a block of time, rather than spread over a number of weeks or months. Usually this required them to be resident at the location and spend long days at their studies. One of those who did take a course this way said, "I went to one seminar in the past year; a three-day seminar in Pittsburgh on logistics."

A few of the respondents saw some of their learning activities as packages, and chose to keep them that way for the interview. In one case, a respondent decided to become conversant with three pieces of software, Word Perfect, Lotus and Excel. He considered this to be one extended learning experience rather than several, even though the time spent on each was significant in terms of a learning project. Another stated, "I'm learning software packages, and I'm learning controls at the same time--they overlap."

In a number of cases, the respondents indicated that one of the reasons for their engaging in the learning activity was an anticipation of future trends

in technological applications in their subject area, and this was, therefore, to prepare themselves to make the transition. One respondent had a unique way of identifying those topics that he should pursue. He said, "I listen first; I get information from other people, before I make a decision about what I should be studying." This was done even before there was any indication from the institution that this would be the direction they would move in.

The respondents clearly identified their academic skills as making a significant contribution to their selecting learning activities. They referred to them variously as academic skills, research skills, reading skills, communication skills, learning skills, organizational skills, the ability to access information and the ability to locate and tap resources and select the required information for their learning purposes. One respondent highlighted the value of good communication skills by stating, "When you are in the field, whether you are dealing with people whether they are peers or students, you have to know how to convey what you know. You also need to know how to listen to them, because this is part of communications."

Methods Used

The respondents were asked to comment on each of the methods they used as they engaged in their learning activities. They were recorded during the interview, and for the analysis were grouped into twelve categories which are displayed in Table 5. Also in this table is an indication of the number of times each of these methods was used by the respondents. By far the most common method was 'Reading', which was used for a total of 173 learning activities. The second most commonly used method was 'Consulting' which was utilized in 105 instances. Following this, there is a dramatic reduction in method usage down to 52 for 'Trial and Error', and lesser numbers for the remaining nine

categories, ending with 'Teamwork/Collaboration' with only 4. Near the middle of this latter group of categories is 'Courses/Classes' which indicates that more formal settings were used only 31 times to acquire the learnings. This is a relatively small number compared to the most common, 'Reading', and very small compared to the total number of methods used.

Table 5

Methods Used to Acquire Learning

Methods Used	Number of Learning Activities
Reading	173
Consulting	105
Trial and Error	52
Discussion/Debate	43
Audio-Visual Devices	40
Practicing	38
Courses/Classes	31
Reflection	24
Research	18
On-Line Computer	15
Note-Making	9
Teamwork/Collaboration	4

In many cases, the methods used during the learning activity were very similar to those used by the same individual for learning in an academic setting. This was consistently applied even when the individuals were engaged in an activity that was relatively new to them; in other words, the current learning was not related to previous knowledge or learnings except through general knowledge. An example of the use of general knowledge would be how to do household plumbing.

If a respondent usually obtained information about a subject by reading, he/she would read the manual to find out how to operate a new piece of equipment. One respondent even separated the types of reading he engaged in as either skimming or intensive, either of which was employed for specific reasons during a learning activity depending on the depth of knowledge required, or the nature of the information search.

Number of Methods Used Per Learning Activity

When the respondents engaged in their learning activities, they did not only use one method; they used as many as they considered necessary to accomplish what they needed to. Table 6 outlines the results of the compilation of the data. In most of the cases, their decisions resulted in their using two or three methods. In fewer cases they used either just one method or as many as four methods, and in a very few cases they even used five methods.

Table 6

Number of Methods Used for Each Learning Activity

Number of Methods	Number of Learning Activities
1	28
2	89
3	78
4	28
5	3
Total	**226**

Approximately 74%, or 167 of the learning activities involved two or three methods. In only 28 instances did the respondents use just 1 method to learn, and in exactly the same number of instances the respondents used 4 methods to acquire their learning. The lowest number of methods used for a learning activity was 5, and this occurred in only three cases.

Decision Regarding the Content/Method

When asked who or what determined the content of the learning activity or method to be used to acquire the learning, the respondents showed a clear preference for deciding both of these aspects for themselves. Table 7 summarizes the analysis of the data. In 175 learning activities out of a total of 226, or 77%, the respondents indicated that they, themselves, had decided on the content and method of learning. One respondent stated the situation quite emphatically when he said, "I decided the content of my learning."

Where they had been involved in a group with a leader, or instructor, they indicated that that individual had determined both the content and the method of learning to be used. This occurred in 27 of the activities.

A third learning strategy was engaging in one-to-one learning which occurred in a total of 11 learning activities. In these cases there was a degree of negotiation about the content and method, but the respondent did have significant input.

The content and method of learning in the other 13 activities was controlled by the instructional material, itself. The respondent followed the instructions or steps given, as in a computer or software introductory program.

Table 7

Who Decided Content and Method of Learning

Decision-Maker	Number of Learning Activities
Learner	175
Group Instructor	27
Instructional Material	13
Personal Instructor	11
Total	**226**

Job-Relatedness

Because both personal and professional activities were included in the study, and because the perception of the respondents was significant in the creation and interpretation of the information given, the extent to which the learning activity was job-related was to be decided by them. The responses indicated that ninety-five were clearly not related in any way to their teaching position, and eighty-five were directly related to their job. The respondents were not able to definitely place fifty-three into either of these first two categories, but they indicated that these learning activities had some degree of connection to their job. Table 8 presents this data.

Table 8

Extent to Which Learning Activity was Job Related

Degree	Number of Learning Activities
Not at all	92
Some	51
Completely	83
Total	226

Impact on the Teaching/Learning Context

Regardless of whether the learning activity had been job related, the respondents were asked to consider each learning activity and determine if either the process learning or the product (knowledge or skill) had made a difference to their teaching/learning context.

Table 9

Difference Learning Activity Made to Teaching

Contribution to Teaching	Number of Learning Activities
a. Made a difference	154
b. i. Improved content/delivery	148
ii. Improved student relationship	61
c. Made no difference	72

As can be seen from Table 9, a total of 154 learning activities made a difference to the respondents' teaching, even though the activity may not have been directly job related. They indicated that there was an improvement in

content and/or delivery of the content in 148 instances, and in 61 cases, there was an improvement in the teacher's relationship with the students. The number of instances of improvement exceed 154 because, in some cases, the learning activity had a positive impact on both the content/delivery area and the relationship area.

Relatively few of the learning activities were begun with the intent of improving the faculty member's effectiveness in the classroom, but, on reflection, the respondents indicated that many of the learning activities did make a positive difference in the teaching/learning environment. Often, much to the surprise of the teachers during the interview, they had been able to make real connections between what they had learned or the process of learning and the context they were facing in the classroom. This was a bonus as far as they were concerned, since in most cases they had already achieved their primary and overt learning goal. They had not reflected on this aspect before, and had not anticipated this additional benefit to their learning effort. In nearly every case, the question about the impact was followed by a short time of bemused reflection, and then either a rapid comment on the impact, or a quiet, 'No'.

In two cases, where the respondents had stretched themselves by moving into a brand new area of study, they commented on the higher degree of discomfort and uncertainty they had experienced; then they referred to the empathy they now had for some of their students who were struggling with new concepts in the courses they were teaching. One admitted that, "My learning about computers has affected my teaching in the sense that I am much more aware now of why things happen and can give the students explanations of such things as why labs go down, why printers don't work, and when they don't get their outputs, I can appreciate why and give them appropriate extensions

for their labs and so on." He is more understanding of their frustrations regarding equipment limitations and is able to defuse much of the tension that results. He used to demand assignments in on a specific date regardless of circumstances, but now is more flexible.

The benefit of participating in a variety of learning activities that are not directly related to teaching is only recognized if teaching is seen as being far more complex than simply passing information on to students. Teaching involves the total person in all his/her dimensions--physical, mental, spiritual and emotional in their interaction with students and the subject material. The faculty members participating in this study expressed awareness of this fact. One stated that, "Being a teacher is far more than following the teaching guide; you have to be ready to branch off into any area that's remotely related, and the students appreciate it." Most, however, did not make the specific connection between what they had learned and its impact or potential impact on their teaching until the question was raised during the interview and they reflected on it.

Many times, even though, according to the respondent, the learning activity was not job related, there was still a positive impact on the teaching process, either in the teacher's ability to deliver the content more effectively, or in the teacher/student relationship. One stated (in regards to learning about gardening), "It made a difference to my teaching in an odd way because the relaxing, down-to-earth activity made me a better person." She clarified this statement by indicating that she was more able to slow down and be more patient with her students. Another respondent is applying her learnings from studying modern languages to her classroom. She said, "I am studying modern languages, because I don't believe you really understand people until you know their language. As a result of studying languages, I'm able to better

understand what some of my students are trying to say in English. For instance, I know the structure of how the Japanese students are writing things down, even though it might not be grammatically correct."

In some cases the respondents expressed that intuitively the learning had made a difference in their teaching, but they had difficulty articulating what that difference was. Their comments included the following from several of the respondents: "I tend to share whatever I know with my students on an informal basis." "I need to know more so that I have more to offer to my students, and so that I'm better able to answer their questions. I'm able to make it more interesting when I have more information to draw from." "The learning has affected my teaching because I can draw on more real life examples." "My learning has expanded the scope of what I'm able to talk about to my students." "I believe my learning about these software packages has made a difference to my teaching, but I don't have a standard by which to measure."

Sometimes, the teachers have to adjust their thinking in their area of expertise in order that they present their material to their classes in an understandable fashion. This is illustrated by one respondent who had spent most of his career in analog electronic communication. He indicated that he had to prepare for teaching the topic of antennae by reading the textbooks available, not to increase his knowledge, but to limit his presentations to a level that was more in line with the students' background and experience. He could have given them much more breadth and depth, but realized that that approach would not have been appropriate for the course he was teaching and the time available.

Resources Used

The respondents were asked to identify as specifically as they could, the resources that were used during each of the learning activities. At the conclusion of the interviews, using the data that had been given, ten representative categories were identified for grouping purposes. The categories were: Friends, Colleagues or Teachers, Books, Journals, Newspapers or Magazines, Computer, Library Resources, Experts, Audio-Visual Tapes and Television, Manuals, Self, and Other. These categories of resources, along with the frequency of their use, are given in Table 10.

Table 10

Resources Used to Assist with Learning Activity

Resources Used	Number of Learning Activities
Books	134
Experts	104
Other	84
Journals/Newspapers/Magazines	62
Friends	60
Computer	52
Audio-Visual Tapes and TV	51
Colleagues	48
Manuals	34
Library Resources	22
Learner	3
Total	**654**

Of these ten resources, the most frequently used was books, which were identified as being used in 134 learning activities, which is approximately 21% of the total number of resources used for all the learning activities. The respondents identified 'Experts' as the next most commonly used resource

which represented 16%. 'Friends', 'Colleagues', 'Journals', 'Computers' and 'Audio-Visual Equipment' each represented about 8% of usage.

When all the human resources ('Experts', 'Friends', and 'Colleagues') were combined, this generated an overwhelming number of 212 instances of using human resources to assist with the learning activities. This total was generated by the fact that in a number of cases, more than one human resource was used for a particular learning activity.

In the literature review, reference was made to the fact that self-directed learning need not be learning in isolation, but often had the effect of increasing the contact of the learner with others. In the situation being studied here, by combining the categories of 'friends', 'colleagues' and 'experts', we can determine the number of contacts made with other people to assist in the learning situation as reported by the respondents; this totaled 130, which is a significant number considering the fact that the total number of learning activities they engaged in was 226. This indicates that about 55% of the total learning activities involved assistance from people.

Finally, at the lower end of resources identified by the respondents as being used during the learning activities were 'Library Resources', 'Manuals' and 'Self'. The identified 'Self' in those cases where they were able to transfer their own knowledge or skills from another area to the present learning situation.

A fairly significant use was made of a great variety of resources classed as 'other' when the respondents were engaged in unique learning activities such as plumbing or car repairs. These included such items as special tools or materials, product samples or instruction pamphlets, each of which were peculiar, but essential, to the specific learning situation of the respondent.

The information given by the respondents indicates that, in their learning activities over the twelve month period, each one used at least two categories of human resources. In a few instances, a human resource category was used only once, but in most of the cases, the frequency of use was much higher, reaching as high as 9 in one category with one respondent.

In 104 cases the respondents used people they recognized as 'Experts' in the field; in 48 cases they referred to 'Colleagues', who were people who had experience in the area of interest, but whom the respondents would not class as experts; finally, they referred to 'Friends' for information, advice or help in 60 of the learning activities.

Number of Resources Used Per Activity

The number of resources used per learning activity ranged from 1 to 6, as shown in Table 11, but on only 5 occasions did the respondents use 6 resources for a single learning activity. The frequency of either 5 resources being used per learning activity or 1 per activity was very similar, averaging about 19 occurrences. This was well below that of the frequency of using 2, 3 or 4 resources per learning activity. These occurred 62, 68, and 52 times respectively.

In most instances, the degree of accessibility to resources had a significant impact on the decision to participate in the activity. The desire to engage in a particular activity, however, would be put on hold rather than forgotten if the necessary resources were not available when required. The search for appropriate resources would then proceed either in a formal or informal manner, depending on the priority level of the learning activity at that time. In reference to one learning activity, a respondent had had to find an alternate resource, a book, to help him learn the game of tennis. He said, "I

Table 11

Number of Resources Used for Each Learning Activity

Number of Resources	Number of Learning Activities
1	21
2	62
3	68
4	52
5	18
6	5
Total	**226**

was not able to join a class to learn how to play tennis because my schedule would not allow it."

Self-directed learning does not mean learning entirely independently or on one's own. In fact, the respondents in this study often used other people as resources to help clarify information or to discuss issues related to their studies. One stated that he would have liked more opportunities to consult with people regarding his learning needs. Another, who was learning about cholesterol and its effects, took advantage of his next visit to his doctor, by asking him for suggestions which further helped in his understanding of the condition and its control. Others used human resources on a regular basis as these following statements indicate: "As far as learning to communicate better in English, it isn't consulting, it's a request to get information--one way." "A lot of my learning is from two main sources--reading and speaking with people." "Can I say consulting with my peers? That is a big one."

The respondents used a wide variety of resources (eleven were identified - see Table 10), but were selective in which they used for each learning activity.

They were able to take advantage of the most appropriate resources for a number of reasons including the following: because they were competent in their use; because they knew they were available; because they were able to access them with relatively little difficulty; because they were not too proud to seek out knowledgeable human resources. Also, they took advantage of resources that were not planned, but could contribute to their learning, such as a television program or a conference, a journal article or a recommended book.

Some of them who are avid readers are constantly on the search for suitable material. Typical comments were: "Reading books is a constant thing." "I'm big into the newspapers--it happens on a day-to-day basis." "I like to read. I enjoy reading. I have a basic curiosity about almost everything."

If resources needed for the learning activity are not available, the process is put on hold while a search is made for them, or alternative resources are located, through such channels as a library search or using their established network. Two respondents who make good use of the resources available at libraries stated enthusiastically, "Public libraries? Oh, yes, I love public libraries." and, "I used the library a lot; libraries are wonderful."

The learning activity may be delayed for either a relatively short period of time, or an extended period of time, but the original goal does not appear to get lost. During the delay, other learning activities are begun, continued or completed. This tends to create parallel or overlapping learning activities, a practice that appears to be common with this group of people.

For some particularly technical areas, especially related to the research that some were involved in, such as artificial intelligence, the respondents sometimes had difficulty locating suitable resources so had to be satisfied with a limited number of them. In one extreme case, there were no locally

obtainable resources; after an extensive search, however, material had to be translated from Japanese writing.

Present Status of the Learning Activities

By far the majority of learning activities (136 out of a total of 226) was reported as being on-going, which means that they were begun, but not completed within the twelve month period. Eighteen of the 28 respondents had more learning activities on-going than completed, and 2 had as many learning activities on-going as completed. A total of 90 learning activities were described as being completed by the end of the twelve months. Table 12 presents the figures representing the current status of the learning activities.

Table 12

Present Status of Learning Activity

Present Status	Number of Learning Activities
Completed	90
On-Going	136

Some of the learning activities that were not completed, were started just prior to the beginning of the interviews, but many had not been completed for a number of other reasons. Some of these included the fact that there was no clear end to the learning activity (such as one which was a study of changing world politics), that more interesting dimensions of the subject had been discovered, that the participant felt the need to know more about this subject, or that resources were not readily available. Whatever the reason, however, the respondent was the one to decide whether the learning activity

was complete or not, and that depended largely on the present need for the learning.

In only a relatively few cases was the learning activity incomplete because the learner was unable or unwilling to continue it. In those instances where the learner was temporarily blocked because of lack of appropriate resources, for instance, the learner saw this as only a temporary set-back in the learning progress, and fully expected to continue the activity as soon as this obstacle was removed.

Time Spent on Each Learning Activity

Six arbitrary time frames were established, after the data collection, to record the amount of time that the respondents spent on their learning activities. These time frames with the related data are shown in Table 13; they were: up to 9 hours, 10 to 24 hours, 25 to 49 hours, 50 to 99 hours, 100 to 499, and 500 and more.

The respondents indicated that they spent between 100 and 499 hours on more learning activities (56) than any other time category, and more than 500 hours on each of 10 activities; one respondent spent 2000 hours with teachers at a private high school learning about, and practicing teaching skills.

The second most common time frame was the 10 to 24 hour category which applied to 50 learning activities; the category of up to 9 hours included 43 activities; the time frame of 50 to 99 hours applied to 37 activities; and the category 25 to 49 hours included 30 learning activities. These figures indicate that only 43 out of a total of 226 learning activities were engaged in for less than 10 hours.

Table 13

Hours Spent on Learning Activity

Hours Spent	Number of Learning Activities
up to 9	43
10 - 24	50
25 - 49	30
50 - 99	37
100 - 499	56
500 +	10
Total	**226**

When determining the number of hours spent at any one learning activity, in many cases, a fair amount of probing was required. In most cases the learning was conducted whenever the individual had some time; rarely was there a set time for the activity. As a result, the times given are only good estimates and could not be used in a quantitative analysis with any degree of accuracy. Because of their sincerity and the seriousness with which they participated in the interviews, however, the times given by the respondents are a clear indication of their level of commitment to the task, and their willingness to give the time that was necessary for them to learn to their level of need.

If more accurate times of participation in learning activities were to be obtained, the participants would have to maintain a log book in which to record each time they engaged in the learning activity and for how long. For this study, the length of time given by the participants was deemed sufficiently accurate, especially in light of the degree of probing that occurred.

Time had not been a limiting factor in the decision to engage in any learning activity. In every case, the respondent had been sure that this

activity was worth pursuing; it was just a matter of establishing its priority, and finding the time for learning episodes. One of them suggested that he dealt with the scheduling problem by being constantly ready. "The actual timing of when I do the learning will depend on other priorities, but I have the material available for when that time comes."

Because they often did not know ahead of time exactly what would be involved in the learning process, they did not lay out this aspect of the learning ahead of time; they just began when they could, and continued as often as they could. One stated his perception this way: "There is a definite long-term goal, but there is no specific short term plan or timetable as to how to achieve that goal." For example, one of the women wanted to learn about gardening so that she could create an attractive garden at her new home. She did not know what would be her best resource, so she started surveying the library shelves, magazines at the stores, her friends and her family to get some ideas. As she read and talked to people, she was able to locate other resources which would help her further in her learning. She did not even consider the amount of time involved; she was just anxious to discover what she needed to know.

For some of them, the learning was included as a regular part of their day's or week's activities, but even then, the exact amount of time available or needed varied from time period to time period.

Out-of-Pocket Expenses

The amount of money the respondents estimated that they spent on each learning activity was assigned to one of six categories set according to the data given: no cost, up to 49 dollars, 50 to 149 dollars, 150 to 399 dollars, 300 to 999 dollars, and 1000 and more dollars. This is shown in Table 14.

Table 14

Out-of-Pocket Expenses

Dollars Spent	Number of Learning Activities
zero	100
up to 49	45
50 - 149	35
150 - 299	18
300 - 999	16
1000 +	12
Total	**226**

From the table above, one can see that almost one-half (100/226) of the learning activities were considered by the respondents to be cost-free, even though they spent many hours participating in them. They were able to use resources that were already available to them such as software packages, so they did not have to purchase them for the learning experience. At no time, however, was money a stumbling block to engaging in a learning activity.

Some learning activities, such as acquiring skills in classroom management or learning how to play tennis, necessitated that the respondents spend money in order to be able to achieve their personal learning goal, but wherever possible, spending money was avoided. Even the experts with whom they consulted were contacted through their professional or personal network, and rarely involved a cost. Of a total of 226 learning activities, by far the majority, 80%, cost less than 150 dollars. Of these, 100 were cost free, 45 cost up to 49 dollars, and 18 cost between 50 and 100 dollars. Of the remainder, 18 cost between 150 and 300 dollars, 16 cost between 300 and 1000 dollars, and only 12 cost 1000 dollars or more.

At no time did any one of the respondents express concern about the amount of money he or she was spending for his or her learning activity. One respondent indicated his position on the cost of his learning activity by stating, "If I spend twenty dollars on a book and I get two or three good ideas out of it, I'll feel that it was very worthwhile."

Each of them felt that at times, spending money was necessary for their learning, though some were surprised at the total amount they had spent over the year. They were often able to engage in a significant number of learning activities for relatively small amounts of money, even to the point of no cost to them. They were financially efficient learners, maybe even frugal, spending only as they had to when there was no other convenient way to achieve their purpose. However, one of them avoided a very high cost program even though it might have been valuable to him. He said, "I could go to one of Microsoft's courses, but I don't have a thousand dollars for a three-day course."

Extent of Pre-planning

The respondents were asked to determine the extent to which they had ordered their activities so that they could accomplish their personal learning goals. They were able to respond to this question with very little reflection, because in most cases their answers fell into one of two categories: either there was no planning at all beyond the level of deciding the topic or skill that they wished to pursue, or the procedure to achieve their goal was already clearly set out in their minds. The results can be seen in Table 15.

Approximately 40% of the learning activities were not pre-planned, which meant that the respondents moved from one resource to another as the resources became available or as they became aware of them. Sometimes . they were directed to resources as they read bibliographies or text references

Table 15

Extent Learning Activity Planned

Extent of Planning	Number of Learning Activities
Not at all	90
Partial Pre-Planning	31
Full Pre-Planning	105
Total	**226**

to other sources, and at times their human resources suggested other avenues to explore. This occurred when, for example, a respondent studied the sources of cholesterol and its effect on the body, and also when another respondent wanted to know more about computer hardware.

The greatest percentage of the learning activities, 46%, was completely planned before the process was begun. This meant that the learner knew the resources that would be used and in what order, and how to access them. Only about 14% of the learning activities were planned in part; this was usually because the respondent could not see where to go beyond a certain point, and would have to make a decision at that time as to where to move to next. The respondents were quite comfortable with their learning, however, regardless of the degree of pre-planning that had occurred. Either no planning or partial planning presented a challenge which the respondents enjoyed, and which they considered to be a natural part of the learning process that they were quite capable of handling.

Several researchers including Tough (1971), and Fair (1973), have identified the notion of planner in their studies, and this reflected the key person or object that controlled the planning aspect of the learning activity. In

the case of the faculty members, it seems to be increasingly clear that much of what they learned did not follow a set plan, but had a high degree of spontaneity or opportunism. An example of this was one who said, "I didn't have specific ideas of everything I wanted to do; I simply went outside to find books that seemed appropriate based on my study, and that led to what I was going to do."

They took advantage of situations or resources that became available to them at a time when they were able to devote time to them. One said, "I knew what it was that bothered me, and as opportunities presented themselves I took advantage of them, rather than planning them ahead of time." Another stated that, "This subject has been on my mind since I was twenty; some years nothing happens, then suddenly I'll see some new books advertised, and I'll get them and that will lead me somewhere else." As far as one of the respondents was concerned, planning was not so much arranging his learning strategy as, "Planning involves looking ahead to see what changes are required in the courses I will have to present in the next semester. I will have to learn how best to present this material."

Relatedness of Learning Activity to Previous Learning

As can be seen in Table 16, by far the majority of learning activities, 193, were related at least to some degree, to knowledge that the respondents already possessed, so for the most part they were not exploring brand new fields. For example, the respondents who had decided to learn about raising children, considered that having had younger brothers or sisters, nieces and nephews or even friends or neighbours with children to be useful background for their personal study. In the case of learning a new piece of software, often the respondents' previous experience with the structure and conventions of other

packages enabled them to access the software on the computer and begin to explore it with minimal difficulty. Where they did encounter problems with hardware or software, their level of familiarity with the technical language enabled them to find solutions by reading the manuals provided.

Table 16

Extent Learning Activity Related to Previous Knowledge

Category	Number of Learning Activities
Not at all	33
Somewhat	87
Highly	106
Total	**226**

More difficulties were experienced by the respondents when they were engaged in a learning activity that was limited in its relationship to previous focused learning. Here the learner had to discover ways to overcome the difficulties encountered, including locating resources, some of which had to be creatively obtained.

By their selection of learning activities, the respondents indicated a strong preference for those that had a clear connection to material with which they were familiar. For example, the respondents who had a good background in computer software were comfortable exploring other related software.

Some of the learning activities such as those in the area of physical fitness were related to the individual's general knowledge, but the respondents clearly differentiated between this form of "knowing" and the knowledge that results from a previous focused study.

As an example, one respondent wished to learn how to repair the brakes of a car. He could proceed only part of the way, and he found the repair manuals inadequate for his purposes. He decided to advertise for, and hire a student auto mechanic to guide him in the process. Because of the students' skills in car repairs, the respondent had to train the student to teach him how to do the repairs himself. This experience not only taught the respondent how to repair the brakes of a car, but also increased his sensitivity to the amount of guidance to provide his students when they are struggling with a new concept, or trying to solve a problem.

Goal Setting

The learning goals the faculty members set for themselves were rarely very specific. For instance, they set targets for themselves without setting an upper limit, and without determining clearly its breadth. Also, they commonly state their goals in general terms. Examples given were: "to learn more about a communications system", and "to become more familiar with the capabilities of a piece of software". This approach to learning partially explains the relatively high number of learning activities that are "on-going" as opposed to being complete.

Very often, this lack of specificity of goals for learning activities appears to lead to a desire for more learning, since additional questions or areas of interest are opened up to the learners as they engage in their studies.

Frequently, the specific aspect of the subject defined by the respondent as a learning activity had been completed, but he/she was now exploring another aspect of that, or a related subject. In this regard, the identified learning activity could be considered on-going even though the original goal had

been met. Whenever possible, this transition was clarified through probing by the interviewer.

All of the respondents expressed confidence in their ability to learn the material they set out to learn; the barriers to their learning were usually external factors such as time limitations or resources not being available. Central to the respondents' success in their learning activities was their selection of appropriate goals for them. They began the process expecting success based on such factors as previous experience, awareness of personal skills and local support available in both human and material resources. No one reported a "failure" in the sense of inability to complete the learning activity; there were temporary delays due to lack of time or other resources, but they indicated that they always had the confidence that the project would soon be continued or completed.

In his book, Why Adults Learn, Tough points out that "not all persons have clear goals for all learning projects.....On the contrary, this section of the report has so far been rather one-sided in apparently assuming that most adults sit down and assign units to all the probable costs and benefits before embarking on a learning project" (p. 51). Depending on how we define "clear" it would appear that most of those in my study did not always have a clear goal, but they did have a purpose, and when they had achieved that purpose, they either ceased their study, pursued another branch of the subject, or chose to continue their study rather than end it.

There were rarely any external indicators or criteria used by the participants to confirm that they had reached their goal. They had learned successfully when they decided they were finished learning. A couple of comments supported this concept. One said, "I set myself a task and I

completed it to my satisfaction," while another simply stated, "I was able to do what I wanted to do."

Support for the Overall Goals of the Institution

Although the respondents only classified 57% of the learning activities as being directly job related, their perception was that many more of the activities contributed indirectly to the goals of the institution than did not. In fact, they suggested that approximately 66% of the learning activities were either indirectly or directly contributing to the overall goals of the institution, even though they did not articulate exactly what these goals were.

Because they viewed themselves as more than just purveyors of knowledge, they considered any activity that either prepared them to more effectively meet their students' needs, or contribute in any way to the growth of the organization, was supportive of the overall goals. For example, they considered the maintenance of good health through learning how to exercise and/or maintain a balanced diet to be important to their ability to perform effectively and consistently in a role that requires a high expenditure of energy. They also considered that they were making a positive contribution to the organization by improving their professional knowledge, skills or awareness, whether or not there was an obvious and immediate application to their teaching. When they engaged in any learning activities that made them more effective in the delivery of their subject, they considered this to be contributing to the goals of the institution.

Learning 'In Parallel'

Faculty members consistently indicated that they were engaged in several learning activities "in parallel" rather than one after another in a linear

fashion. That is, they were pursuing more than one learning activity over a set period of time, with elements such as opportunity, time and resources being controlling factors. In most cases, they determined the priority level of each of the learning activities at any given time depending on such factors as immediate needs, inclination, personal schedule and even the time of the year. This resulted in a constant re-evaluation and reshuffling of priorities. The process appeared not to be a conscious one, but one that was, nevertheless, practiced by all the participants. One suggested that a TV program would be shown that night, or that another faculty member would be available for a discussion or to provide assistance with one aspect of the learning activity, and he would take advantage of that opportunity, even though he might have to adjust his schedule to accommodate it.

Most interviewees indicated that they prefer to have several learning activities going on at the same time, though at any given time, one will be dominant. This is consistent with the fact that their lives are balanced among a number of responsibilities, activities and interests, each of which is important to them, and the learning activities have connections with one or more of these areas of their lives. For example, one respondent was engaged in a number of learning activities over a period of time which included: wine making, amateur radio, course preparation, home maintenance and what growing older means. Each of them overlapped at least one of the others during the twelve month period.

Related Questions

The last part of the interview was comprised of four questions related to their learning activities.

Question #1 -- Learning activities not engaged in.

When asked if there were learning activities that they would have like to have engaged in over the past twelve months, but did not, none of the respondents had any difficulty identifying at least one. Likewise, they had no difficulty in naming the obstacle(s) that prevented them from doing so.

Twenty-three of the respondents indicated that there was a lack of time for them to engage in more activities, even though they were highly motivated to do so. Some of them had wanted to learn a musical skill such as guitar, steel drum or piano playing, but at this time were unable to free the amount of time they considered necessary to do it properly. Others were interested in more exotic activities such as hang gliding, archeology, astronomy, scuba diving and studying the nature of the Grand Canyon, but such factors as time, money and family responsibilities prevented them from pursuing them. Several had a keen interest in languages, both ancient and modern, and still others would like to learn to paint.

Only 6 of the respondents indicated that they would like to have taken formal courses either in areas that they considered beyond their ability to handle on their own, or that were required for certification. There were indications from 8 of the respondents of an interest in studying a variety of aspects of the computer such as programming, multi-media and networking, but they had no desire to pursue these studies in a formal course setting.

In addition, there were many other interests indicated by the respondents that covered a wide variety of activities including the study of

cultures through travel, ethics, artificial intelligence, science fiction, and financial investment.

Question #2 What skills do you have that enable you to participate in learning activities?

One question that initially seemed to create some difficulty for the interviewees was that of the skills that allowed them to participate in the learning activities. Some of them had problems identifying their specific skills, so in a number of cases I had to probe with them. In other cases, they had difficulty separating personality characteristics from learned skills, although once again, with probing, we were able to come to some understanding of their skills. The issue could likely have been clarified better, however, if I could have spent more time with them, but the interviews were long enough already. Collectively, however, they identified a broad range of skills that suggested that they would be capable of tackling many learning tasks.

Many of the skills that they identified as possessing could be classed as either academic or cognitive, and were likely fine tuned, at least, during their formal education. One respondent referred to himself as one who loved to learn in many ways--a compulsive learner who needs variety, and another stated that he had an inquisitive, active mind with a constant desire to learn. Another respondent referred to this desire to learn by stating that he had a predisposition to learn, and yet another said that he was motivated to learn. "If you don't learn and keep on learning, what you know is history." "Learning, whether it is for my professional life or my personal life, is on-going. I don't separate my learning--this is for my personal life and this is for my teaching." "I like to learn and read on my own."

Several of the respondents referred to their confidence to work on their own without external guidance. They mentioned such contributing factors as the ability to understand and retain information, to work independently, to know what you want and how to get it, ambition, and showing initiative and self-confidence.

Many identified their ability to analyze situations, to be creative in their approach to problem solving, their ability in lateral thinking, and their trouble-shooting skills as being valuable in their ability to learn in a self-directed manner. One respondent referred to the fact that his skills are more in the area of analytical and quick thinking rather than organizational because he can locate information faster than someone who is organized. Another suggested that one of his skills is in relation to accessing resources; he knows what his resources are and how to use them.

They made a number of references to the curiosity, or intellectual curiosity that was significant in either getting them started or helping them to raise new questions for study which would lead to new stages of their learning activity. The respondents also referred frequently to their persistence or perseverance that would keep them going in spite of setbacks or obstacles in their learning path. In one case, a respondent said, "Learning how to use a camera taught me patience, planning skills, observation skills, concentration."

Considering the fact that this is a high tech institution, it is no surprise to discover that many of the respondents recognize their abilities with computers to be an asset to them in their learning activities. About one half of them made reference to computer search skills, computer dexterity and computer skills as being key skills in enabling them to access information or perform operations that were necessary in order to continue their studies.

Because their learning activities encompassed such a variety of both academic and non-academic endeavours, six of them also commented on their physical skills, their ability with tools, or their artistic skills as contributing significantly to their ability to successfully engage in their learning activities.

Question # 3 -- What skills do you lack, which results in interference with your ability to learn?

They also seemed to have difficulty identifying skills that they lack, although they did agree that they are both drawn to learning activities that use their present skill set, and are deflected from those that would be more difficult for them because new skills would be required. There are exceptions to this, however, since at least one wanted to do something totally foreign to him (i.e. fix the brakes on his car). He benefited most from this learning activity by maintaining control over how he and his expert helper engaged in the task.

The respondents appeared to have the most difficulty identifying those skills that they lacked which, in turn, prevented them from engaging in some learning activities. One respondent suggested that there are some skills that he lacks, but there are things that he believes cannot be taught. Another stated his position clearly when he said, "I'm not aware of any skill that I lack, and which prevents me from being able to learn something."

In the short time available, and without any prompting, the respondents were able to report lacking a number of skills they deemed desirable that ranged between none (as indicated by three respondents) and a maximum of four. One of them asserted that he would not engage in learning activities that he felt that he was not equipped to handle, though he did not specify any particular skills he needed.

Collectively, the respondents presented an array of skills that they lacked, a fact which they sensed interfered with their ability to learn. Whereas some had mentioned that their interpersonal skills were significant in their learning activities, others now referred to this same area as a serious limitation to their learning activities. They variously described their lack as: tending to be shy; needing to be more accepting of people as they are; lacking problem-solving skills, especially conflict resolution; lacking diplomacy; having a tendency to avoid some people because they lacked patience with them; and a need for more effective negotiating skills.

Communication skills were identified by some of the respondents as being a problem, but this is not entirely surprising, since for a good number of the faculty, English is not their first language, and for some it is not even their second language, yet their verbal communication with me was at a high level. They variously described their perceived deficiencies as: lack of skills in using the English language, the inability to follow verbal and written instructions, and a lack of proficiency in communicating in English.

Still another area of concern that the respondents suggested interfered with their pursuit of learning activities was the difficulty of first of all getting started on them, and then following through to their completion. One of the respondents suggested that he has a problem in that he is fascinated by many subjects, and so he finds himself easily drawn into other related study areas as he pursues his main interests. This resulted in a number of starts to learning activities without completions, even though the interest in the original area of study remains.

Others refer to the difficulty of selecting suitable topics for exploring, and of prioritizing their needs as they proceed with their study. One respondent referred to his lack of interest in a broader range of topics as being a stumbling

block to his engaging in more learning activities. He sensed that it was desirable for him to venture into new areas, but was reluctant to do so.

Once they are engaged in a learning activity, the respondents stated that they may not complete it for a variety of reasons: difficulty in coping with detailed work, remembering details, resisting a low frustration level, and even persevering when they encounter difficulties This tends to discourage them from selecting activities that would involve those aspects that cause them difficulty.

Even though this institution is highly technical in its orientation, a number of its courses are not computer specific, and therefore, do not require a strong background in this area. This fact led to the disclosure that the need for technical skills in the area of computers also creates a stumbling block for some who sense that their lack of computer and logic skills, and the inability to program computers makes it difficult or impossible for them to follow some of their interests. One respondent even identified the inability to read computer manuals as a major problem for him. Another respondent recognized that his inability to navigate the Internet was preventing him from engaging in a useful or even valuable process.

Also mentioned by individual respondents as contributing to their lack of participation in other learning activities were such limitations as: learning disabilities, weak time management skills, and a lack of artistic skills.

Question # 4 -- What is the impact of deadlines on your ability to learn?

For a group of well educated individuals who have demonstrated the initiative to investigate a broad range of subjects both job-related and personal, and learn without a formal structure, or direction from others, one could reasonably assume that they might prefer to work without deadlines. When

the question of preference for working with or without deadlines was posed to the respondents, they indicated that they do not all prefer to work to a deadline. For some, deadlines were considered to be a very useful tool, while others sensed that they interfered with their preferred style of working, even to the point of being counterproductive. Comments such as the following were made by respondents: "I need the pressure of a deadline, because I tend to leave everything to the last minute. If no deadline is set, I set one for myself." Another stated that he is much more focused with a deadline, which pushes him to get the work done; if there is no deadline, he fits the work in whenever possible.

The opposing point of view was expressed by a number of respondents who found deadlines destructive to their working and/or learning style. A typical blunt response to the question by one who opposed deadlines was "I do not react well to deadlines." He followed this by stating that "They (deadlines) work better for the person setting them than for the performer, unless one sets one's own deadlines." Another suggested that deadlines are arbitrary, and that he likes to explore topics further as he needs to. For him, "Deadlines may cause skipping of important details." Another stated that he needed to process ideas in his own time and way. Still another indicated his preference in this way: "I need an unstructured arrangement. I like to do multiple tasks at one time rather than in a linear fashion. Deadlines tend to interfere with my way of doing things."

A third type of response was given by a few of the respondents who recognized the value of approaching tasks differently depending on the context. One respondent stated this position quite clearly when she said that "I like to set my own schedule, my own pace. I'm unstructured in my personal life, but I'm very structured in my teaching." Another respondent indicated that

whether a deadline is set or not depends on the assignment. If he recognizes the assignment as being important, he sets a deadline if one is not given, and regardless of who sets it, he meets the deadline.

From the information given by these respondents, it is clear that there is support for both the setting of deadlines, and the preference for no deadlines, or a 'free rein,' when considering the completion of a task or activity. Of those who clearly stated their position in regards to the setting of deadlines, 13 were in favour of them, and 12 preferred having no deadline to which to work.

CHAPTER FIVE

CONCLUSIONS AND IMPLICATIONS

> Educators are expected to be independent, self-directed professionals. We expect them to maintain an up-to-date expertise in their discipline, to initiate and implement innovations in their institution or organization, to contribute to their profession and their community, and to be responsible for their own professional development. (Cranton, 1996, p. 50)

> If we can demonstrate convincingly the political dimensions of an idea (self-directed learning) that is now enshrined in so many programmatic mission statements and in the espoused theory of the field as a whole, and if we can lift the concept out of the slough of narcissistic, unproblematic self-actualization in which it is currently mired, then we have a real chance to use this idea as one important element in rebuilding a critical practice of adult education. (Brookfield, 1993, p. 240)

This final chapter considers the evidence presented by the group of post-secondary educators in this study in relation to how they chose to increase both their personal and professional learning. The information given by the respondents during the interviews was used to arrive at conclusions and implications regarding the personal and professional development of adult educators, and to suggest further areas of research related to this study.

An Overview of the Study

The Questions

This study considers the question: What role does self-directed learning play in post-secondary teachers' efforts to maintain both personal and professional growth during their careers?

The study would suggest that these post-secondary educators engage in a significant number of self-directed learning activities as a normal routine. This group of 28 participated in a total of 237 learning activities over the twelve month time period (226 of which were analyzed); this was an average of 8.46 learning activities per respondent. Of the 226 learning activities, 179 were totally self-directed and 11 were at least partially self-directed. Eighty-three of the learning activities were directly job-related, and 51 were partially related to their teaching position. The remainder were engaged in for personal reasons. In only 31 cases out of 226 were formal classes or courses attended to achieve their learning needs. These numbers would suggest that self-directed learning plays a very significant role in the personal and professional growth of this group of 28 post-secondary teachers.

Growing out of the primary question, were the following:

1. What self-directed learning activities did the educators participate in over the past twelve months?

This group of post-secondary educators participated in a wide range of self-directed learning activities over the past twelve months. The learning activities were placed in nine different groupings. These were: Technical, which represented 23% of the total number of learning activities, Personal, 18%, Hobbies, 16%, Vocational, 13%, Subject Related, 13%, Home, 7%, Social, 5%, Politics, 3% and Philosophy, 2%.

2. What reasons did they give for engaging in these activities?

The respondents gave a variety of reasons for engaging in these learning activities. Most of the reasons related to General Interest, Professional Growth, and Self-Improvement. These reasons combined were mentioned 281 times out of a total of 532. Other reasons given included Teaching Preparation, Financial, Social, Convenience and Politics.

3. What methods did they use to learn?

The respondents selected the most appropriate methods for themselves and the learning task. By far the most common method was reading; consulting was also significant. They also made use of a number of other methods including Trial and Error, Discussion/Debate and Audio Visual Devices.

4. What did they perceive as inhibiting them from becoming more active in their learning?

The most significant inhibitor was the amount of time they have available for learning activities.

5. What personal characteristics or skills either enabled them or limited their ability to participate in self-directed learning?

The respondents' ability to research and read, the confidence they have in their ability to learn what they want to, their knowledge of what they want to learn, and their technical expertise, are all significant contributing factors in their ability to participate in self-directed learning.

Some of these educators also recognize that they lack skills such as facility with computers, but they tend to be making an attempt to address these recognized needs.

6. What resources did the educators use to meet their learning needs?

The respondents used a number of resources to assist them with their learning. The most commonly used single resource was Books which were used 21% of the time, but the most significant was human resources, which they used 39% of the time.

7. To what degree do the respondents perceive success in their learning activities?

This group of educators reported either being successful in every learning activity, or working toward success with the confidence that any barriers, such as the lack of resources, would soon be overcome.

The Interviews

The respondents in the study were twenty-eight self-selected members of a faculty of a post-secondary for-profit institution in the Toronto area. All sixty members of the faculty were invited to participate in the study, and nearly one-half volunteered to engage in a one hour interview to discuss their learning activities over the past twelve months. A semi-structured protocol was used to guide the interview, while at the same time providing opportunities for the respondents to share their perceptions of their learning experiences. To capture as many aspects of the interviews as possible, all but one of the interviews were tape recorded; this allowed the researcher to review the recordings later in order to capture more dimensions of the responses. In addition, the researcher later recorded his own reactions to, and perceptions of the interviews.

Each interview was begun with a short series of questions to capture some personal data. Following this, a list of all learning activities engaged in over the past twelve months was generated by, first of all, asking the respondents to recall them, and then reading them a list of key words. This list helped them reflect on a range of areas to ensure that as many of their learning activities as possible were identified. This procedure was followed because of the anticipated difficulty the respondents could experience of recalling learning activities that had occurred as much as twelve months ago.

Initially, Tough (1965) identified this concern, and included a list of key words in his study, and Fair (1973) utilized a similar approach to Tough.

Once the list of learning activities was established, each of the activities, in turn, was considered in regards to a number of factors: the reason(s) for engaging in that learning activity; the resources used to assist in the learning; and the time spent in learning; the costs associated with learning; the degree to which the learning was job-related; who decided the content and learning method(s); the method(s) used to acquire the learning; whether the learning activity was completed; the degree of planning for the learning activity; the relation of this learning activity to previous knowledge; and the degree to which the learning activity supported the goals of the institution. These data were recorded on prepared response sheets as they were given by the respondents.

After all the learning activities were explored with the respondents, a final short list of questions was posed to the respondents to discover those learning activities they would have liked to engage in, but were not able; the skills they have, or lack, that helped determine which learning activities they engaged in; and the significance of whether a specific deadline was set for their learning activities, as well as who set it.

Data Analysis

At the completion of the collection of the data, they were studied to identify categories into which they could be organized to facilitate understanding what the respondents had said individually and collectively. From this, the tables as seen in the "Findings" chapter were created.

This study was exploratory in nature to consider the self-directed learning activities of a number of faculty members at one post-secondary institution. This was the first of this type of study of post-secondary, non-

university educators, however, since the literature supports the notion that educators are willing to take responsibility for their own professional growth, it is reasonable to assume that similar patterns might be discovered at other non-university, post-secondary educational institutions. There may, however, be differences in the learning emphases of faculty of other institutions due to such factors as the context in which they work.

Highlights of Findings

Some of the highlights of the findings of the study are outlined in the following section. The 28 respondents revealed that they had engaged in a total of 226 self-directed learning activities during the past twelve months, and of these, only 85 were directly job-related. The number of learning activities that each respondent engaged in ranged from a low of 5, to a high of 14, with the median being 7. The 532 reasons given for engaging in these activities were divided into 12 categories. The top three categories were: General Interest, mentioned 107 times, Professional Growth, mentioned 92 times, and Self-Improvement, mentioned 82 times. Eighty-one percent of the time the respondents gave either one or two reasons for engaging in a learning activity. The methods that were used to acquire the learnings were divided into 12 categories of which Reading and Consulting were the most significant by a large margin; in only 31 instances (14% of the total) did the respondents attend courses or classes for their learning, a percentage that is higher than the one percent reported by Tough (1979) and Fair (1973), but still low in relation to the other learning methods. For approximately 74% of the learning activities, either 2 or 3 methods were used. In 175 of the total of 226 learning activities the respondent was the one who decided the content and the method of learning. Even though only 83 learning activities were directly related to their

teaching, the respondents indicated that a total of 154 activities made a positive difference in their ability to deliver content, and/or in their relationship with their students. Of the 11 categories of resources used in the learning activities, "Books" and "Experts" were the two most common. "Books" were used 134 times and "Experts" were used 104 times. Human resources, including "Experts," were used in a total of 212 instances. Most often, the respondents used two, three, or four resources to assist them in their learning activities. A very significant number, 136, of the learning activities begun within the last twelve months were on-going; this was because the need for the learning activity had not yet been met. One hundred and seventy-three learning activities required between 10 and 499 hours, indicating a high level of commitment to each of the activities. No planning or little planning preceded the respondents' engaging in 121 of the learning activities, because the path of learning was not clear at the beginning of the activity, but was determined as the respondents proceeded. Most of the learning activities were either partially or totally related to previous knowledge, rather than being an entirely new area of study. Finally, the most common factor in the respondents' not engaging in more learning activities was that of time; they would have liked to engage in more, but were restricted by the time available to them.

Conclusions and Implications

The study was designed to consider the role that self-directed learning activities played in these educators' efforts to maintain both personal and professional growth over a twelve month period of time. They could not have anticipated this study, suggesting that in acquiring these learnings the respondents behaved in a way that was natural and normal for them. Their areas of study were diverse in all cases, and this would lead us to further

suggest that this group of educators, both individually and collectively, value learning in many aspects of life, and do not concentrate on job-related learnings.

In contrast, Fair (1973) stated that when beginning elementary teachers were asked about all of their learning activities, "It was found that very few of the teachers conducted any learning projects that were not related to their professional role" (p. 17). If a further comparison were made between secondary school teachers and these post-secondary teachers, we might find that there is a contrast in their learning foci, also. It may be that with formal teacher training, the mind is more directed to specific teaching needs which the individual is able to identify.

These educators studied in order to address needs that they had identified in their lives without consideration of whether the needs were classified as professional or personal. The respondents were always able to give reasons for engaging in learning activities, but where the learning was based on a personal need, they gave no reasons to suggest that they were conscious of any anticipated applications to their professional role. During the study, however, the educators were able to make valuable connections between what they had studied for personal growth and their performance as an educator.

We can, therefore, imply from this that learning activities have the potential of having an impact on both the personal and professional aspects of an individual's life. Cranton (1996) states that, "Educators' individual development and their role in work and social contexts cannot be separated. Learning is both a process of socialization and a process of change" (p. 142). She posits that, ".... if educators are to develop their practice they must include both personal and professional growth, and that critical reflection on practice

will be central to the learning" (p. 76). We might then suggest that, if we want educators to develop and accommodate change, we should encourage and assist them to reflect on their practice. This may, in turn, increase the number of learning activities they engage in, and result in personal and professional growth.

Breadth of Learning

The respondents in this study were well-educated individuals with an area of expertise in relation to their academic background and their work experience. They demonstrated an interest in a very broad spectrum of subjects and activities. Both as individuals and as a group, they indicated that their learning path is far from unidirectional. Tough (1968) suggests in his book, Why Adults Learn, that this breadth of learning is desirable. He states that, "....it also seems clear that there is nothing wrong with learning for practical reasons; we should be careful to avoid assuming that "good" adult learning occurs only because of a thirst for knowledge, a seeking after truth, or some such thing" (p. 53).

These respondents have left me with the very real impression that they are adventurous in their learning, because it is a vital part of a vibrant life; they would be deprived if they could not learn. Their non-working, awake time that is not dedicated to personal and family responsibilities, is commonly used for learning activities, giving them pleasure as well as a sense of accomplishment. They do not learn in order to work; they learn in order to have a more fulfilling life.

The educators in this study engaged in a very high percentage of learning activities which would be classed as autodidaxic, which is defined by Candy (1991) as self-directed learning which takes place outside formal

institutional settings (p. 13). Each one of the learnings, however, was important enough to the individual involved for them to commit significant time and energy, and often money to it. They could have stopped the learning process at any time, because they were in control, but in most cases, they continued the learning until they had met their need, or are continuing the process because the need is still present. For example, one respondent was learning to touch type rather than two finger typing. He was using a tutor on the computer, so he was able to engage in the learning of this skill until he was satisfied that he had grasped the concept; he then used this new skill whenever he keyed anything at the computer. Another respondent decided to learn how to play golf. He learned some of the basic skills in his first season, but is aware that he has a lot more to learn; his learning is continuing.

These educators do, however, still enjoy extending their learning in their area of specialty, because they have a keen interest in it and follow developments in it very closely; that, however, only defines one part of them. These people are more than accountants, engineers, physicists, researchers, teachers--they are musicians, writers, naturalists, divers, parents, artists, and take great pride in their success in these pursuits, making no apologies for them. Also, when theses educators stand in front of their classes, or discuss issues with their students, they see themselves as total persons with interests, skills, and experiences which they are willing to share with their students, in addition to their curriculum knowledge.

Planning

One of the major driving forces for these respondents was the desire to involve themselves in a process of learning that would eventually satisfy their current needs. The direction of the process could not be fully determined either

at the beginning of, or during the learning; it could only be totally seen in retrospect. Therefore it could not be planned, in the sense of creating a series of connected steps leading to the proposed learning objective, but that did not reduce its effectiveness or usefulness for the learner.

The educators' path to learning was often more like entering a maze than traveling down a highway, for many reasons. It centered, however, on the fact that the educators viewed their needs as being unique to them in their context, so there was no prescribed solution available; their ways of obtaining resources for their learning activities was also unique, and could not always be anticipated. The participants in the study usually had access to a number of resources, either human or material, so their learning path was determined by which of these they chose, or which was available at a particular time, or, as on some occasions, which was thrust on them in a serendipitous fashion.

There appear to be benefits to planning for action, but based on the experience of these respondents, learning is not planned in the same sense. Even though planning for action is very often accomplished without full knowledge of the facts, effective planning requires a certain level of understanding before the planning can start. In the case of the learning activities of these respondents, however, there could not always be a plan in the same sense as for action; it was far more reactive than proactive.

These respondents made a decision to engage in these learning activities, but they did not report always consciously going through a planning stage which guided them throughout their learning. All of the respondents showed a consistency in their apparent lack of planning the process of the learning over which they maintained control. This might suggest, therefore, that the emphasis placed on planning for learning is excessive when dealing with adults. A high degree of externally imposed planning may even be

counter-productive, as it would require that the participants yield some control of the learning process to the planner. The learners cannot truly know their personal road to their learning goal until they have traveled it. Candy (1991) refers to this phenomenon in this way:

> Autodidaxy certainly involves....some sort of goal setting, finding and utilizing appropriate resources, attempting different ways of attacking the subject matter, responding to feedback, and evaluating and moving on. Such functions definitely need to be performed, but they are identified in retrospect.... (p. 167)

One of the key skills required to cope with this type of learning experience would appear to be the ability to deal with a lack of clarity of the steps in the learning process, combined with the confidence to travel in unfamiliar territory. Both of these skills would be utilized by the respondent who set out "to learn how to work in this environment." In addition, the effective learner would have to be able to transfer skills from some other area of life to assist in new learning situations. The respondent who studied archeology as a hobby used his research skills from academia to help him in his explorations of literature.

Professional Development Activities

Professional development is generally considered to be that which is done *to* the teacher, more so than what the teacher does to or for him- or herself. The educators in this study took charge of what they perceived their needs to be, including their professional development. They reported that they were successful in their activities, which led to a level of satisfaction with their performance. For example, those who had chosen to familiarize themselves with a software package, and who had indicated that the activity was

completed, all reported that they were satisfied with their level of understanding of the software.

Cranton (1996) points out that traditionally, educators do not have this degree of freedom regarding their professional development. She indicates that, "....traditional development strategies do not tend to encourage or even allow educators to have control over their own development....it is often assumed that others know best what they need to learn" (p. 50). Brookfield (1986) also voices his concern about the way professional development is conducted. He says,

> As a teacher who has participated in staff development exercises for some ten years, I have found that the most annoying feature of such exercises is the way in which outside 'experts' are brought in to identify *my* problems and then to suggest solutions *I* should undertake. (p. 254)

Cranton (1996) further suggests that certain conditions must be present in professional development activities if we want educators to fundamentally change their approach to teaching. She says that, "If educator development is to be emancipatory or transformative, it is important that educators have control over their learning and access to the resources they need for learning" (p. 51).

Based on the response of the study group to their recognized need for professional growth, along with the previous comments, there appears to be an argument for encouraging educators to take a much more active role both in deciding what their professional development activities should be, and in the delivery of those activities. Candy (1991) supports this shift in responsibility to the educator by reminding us that,

> Most government policies on education, and many institutional policies and mission statements as well, stress the development of independence, autonomy, and the ability to control their own affairs as major objectives for learners of all ages. (p. 20)

Tough (1979) reports that there has been some progress already.

> Those responsible for professional development have recently experimented with procedures for helping individuals design and conduct their own learning: examples include graduate students, medical doctors, mental health professionals, and ministers. (p. 191)

The foregoing approach would appear to be a useful one for educators, but there does not appear to be any evidence of such experimentation in relation to the teaching role by educational institutions in this field.

Autonomy

There is no reason to believe that this was an unusual twelve month period of learning for these people, and certainly no one left me with that impression. Any other twelve month time period taken would very likely reveal similar activities with similar results. It is reasonable, therefore, to suggest that this approach to learning has been developed by these respondents to meet their needs in the way they perceive as being most effective, based on circumstances, context, priorities, availability of resources (including the most valuable, time), and personal preference.

It is also reasonable to expect that the respondents will continue to use this approach in the future, and only revert to a more formal approach when required to for certification or job requirements (i. e. when external pressure demands it) or when they choose to. Tough (1979) refers to the continued importance of formal education when he states that, "Virtually everyone still agrees that all of this professionally guided learning is an incredibly important phenomenon in the world today" (p. 193). It is, however, only one approach to learning, and "turns out to be only (20%) of the total picture. Eighty percent of

the adult's learning efforts....consist largely of self-planned learning" (Tough, 1979, p. 193).

Collectively, however, the respondents provided some answers as to why they only utilized formal courses in a limited manner to acquire their learning. They suggested such factors as: the low benefit factor for their time and effort; their lack of, or minimal control over the learning process and the content; the lack of time flexibility; the proximity to their place of business or home.

Because self-directed learning is not the only avenue available to them, it seems reasonable to assume that if the respondents were not satisfied with their level of success or ability to learn in a self-directed manner, they would not continue to choose it, or to spend the large amount of time at it that they do. Alternatives, such as formal courses, are available, and if at any time in the future the respondents sense a need for a different arrangement, they have the knowledge, confidence, and skills necessary to take advantage of whatever is more appropriate.

In his discussion of autonomy as it refers to learning, Candy (1987) commented that

> ....anyone who is familiar with a subject or topic may well choose to submit to being taught, at least in the beginning. This does not necessarily imply any pathological lack of (personal autonomy), but rather an acknowledgment that the best way to master the rudiments of a new area is to be taught by an expert. (p. 173)

These educators did not ignore formal courses, but they used them when they were appropriate, available, being presented at a convenient location and at a time that would fit into their schedule. They, therefore, exercised their autonomy in the selection of formal courses even though, as a consequence, they had to yield control over the content and method of delivery to the instructor. This would further suggest that, in order to meet the professional

development needs of educators, a range of options for learning would be more beneficial than a single offering or a limited number of offerings. At different times and under different circumstances, educators may recognize that one method of learning would be more powerful for them than another; freedom to choose, tied to the responsibility to grow may be the most effective approach to professional development. Cranton (1996), however, reminds us that, "Most adult educators (that is, educators of adults) learn the skills and techniques of their profession through some form of self-directed learning rather than through formal programs or courses" (p. 171).

Human Resources

The criticism often leveled at self-directed learning is that it promotes isolationism, that it is self-centred, and anti-social. There is no evidence of this happening with any of the individuals I interviewed. These educators chose to learn on the basis of one of several situations: a need they had identified in their working situation, such as preparation to teach a new course; a need for professional growth, such as working through the "Introduction to Power Builder" software package; a need in their personal lives, such as child care; or a need in their relationships with others, such as ethnic awareness.

As the respondents embarked on a path to fulfill an identified need, they drew on their own knowledge and experience first; this guided them in locating the most appropriate and available resources. For example, those who preferred to read in order to learn, often searched for written sources such as books or journals (one respondent who was interested in politics found the reading of political novels helpful); and those who preferred to research material would often begin by approaching a variety of sources, using the skills they had developed in previous situations. For example, the respondent who

needed to learn about wiring his cottage contacted friends who had done some of their own wiring, his local electrical supply store, and the library for some ideas.

The respondents' communication skills and interpersonal skills allowed them to approach and draw information from others who had knowledge or experience in their area of need. Other contacts gave them suggestions as to how, from where, or from whom they might obtain other resources. Whether through reading about the experiences of others, sharing their concerns with others, or drawing on the expertise of others, however, these individuals did not learn in isolation; they drew on the many available resources around them that form part of our social fabric. These resources included: the family doctor, material suppliers, department store employees, computer store employees, friends in the field, and contacts referred by friends, peers, and the local library, all of which are available to any member of society who has the ability and inclination to take advantage of them.

The key in this case appeared to be the ability of the respondents to select and locate resources, along with their confidence to utilize them to their advantage. Fair (1973) also found that his study group utilized human resources in fifty-four percent of their learning activities, but because most of their learning activities were job-related, this assistance came mainly from people who were either in, or closely related to, the school. In the case of the educators in the present study, assistance came from a variety of human resources, because their learning activities were so diverse.

Increasing Awareness

None of the respondents indicated that they were even aware of the concept of self-directed learning before I introduced them to it through the

study. They were, however, practicing it regularly, and often. They had had no formal training in the skills related to self-directed learning, nor had they been encouraged to practice them, so I would tentatively suggest that either the skills evolved as a by-product of their formal education or their maturing process, or they were part of their innate skills.

This group of educators appear to engage in self-directed learning activities in a most natural way, and with a limited consciousness of the fact that they are doing so. Their apparent lack of awareness of their engaging in this practice suggests that an important first step in encouraging this behaviour would be to legitimize it; to recognize that this is an acceptable way of learning. Tough (1979) suggests that there may be a problem here when he states that, "The interviewers felt several learners (in their 1970 study) were not recalling or revealing all their learning projects, especially their self-planned efforts" (p.25). This would mean that adults could initially identify all the learning options available to them to achieve a learning objective, and then they would be able to deliberately select self-directed learning from these alternatives for each of their learning activities if they so wished, knowing that it would have status.

Recognition by Administrators

One of the difficulties associated with self-directed learning is its lack of recognition by administrators, who often require successful completion of formal courses for upgrading or promotion in the work setting. Since the faculty were not familiar with the concept of self-directed learning, it is reasonable to assume that administrators lack this awareness, also. There is, therefore, a need to ensure that administrators are aware of this active and effective learning practice of their faculty (and, very likely, in their own lives).

Even increasing the administrators' knowledge and understanding of the concept and practice of self-directed learning, however, will not automatically ensure their recognition of it as a viable element of the faculty members' professional growth.

There is one point at which the concept of self-directed learning and professional growth could merge, and that is in the process leading to the annual performance review, during which time the faculty members are required to indicate their personal growth plan for the coming year, and review their activities from the past year. In this there is some room to identify, and have recognized, anticipated activities involving self-directed learning. If administrators recognize the value of self-directed learning, the educators, themselves, will also consider them to be more important as a method of upgrading and professional development.

Difference to Teaching

This study explored all the learning activities of the respondents, both professional and personal. They reported that in 154 instances the learning activity made a positive difference to their teaching, even though only 83 were completely job-related. As a result, we can surmise that much of what the respondents learn has value in the professional growth of a teacher, since they indicated that they were able to transfer benefits from their learning activities to the demands in the classroom or lecture hall. These benefits were often not anticipated, but were judged by the teacher to be valuable in their context. For example, the respondent who learned how to fix the brakes on his car was given, according to him, a valuable lesson on the degree to which he should or should not help a student who is struggling with a difficult concept in class. In another instance, the respondent who had completed a study of the computer

hardware available for personal use, was able to provide information to a number of his students who were anticipating purchasing hardware.

Many of the respondents were not fully aware of the impact that their learning had had on their teaching until they reflected on it during the interview. This was a process that might be called 'revealing the known to the knower.' The insight that this provided for the respondents might suggest that this could be an important element in professional development. Educators could possibly benefit from assistance in being encouraged to both identify transferences from their learnings to their teaching, and consciously make appropriate transfers from their self-directed learning to their teaching context whenever possible.

Benefits of Studies

One of the outcomes of this research was to provide the respondents with the opportunity to reflect on their own learning behaviour both personal and professional, as well as their teaching. Since each of the respondents indicated that the interview experience was a positive one (they said it helped them view their teaching role more positively), it has the potential of influencing their willingness and ability to reflect on their practice. This might encourage the utilization of skills and available resources to further enhance their teaching through self-directed learning.

Often the discussion of the learning experiences of the respondents led to revelations or concerns that they had not previously articulated. Some of the issues could be pursued at some future date. It is, therefore, reasonable to suggest that the study provided both intended and unintended outcomes. There were intended benefits to the research project, and unintended benefits

which accrued to the respondents and which helped them see themselves and their role as a teacher in a new and positive way.

This may be most significant in light of the fact that most teachers conduct their professional activities in isolation of their peers, and therefore receive no direct feedback on their performance. The study also provided them with an opportunity to discuss and/or reveal aspects of their teaching that would be difficult, if not impossible, with their colleagues, their supervisors, or even confidants outside the profession, because each of these groups has its own set of inhibitors. Lieberman and Miller (1991) argue that "there is no safe place to air one's uncertainties and to get the kind of feedback necessary to reduce the anxiety about being a good teacher, or at least an adequate one" (p. 103). It is not unreasonable to suggest that studies such as this, which encourage faculty members to reflect on their practice, might result in new insights which may lead to their engagement in further learning activities.

In-house Support

In this arbitrarily selected group of faculty members, have I been exceptionally fortunate in identifying a number of uniquely committed practitioners? I do not believe this to be true. Rather, the behaviour of these teachers more likely reflects the behaviour of many who accept the challenges of their profession and life, who are able to reflect on their needs and provide answers to those needs in ways most appropriate for them.

A central concept in the respondents' decision to engage in a specific learning activity was that they recognized a personal or professional need that had to be met. Once a need was identified, the process of searching for resources and meeting the need began. Since these educators have no formal

training in teaching, but tend to teach in a way that reflects the way they were taught (Cranton, 1996, p. 105), they may not be in a position to either recognize or articulate many areas of need in their teaching situations. For example, they may not recognize the need for changing their delivery style to meet more student needs, or for making changes in their evaluation strategies to more accurately reflect the students' learning.

> Their preparation for the role of educator is often minimal. Expertise in a subject area may be considered by organizations and by educators themselves to be the primary prerequisite of becoming an adult educator. (Their) growth and development tend to come from experience and trial-and-error practice. (Cranton, 1996, p. xi)

In order to encourage post-secondary educators to engage in more learning activities that are directly related to their jobs, there might be value in providing professional development activities that focus on assisting these educators to identify needs in their teaching/learning context, and in helping them to develop skills in dealing with these needs. Since their comfort level would appear to be a key to their engaging in more job-related learning activities, having these skills may lead to a greater potential for success with more learning activities, and therefore, encourage some educators to engage in them.

Because the respondents in this study used people to assist them in their learning so frequently, they obviously place high value on this type of support. It is reasonable, therefore, to suggest that the best form of assistance in skill development and need identification would be easily-accessible human resources who would become familiar with the educator and his teaching/learning context. These people would then assist the educators in seeing their teaching /learning context from a different perspective. Brookfield

(1986) draws from Lefkoe (1985) to state that, "The assumption is that if you are successful in changing adults' perceptions of the world in which they live, you will not need to *teach* adults to acquire new skills and knowledge--they will be eager to discover these for themselves" (p. 248).

Most of the problems educators face on a regular basis, and which are not content based, are ambiguous, "swampland" (Schon, 1983) problems which are not easily articulated nor addressed in rationalistic terms except by those who would deny the complexity of the role. Cranton (1996) draws from Kincheloe (1991) to stress that an educational setting "is invariably ambiguous and thus complicates the reductionism, the attempt to simplify the cause and effect relationships....But the rub is that human activities like education are rarely free of ambiguity, and to miss their complexity is to miss the point" (p. 18).

Educators, therefore, need assistance from individuals who understand this environment and who are capable of helping them interpret it. These support people must also be able to see the educators as individuals and provide suitable guidance for them starting from where they are.

Economics would dictate the desirability of developing teachers in groups, but the nature of their role and the nature of the teaching/learning context should suggest otherwise. If we continue to deny or ignore the learning behaviours of adults as we plan professional development activities, we will continue to be disappointed with the results of our efforts to change them.

The more we incorporate adults' learning tendencies, which include availing themselves of accessible (particularly human) resources, and learning individually, but not independently, and support them in these practices, the more likely successful will their professional growth be.

Self-Directed Learning and Computer Technology

The respondents in this study indicated either directly, or by implication based on their reported behaviour, that they will engage in a learning activity when certain conditions are met. These conditions include: the anticipation that the selected activity will meet an immediate need; the ability for them to participate in this activity in or near their home or place of work; the freedom to start or stop the process when they choose; the choice to branch off to a connected or related area of interest as and when they want to. For example, the respondent who wanted to learn about mutual funds wanted to start an investment program and wondered whether these funds would serve his purposes. He did not want to attend classes to learn about them, so he began his own self-directed plan, which started with researching sources of information which might have been useful to him.

The new computer technologies promise to provide the type of learning environment that would be more consistent with, and supportive of the learning styles practiced by approximately one half of the teaching faculty of this organization, and, possibly, of adults in general. Its characteristics include: availability from both home and work sites; its flexibility in regards to time; its ability to accommodate short, long or discontinuous dialogues; its variety of content; its interactive nature; its relatively low cost; its multi-media capabilities. All of these characteristics will contribute to delivering to the individual what he or she wants and/or needs when he or she wants it, and in a manner that is consistent with the desired learning rate and depth, and learning style of the potential learner.

Time

One of the most significant limiting factors in regards to their learning activities was time. With their many commitments as active professionals, there was not enough time to do all they would like to have done. When they were asked to identify those learning activities that they would have liked to have engaged in, but were not able to, they made reference to a total of 53 activities. The factors that limited their ability to engage in them were few in number and often were personal in nature, such as family responsibilities, except for the limitation of time. In 43 instances, or 81% of the total, time was either one of two factors given for not engaging in an activity, or the only limiting factor.

Once they have identified those issues they would like to address, in order that they make on-going progress, faculty members require opportunities to engage in learning activities regularly throughout the year. Eurich (1985) suggests that there is a trend toward providing time for such activities. He states that, "....movement is toward encouraging individual development on company time" (p. 35). Richert (1991) argues that, "For teachers to function as reflective practitioners and thus learn from their work, they need time, opportunity and support" (p. 114).

This suggests that it is desirable to make working time available in which faculty members could pursue learning activities which they had identified as needs, and for which they were personally accountable. Establishing this practice might increase the amount of professional development faculty engage in, and make a positive impact on their professional growth.

Teaching and Learning

The question arises as to why teachers of adults rarely accommodate this self-directed learning approach in their delivery of courses. This is particularly puzzling when it appears that this is the respondents' preferred style of learning based on what they do when they have a choice. The respondents in this study, who were faculty members in a post-secondary institution, showed an obvious preference for self-directed learning as opposed to taking formal courses.

These adult learners tended to avoid formal teaching sessions whenever this was possible, choosing instead to direct and control their own learning and assessment of their progress. If we wish adults to become more responsible for their learning, we will have to facilitate rather than block their efforts to control their learning activities. According to Brookfield (1986), the facilitation of self-directed learning is "....assisting adults to free themselves from externally imposed direction in their learning and with encouraging them to become proactive, initiating individuals in reshaping their personal, work, political, and recreational lives" (p. 60).

From the preceding, we could ask why we continue to teach adults the way we traditionally do. Is it simply because we have always done it this way? Is it a systems problem, a social problem, a teacher attitude problem, or other? Is it because the teaching theory is unable to direct the teacher to accommodate the individual needs of each of the adult students in any formal learning arrangement? If we truly want our students to learn more effectively, then a review of our delivery strategies with a strong consideration of self-directed learning would appear to be desirable.

Suggestions for Further Research

The evidence of the extent of self-directed learning activities among the educators in this study group, and the conclusions and implications drawn from their experiences, suggest some possible areas for further study.

1. Since the institution involved in this study was a for-profit, post-secondary organization, comparison studies with publicly funded community colleges in Ontario which have mandated professional development programs (Cranton, 1996, p. 9) might indicate a similar level of self-directed learning and confirm a need for a different approach to professional development than is currently practiced.

2. A pilot study might be set up to promote and measure the impact of professional development in a community college faculty through self-directed learning strategies as an on-going process, rather than the more traditional approach of "short-term workshops and seminars" (Cranton, 1996, p. 9). delivered on one or more set days in the school year. Included in this pilot would be built-in times for the individual to access both human and material resources as he or she required.

3. A pilot study could be designed to measure the impact of having a supporting individual in a post-secondary setting to assist faculty in identifying needs related to their teaching role, assist them in locating suitable resources, and provide guidance as requested. Through consultation, the aim would be to increase the faculty's sensitivity to these needs to determine if this awareness leads to an increase in the number of learning activities selected and begun, which relate to their teaching role. Access to resources and guidance might lead to additional learning activities begun and either completed or continued over a long period of time.

4. After a study such as this present one has been conducted, a follow-up study could be designed to determine if the study itself had an impact on the respondents' perception of their teaching context. The second study could measure the effect that the initial study had on the selection of job-related learning activities by these participants, as compared to their previous pattern of learning, and to that of other faculty in the same institution.

5. Design a study to measure the impact on self-directed learning activities of increased use of Internet and other electronic communication devices. Does the networking assist them in identifying their needs, assist them in acquiring skills, expose them to knowledge, help them cope with difficulties they have encountered in their learning activities, or provide them with support or encouragement to continue a learning activity when they might otherwise have ended it prematurely?

Concluding Comments

As a result of this study, several factors have emerged which either confirm or extend our understanding of how educators grow professionally and personally.

The work by Tough (1979), Fair (1973), Brookfield (1986), Candy (1991) and others who have studied the learning behaviour of adults, indicates that there is a preference for learning situations in which the learners have a degree of control. The respondents in this study also showed a clear preference to control their learning as much as possible. This suggests that all adults, even those who have experienced extensive formal training, prefer the ability to control the content and method of learning.

The job-relatedness of the learning activities varies with groups studied. Tough (1979) reports on the study by McCatty (1973) which indicates that, for

the group of professional men studied, 55% of the total learning number of learning activities were job-related. In contrast, Fair (1973) discovered that 97% of the learning activities of beginning elementary teachers were either extremely or moderately important to their teaching role. This study revealed that 36% of the learning activities were directly related to their teaching function and 22% had some relationship to their teaching role.

In both Fair (1973) and this study, the number of on-going learning activities significantly exceeds the number completed within the twelve month period of time. Fair (1973) found that 87% of the learning activities were still on-going, whereas the respondents in this study indicated that 60% were on-going. These two cases, in which this aspect of learning was considered, suggest that there is a high level of commitment to those learning activities over which the learner has control.

Because the data were collected in a different manner, it is not possible to compare directly the amount of time that individuals spent on their learning activities. It is possible to see in Tough's study (1979), however, that the amount of time spent by professors at each learning project had a mean of 117 hours. Fair found in his study (1973) that the time spent on learning activities by beginning elementary teachers had a mean of 57 hours, with over 50% of them requiring up to 30 hours. In the current study, the educators spent up to 25 hours on 41% of the learning activities, and 100 and more hours on 29% of the learning activities. Regardless of the method of collection of the data, however, these three groups of educators spent a significant number of hours on these learning activities which were largely under the learner's control.

In this study we have been introduced to twenty-eight post-secondary faculty members who have engaged in self-directed learning regularly and effectively over a twelve month period. No one in the study referred to any

previous training or skill in self-directed learning; many, however did refer to the fact that they were engaging in these learning activities as a natural outcome of their desire to learn something. This would suggest that formal training in self-directed learning may not be necessary, only encouragement in its use. They were not responsible to anyone but themselves when they were learning, and no one directed them, except as individuals were requested to, by the learner. These educators demonstrated that they knew how to learn. According to Carl Rogers (1969), "The only man who is educated is the man who has learned how to learn" (p. 104). Candy (1991) provides the thought that, "self-direction is a hallmark of adulthood...." (p. 99).

Most, if not all, educational institutions, both publicly funded and privately run, expect and encourage their faculty members to participate in professional development activities; professional activities for a faculty can be costly, and during a time of fiscal constraint, and at a time when "The public is telling higher education to do more with less" (Tucker, 1984, p. 265), if possible, professional development costs should be reduced; self-directed learning appears to be practiced by post-secondary faculty members. If there were an effective way to combine the natural desire of faculty members to learn in a self-directed fashion, with the organization's expectations for professional development, this could be a way to satisfy both the needs of the individuals involved and the needs of the institution, and at the same time reduce the cost of professional development.

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APPENDIX A

Consent Letter

DOCTORAL THESIS: A STUDY OF THE SELF-DIRECTED LEARNING ACTIVITIES OF THE FACULTY OF A POST-SECONDARY PROPRIETARY EDUCATIONAL INSTITUTION

I understand that Keith Jacka is conducting this study as part of the doctoral program requirements at the Ontario Institute for Studies in Education (Educational Administration), University of Toronto.

I agree to participate in the study which will determine the number and types of self-directed learning activities that faculty members have engaged in over the last twelve months.

I further understand that the information I provide will be kept confidential, and that pseudonyms will be used in place of the real names when a reference is made to individuals or the school. My contribution to this project, therefore, will remain anonymous within the context of the final written thesis. I also understand that, at the completion of the doctoral thesis, my tape-recorded interview will be erased (destroyed).

I am participating in this project voluntarily, and am free to withdraw at any time. I reserve the right to request that any information that I have contributed, whether in written form, or on audio tape, be removed from the project.

Signature: ..... Date: .....

APPENDIX B

THE INTERVIEW PROTOCOL

RESPONDENT'S PERSONAL INFORMATION
(Section I)

Number of semesters here: 1 2 - 3 4 - 6 7 - 15 16 - 30 31+

Program:

Country in which undergraduate training received:

Highest degree obtained:

English is: 1st, 2nd, 3rd, more, language:

Professional activity prior to teaching:

Current professional activities beyond teaching here:

LIST OF LEARNING ACTIVITIES
(Section II)

Following the completion of the personal information sheet, the respondent will be asked:

1. Please list the learning activities you have engaged in during the past twelve months.

   For example, have you spent several hours familiarizing yourself with a new software package; have you made a serious effort to learn a new language; have you investigated the causes and treatment of a specific disease?

KEY WORD LIST

To assist you to recall all of your learning activities from the past twelve months, I am going to read to you a list of words suggesting general areas of interest. It is not an all-inclusive list, but may trigger your memory. Please stop me at any time if you are reminded of another activity.

Sports	Business
Politics	Volunteering
Home	Invention
Hobbies	Languages
Children	Technical Competence
Nature	Religion
School	Society
Reading	Job
Health	Careers
Travel	Family
Finances	Relationships

LEARNING ACTIVITY DATA
(Section III)

When the respondent indicates that, as well as he or she can recall, the list of learning activities is complete, the respondent will be asked to reflect on each one in turn, and respond to the following questions: (the responses will be recorded on the "Learning Activity Data" sheets)

1. What reason(s) did you have for engaging in this activity?
2. What method(s) did you use to acquire this learning?
3. Who decided the content to be learned and the method of learning?
4. To what extent would you class this activity as job-related?
5. Has this learning activity made a difference to your teaching? How?
6. What resources (human and material) did you use (would like to have used) to assist you with this learning activity?
7. Were you able to complete this learning activity? Where the answer is "No", why did you not complete it?
8. Approximately how much time did you spend on the activity? (including planning time, deciding what and how to learn, obtaining resources, travel time, etc.)
9. Were there any out-of-pocket expenses for you in relation to your learning activities? (include materials or resources costs, tutoring costs, travel expenses, etc.)
10. To what extent was this learning activity planned before you began?
11. Is this learning activity an extension of previous knowledge, or is it relatively new to you?
12. How does this learning activity support the overall goals of the institution?

LEARNING ACTIVITY DATA
(Section III)

(separate sheet for each one)

Learning Activity # __ -- _____
(descriptors)

1. What reason(s) did you have for engaging in this activity?

2. What method(s) did you use to acquire this learning?

3. Who decided the content to be learned and the method of learning?

   a) the instructor of a group or conference

   b) the instructor on a one-to-one basis

   c) a non-human resource such as instructional materials

   d) the learner selects resources appropriate for him or her

4. To what extent would you class this activity as job-related?

5. Has this learning activity made a difference to your teaching? How?

6. What resources (human and material) did you use (would like to have used) to assist you with this learning activity?

7. Were you able to complete this learning activity? Where the answer is "No", why did you not complete it?

8. Approximately how much time did you spend on the activity? (including planning time, deciding what and how to learn, obtaining resources, travel time, etc.)

9. Were there any out-of-pocket expenses for you in relation to your learning activities? (include materials or resources costs, tutoring costs, travel expenses, etc.)

10. To what extent was this learning activity planned before you began?

11. Is this learning activity an extension of previous knowledge, or is it relatively new to you?

12. How does this learning activity support the overall goals of the institution?

RELATED QUESTIONS
(Section IV)

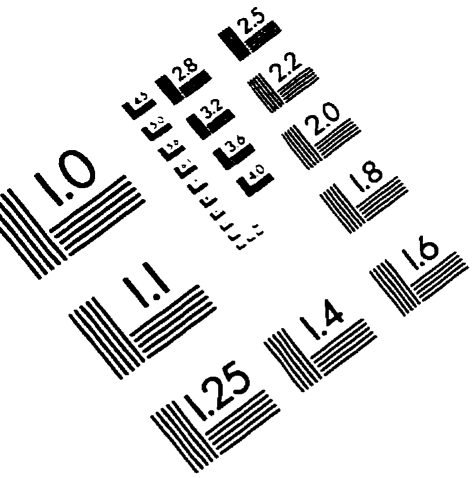
1. What skills do you possess that enabled you to engage in these self-directed learning activities?

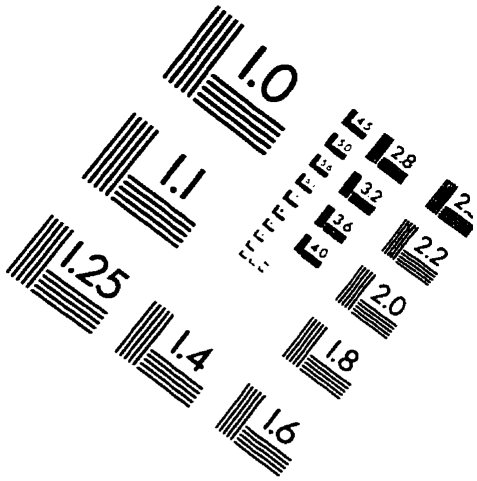
2. What skills do you lack, resulting in your inability to participate in other learning activities?

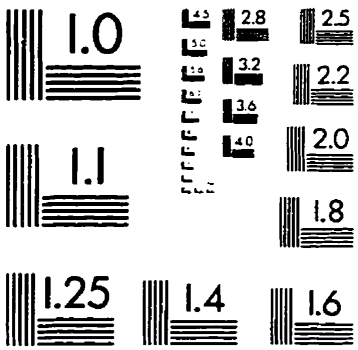
3. Were there activities you would have liked to engage in, but you were not able? What prevented you?

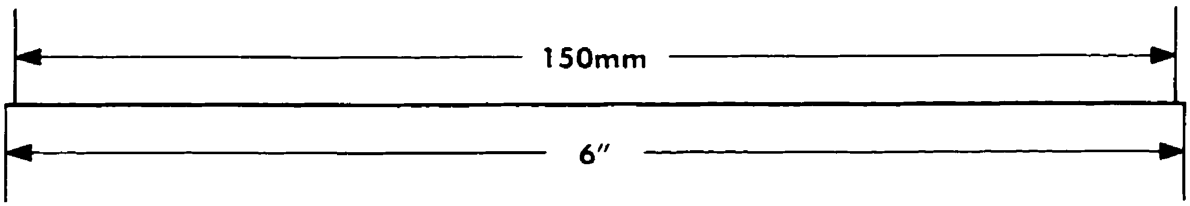
4. Do you tend to accomplish more learning if you are given specific goals with deadlines, or if you are given a 'free rein'? Why is this?

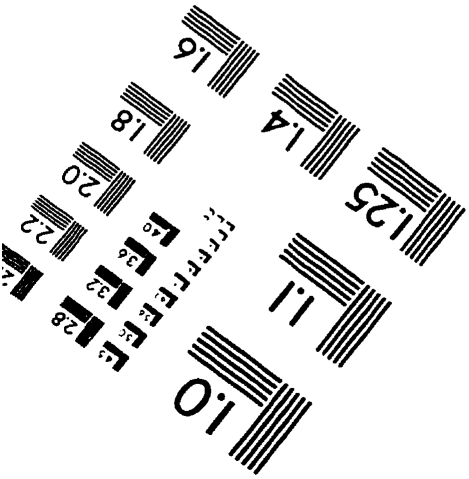
IMAGE EVALUATION TEST TARGET (QA-3)











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