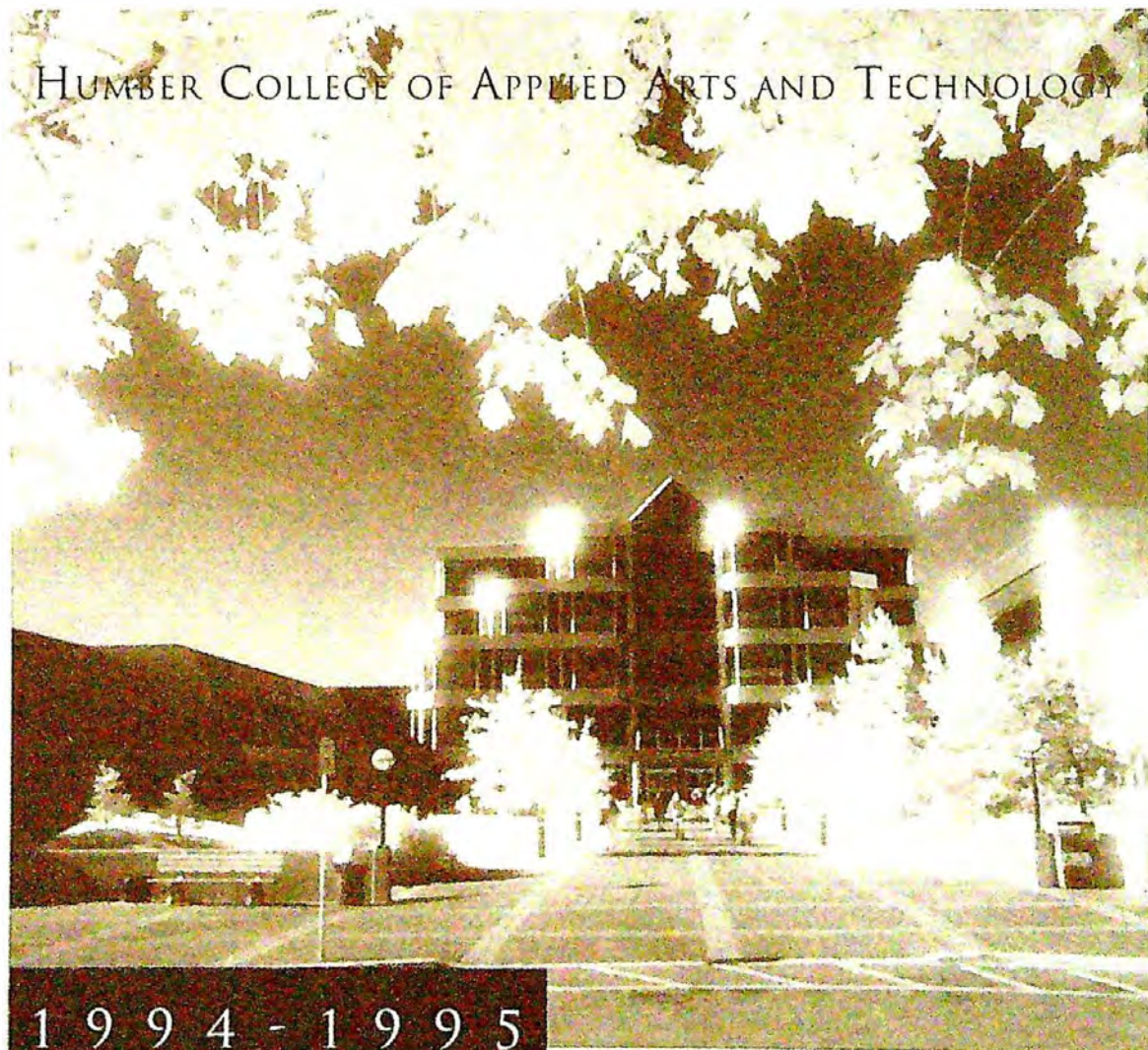PROFILING

SCHOLARSHIP,

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HUMBER COLLEGE OF APPLIED ARTS AND TECHNOLOGY

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Profiling Scholarship, Professional Development, Recognition and Awards at Humber College of Applied Arts & Technology 1994 ~ 1995

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Profiling Scholarship, Professional Development, Recognition and Awards at Humber College of Applied Arts & Technology 1994 ~ 1995

Robert A. Gordon
President
Humber College of
Applied Arts and
Technology

Message from the President

As president of Humber College, it is my pleasure to acknowledge the faculty and staff at this institution who have contributed so well to the vibrant program of human resource development which stimulates our educational environment with enthusiasm and renewal.

The program itself is a reflection of the commitment and dedication of faculty and staff across all campuses toward promoting, implementing, and participating in the numerous events and activities coordinated throughout the year. This journal illustrates the diversity and scope of a professional development program which constantly seeks to achieve its goals and mission for academic and service excellence in support of student learning and success. I am confident this commitment will continue through the coming years, thereby ensuring Humber's students of the very best of learning environments for their studies.

Robert A. Gordon
President

Profiling Scholarship, Professional Development, Recognition and Awards at Humber College of Applied Arts & Technology 1994 ~ 1995

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SECTION A

Adult Learner, You Say?

Do you see those students over there? His age is uncertain. Her background is quite diverse. As for the rest of them, their appearance is not uncommon, yet there is something distinct about all of them. Who are they, you ask? They are the college students familiarly termed "adult learners." They are the ones who have changed the face of the traditional college student.

Armed with a wealth of life experiences – travel, employment, child rearing, and formal education, to name a few – adult learners enter the college for numerous reasons. Some, the victims of corporate restructuring, seek new careers through skills retraining offered by community colleges. Others, realizing that being away from education for ten years or more has eroded their knowledge, strive to improve their academic skills in order to realize a post secondary goal. Still others come because of a need to develop their English to a sufficient level of proficiency for later academic success.

Regardless of their reasons for populating the colleges, these learners are distinct.

Among them is Anna*, of Austrian descent, with a house, teenage children, and a husband: she was declared redundant and replaced by a robot – even though she had worked in that factory for fifteen years. Anna is at college to pursue her goal of becoming a registered nursing assistant. You say: "So what is so unusual about Anna?" Well, although Anna is in her late forties and speaks English as a second language, she has determined to reach her lifelong dream of eventually becoming an R.N.

Abujabar*, from Somalia, attends classes not to realize a specific goal but because he values education, especially learning for the sole purpose of learning. He maintains that he is at the college first of all for himself and second for his wife and children, his dependents. Abujabar attends classes part-time, works part-time, and values the opportunities the college affords him. In his mid-thirties, he is a proud man who yearns to know, and so he questions relentlessly, attempting to understand, assimilate and apply what he learns.

Sam*, in his mid-twenties, is committed to learning because, to him, the college is a step towards a course in journalistic writing at a university. A Canadian by birth, he is single, without the responsibilities many of his classmates share. However, he does work part-time in order to be self-sufficient.

Annabelle*, a native-born Canadian also, has come to the college to correct the grave error she made when she quit school part way through grade nine. Thirty years old, she is the single parent of a two-year-old. For her, the college is her second chance to complete her formal education and her first chance to become a teacher at a daycare centre. Annabelle has learned from her mistake and now soaks up anything that is valuable and worth knowing.

A university graduate in food sciences, Connie* is at the college to prepare for a career counselling programme so that in the future, she can counsel others about occupations. She has worked in her field for over ten years but was left unemployed when the company she worked for closed its doors. Academically strong, she frequently brings novel ideas and questions to the classes she attends. Connie, too, values her time at the college.

Connie, Annabelle, Sam, Abujabar, and Anna – these are just a few of the many adults who make up the new "face" of the college student. Most importantly, they have enriched the colleges they attend and the classrooms they inhabit. Committed to learning and their goals, these adults overcome their fears and weaknesses through their determination to succeed.

Those of us who teach them feel privileged. Those of us who come to know them appreciate them. We who are fortunate enough to teach *and* know them remember them for a long time: for these are the students who bear the distinguished title of "ADULT LEARNER".

* The names used in this text are ficticious.

by
Stella Eyles

After earning an Honours B.A. in French and English from the University of Guelph in 1976, Stella entered the Faculty of Education, University of Toronto, receiving her B.Ed. in 1977. That year, she began teaching at the secondary level in Lambton County, relocating after five years to take a temporary position with the Peel Board of Education. In 1983, Stella joined Humber College and has spent almost ten years working exclusively with adults aged 20-55, both native and non-native speakers. She finds these students to be challenging and extremely rewarding to teach. In September 1993, Stella began teaching post-secondary courses in the Liberal Arts and Sciences Division.

Paving the Road to the Fountain of Youth:

The Role of Community Colleges in Educating Older Adult Learners

ABSTRACT

This article discusses the responsibilities of community colleges in providing continuing educational programs for older adult learners, especially those in lower socio-economic groups. It examines issues related to our present-day conceptualizations of aging and educational gerontology, and describes a number of programs in existence for older adult learners in American community colleges. The author examines a radical approach to education for older adults, "critical educational gerontology", developed by two Australian educators. In this context, suggestions are put forth regarding ways in which our Canadian community colleges can better meet the diverse needs of this growing segment of our population.

by
Joy Trenholm

Joy is presently working as Special Needs Co-ordinator at Humber College. She has a background in teaching, and counselling. She is a student in the Ph.D program at Michigan State University, with special interests in education and aging.

Introduction

Across North America, educators are discovering a new group of students who have broad life experiences, are motivated to learn, and are sure of their educational goals. These are adults, aged sixty-five and older, who are living longer, and are more productive and healthier than their counterparts of even a decade ago. According to Statistics Canada (Devereux, 1985), 19% of the Canadian population is over sixty-five, and by the year 2015, projections are that this figure will climb to approximately 30%. If current trends prevail, the only population group experiencing significant increases in the next century will be more than 55 years of age.

According to Smith (1986), older adults form a distinct group in terms of their learning interests and needs. They have their own agendas, and want the most direct route to obtaining specific knowledge. Many do not seek degrees or diplomas but want a course, or series of courses that will help them meet specific needs or goals in their lives. The popularity of programs such as Elderhostel is evidence of the interest and motivation of older adults to learn. However, these programs cater largely to middle and up-per-middle class learners. There is a large group of older adult learners of lower socio-economic levels who have the interest, but lack the necessary resources to access learning.

Community colleges have a responsibility to offer programs and services that will meet the educational, social, and living needs of all groups of older adult learners. Ontario colleges are in a particularly advantageous position in that there are already a number of programs in existence to serve as models. As well, the college movement has always been in the forefront in developing innovative programs and services to meet societal needs. As a cohort, older adults have the potential to influence change. Colleges need to develop programs that will empower this group, especially those from lower socio-economic levels, to bring about changes in their lives and, ultimately, in society.

This article will discuss the responsibilities of colleges for providing continuing education programs for older adult learners in our community, and will describe a number of programs already in existence. Issues related to present-day conceptualizations of aging and education

are examined in light of *"critical educational gerontology."* This novel approach to education for older adults addresses the position of older adults in society and the role education can play in influencing change.

Background

Programs for older adult learners have traditionally been viewed in the context of continuing education. Historically, community colleges have been a prominent player in this movement. In the United States, responsibility for providing continuing education programs is one of the five services comprising the mandated role of the colleges. In Canada, these programs have come into existence in virtually all colleges across the country in response to expressed and perceived community needs. As Dennison and Gallagher (1986) state in their comprehensive analysis of the Canadian community colleges, continuing education has traditionally represented the vision and the philosophy of many of the adult educators who were instrumental in conceiving and building the college system. Most colleges today describe their continuing education programs as their largest source of revenue.

A number of educators have seen far-reaching possibilities for continuing education programs for older adults. Gould (1974), in his analysis of the findings of the Commission on Non-traditional study undertaken in the United States in the mid-seventies, reiterates continuing education as a basic right of all individuals. An important recommendation of the Commission was that colleges and universities offer adaptive and non-traditional educational programs that would appeal to a wide variety of learners, among these older learners. Given their historical background, colleges were singled out specifically as major centres of non-traditional study. Gould describes a vision of the fifty year college, as opposed to the two and three year college, and emphasizes the importance of collaboration among institutions, community groups and business in developing and maintaining life-long learning.

Although the responsibility of community colleges for providing education for older adult learners is widely recognized, apart from a small number of innovative in-house college programs

Learning experiences can do a great deal to help older people deal with economic and social problems.

that were started in the United States over a decade ago, and the Elderhostel movement, Canadian colleges have done little to provide for this group of learners.

Characteristics of Older Adult Learners

According to Carl Jung (Campbell, 1971), "we cannot live in the afternoon of life according to the programme of life's morning: for what was great in the morning will be little in the evening, and what in the morning was true, will in the evening have become a lie."

There exists a wider gap between the learning needs and interests of young and old than between elderly rich and poor, men and women, black and white, or urban and rural residents (Smith, 1986). The major needs of older adults include *coping needs*, which involve the ability to maintain adequate social, physiological, and psychological well-being; *influence needs*, which involve the ability to participate actively in society and make a contribution; and *transcendence needs* which involve personal growth. Learning experiences can do a great deal to assist older people to meet these needs, and thus enhance their ability to deal with social or economic problems.

There is also a great diversity of learners among the older adult population. On the one hand, there are learners with graduate degrees, comfortable incomes and good health who have the means and the motivation for education. They choose learning experiences that will enable them to travel, socialize and experience late-life social and psychological growth (Rice, 1986). At the other extreme are large numbers of elderly adults with little or no formal education, subsistence level incomes and poor health. Although educational programs could do a great deal to assist this group in dealing with a growing number of social problems, barriers to learning such as isolation, economic circumstance and lack of awareness of opportunities inhibit many from accessing education.

There are several dimensions, therefore, to the personal characteristics and the educational needs of older adults that we, as educators, particularly need to address.

Community College Programs for Older Adults

Although traditional higher education is often viewed as being unsuited to meet the educational needs of older adults (Covey, 1981), there are a number of innovative programs in American Community Colleges that deserve mention. Huron College, in South Dakota (Price and Bromert, 1980), has established an intergenerational program that provides older adults with continuing education, and the college community with an intergenerational learning experience. In 1976, the mission statement of the college was revised to incorporate the principles of lifelong learning. Since then, instructors have been sensitized to the concept of lifelong learning, older adults have been trained to work with peers in identifying educational needs, and a Senior Services career major has been established to provide training for those working with older adults. Instrumental in the creation of this program was the purchase of an unused college dormitory that has served as a residence for seniors in the program as well as a classroom centre for all students.

Sharon (1973) describes the establishment of Emeritus College in Marin County, California, in 1973. Responding to a decline of the younger, more traditional college-age population, and the influx of older, retired, affluent seniors to the community, Marin College recruited a number of talented older adults to participate in the planning and implementation of a college designed especially for them. Emeritus College has its own administration, curriculum, faculty and governance. Classes, facilities and student services are all geared to meet the needs of this group of older learners.

Delta Community College, in central Michigan, has developed a program geared specifically to their population, which includes a large number of seniors living below the poverty level (Sharon, 1973). When data showed the college was attracting only a handful of older students, the institution actively set out to recruit seniors to its programs and services. A sampling of courses was offered to individuals in consultation with community agencies and personnel from the community affairs department of the college. Based on an enthusiastic response to the pilot project, the position of co-ordinator was established, the college's mission statement was altered to include the concept of lifelong learning and college services were made more accessible to older learners. Different sub-groups within the older adult population were identified and every effort was made to develop programs and services to meet the needs of these groups. Common barriers to education for older adults were identified and, in response to these, courses were offered tuition-free, conducted in neighbourhood centres, and special services such as counselling and support groups were developed. Training and staff development programs were also instituted.

Another program that actively incorporates this approach is the Institute for Study for Older Adults at New York City Community College (Spencer, 1980). This is an outreach program, established in 1969, that links with community agencies and institutions in bringing educational programs and services to large numbers of adults from diverse backgrounds throughout the city. It also encourages participants to develop leaders within their own communities.

In Canada, from available research, it appears that the majority of college programming for older adults has centred around programs such as the highly successful Elderhostel movement. The cost of these programs, however, limits them to a minority of the senior population. As a result, the needs of large numbers of the older population are not being met.

Present and Future Trends

Data from the President's Council on Aging (Timmerman, 1971) have shown that those people most likely to take advantage of education have higher incomes, social status, and formal educational levels than the population as a whole. Those who are most needy, with low income, social standing and formal education, are the least likely to participate. As illustrated in the few examples cited above, programs for older adult learners in community colleges have, in many cases, developed from the institution's own needs to survive.

However, large increases in the population over sixty-five, of whom vast numbers are women, members of a minority, or subsisting below the poverty line, place upon the colleges a responsibility to develop programs that will help meet the major needs of this group. If viewed

Colleges have a responsibility to develop programs that will meet the needs of older women, minorities and those individuals living below the poverty line.

from the perspective of self-sufficiency alone, education becomes a most effective means of empowering large numbers of older adults to deal more effectively with their day-to-day lives, their position in society, and ultimately, to effect social change.

In an article proposing a novel and radical approach to education for older adults, Glendenning and Battersby (1990), two Australian educators, challenge our current assumptions regarding education for this group. Among their suggestions are:

• conceptualizing education for older people from a socio-political framework;

• closely examining the confusing mix of messages that have come from the cognitive-psychological community on aging;

• redressing the debate about why education is important in later life and getting rid of our middle class notions of what constitutes education;

• and finally, and most crucially, questioning whose interests are really being served in the education of older people.

Current approaches to education for older adults in North America are criticized as a business-oriented, money-making industry, and the relevance of these for the majority of older adult learners is questioned.

They recommend a paradigm shift away from a functional approach that views older people as a disadvantaged group and aging as a social problem, to a socio-political framework that examines society's treatment of older people within the context of the economy and the state. They begin with the preposition that an individual's status and resources, and even old age itself, are conditioned by one's position within the social structure, and that social factors shape that location. They then suggest that society move to a critical educational gerontological approach that builds upon this socio-political framework and draws from tradition, literature, and the work of great socio-political theorists, such as Paulo Friere, for its conceptualization.

Critical educational gerontology would address issues such as emancipation, empowerment, transformation, and social and hegemonic control. Theory would be combined with practice, there would be a strong political and social

Education has the power to liberate older people from the cultural stereotypes that limit their lives, and what they can accomplish.

orientation as well as an educational agenda, and self-help, mutual aid groups and reminiscence work would be part of the curricula.

Conclusion

There is no doubt that we need to re-define our current views of the elderly and aging in our society, and how this impacts on the individual, our culture and our educational system. With people living longer in better health, and comprising a greater share of the population, older adults represent considerable political power and will continue to do so. In Canada, they proved that recently by their successful opposition to the Conservative government's plan to de-index old age pensions.

Education has the power to liberate older people from the cultural stereotypes that limit their lives, and what they can accomplish. This is the central message of Glendenning's and Battersby's approach. Educational outcomes centre around helping individuals gain power over their lives rather than as recreational activities designed to pass leisure hours. By empowering this group through programs involving self-help, advocacy, and mutual support, they can unite, create their own leaders, and effect social change. Glendenning and Battersby's ideas shed new light on our current approaches, and we must decide their relevance to our culture now, in the year 2000, or the year 2010.

Community colleges have always been on the vanguard of change and can do a great deal towards creating new paradigms for the education of older adults. A commitment to life-long learning should be written into the mission statement of every college. Educators should then re-examine their current philosophy and approaches to education for older adults.

Institutes for older adult learners, which will have a mandate not only to offer programs but also to study issues of aging and the plight of the elderly in our society, should be established within every college. In conjunction with other institutions and community services, learning experiences should be designed and delivered through these institutes that will meet the needs of each group of adult learners, ultimately fostering independence, personal growth and fulfilment, empowerment, and social change.

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Who is Doing What to Whom?

Points of Intersection in the Life Transitions of Teaching Faculty, Traditional and Older Adult Learners

ABSTRACT

The process of transition is one that every adult experiences to a greater or lesser degree at various times throughout the lifespan. In this paper, the concept of life transitions is defined, and its implications in the lives of learners and teachers are described and explored. The educational environment brings together a widely diverse group of people, at differing ages and life stages, all of whom are in some kind of transitional process. This paper will explore the impact that these groups have on one another as their lives intersect in the educational environment.

The impact of change in the educational environment has implications for the professional and personal well-being of both students and faculty. Some alternative teaching practices are explored which honour the diversity of learning needs in today's classrooms. Some recommendations are put forward for institutional responses to adult learners in transition, for flexible delivery of services and support systems, and for recognition of the developmental needs of faculty and staff at all levels within the organization.

by

Dr. Katherine E. Mezei

Kathy Mezei joined Humber College in 1978 as a professor of Psychology and Human Relations and, since 1985, has served as a Professional Development Consultant. She is presently Course Director of the two-year, new Full-Time Faculty Development program for newly hired faculty at Humber. Kathy has recently completed a Ph.D. in Adult and Continuing Education at Michigan State University, focusing in the area of faculty transitions into college teaching. She is co-editor of a system-wide Ontario College publication, "Celebrating Twenty-Five Years of Excellence in Staff, Program and Organizational Development" (ACAATO, 1993).

The Concept of Life Transitions

The process of transition is one that every adult experiences to a greater or lesser degree at various times throughout the lifespan. Numerous developmental age and stage theorists have explored the territory of adult or "lifespan" development, some focusing on social, ego and career development (Erikson, 1950; Levinson, 1978; Sheehy, 1976), others on moral and intellectual processes (Kohlberg, 1970; Gilligan, 1982; Perry, 1970). Of late, more interest has been devoted to exploring the change process itself, and its impact on human beings as they work their way through the predictable "crises" of adulthood. Some investigators have developed models of the transition process itself (Bridges 1980; Hopson 1981). Others explore coping strategies for dealing with change (Raines, 1981; Weiss, 1976), and suggest organizational and helping systems for supporting adults in transition (Schlossberg, 1984).

Most transition theorists seem to agree, despite the popularity of the term "mid-life transi-tion", that the impact of change is not a function of age, gender or any specific life setting or event, but rather describes a process or perception of disequilibrium which necessitates "the abandonment of one set of assumptions and the development of a fresh set to enable the individual to cope with the new, altered life space" (Parkes, in Schlossberg, 1984, p. 44). Bridges (1980) describes all transitions as beginning with an ending. As we prepare to let go of an old role or life situation, we experience a loss which must be acknowledged and understood if we are to move beyond it. He coins the term *The Neutral Zone* to describe the confusing no-man's-land where one can no longer identify with the old, but is not yet fully integrated into the new. Sometimes, he suggests, the impact of change can immobilize us just when we most need to summon the energy and commitment to cope with the new demands facing us. *The New Beginning* comes only at the end of the process, and cannot be accomplished successfully merely by persever-

ing. It requires an understanding of external signs and inner signals that point the way to the future.

Some changes are more critical than others, their impact more chaotic and difficult to endure. To make a successful and productive new beginning we need an understanding of the normalcy of these seemingly negative experiences. Such self knowledge and acceptance is essential to our own personal growth, and also to our understanding of and compassion for others who are going through transitions of their own.

Transition in the Educational Environment

The post-secondary educational environment brings together a widely diverse group of people, at differing ages and life stages, most of whom are in some kind of transitional process. For the sake of discussion, this population can be divided into two broad categories, those who are consumers of educational services of all kinds – the learners – and those who deliver or support the delivery of educational services – the faculty, administrators and support staff. Since an increasing number of people fit both categories simultaneously, and since the range of personal and vocational transitions is so vast, it is not surprising that so many "points of intersection" (Cytrynbaum, 1982) exist in the lives of the educational community. Add to the mix the rapid pace of change in the external economic and social environment which, in turn, precipitates change within the organizational culture of institutes of higher learning, and the result is a highly complex, reactive and unstable social network.

The following non-exhaustive list profiles some of the most typical groups represented in each of the two categories. In each case, educational institutions have a vital role to play in creating supportive atmospheres that enhance student learning and staff development.

a ~ Learners:

• The "traditional" (18 to 21-year-old, recent high school graduate) students are in the midst of the Early Adult Transition (Levinson) from youth to adulthood. Many are away from home for the first time, isolated from family and old friends and caught up in a maelstrom of social experiences. Their "crisis of intimacy" (Erikson) may head the list of developmental tasks that demand their attention.

• At college, new and provocative ideas assault the passionately held but frequently unexamined views of these emerging adults. At the same time, economic necessity and the new conservatism of the '80s and early '90s (Levine, 1980) drive them toward a materialistic (and often unrealistic) urgency to enter the workforce as quickly, and at as high a level as possible. Colleges struggle with the responsibility to provide these students with generic thinking and social skills, and to prepare them for lifelong citizenship, rather than just for their first job.

• Women at the Catch-30 stage (Sheehy, 1976) are seeking further education to try to improve their earning power, or continuing an educational path that was interrupted up to a decade earlier by marriage and child-bearing. If they have not yet had children, many are in conflict about whether to take "time-out" in their career climb to answer the demands of the biological time-clock. Some are coming back to school out of economic necessity because a shaky or crumbling marriage makes it imperative that they develop marketable skills. Colleges must create a learning atmosphere which supports this group through the provision of child care services and flexible programming, and welcomes women into the higher-paying non-traditional fields of study.

• Older adults, whether or not they are presently in the workforce, are coming back to school for a variety of reasons, ranging from the need for retraining, career advancement, social interaction, personal interest or a desire to start their lives in a whole new direction (Christensen, 1980). Some may find the transition back into studenthood a sharp contrast to the autonomy and status they have been accustomed to in the workplace. Depending on their previous experiences with formal education, these students may have difficulty accepting the structure and demands of the classroom, or fail to see the relevance and applicability of what they are learning for the real priorities of their lives. Rigid curricula or autocratic teaching methods are unlikely to motivate or satisfy this group.

• Cutting across every other group is the

Some may find the transition back into studenthood a sharp contrast to the autonomy and status they have been accustomed to in the workplace.

rapidly increasing number of students whose needs extend beyond what used to be the regular mandate of higher education. In this category could be included the physically disabled, students with learning disabilities, and large numbers whose native tongue is not English, and who may be studying far from home and/or living in homes where English is not spoken. Today's open access colleges attempt to build bridges for all these varied groups that lead to vocational and personal success.

b ~ Faculty

• Many faculty in the Ontario Colleges of Applied Arts and Technology have been in the system since its inception in or around 1967. Those were the heady days when money flowed like wine, the fledgling colleges were small, intimate and family-like and, since everything was new, opportunities for creativity in design and delivery of curriculum were boundless. The huge, comprehensive colleges of the nineties with their enormously diverse student body bear little resemblance to their origins. The challenges are greater and different, but many of the faculty are the same.

• Now in mid-life, and in mid-to-late career, many of these faculty are still fifteen years from retirement. They are caught in the personal, family and age-related transitions of their particular life circumstances. In their professional lives, many Ontario college teachers are struggling with increasing stress and potential burnout. Instead of the task of teaching getting easier, as they thought, it is getting harder all the time to feel that they are being effective in the classroom, and making a significant difference in the lives of students. Today's student body is more diverse and less well-prepared than in the past. Old tried and true teaching strategies are no longer effective, or even appropriate. Some instructors are beginning to feel overburdened and inadequate. Some rail against the increasing gap between rhetoric and practice, as government tightens the purse strings and programs are cut back. As Liebes (1983) points out, "In the past, 'burned-out' teachers could be transferred or could change professions. The economics of the 1980s leaves dissatisfied teachers with no alternative but to remain in teaching."

• The colleges of the '90s face an ongoing challenge to put in place human resource devel-

opment policies and practices that will contribute to the revitalization of this group and keep them productive into the next century.

• Newly hired young faculty in the colleges of the '90s are a somewhat scarce resource. They tend to come with formidable credentials, often much more highly qualified than the senior teachers who sit on their hiring committees. As such, they may present a real or perceived threat to older teachers who have learned their craft "by the seat of their pants." What these new teachers bring in academic credentials, however, they may lack in in-depth field experience, or in a knowledge of the modifications of their teaching skills required for today's new students.

• Young faculty are frequently given unconscionable teaching loads, and meet with resistance when they attempt to form mentor relationships. They are vulnerable to feelings of helplessness when they contemplate the gap between what they thought they would be able to accomplish in the classroom, and the stark reality of overcrowding and underfunding. To nurture their core faculty of the future, colleges need to re-examine their orientation, training, development and reward systems at all levels throughout the organization.

• Another significant group in college teaching are the experienced business, industry or service professionals in their forties and fifties who are new to the career of teaching. They are content specialists who have decided to change careers for a variety of reasons: perhaps opportunities for advancement in their previous career have ground to a halt, or their enthusiasm has waned. Perhaps they are entering their "crisis of generativity" (Erikson) and want to share what they have learned with others. Their need to impart their accumulated knowledge and expertise may be in direct conflict with their adult students' need for self-directed learning which develops critical thinking and decision-making, rather than the willingness to be the passive recipient of someone else's knowledge.

• Accustomed to feeling competent and "in charge" in their professional life, these faculty may come under considerable stress as they discover that teaching is more than just telling what you know. Colleges need to be sensitive to the developmental pace of these late-entry "junior" faculty, and give them the support and latitude

Now in mid-life, and in mid-to-late career, many of these faculty are still fifteen years from retirement.

they need to make the mistakes of trial and error, and grow into competence (Cytrynbaum, 1982).

The Impact of Change

What all these groups share, whether learners or educators, is the impact of change; the experience of being in transition, voluntarily or involuntarily. The classroom is the "point of intersection" of many varying needs, motivations and life stages. Only a proportion of these relate specifically to the teaching/learning enterprise, though all affect it. The young woman of thirty, teaching a class where many of the students are her seniors, may be juggling the competing demands of a developing career and a postponed entry into new parenthood. The middle-aged factory worker, a victim of company downsizing, may find himself back in the classroom with students the same age as his sons. His professor, who reached the top of his salary scale five years ago when he was still in his forties, is wondering how his diminishing "real" income will stretch to meet the needs of his aging parents and university aged children. Meanwhile, twenty-year-olds in the same classroom may be worrying about who will want to buy what they have to offer, when their turn comes to search for meaningful and lucrative employment in today's climate of reduced job opportunities.

These people, and the many others whose personal stories differ only in the specific details, are all dependent to some extent on each other for the quality of the learning environment in which they meet their personal and vocational goals. How can educators learn to think about change in ways that will enhance their effectiveness in dealing with their own, as well as with their students', transitions?

Menlo (1984) challenges the conventional assumption that most people have a tendency to resist change. On the contrary, many adults seek out and welcome variety and challenge. Their daily life is "comprised of a multitude of receptive responses to requests for action and change initiated by self and others." What people resist, Menlo asserts, is not change itself, but the *perceived losses* that accompany change efforts. Of these real or perceived losses, the most serious loss expected and resisted is *the fear of losing*

one's power over oneself to others (emphasis is mine). Other personal losses include loss of self-esteem, self-definition and principles or beliefs. Social losses include the fear of losing quality relationships, reputation, and social effectiveness. The potential for each of these losses exists within teachers and students equally.

The implications of this study for those who are invested in attracting adults to educational programs are significant. Yet, as Christensen (1980) observes, "few teachers, particularly those coming into education from business and industry, have had the opportunity to study adult learning theory and life span development," even their own! Teachers may have to undergo their own loss of confidence as adult learners, while they make the adjustment to the process needs and sensitivities of their partners-in-learning in the classroom.

From the previous argument, it would seem to follow logically that if people's perception or experience of personal loss could be reduced, and if they could be educated to understand their own and others' transition processes, the resulting empowerment would release their natural stores of positive energy. This is equally true whether their present role is as student or as teacher. There is abundant empirical evidence that many adults embrace change and seek out variety and challenge. Caffarella (1989) observes that, "Research of the productivity and vitality of mid-career faculty in higher education has tended to adopt a problem-focused, institutional perspective. For the most part, the mid-life theme appears negatively, as a struggle or crisis... Alternatively, from an individual, lifespan perspective, mid-life is a time of positive change and growth with many advantages of experience, stability and generativity."

The theme of self-directed, intentional change (Tough, 1982) appears repeatedly in the adult education literature. Left to their own learning projects, many adults display the characteristics of industriousness, perseverance, self-discipline, curiosity, creativity, nonconformity and ambition (Gibbons, et al. in Brockett, 1983). The task of educators, then, is to harness that energy, and support and direct it to meet the students' learning goals, without contributing to their fear of loss of power over themselves and their learning process.

The following are some suggestions about ways that teachers can reduce the "necessary losses" of transition for their students in the classroom. In addition, some ways will be explored whereby educational institutions can examine their human resource development policies in the light of transition literature to recognize, honour and support their people through the normal personal and professional transitions of life. It should be emphasized that the intent is to challenge assumptions and stimulate thinking, not to supply answers.

Implications for Teaching Practices

a ~ Learning Groups

Part of assuring that students do not lose their sense of personal power in formal education is to share more of the responsibility for learning with the student. Finkel and Monk (1983) coin the term *The Atlas Complex* to describe the tendency of bright, dedicated and well-meaning teachers to take over so much of the responsibility for what goes on in their classroom, in a genuine effort to motivate reluctant students to learn, that they end in dominating the classroom process entirely and losing touch with what their students know or don't know. What is worse, the students are also cut off from each other as potential resources and "form a group of isolated individuals who have no more in common than their one-to-one relationship with the same individual."

Finkel and Monk explore ways in which teachers can shrug off some of the burden of responsibility for causing learning. They describe the use of learning groups as a way of distributing the teaching functions of a course among the learners. As instructors learn to think of their classes as a miniature social system, they can find ways to redistribute the balance of power and responsibility for the learning process.

b ~ Experiential Learning

Many teachers' self-esteem rests solidly on their reputation as content specialists. Since they were taught by teachers who stood at the front and told what they knew, and since many have had no exposure to recent techniques of adult

education, they may be at a loss to understand how to motivate reluctant or passive learners. Christensen (1980) concludes that teachers of adult learners must be prepared to recognize the fact that being a content specialist will not ensure their success with their adult students.

According to Klemp (1988), research supports the claim that "the amount of formal knowledge one acquires about a content area is generally unrelated to superior performance in an occupation." Exceptional performers are those who can use their cognitive, interpersonal and intrapersonal (based on maturational and motivational) skills to direct and energize their behaviour on the job. Klemp goes on to suggest that colleges do better at developing cognitive skills than they do at preparing their students with the inter- and intrapersonal skills necessary for success in the workplace and in life. To enhance these skills, educators are urged to embrace *applied* learning as a value, both within and outside the classroom, in teaching, field practice and evaluation, so that emphasis is placed not only on *knowing*, but on *being* and *doing*.

The implications of these findings are particularly significant for non-traditional students returning to college from the workplace. Older students' sense of personal power comes at least partially from being able to demonstrate what they know, from having their insights and experience valued. Theoretical learning is frequently more accessible to them, as it is to younger students, if it is arrived at inductively, through the channel of the student's own life experience. Experiential, participative learning opportunities reduce passivity in the classroom and empower students to make meaningful contributions to their own and others' learning process. "In the experiential learning approach both the teacher and the students are observers of immediate experiences which they both interpret according to their own learning style" (Kolb and Fry, in Marlowe, 1985).

Menlo (1984) brings the argument full circle with a charge to educators to become knowledgeable about the hopes and fears of their students at all developmental stages. He suggests, "teachers of participative classes may be advised to ponder less about what techniques to use in helping members to participate and, instead, to plan more on how to help members reduce expectations of personal and social loss as a result of their participation."

c ~ Contractual Learning

When students have some say about what they will learn and how they will be evaluated, they have a greater sense of control over the whole learning experience. Voluntary intentional learning operates on this principle, yet it is too often bypassed in the college classroom because of the difficulty of administration or the rigidity of curricula.

In the training culture which is now becoming so commonplace in business and industry, adults can increasingly choose when, where and how they will pursue their learning goals. Colleges need to listen more to what adult students need, and build flexible curricula and delivery systems so that students can enter the system wherever they are in their own learning, and not be required to take courses they don't need or engage in learning activities within their programs which constitute nothing more than busy work for them.

Institutional Responses

a ~ institutional recognition of adult life transitions

It is essential that educational institutions have an understanding of the transition process in order to design responsive and supportive programs for staff and student development at all levels of the organization.

College and university professors face a variety of economic, institutional and professional pressures which reduce their personal and career vitality. The marked contrast between the small, cohesive and well-funded colleges of the '60s and '70s and today's student pressures, underfunding and decreased professional mobility, all contribute to tension and self-doubt among academics. Bumpus (1983), presents an attributional model based on Rotter's concept of *locus of control* and Seligman's work on *learned helplessness* to explain the pressures felt by faculty, particularly at mid-life and mid-career. The danger to effectiveness is that some may react by attributing the sources of their stress to causes which are global (pervasive throughout all areas of their life), stable (the perceived problems won't go away), and internal (there must be something wrong with me).

Colleges can do much to reduce or alter these negative perceptions and help faculty regain a sense of self control. Faculty development programs frequently fail to recognize the clearly defined needs of faculty at different stages of their careers. If institutions can create an atmosphere in which career questioning and evolution are seen as a normal occurrence and supported accordingly, faculty can be helped to make positive and controlled changes and remain strong contributors to their organizations.

It seems evident that the same sensitivity to life-changes should be recognized in the students the colleges serve, whether they are going through the same mid-life, mid-career transition as the faculty, or whether they are "traditional-aged" students experiencing the earlier stages of life change associated with emerging adulthood. "Organizationally-sponsored attention to transition phenomena could be important not only to faculty, but to their employing organizations, students, and families." (Golembiewski, 1978).

b ~ flexible service delivery and support systems

The changing face of global economics is requiring colleges throughout North America to review their traditional methods of service delivery and devise innovative and flexible programs that can compete with training in the private sector. In the long run, both teachers and students stand to benefit from program and service innovations.

With the right institutional supports, teachers can learn to overcome the anxiety of loss of their traditional teacher-centred control in the classroom. As they develop their "transferable skills," educators can take on a greater role in training outside the college walls and learn to use themselves in a variety of ways which will enhance their self-esteem and marketability for the future.

Institutions which are more responsive to the transition needs of staff and students will pay attention to the youthful students' needs for integrated career development and counselling. They will ease the burden of staff and student families by providing support services such as child care, wellness and employee assistance programs.

Colleges can nurture partnerships with business and industry so that they become sensitive to economic realities in the community and can respond flexibly to the needs of the older, unemployed worker returning for retraining or upgrading. They can also forge links with high-schools and universities so that students can enter the educational process where they are, and travel as far as their abilities and inclinations lead them, without artificial barriers being placed in their path.

c ~ institutional focus on development opportunities for staff at all levels of the organization.

There are many strategies by which organizations can put teeth into their claims to humanistic values. Human resource development has to be identified as a priority in the college mission, demonstrated daily in the values and behaviour of administrators at all levels, and programs must be set in place throughout all levels of the institution which support institutional values.

Schlossberg (1984) suggests a number of strategies that institutions can put in place to enhance a supportive work environment. She speaks of networking, the mutual voluntary exchange of shared values and resources. She advocates linking new employees to these resources, brokering on their behalf to help them access information, assessment, outreach and referral services. She examines referent power, the degree to which mentors are able to influence their proteges to follow through on hard decisions, and promotes advocacy, to help guard the rights of employees and guide them through the roadblocks set up by bureaucracies.

In short, if people learn and work in an atmosphere where their individual growth process is acknowledged and supported, they will continue to contribute the range of their talents and enthusiasm to making the system work.

In summary

Adult life is an ongoing process of transition, change, loss and rediscovery, sometimes chaotic, always challenging – a normal part of being alive. In colleges, adults in a variety of personal and professional transitions come together in the teaching and learning enterprise. Inevitably they affect one another, and their needs are not always complementary.

The challenge to organizations is to recognize and support adult human development in all the range of ways that it manifests itself, and to mount programs which support their staff and students through the difficulties of transitions and keep them motivated and productive.

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Teaching in Recognition of Learning Styles:

Honouring the diversity

ABSTRACT

Learning style theories, particularly those of David Kolb and Bernice McCarthy, indicate that individuals have one or more preferred methods of acquiring knowledge. In any random group of individuals, such as a class, there are likely to be members of each style of learning. In order to "reach" each of these group members, lessons should be designed so as to appeal to each of those learning styles. The natural cycle of learning provides a way in which to engage and connect with each student, and honours all the styles of learning so that the learner is broadened by the experience.

This paper offers some background to the learning style theories of Kolb and McCarthy and considers the reasons for and ways in which an instructor can put these principles to practice by creating or adapting lesson plans with the four major learning styles in mind. It is the author's belief that, given the diversity of community college classes today, this lesson planning technique is of major importance in achieving student success and greater acceptance by the student of both self and others.

by

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Background and Purpose

The diversity of students entering the community college is ever-increasing. The mandate of the community college system is to provide as broad an access as possible to members of the population being served by the community college. Once in the doors, the challenge is to provide a meaningful education from the point of view of the student and of society, or at least the community being served by that college. Many innovative steps have been undertaken, not the least of which are the integrated early-warning and computer systems instituted by Miami-Dade Community College (Roueche & Baker, 1987), who have been able to demonstrate clear success in achieving excellence in terms of student outcomes while preserving the mandate of access to community college for as many members of society as possible.

We often speak of diversity as a problem (or, if we are positive about it, a challenge) to be dealt with by faculty and administrators. Diversity becomes a word applicable to the student

population taken as a whole. The role of teachers is to focus as much as possible upon the attainment of successful student outcomes for each student. While time and space often require that this be done while dealing with approximately 40 students for approximately two hours at a time, the teacher would be remiss if he or she did not focus upon how learning was occurring for each of those 40 students.

In my classes, I have often wondered what the problem was when all students in a class would not appear to be as excited or even interested in the course material as I was. I would often attribute this to a lack of preparedness by the student (related either to inability to deal with the program at all, or failure to have read assigned readings for that class), a bad day, a test coming up later that day, or any number of other reasons. Sometimes I would even have the courage and honesty to acknowledge that it might have been due to my presentation. However, I have become aware of the theories of

learning styles and now believe that attention to those theories and suggested solutions as a result of such theories might go a long way to answering some of my concerns.

The purpose of this paper is to examine various learning style theories and proposed strategies to allow students to benefit from this research, as well as a discussion of the usefulness of such strategies. It is my intention to attempt to develop myself to use the strategies and ideas discussed herein with the ultimate aim of improving both student persistence and achievement in my courses.

Theories of Education and Learning

The literal meaning of education is "to draw out". (Kolb, 1984, p. 202). For centuries, many educational theorists and psychologists have attempted to come to terms with the purpose and meaning of education. At the cynical end of the continuum of such theories, where educators view themselves as keepers of knowledge to be transmitted to students, Paulo Friere describes the "banking" concept of education, in which the teacher is the depositor and the students are the depositories (Friere, 1972).

Through our own personal experiences as students and as teachers, we are aware of the fact that knowledge acquired by way of memorizing and regurgitating facts at command is not by itself evidence of learning or even any form of intelligence. David Kolb's definition of learning sets forth the interaction of various elements, while referring to Friere's concern in the latter part of the second stage of his definition:

> "Learning is the process whereby knowledge is created through the transformation of experience. This definition emphasizes several critical aspects of the learning process as viewed from the experiential perspective. First is the emphasis on the process of adaptation and learning as opposed to content or outcomes. Second is that knowledge is a transformation process, being continuously created and recreated, not an independent entity to be acquired or transmitted. Third, learning transforms experience in both its objective and subjective forms." (Kolb, 1984, p. 38)

Learning Style Theories

The development of learning style theories is relatively recent, although it has its basis of formation in the works of various educational theorists. Seventeenth century philosophers, including Descartes, believed that knowledge was acquired by the mind through rational analysis. In the eighteenth century, Locke and Hobbes felt that knowledge was found in accumulated associations of our senses. By the nineteenth century, Kant theorized that the mind possesses equipment to interpret experience. In the twentieth century, Piaget developed his theory of genetic epistemology, which, although it is widely quoted with respect to the development of children, is applicable to the entire population. David Kolb (1984) examined all of these philosophies and synthesized them in his metaphor of the mind as a loom:

> "Normal human consciousness is a combination of two modes of grasping experiences, forming a continuous experiential fabric, the warp of which represents apprehended experiences woven tightly by the weft of comprehended representations. Just as the patterns in a fabric are governed by the interrelations among warp and weft, so too, personal knowledge is shaped by the interrelations between apprehension and comprehension. The essence of the interrelationship is expressed in Kant's analysis of their interdependence: Apprehensions are the source of validation for comprehensions ('thoughts without content are empty'), and comprehensions are the source of guidance in the selection of apprehensions ('intuitions without concepts are blind')." (Kolb, 1984, p. 106)

Kolb also examined the theories of Jung, who developed a framework for describing differences in the human process of adaptation using such contrasting identifiers as extrovert/introvert, perception/judgment (for decision making), sensing/intuition (for perceiving) and thinking/feeling (for judging). On the basis of this work, Kolb set out his theory of learning methods and styles as a circle, with axes labeled as prehension and transformation (see Figure 1). Prehension is derived from John Dewey's analysis that learning consists of apprehension (direct understanding; knowledge of; felt) and comprehension (indirect mediated understanding; knowledge about). Transformation is derived from the scientific learning theories of Cohen and Nagel of extension (the set of objects to which a term is applicable; behavioural actions) and intension (why a term is applied to a set of objects; intellectual actions). Prehension relates to the content; transformation relates to the processing of that content. Learning cannot occur until the content is processed in some way.

The role of teachers is to focus as much as possible upon the attainment of successful student outcomes for each student.

The effect of the superimposing of axes upon the circle is the creation of four quadrants, numbered in a clockwise manner:

- Quadrant 1 ~ Divergent Knowledge ~ experience grasped through apprehension and transformed through intention. Those who learn in this way are labeled by Kolb as *Concrete Experiencers (CE)*.

- Quadrant 2 ~ Assimilative Knowledge ~ experience grasped through comprehension and transformed through intention. Those who learn in this way are labeled by Kolb as *Reflective Observers (RO)*.

- Quadrant 3 ~ Convergent Knowledge ~ experience grasped through comprehension and transformed through extension. Kolb calls these learners *Abstract Conceptualizers (AC)*.

- Quadrant 4 ~ Accommodative Knowledge ~ experience grasped through apprehension and transformed by extension. Kolb calls these learners *Active Experimenters (AE)*. (Kolb, 1984)

Patricia Cross (1977) also wrote of variations of learning styles, which she referred to as cognitive styles after stating "cognition...refers to the process by which knowledge is acquired: perception, memory, thinking, and imagery..." (Cross, 1977, p. 113). She refers to the 9 cognitive styles described by Samuel Messick, many of which overlap with Kolb's factors.

Bernice McCarthy (1981) also studied the material to date on learning styles and created her own circle, axes and quadrants. Her model's axes are "how we perceive" and "how we process", and bear a striking similarity to Kolb's. Her quadrant descriptors (which again are numbered in clockwise direction starting at the top right) are as follows:

- Quadrant 1 ~ Innovative Learners ~ sensing, feeling, watching

- Quadrant 2 ~ Analytic Learners ~ watching, thinking

- Quadrant 3 ~ Common Sense Learners ~ thinking, doing

- Quadrant 4 ~ Dynamic Learners ~ doing, sensing, feeling

What McCarthy also adds to her model are the implications of brain research by such researchers as Dr. Roger Sperry in the 1950s concerning the right and left hemispheres and processing of information. If processing is one of the interactors in the learning process, this becomes critical. It is thought that the left hemisphere is verbal, and processes information in a lineal and sequential manner. The right hemisphere, however, is more visual and spatial, processing in a global manner, perceiving, absorbing and

The awareness of the differences between us...was of great assistance to me in tolerance and even appreciation of the diversity of the gifts and talents of others. However, awareness is accentuated when it can be applied.
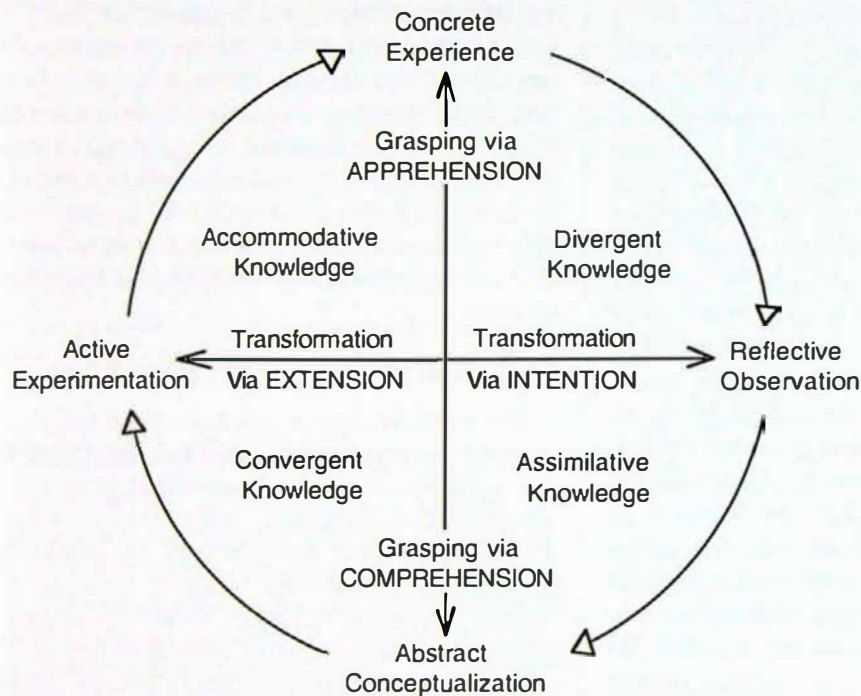
Structural Dimensions Underlying the Process of Experiential Learning and the Resulting Basic Knowledge Forms

FIGURE 1: David Kolb's Model (1984)

processing even while it is in the process of changing.

Application of the Learning Style Theories

The discovery of these theories was of great interest to me. I was unaware of this body of knowledge until I received my new teacher training just before starting up my duties as a teacher in the community college system. It answered a lot of unasked but subconscious questions for me about the behaviour of others around me. I had previously thought that those who simply rushed right in to an activity before carefully researching it were impetuous at best, and possibly dangerous to themselves and others (you may have guessed by now that my most entrenched learning style is in Quadrant 2, but is broadening to Quadrant 1 since taking on my new career in teaching). I also thought that those who asked for repetition of verbal instructions were stupid or not paying attention initially, whereas I now realize that this too is a part of a certain learning style and approach to learning information.

The awareness of the differences between us and some logical rationale (my own thought processes again are showing through) was of great assistance to me in tolerance and even appreciation of the diversity of the gifts and talents of others. However, awareness is accentuated when it can be applied. It was clear to me that on average, and without administering learning style inventories to confirm numbers or identify learners, there would be at least some members from each quadrant of the learning style model of either Kolb or McCarthy in each class I was assigned to teach. I now knew my learning style, and would have a propensity to teach in a style in which I was most comfortable and from which I could learn best. However, this would be most helpful to only some members of my class. By the way, I also discovered in reading and upon reflection that the traditional school system is oriented toward my learning style, which is probably why I was relatively successful within it.

If David Kolb is the person who sets out the WHAT of learning styles, it is Bernice McCarthy who has developed the HOW with respect to dealing with it. Her 4MAT system develops a model for preparing lessons to reach each learning style quadrant, honouring the diversity of its members. In addition, she appeals to the left and right brain hemispheres within each quadrant. Her graphic depiction is set out in Appendix A.

McCarthy's technique is to design a lesson plan to reach each learning style in both left and right mode. She believes that it is important to start with Quadrant 1 learners and proceed in sequence in a clockwise direction through each of the four quadrants: "4MAT moves through the learning cycle in sequence, teaching in all four modes and incorporating the four combinations of characteristics. The sequence is a natural learning progression". (McCarthy, 1981, p. 90) In particular, McCarthy's premise is that the methodology to be used and the questions to be answered are as follows:

Quadrant 1: Integrating Experience with the Self

These are the Innovative Learners, who prefer to learn through a combination of sensing/feeling and watching. They learn best by being involved personally, listening and sharing ideas. They need to be given a reason to learn this material, and their favourite question is "Why?" In the right mode part of the lesson, an experience should be created, perhaps by fact situation, case study, newspaper article, students brainstorming or thinking of a particular situation which might apply to the lesson topic. In the left mode, the experience will be reflected upon and analyzed. This is often done within a small group setting to develop the sharing environment.

Quadrant 2: Concept Formulation

The learners in this quadrant are known as Analytic Learners, who prefer to learn through a combination of watching and thinking through concepts. They seek facts, need to know what the experts think, form reality by thinking through ideas, and their favourite question is "What?" As this is the quadrant to which traditional schools teach best, most traditional teachers find it easiest to teach to this quadrant. In the right mode, the experience already generated in quadrant one is integrated into the materials, and in the left mode segment, students are given the facts, so that concepts can be formulated and examined.

Quadrant 3: Practice and Personalization

Quadrant 3 learners are Common Sense Learners, whose favourite question is "How?", specifically as in "How does it work?" These are the students who prefer to learn by thinking through concepts and trying things out for themselves, by doing. They edit reality by testing theories in ways that seem sensible to them, using practical application of ideas. In this quadrant, the left mode is addressed first by giving them prepared materials to work on defined concepts and givens. (These are assignments, drills, practice sessions, the other forms of instruction that the traditional school system does best.) In the right mode, students are allowed to create materials of their own to test out the concepts.

Quadrant 4: Integrating Application and Experience

Dynamic Learners prefer to learn by doing and sensing/feeling, by trial-and-error and self-discovery. These learners are adaptable to change and relish it, and seek out hidden possibilities, making things happen and bringing action to concepts. Their favourite questions are "What if?" and "What can this become?" In this quadrant of the lesson plan, the left mode of the brain is addressed first, by the students analyzing their own creations for relevance and originality, and in the right mode by applying the learning personally and sharing it with others. For example, the students would generate ideas themselves and then share with the others what they will do to incorporate this learning into their lives.

In Quadrants 1 and 2, the teacher is more active; in Quadrants 3 and 4, the student is more active.

Application of this Teaching Technique

Kolb and McCarthy have both worked to create a self-test to identify preferred learning styles or personality types. These all basically work on the premise that the respondent to the questionnaire reads a statement about themselves, such as "When I am learning, I like to ..." and then a choice of four words or phrases is given for completion of the sentence. The respondent chooses a word or phrase on a four point scale from most applicable (most like the respondent) to least applicable (least like the respondent). Total responses are then awarded some sort of weighting (depending on the questionnaire or inventory) and a raw score is obtained which is then either immediately placed on a graph or manipulated with another score to be placed on the graph. In addition, McCarthy's latest instrument, the Learning Type Measure, overlays a hemispheric mode indicator score to give a more complete picture.

Usually the respondent will become aware of being within one quadrant of the graph. This is not to say that each of us does not have some of each learning style or personality type within us; rather it indicates where our propensity or greatest comfort level lies and the mode in which we learn best. Although we may be ever-extending and changing, we are likely to have one quadrant in which we feel most comfortable, or to which we may automatically revert in times of anxiety. Above all, this is not to be considered an intelligence test or a measure of our capacity to learn.

If each of us has our own quadrant of comfort, and if one of our primary goals in teaching is to help the student learn in the way(s) most suited to him or her, one might think at first blush that the logical way to proceed would be to administer one of the learning or personality inventories to all students and to group them according to their learning or personality style. A teacher with the same style, who would, after all, have complete understanding of the student's needs and preferred and least favourable way of learning and evaluation, would then teach all of the students in that group. This would permit easy learning and success.

Ultimately, however, this does not do a service to the student. Labeling, including that regarding learning style orientation, is often self-defeating and counter-productive in the long run. In addition, because the world is comprised of individuals who are members of the different learning style groups, each of us needs to understand and empathize more with the others. If you teach students only in their own way, they will be very good in their own quadrants, but will not develop other learning skills. McCarthy speaks of the advantage of teaching students in different styles:

> "They learn in their most comfortable way, while being exposed to learning in alternative ways. They come to value their fellow students' natural gifts and to learn from them, while

Labeling, including that regarding learning style orientation, is often self-defeating and counter-productive in the long run.

refining their own. When teachers place equal value on alternative methods of teaching, students do also." (McCarthy, 1981, p. 61).

When students are taught in both their preferred and alternative learning styles, they learn to value the material being presented to them for themselves, but also to appreciate the ways in which others value them:

"Students will come to accept their strengths and learn to capitalize on them, while developing a healthy respect for the uniqueness of others, and while furthering their ability to learn in alternative modes without the pressure of "being wrong"." (McCarthy, 1981, p. 90)

Kolb also discusses the importance of exposing students to all methods:

"In making students more "well-rounded", the aim is to develop the weaknesses in the students' learning styles adaptive for their particular career entry job. The aim is to make the student self-renewing and self directed; to focus on integrative development where the person is highly developed in each of the four learning modes: active, reflective, abstract and concrete. Here, the student is taught to experience the tension and conflict among these orientations, for it is from the resolution of these tensions that creativity springs." (Kolb, 1984, p. 203)

Similarly, designing lessons which address both left and right hemispheric modes of the brain will lead to more "well-rounded" students.

This topic is particularly important to the open-door community college. As more and more of our students are non-traditional learners (of different cultures, or those who have experienced less success in previous schooling), it is clear that the traditional teaching methods (Quadrants 2 and 3, left mode) are not sufficient. Studies of cross-cultural reports (Witkin and Berry, 1975, as described in Cross, 1977), indicate that members of different cultures come with different orientations than North American or European cultures. For example, the factor of field independence (where a person approaches tasks and situations in an analytical way, separating the elements from the background) versus field dependence (where the person deals on a global basis with the total situation, seeing the whole rather than the parts) often is affected by the person's culture or even gender. The Witkin and Berry study found that cultures which emphasize conformity, "tight" role definitions and social control, strict child control practices, emphasis on obedience and authority tend to encourage field dependence of its members; in addition, women are generally more inclined to be field dependent than men. (Cross, 1977, p. 118). Field independence is rewarded more by the traditional North American school system, which values task and achievement orientation, self-sufficiency and independence. However, this approach may be questionable in these times of societal change:

"When schools took their present form, self-sufficiency and independence were virtues that had survival value in a pioneer society. Today, survival may be related more to one's ability to cooperate with others than to go it alone. More people lose their jobs because of failure in interpersonal relations than because of lack of job skills. Divorce, alienation, and people-related problems are major maladies of our times. Yet the educational system is still geared to the reward of independence, not often balanced by equal rewards for interpersonal cooperation. Thus, despite the known fact that social situations are often highly effective learning experiences, the traditional classroom is not a very social place. Beginning with their earliest school experiences, children are cautioned to do their own work, to keep their eyes on their own paper, and not to talk to their neighbors. Rarely do we permit, let alone encourage, social problem solving." (Cross, 1977, p. 124)

It is also becoming increasingly clear that this field independence fosters selfishness which is the antithesis of what is needed by our society, which now has so many problems which can only be resolved by working together.

Perception on the part of the traditional teacher in the traditional school system is also a major difficulty:

"I found that, at the college level, New Students are twice as likely as traditional students to say they prefer having a problem explained to them to figuring it out themselves. Most teachers are convinced that the "independent" learner who figures out the problem for himself is considerably ahead of the "dependent" learner. But the research on the social orientation of field dependents raises a question. Is the student who says he prefers an explanation to an independent solution being dependent and mentally lazy, as most task-oriented educators assume; or is he instead actively seeking social interaction with the explainer in the learning process? Suppose that students were permitted to work with others toward the solution of the problem. (This is "cheating" in many schools.) Might the social stimulation activate a formerly unmotivated learner? Or, to carry the analysis further, suppose that social interaction, rather than independence, were highly valued in the schools and that all students were

required to work with others in problem solving. Would the person who prefers to figure things out for himself then become passive, unchallenged, and uncooperative? If, in fact, New Students do lean toward the field-dependent end of the continuum, might the cool and detached social atmosphere of most schools be in part responsible for the passivity, lack of motivation, and occasional hostility shown in the research on New Students?" (Cross, 1977, p. 125)

Cross' definition of "New Students" from her study in Beyond the Open Door (1971), is of students with the following attributes: they are new to college admission considerations; ranked in the lowest third of the high school graduates on traditional tests of academic achievement; 2/3 are first-generation college students; over half are Caucasians, about 25% are black, and about 15% are other minorities (note the majority are white, but minority groups are over represented in this group versus the rest of society); tend to come from the lower socioeconomic levels; because they have been labeled "below average", they have come to think of themselves as "failures", are more likely to adopt passive attitudes toward school learning, to state that they feel nervous and tense in class, and to protest that the teachers "go too fast" with lessons; if asked, they will say that there is no activity, in or out of school that they say they can do well; conservative and suspicious of "innovative education". (Cross, 1977, p. 6)

These are generally students who have an external locus of control (Roueche and Mink) and thus have developed a "learned helplessness" and have low self-esteem. What self-esteem and external locus of control the student has is often dashed because their own needs and individuality are not addressed sufficiently.

In studies in which excellent teachers have been nominated and recognized by their peers and administrators (Roueche & Baker, 1987 and Baker, Roueche & Gillett-Karam, 1990), one characteristic of an excellent teacher is identified as Individualized Perception (Roueche & Baker, 1987, p. 147). This is further described as seeing students as individuals, with different learning styles, different interests and motivations, adjusting courses to individual needs and recognizing effort. The Contingent Teaching Model (Baker, Roueche & Gillett-Karam, 1990, p. 253) indicates teaching styles superimposed upon a

student orientation remarkably similar to that of Kolb and McCarthy described earlier in this paper. Such studies recognize that teachers have a dominant style for teaching, but that excellent teachers adapt to meet the needs of their students.

Conclusions

My reading has convinced me of the merit of pursuing a practical application of the learning style theory in my own teaching. This requires a considerable "stretch" for me because my own learning style is best facilitated by the traditional North American school system. However, when I think back to their styles of learning, I now have an appreciation of why some fellow students of mine were discouraged, even defeated, by that same system. I also see how the same concepts apply to the students in my classes today, who are even more diverse in their ages, cultures and styles.

I do not believe that it is necessary to administer a learning style/personality type of inventory to each student in my classes in order to proceed. Rather, I think it would be sufficient to make the assumption that, on average, and all other things being equal, some students from each learning style will be present in that classroom and need attention devoted to their style of learning. Although this generalization may be incorrect in some situations, it is still useful to expose students to other learning techniques. I have worked with this concept a bit in the past when I first learned the ideas of learning styles, and I have found, in my lesson planning, that the hardest quadrant to address the lesson to is Quadrant 4. I also find designing activities addressing the right mode of the brain to be difficult because I am very much left-brained. I will need to do some more reading and reflecting, particularly using Bernice McCarthy's practical materials and develop myself in this area. Ultimately I believe that more attention to these theories will reap rewards for my students in terms of increase of their motivation levels, persistence and success, and intrinsically, at least, will be of reward to me.

...teachers have a dominant style for teaching, but...excellent teachers adapt to meet the needs of their students.

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The Complete
4Mat System Model

**Concrete
Experience**

Integrating Application and Experience

Integrating Experience with the "Self"

PROBLEM

FINDING

←What happens | on the street→

8 Doing it and applying to new more complex experience (Right Mode)

1 Creating an Experience (Right Mode)

7 Analyzing application for relevance usefulness (Left Mode)

2 Reflecting/Analyzing Experience (Left Mode)

THE SHIFT

THE SHIFT

4 **1**

**Active
Experimentation**

**Reflective
Observation**

3 **2**

6 Practicing and adding something of oneself (Right Mode)

3 Integrating reflective analysis into concepts (Right Mode)

5 Practicing defined givens (Left Mode)

4 Developing concepts/skills (Left Mode)

Practice and Personalization

Concept Formulation

←What happens | in schools→

PROBLEM

SOLVING

**Abstract
Conceptualization**

Bernice McCarthy's Model (McCarthy, 1981)

The Impact of Gender Pairing in an Adult Computer Assisted Cooperative Learning Environment

ABSTRACT

A study was undertaken with Humber College Academic Preparatory (AP) students in order to investigate gender differences within an adult computer assisted cooperative learning (CACL) environment. After a careful analysis of student interactions, attitudes and achievement, it was concluded that gender differences may exist especially in areas such as decision making, keyboarding, resource sharing and communications. A discussion of these results includes ramifications and proposed solutions.

by
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Introduction

Cooperative learning is a group learning strategy built on the principle that people learn better when they learn together. In the Academic Upgrading program at Humber College, cooperative learning is one method being used successfully to teach students how to think critically and work with others.

Traditionally, cooperative learning has been defined as "...a set of instructional methods in which students work in small, mixed-ability learning groups...toward a common goal." (Slavin, 1987). Through peer cooperation and communication, students "...help each other learn, share ideas and resources, and plan cooperatively what and how to study." (Sharan & Sharan, 1987).

Recently, studies have shown that there is a positive relationship between cooperative learning and both achievement and social development within a micro-computer setting (Johnson et al, 1985; Mevarech et al, 1987; Hythecker et al, 1985; McMahon, 1990). Johnson et al (1986) especially note that computer assisted cooperative learning (CACL), when compared with competitive and individualistic learning, promoted "...greater quantity and quality of daily achievement, more successful problem solving, more task-related student-student interaction, and increased the perceived status of female students." Their conclusions recommended that teachers should structure lessons cooperatively in order to maximize achievement on computer assisted learning tasks.

However, results such as those mentioned above vary greatly from study to study. For example, Basque (1992) questions the quality of interactions within a cooperative learning environment and notes that exchanges are not necessarily at a high-order cognitive level as suggested by the literature. Also, Carrier and Sales (1987) found no significant improvement in achievement.

Slavin (1990) agrees that there is controversy about the specific conditions under which positive effects will be found but notes that positive results such as those mentioned earlier depend upon a variety of conditional factors such as group composition, grade level, type of activity and interactions within the group.

Group composition, especially, has been the focus of numerous studies. Recently, Dalton (1990) observed significant differences in both the quantity and quality of interactions between gender pairings. Johnson et al (1985) also found that males engage in more competitive, off-task behaviour, while females tend to cooperate.

Upon investigating the subject of group composition and gender differences further, a review of the literature produced relatively few studies regarding gender issues from within an adult CACL setting. For this reason, a study was designed to investigate the impact of different gender pairings on adult students working within a computer assisted cooperative learning environment at Humber College. Specifically, the effects of gender pairings were observed as they impacted upon student interactions, attitudes toward each other and toward the computer, and student achievement. The experimental design that follows will now discuss these variables in more detail.

Method

Participants

Students enroled in the Academic Upgrading program of Humber College come from a variety of socio-economic backgrounds and cultures. Abilities range from Grade Four to Grade Twelve and many lack basic literacy and numeracy skills. Most hope to upgrade their skills in order to prepare themselves for a better career.

For purposes of this study, thirty-six subjects (18 males and 18 females) were randomly selected. Three types of groups, based upon gender, were formed as follows. The first group consisted of six pairs of males (MM), the second group had six pairs of females (FF), whereas the third group contained six pairs of mixed gender (MF). Although each sample group was small (n=6), students in each category were well represented by mixed ability learners (Slavin, 1987; Rau & Heyl, 1990). English as a Second Language students and computer literate students were also randomly represented in all groups.

Materials

Where in the World is Carmen Sandiego (Page, 1988) is a highly interactive adventure game that helps improve students' awareness of world and cultural geography. As a crime detective, students uncover clues and travel from country to country in pursuit of a criminal hiding in one of thirty possible locations. Carmen Sandiego contains challenges that stimulate critical reasoning skills and provides a gender neutral medium that supports cooperative learning.

Recently, studies have shown that there is a positive relationship between cooperative learning and both achievement and social development within a micro-computer setting.

Procedure

The study took place in August, 1992. Students were first informed about the project and were asked to participate on a voluntary basis. After acquiring their consent, they were given a pre-test to determine their knowledge of geographic facts. Next, students were randomly assigned into one of the three groups above.

Two fifty-minute sessions were then scheduled on two separate occasions. At the beginning of the first session, time was allocated to show each pair how to operate the simulation. Everyone had an equal chance to ask questions as sample screens were explained in detail. Suggested strategies such as note-taking and use of resources were also discussed. Students were then given the task of solving as many crime cases as possible within their given time restrictions. On the second day of observations, students were reminded about the technical aspects of the simulation and told to continue with the program. At all times, an instructor was available for assistance.

During each session, the following variables were monitored: 1) student interactions, 2) attitude and 3) achievement. Video-recordings were made at random intervals based upon a similar study by Forsyth and Lancy (1987). A total of twenty recordings, or episodes, were made for each pair of students and each episode lasted approximately twenty to thirty seconds in length.

• Student Interactions

For purposes of this study, a variety of student responses were monitored. Both quantity and quality of verbal and physical activity were observed to reflect cognitive, affective and social interactions. Open-ended observations and interviews were also used to assess some student interactions (Laurillard, 1978).

Significance was given to the quality of discourse as suggested by Anderson and O'Hagan (1989). In addition, attention was given to teacher intervention. Most variables involved making objective counts of behaviour rather than subjective impressions. This helped to compensate for interrater reliability, since only one observer was present.

Physical interactions are not often recorded in CACL studies, yet they can reveal some interesting patterns of behaviour. In general, interac-

tions observed in this study included researching facts, leaning forward, and facial gestures such as frowning or laughing. Keyboard sharing was especially noted as an indicator of co-operation, as seen in a study by Dalton (1990). Note taking was also viewed as a possible indicator of cognition.

Verbal interactions are often observed in the literature and this study included discussing of clues, elaborating on answers, asking questions, organizing facts, discussing strategies, answering questions, giving support, reviewing facts, reviewing procedures and other miscellaneous activities.

To complete this study, one final observation was monitored. Off-task interactions included social gossip or other recessive behaviour unrelated to the content or procedures. Additional activities included looking out of doorways, tapping fingers, fidgeting or other distractions.

Last of all, in addition to the variables outlined above, anecdotal records were made by the classroom instructor. This additional information contributed to the overall assessment of cognitive, affective and social outcomes of each gender pairing.

- **Attitude**

Another observation necessary to the outcome of this study involved the recording of student attitudes (Att). The affective verbal and affective physical interactions during the simulation were used as one indicator of how well students were interacting. In addition, though, an informal interview was given after the study. One particular activity that was asked of the students was to rate how they enjoyed working with their partners.

- **Achievement**

One objective of *Carmen Sandiego* was for students to apply problem solving skills to solve as many crime cases as possible in a short time. Hence, one indicator of achievement was to observe which gender pairing solved the most number of cases. Since a variety of approaches were used, a Problem Solving Index (PSI) was generated similar to that used by Johnson et al (1986).

In addition, the simulation was designed to improve a student's recall of geographical facts. As such, students were questioned before and after on their overall knowledge of cities, countries, flags and land forms in order to determine a relative level of improvement (IMP). Reliability of the test was maintained at a relatively high level as the same teacher monitored and administered all tests.

Results

Probably the most notable observation of this study was that all students were on-task for all episodes recorded. This observation is a reflection of the impact that cooperative learning can have on students and, as such, is noted again later in the discussion. However, for now, since there were no off-task interactions to report, this category was excluded from the analysis of data.

For statistical reliability, an one-way ANOVA was applied to look for possible significant main effects within each of the dependent variables. Interestingly, the analysis found no significant differences within any of the groups for achievement or attitude. Hence, it would appear from this preliminary analysis that all three groups functioned at the same level of success.

On the other hand, ANOVA results did show possible significant differences within some of the student interaction variables. In fact, a follow-up DUNCAN's multiple-range test (Figure 1) indicated that the MM groups were significantly higher in the following behaviours: Individual Affective (AffI), Individual use of Resources (ResI), Individual use of Keyboard (KeyI), Low levels of Dialogue (DiaL), and High levels of Decision Making (DecH); MF groups were higher in Individual use of Resources (ResI), Individual use of Keyboard (KeyI) and Low levels of Dialogue (DiaL); while FF groups were higher in Sharing of Resources (ResG), Sharing of Notes (NoteG) and High level Dialogue (DiaH).

In short, MM groups favoured individualized and competitive interactions, whereas FF groups favoured group sharing and cooperative interactions. MF groups were seen to have favoured the MM pattern of interaction. As such, it would appear that gender differences may exist within the particular CACL environment observed in this study.

Discussion

Evidence presented in this paper suggests that gender differences may occur when adult stu-

Figure 1: Mean Student interaction scores for each group   *ANOVA p < .05
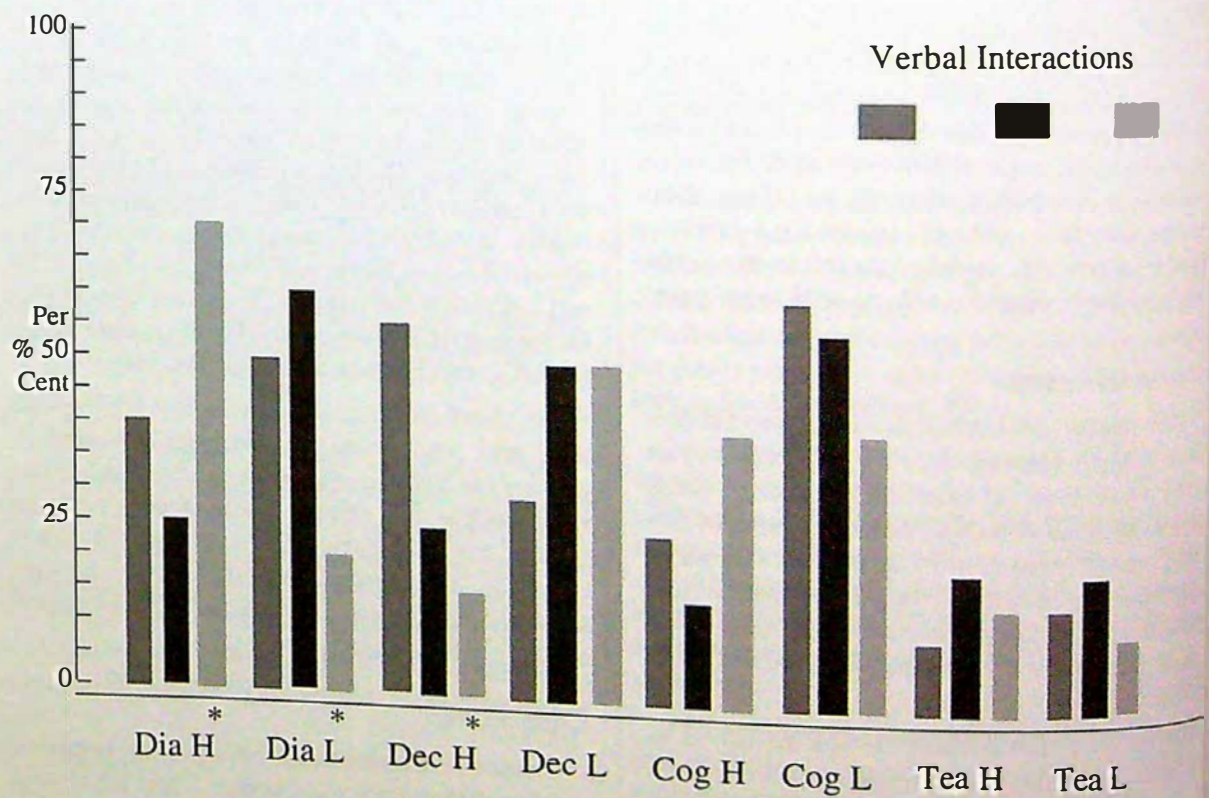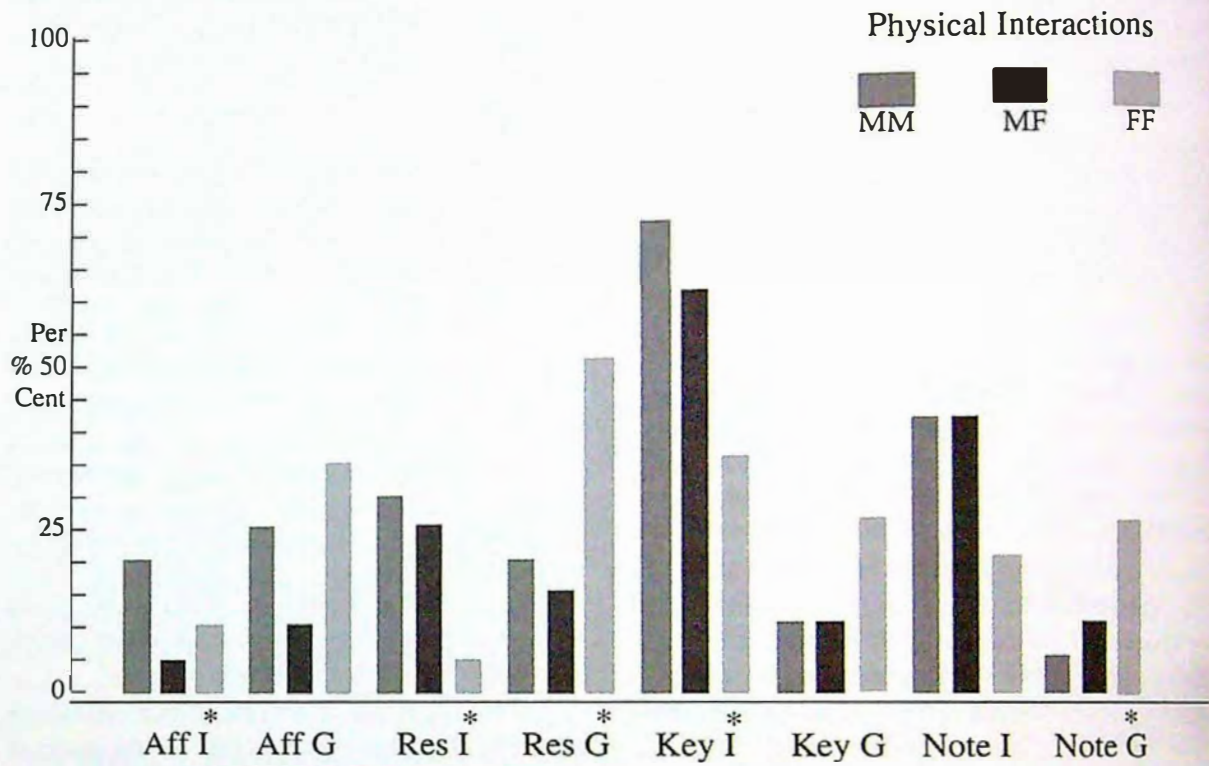
dents are paired together in a Computer Assisted Cooperative Learning environment. To begin, the first difference observed in our study was the amount and type of achievement favoured by each group (see Figure 2). At first glance, MM groups appeared to have scored higher in the number of cases solved (PSI), whereas FF groups scored higher in overall improvement (IMP). MF groups scored in between on both accounts. However, as noted earlier, these particular differences were not statistically significant.

Nonetheless, this preference for short-term gain by the MM groups would appear to be consistent with their overall desire to take more risks and solve more problems. The FF groups, however, tended to improve their overall knowledge by cooperating and both members benefited from sharing resources and making decisions together. Interestingly, the main purpose of the simulation was in fact to learn more about geography.

Attitude was another variable studied and

solved) and cooperation (decisions to be made) seemed to provide enjoyment for both males and females. In addition, the learning focus was on the simulation as a game rather than as a task for acquiring knowledge of computers.

Students were also questioned informally about their experiences. In general, they all loved the simulation and wanted to continue in their groups. They all agreed that gender did not matter to them and that they learned a lot from the simulation. When confronted with the fact that some gender groups solved more cases than others, they suggested that other variables such as culture, personality, aptitude or computer expertise accounted for these differences. While these comments do not rule out the possibility that other variables may have influenced the findings, the overall results still suggest that the strategies favoured by the males and females in our sample group were different.

What follows now is an account of how each group interacted with respect to their favoured interactions.

Figure 2: Mean achievement scores for each observed group

IMP
(Improvement)

(No significant differences)

PSI
(Problem-Solving Index)

(No significant differences)
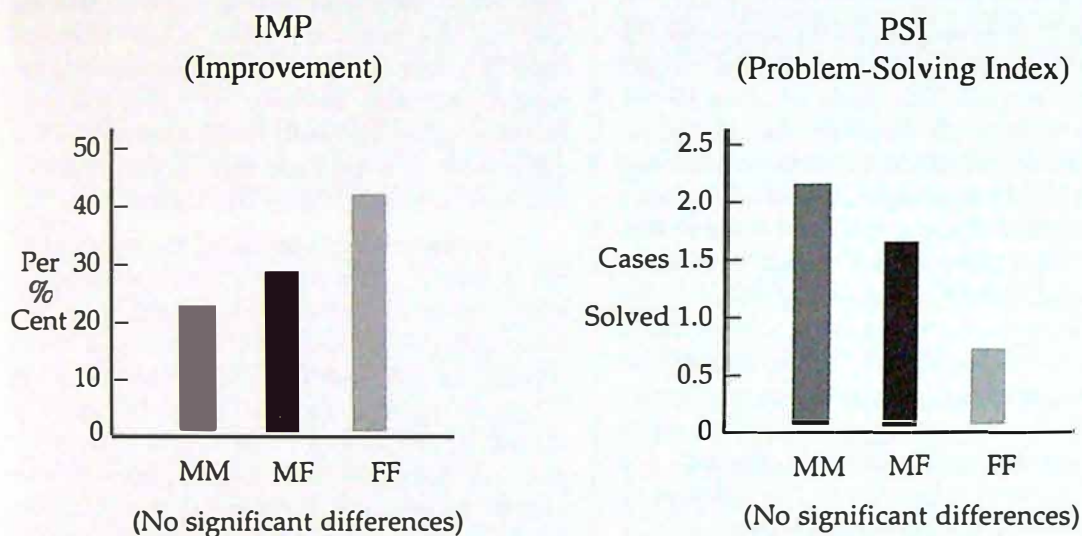
mean scores seemed to be about the same for all three groups (see Figure 3) with the MF group scoring slightly less. This result would be consistent with the design of the simulation and type of environment that was used. Here, elements of both competition (number of cases

MM Group

In general, individuals within the MM group immediately competed for control over the keyboard. One person eventually dominated resulting in a high level of KeyI (see Figure 1). This, combined with a high level of individualized

Figure 3: Mean attitude scores for each observed group

(No significant differences)
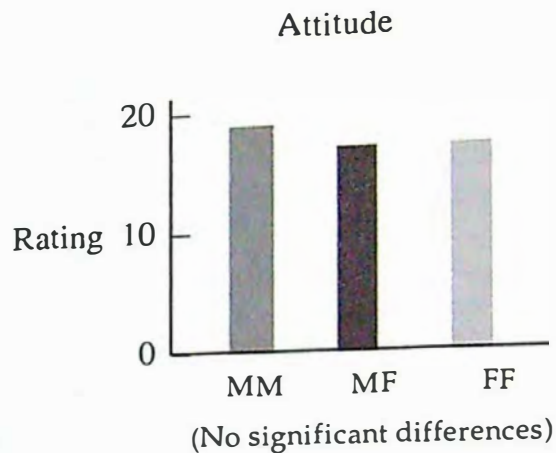
decision making (DecH), may have contributed to the fact that individuals were able to laugh and smile more frequently and more independently (AffI) of their partners. Their individual effort or decision would more likely have prompted that same individual to laugh, rather than both partners, as in the case of the FF group.

As one partner dominated the keyboard, the other male may have felt the need to dominate something as well. This could account for the relatively high individualized use of the resources. In fact, all of the interactions that were classified as physical were highest in the individual mode. The trend for a low level of dialogue (DiaL) and low level of cognitive exchange (CogL) also related back to the preference for individuality in decision making and for dominance of the keyboard. In addition, competition was so intense in one group that one male began the simulation by taking control of resources and decision making. By the end of the lesson he had manoeuvred himself in such a way that he was dominating the keyboard as well.

One may question how this self-centred and almost impulsive approach to problem solving could be so successful. Perhaps the male approach used here was to try almost any technique in order to win, even if sometimes that decision was wrong.

...competition was so intense in one group that one male began the simulation by taking control of resources and decision making. By the end of the lesson he had manoeuvred himself in such a way that he was dominating the keyboard as well.

FF Group

By contrast, the FF groups took an almost opposite approach to solving their problems (see Figure 1). Rather than focusing on individuality and competitiveness, FF groups cooperated and shared in almost every interaction. Specifically, they were often seen leaning together sharing and reading from the same single resource (ResG). In fact, some of the FF groups even positioned their map resource on top of the keyboard in order that both could refer to it at the same time. It is possible that cooperation like this added to their higher IMP scores.

In addition, they both shared the responsibility of taking notes (NoteG) and exchanged a higher level of conversation (DiaH) than any other group. This high level of dialogue could account for their low scores for decision making when compared to the MM group. However, it should be pointed out that higher and faster decision making in the MM group did not necessarily correlate with or improve their achievement scores. In fact, MM groups often made wrong decisions and had to start their investigation over again. FF groups, on the other hand, may have made fewer decisions but each decision was carefully discussed and more often correct.

In addition to the high level of conversation, FF groups also demonstrated a high incidence of

cognitive exchange (CogH), which is consistent with the findings from Johnson et al (1985). These researchers noted that "such oral exchange has been related to use of higher level reasoning strategies, conceptual understanding and long-term retention."

MF Group

Probably the most interesting results were found within the MF groups. First of all, the strategy that these groups selected was almost identical to that of the MM groups. One person, usually the male, dominated the keyboard (KeyI) while the other, usually the female, undertook the role of resource person (ResI). Of special interest was the fact that in almost every case the female also took notes, although this fact was not shown in the statistical analysis. In fact, females generally favoured note taking as a strategy for formulating their problem solving.

Notes varied from group to group, but females generally took more time to record their strategies. They also paid more attention to detail and appeared to have organized their thoughts well. These are all possible indicators of high level cognition.

Secondly, the MF group was seen to favour a low exchange of dialogue (DiaL). Perhaps this was the result of high competition from the male or high cooperation from the female. For now, this finding is consistent with the fact that this group asked for teacher help more often (TeaL and TeaH), rather than solving their own problems.

Overall, the MF interactions resembled the MM groups, indicating a preference, or influence, to address problem solving from a MM perspective. For example, the sharing of resources (ResG) was highest in the FF group (mean = 51.67) and much higher than either the MM or the MF groups. However, the sharing of resources within the MF group (mean = 15.83) was not that much different from that of the MM group (mean = 19.17). In fact, this type of close relationship occurred so frequently (DUNCAN's analysis showed fourteen out of sixteen significant interactions that resembled the MM pattern) that it becomes apparent that a Male Dominating Factor (MDF) may have influenced the interactions favoured by the MF groups.

This would be consistent with the fact that the males in this particular study tended to be more competitive and that the females appeared to be more cooperative in their approach. Perhaps the female component of the MF group was simply being more cooperative with respect to the interaction selected. This would support the findings of Garza and Borchert (1990), who also observed similar differences within their groups.

Ramifications Of The Study

As mentioned before, the results of this study should be interpreted with caution owing to the small sample size and other factors affecting reliability. Other influences such as culture, race, or even age may have determined some of the outcomes. For example, the respect for an older partner may have been a more influential variable than gender. Yet, studies indicate that differences do exist in some of the ways that computers are used.

For example, Hess and Miura (1985) found that males outnumber females in voluntary settings that provide an introduction to computers, such as computer camps and computer centres. Further, males have greater access to and report more frequent use of computers at home than do females, especially in the areas of computer games and programming (Swadener & Jarrett, 1986). As a result, gender differences are often reflected in an improved attitude by males towards computers (Collis, 1985).

Trends such as these are significant. If males continue to compete and are allowed to dominate computer resources then a smaller proportion of females will be able to gain the experience and attitude needed for computer-related professions (Siann, 1990; Arch & Cummins, 1989).

Origin Of The Problem

To help resolve such gender issues, one must ask why these differences occur and where do they originate from. Social Identity Theory (SIT) describes these differences as inherent social competition between one's social group and a comparative group. The need for positive social identity and positive self-esteem within the group triggers an appropriate response of social competition (Tajfel & Turner, 1986; Williams, 1984). Although this may explain some of the competitive behaviour found within the MM groups, other behaviours also need explaining.

MM groups often made wrong decisions and had to start their investigation over again. FF groups, on the other hand, may have made fewer decisions but each decision was carefully discussed and more often correct.

Some theorists claim that males tend to engage in greater social competition while females tend to be more social, expressive, and cooperative (Garza & Borchert, 1990; Williams, 1984; Meeker & Wietzel-O'Neill, 1977). This behaviour begins in games where girls are generally more cooperative. They play more cooperative games, so they become more cooperative, which leads to the dichotomy of also becoming less competitive (Hughes, 1988). Thus, as a result, children develop certain patterns of behaviour that may account for some of the differences in cooperation and competitiveness observed in this study.

Whatever model is used to explain gender differences, the main problem to address now would seem to be how to prevent some of the negative attitudes and stereotypes found within computerized classrooms.

Proposed Solutions

Factors such as innate differences, socialization practices in the home, the media and employment policies may continue to promote the gender gap in computing (Siann et al, 1990). However, schools and other institutions can modify the learning experiences in such a way as to encourage gender neutrality. Two specific strategies that are derived from observations made in this experimental study include environmental change and software design.

• **Environmental Change**

In the study presented above, females in the MF group were often dominated by their male partner and, as a result, were allowed few opportunities to interact with the keyboard. Siann et al (1990); Arch and Cummins (1989) also noted that males dominated the keyboard. Siann et al (1990) have even suggested that females be paired only with females, especially since females in single sex dyads seem to score higher on tests that measure cognition.

Perhaps an alternative approach might be to encourage the use of new technologies such as Computer Mediated Communications (CMC). Under these conditions, the partner's identity can be coded, thus preventing gender differences in expectations and perceptions. However, Matheson (1991) cautions that "computer-mediated social perceptions are indeed sensitive to

If males continue to compete and are allowed to dominate computer resources then a smaller proportion of females will be able to gain the experience and attitudes needed for computer-related professions.

social cues and that these social cues may involve stereotypes or a priori expectations."

Nonetheless, the teaching environment should be designed to promote cooperative gender-free behaviour. King (1989) recommends that teachers should "foster the kinds of verbal interaction and problem-solving behaviour which appear to promote success in group computer learning." Dalton (1990) also supports an environment that focuses on cooperative incentives that provide male learners with a greater sense of group interdependency. Johnson et al (1985) especially note differences when groups are assigned to a competitive mode. They found that females were "adversely affected by competitively structured computer lessons."

In this study, the overall benefits of cooperative learning were evident in most of the groups. Students were seen having fun as they made new friends, groups learned a lot about geography in a relatively short time, and teacher intervention was not required very often. Students were on-task at all times and even seemed oblivious to the recording equipment.

In short, the cooperative condition in this study supports the findings of Johnson and Johnson (1987) in that CACL appears to promote "achievement, positive interpersonal relationships, social support and self-esteem."

• **Software Design**

Whenever software and lesson structure differ, social behaviour differs as well (Feldman, 1991). Lesson structure may be modified as suggested above, but software remains another barrier to gender neutrality. Popular programs often contain elements of competition, violence, and aggressiveness. Several researchers have suggested that these male characteristics may contribute to gender differences and that software, in general, must be redesigned (Swadener & Jarrett, 1986; Hawkins, 1985; Sanders, 1984).

Research suggests that females are better at processing verbal information whereas males are better at processing spatial information (Springer & Deutsch, 1989). As such, 'language-based' introductions to the computer have been encouraged since they may be more congenial than 'graphic-based' ones (Siann, 1990).

Recently, Kacer et al (1991) investigated the impact of small groups using applications pro-

grams and concluded that this approach was also very efficient and may foster additional higher-level learning as well. Lockheed (1985) especially notes that activities supported by tool software such as writing, drawing or exchanging mail are not sex stereotyped. Furthermore, tool use is perceived as more relevant to future activities and occupations than either game playing or programming.

For the future, teachers must "...re-examine the organizational impact of school computers, that is, to observe the ways technology reorganizes classroom interactions, provides for collaboration among teachers and affords new instructional designs." (Newman, 1990). They must learn to foster cooperation, curriculum and gender neutrality. In this way, the needs of the student and the institution can best be served.

Conclusions

The purpose of this paper was to investigate gender differences within an adult computer assisted cooperative learning environment (CACL). To accomplish this, a study was designed that monitored student interactions, achievement and attitudes within mixed and same gender pairings. Although restrictions of the study site, observer reliability and sample size prevent generalization to larger populations, serious attention should be given towards possible gender differences within a CACL environment.

Overall, MM groups favoured an individualistic approach and competed more frequently.

FF groups, on the other hand, cooperated and shared everything from decision making to resources. MF groups generated the most interesting results in that they favoured the same types of interactions commonly associated with the MM groups. Possibly, a Male Dominating Factor existed within these groups.

The ramifications of these results were then discussed with a view to future understanding and modification of gender differences. Two areas of improvement included the teaching environment and software design.

In summary, it may be appropriate at this time to speculate on how mixed gender groups of the future might address problem solving. In general, resources would be shared, as members take turns recording or inputting data. Decisions would arise from planned discussions. As a result, students would gain positive attitudes toward learning and develop greater interpersonal skills.

Fortunately, one does not have to wait for the future for such results. One MF group in this study did learn to work together, much like the groups described above. They worked so well that they attained the highest achievement scores of all groups for both IMP and PSI. No one expected them to perform well, based upon their individual performances within a classically taught computer class. Still, under the right environmental conditions, they outperformed high ability and high aptitude students. Perhaps it is time we observed our students more carefully.

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A Plan for Instructional Improvement for the Faculty of Continuing Education in The Community Colleges

ABSTRACT

The purpose of this paper is to discuss the characteristics of part-time students in Continuing Education programs in the community colleges. It analyses the social, economic and cultural differences of the part-time students. Because of the special time-frame and the limited resources available to the learning and teaching environment in Continuing Education, this paper describes the unique role of the part-time instructor in the classroom with these students. It points out the high attrition rate of part-time students and calls for policy changes and reforms which will help to create an atmosphere which is more caring and conducive to teaching and learning.

These changes have to be directed to three levels: the commitment of management and faculty; student readiness to overcome illiteracy and learning deficiencies; and instructional improvements with the part-time instructors as a driving force for change inside and outside of the classroom.

by

Emma Chow

If there is anything that can energize Emma, it is the determination of an adult learner to get out of the comfort zone and to upgrade his or her existing skills. Emma can identify with that person. Throughout her career, she has experienced her share of obstacles and missed opportunities. But one thing she will not miss is a chance to learn. Her present ambition is to move into the education arena from the comfortable position of a software specialist at Ontario Hydro. For that purpose, she is teaching computer courses part-time at Humber College's Lakeshore campus and recently completed a Master's program in Adult Education sponsored by Central Michigan University and co-hosted by Humber College.

Introduction

Continuing education in the community colleges has become the trademark of the 1990s. People from all walks of life are enrolling themselves in vocational programs or general programs at an enthusiastic rate. They have come back to the classrooms for social, economic and technological reasons. However, it is not certain if the community colleges are adequately equipped to accommodate the large number of adult students who are demographically, culturally and technologically so diversified, and who obviously have special needs and expectations which are different from the traditional community college students. With the on-going federal cutbacks in school revenues, which have resulted in budget cuts in staff and equipment resources, community colleges have to be innovative in their strategic decisions about teaching, curricular programs and distribution of resources, in order to meet the growing demands of the changing society.

This paper discusses the characteristics of part-time students and the role of part-time and full-time instructors in continuing education programs in community colleges. Effective teaching and learning takes place only in an environment which embodies a sense of commitment to student achievement throughout the process of active instructor/student involvement. Various studies have shown that it is possible to create an environment for learning so powerful that the students, including the low-achievers, feel positive about themselves and about the institution they are in, and move on to achieve passing grades and persevere (Roueche, 1976).

The purpose of this paper is to attempt to make recommendations for instructional improvements which will help to create an atmosphere which is more caring and conducive to teaching and learning for adult students in the continuing education system of the community colleges.

Student Characteristics

The adult students who enrol in the continuing education programs of community colleges are primarily part-time students who, due to circumstance, decide to give their future a second chance and/or a better chance by going back to the classroom. These students fall into three major categories.

Part-time Students with Full-time Jobs or Professions

These students are at a crossroad where they need either to upgrade their skills or acquire new skills in order to progress to the next career goal. Despite work and family commitments, they decide to sacrifice their spare time and come back to the classroom. These people bring with them a rich pool of skills and knowledge and their actions and conversations reveal a strong sense of direction and self-worth.

Part-time Students who are going through Voluntary or Involuntary Retraining

These students are usually divided into the following subgroups:

1. employed workers whose jobs have been phased out and who are confronted with either redeployment or layoff;

2. unemployed workers who, because of their lack of skills and formal training, want to acquire new skills to make a "comeback" to the work force;

3. homemakers who have to satisfy their familys' needs during the day and who want to keep up with their skills or learn marketable skills to position themselves for employment.

The majority of the students in this category have low achievement records and have probably experienced little academic success in the past. Had it not been for circumstance, they would very likely have preferred to stay in places where they were most comfortable – certainly not in the classroom.

Full-time Students

These students are divided into the following subgroups:

1. high school graduates who attend community college programs during the day and are probably trying to make up some courses in the evenings at their own convenience;

2. nontraditional students who have gone back to school full-time because of social and economic reasons.

The students in this category choose to attend evening courses because they have probably failed the same day-courses and are hoping that the evening programs may have a lower "standard" and "requirement" which will enable them to pass and obtain the necessary credits for their programs.

Student Diversity

The students of continuing education programs come from different social, academic and cultural backgrounds. The profile of a community college student in continuing education is just as diversified as the society in which he or she lives. The age distribution among the students can range from 18 to 58 or over. With the traditional family structure on the verge of disintegrating, there is an upsurge of single parents represented in the student population. The influx of newly landed immigrants into the country has also increased the minority group representation in the classroom.

These people vary in their intellectual, literacy and interpersonal abilities. The only thing that brings them together under the same roof is their common need for a better education and a better life, though not necessarily with the same degree of intensity and expectation.

Faculty Preparedness

The open-door policy and the unique time frame of the continuing education programs which are available to the public have made community colleges very popular for higher education. However this has also created an interesting dichotomy. On the one hand people are signing up for programs and courses in droves. But on the other hand, many drop out without completing what they have started. The attrition rate of students in continuing education programs is a growing concern to the faculty. (At Humber College, although there is no official record of the student attrition rate, from per-

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sonal observation and comparing figures with other instructors, it is safe to say that at least 20% to 25% of students drop out of courses without completing them.)

Administration Policy of Continuing Education Programs

Continuing Education programs are primarily conducted by part-time (including sessional and partial load) instructors who are isolated from the mainstream of faculty administration. Although there are some full-time faculty who occasionally teach in the evenings for economic reasons, a feeling of alienation may exist among those instructors of Continuing Education who have very little contact with their day-time counterparts. For the persistent ones who take the initiative to develop a communication link with the faculty and administration, the connection turns out to be the lifeline for professional advancement, and absolutely essential for the maintenance of quality education.

Curricular Planning

Course outlines and contents of programs are established by faculty and uniformly enforced for day and night courses. But there is a misconception among students that night courses are generally easier than the day ones. The rationale behind this is that since the entry level of adult students to these night courses is only loosely monitored, some instructors tend to lower the requirements in order to reduce the failure rate of their students.

Some students believe that since the tests set for these courses are not standardized, some instructors tend to set easier test papers for their night classes. Although there is no proof that this is actually happening, from the point of view of some instructors, this is undoubtedly one possible way of dealing with the complex problems at hand, out of empathy for the students and also out of ignorance of the implications of this act of "mercy" and the negative signal this may transmit to the rest of the college community.

Hiring and Developing Instructors of Continuing Education Programs

Part-time instructors are hired by the faculty of Continuing Education. They are usually experts in their own disciplines from private in-

dustry or business sectors. They are not educators per se, although most of them have backgrounds in training. During their employment with the community colleges as part-time instructors, they are seldom required to get involved in the faculty decision-making processes, which generally revolve around the college mission and its implementation into day-to-day teaching/learning practices. There is very limited staff orientation for the part-time instructors when they are first hired. Although some staff development training caters to the part-time instructors, it is usually not mandatory that they attend. As a result, some part-time instructors just do not bother to make the extra effort to go through the training.

Yet this is where the dilemma comes in. The problems which these part-time instructors in the continuing education programs have to deal with are just as real and complex as those that face the regular faculty. But because of the lack of resources available to them, part-time instructors have to use whatever is available to them and make decisions which they think are the best for their students and the college. Given the complexity of the role of today's college teachers, instructors who are well-informed and well-trained on faculty policies and student issues will be in the strongest position to consider all possible angles and to make the evaluations which lead to better decisions.

The Varying Roles of the Part-time Instructor

For part-time students in continuing education, a classroom is not just a place where teaching and learning take place, it is a social gathering where a group of strangers with different backgrounds are brought together with a common goal. Because of their preoccupations during the day, evening students may expect to have their academic advisement, domestic and personal concerns all aired and resolved in one place, if possible. Since there are fewer counsellors or support personnel on duty in the evenings, part-time instructors may suddenly find themselves in the shoes of a social worker, academic adviser and placement officer all wrapped in one body.

Student Readiness

Adult students who enrol in the Continuing

The problems which these part-time instructors in the continuing education programs have to deal with are just as real and complex as those that face the regular faculty.

Education programs may have the motivation and desire to succeed. But in reality, the rate of achievement is determined by the individuals' abilities and traits (Baker, Roueche, & Gillett-Karam, 1990).

One reason why the student attrition rate is so high in the Continuing Education program is that some adult students take on a superhuman workload which is beyond their capabilities. They figure the sooner they obtain the credits they need, the faster they can be out of the system and on their own two feet. Those students, especially the ones with skill deficiencies, who work twenty or more hours and who take on a full academic load are virtually making their own beds for failure. As a result of this hectic schedule, their performance at work and at school may suffer. They may become discouraged and bow out of the education system.

Since there is no definitive entry level literacy test for new candidates, some students are very reluctant to open up in class and admit their deficiencies. It is very difficult for the instructor to detect the underlying problems and correct them. By the time they do, it may be too late and there is little the instructor can do to remedy the situation. Even if these students marginally pass some introductory level courses, it is doubtful if their knowledge-based foundation will be solid enough to sustain a more rigorous advanced level of training requiring higher cognitive and problem-solving skills.

Some immigrants who are new to this country are considered as quasi-literate students because they have very low level language skills to cope with the regular college courses. Normal college level courses require at least a grade 8 to grade 12 level of reading, written and spoken English. These new immigrants pass through the first college screening process only because they can produce equivalent diplomas issued from their own countries of origin. Ironically, many of these people, despite their language deficiencies, are highly motivated and willing to try their best in class. Until they can fully integrate into the Canadian society, their language barrier remains a hindrance to their academic progress.

One other factor which hampers students' readiness to succeed in college is that some highly charged part-time students who have great expectation of their courses and instructors, get frustrated by the slow progress which their courses are making due to the different skills levels of the students. They get frustrated also because of the relatively small amount of attention they receive from their instructors, who are desperately trying to cope with a class whose skill level range from illiterate to highly literate (Roueche & Armes, 1980).

Recommendations for Instructional Improvements

Creating a positive environment for teaching and learning to take place requires commitment from top management, full-time faculty and part-time instructors. Moreover, the part-time instructors in Continuing Education programs of community colleges can be a driving force for improvements. They are at the front line of all the action and they can provide valuable input and feedback on needed reforms and changes, inside or outside of the classroom.

Inside the Classrooms

- **Student Orientation**

At the beginning of each course, instructors should do a careful evaluation of all their students. An effective way of doing this is to conduct an ice-breaking session which lets everybody in the class take turns to introduce himself or herself. The introduction includes a brief description of a person's background, personal experience related to the course, and how the student thinks the course will help him or her in the future.

Such a session, which normally lasts about thirty minutes, gives invaluable insights into the individual students' language skills, degree of readiness for the course, and their expectations of the course. The instructor gets the opportunity to know the students personally. She can use this initial evaluation of the students to form a preliminary framework for her course development, in conjunction with the course outlines provided by the faculty.

Next, the instructor will ask the students to formulate what they have said in their introduction and put it on paper as a learning contract. During the process the instructor will carefully explain to the students the amount of time and

One reason why the student attrition rate is so high in the Continuing Education program is that some adult students take on a superhuman workload which is beyond their capabilities.

effort each one of them should commit to the course. (Two hours outside class for every hour spent in class is a reasonable rule of thumb. Roueche & Armes, 1983.) The learning contract also requires each student to put down the final grade he/she expects from the course. This action helps to reinforce the commitment and the expectation of the students. It can also be used as a baseline for future contract renewal and renegotiation.

• **Confidence Building and Empowering Students**

Instructors have to learn to take charge, to delegate and to subject themselves to the constant demands of their students when they are faced with such a diversity of students' backgrounds and skills.

While delivering lectures to and sharing professional experiences with their students, instructors should establish structured materials with measurable, reachable goals. For example, reading assignments can be devised with suggestions of additional reading for those who are not familiar with the topic; or homework assignments can include additional drills for the students who need more practice.

There is one interesting observation which requires further study and research. This observation pertains to minority group students and instructors. Some students whose mother tongue is not English, tend to be more responsive and eager to participate in the class discussions when they are faced with an instructor who has a similar background. (This is a direct personal observation made by the author of this paper, who is of a visible minority background . The observation is also supported by casual discussions with students of various minority backgrounds.) Somehow, the instructor begins to act as a role-model and the students react to the circumstance with a profound display of internal motivation.

For those more capable students who have an edge over the rest of the class because of their backgrounds and previous training, an instructor should identify them and delegate more responsibilities to them. She should let these students be facilitators of the learning process, and empower them to collaborate with less well prepared students during group studies and group projects. At the same time she should encourage

team excellence which builds on individuals' high performance. A true community support environment can emerge which thrives on mentorship training and team participation.

If an instructor's handling of a class is analogous to a captain in charge of a ship, then he or she should try to maintain rules of order in conjunction with the college standards. However, instructors should also show their compassionate side: their willingness to learn from their students, to listen to their needs and be in a position to provide competent advise and professional guidance.

• **Academic Alert Reports**

The true test in determining if a course is successfully conducted is in the belief of the students whether the final grades obtained in the course are an accurate reflection of skills and performance. An instructor should issue interim academic alert or status reports to the students. The purpose of these reports is to keep students up-to-date on their performance. They also contain constructive advise and directions for improvements for students with deficiencies, so that remedial actions can be taken promptly and effectively. The reports should also give praise to the high achievers who need a pat on the shoulder as much as anybody else in order to stay on track.

Outside the Classroom

• **Close Alliance with the Administration and Faculty**

Part-time instructors should develop an ongoing dialogue with the administration and full-time faculty to keep them informed of general academic and students affairs. Part-time instructors may take on a leadership role to propose constructive policy and procedural changes in favour of the adult students and the learning environment they work in. The recent Metro Colleges (Part-time) Continuing Education Survey was the direct result of administration, full-time faculty, part-time instructors and students working together towards a better future.

• **Orientation and Developmental Programs for Part-time Instructors**

Part-time instructors should negotiate for a rigorous orientation program for themselves as well as for their students. This is the first and

Part-time instructors should negotiate for a rigorous orientation program for themselves as well as for their students. This is the first and most critical step in establishing a sense of belonging with the community colleges.

most critical step in establishing a sense of belonging with the community colleges. Part-time instructors should also take it upon themselves as a personal challenge to attend all developmental programs designed by the colleges for their specific needs. There should be an open forum where professional ideas and issues can be exchanged between full-time faculty and part-time instructors.

- **Demand for Adequate Resources and Active Participation in Faculty Decisions**

Unless part-time instructors are actively involved in the faculty's strategic planning of curricular programs, finances and students affairs, they are never part of the solution to problems. Adult students who come in the evening deserve as much attention as the day-time student, including access to academic counselling and health care services.

Conclusion

Continuing education for adult learners is a growing industry and community colleges should position themselves strategically to meet the needs and demands of the social, business, and labour communities. Continuing education programs in community colleges should no longer be treated as a "cottage" industry which is used just to generate extra revenue on the side. They should be given equal respect and attention as any other mainstream faculty programs. Even with the on-going budget restraints and reallocation of resources, a clear direction as to the future of continuing education programs should be defined and maintained. The direction should steer clearly towards student achievement in an effective teaching and learning environment.

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Student Nurse Burnout

Do Student Nurses Experience the High Level of Burnout Typical of Professional Nurses?

by
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Cindy Graham is a Professor in the Nursing Program, Health Sciences Division at Humber College of Applied Arts and Technology. She received her R.N. from the Soldiers' Memorial Hospital, Orillia, Ontario and her B.Sc.N. at the University of Western Ontario, London, Ontario. She has recently completed her Master of Arts in Education through Central Michigan University. Cindy began her teaching career at the Osler School of Nursing in May, 1970. Her nursing background is varied with experience in Obstetrics, Medical-Surgical Nursing, Emergency Nursing, and occasional work as a nurse in the Toronto West Detention Centre.

ABSTRACT

The intent of this study was to ascertain the suitability of the Maslach Burnout Inventory (MBI) for assessment of burnout in the student nurse population and to determine if the nursing students were experiencing levels of burnout similar to their professional counterparts. The MBI was adapted with permission from the Consulting Psychologist Press and the three hypothesized constructs of burnout: emotional exhaustion; depersonalization; and personal accomplishment were compared using analysis of variance to assess the level of burnout in first, second, and third year nursing diploma students enrolled at Humber College, Toronto. The results indicated no significant difference in levels of burnout as measured by the MBI, between students in the first, second, and third year of the program. Results also showed that the student nurse sample had lower levels of burnout than the norms for practicing nurses. The MBI requires further adaptation before it is used as a measurement tool sensitive to burnout in a student nurse population.

Introduction

For 23 years the author has been a teacher of nursing students. Nearly 20 of these years have involved teaching in the community college. Fellow teachers, registered nurses, and students have frequently lamented that they are "burned out." This comment has been heard more frequently during the last five years. It was approximately five years ago, that a student nurse presented the writer with a character sketch entitled "student nurse burnout." This sketch, and research completed on burnout in May, 1992, has stimulated further examination of burnout and specifically, how it relates to the student nurse population.

Nursing students have a demanding study schedule, both in theory and clinical practice. Some students have expressed that they are in fact "burned out" from the curriculum expectations. Montgomery and Palmer (1976) write that "the attrition rate of nursing students, estimated as one third of all students admitted to nursing programs, is a chronic concern to those involved in their education." In view of the limited funds for nursing education, this high attrition rate is exorbitant and wasteful. In addition to the emotional suffering felt by the student, there is the cost in terms of expenditure of time and energy by both student and faculty, thus making it essential to find methods of reducing attrition rates.

Identification of the factors that reduce burnout and the initiation of appropriate interventions may improve retention of nursing students and could facilitate the transfer from the student nurse role to the position of an employed registered nurse. Thus, student success would be enhanced and student nurses may be better able to deal with the reality of their profession.

In an attempt to validate student nurse perceptions of burnout prior to completing the nursing education program, a pilot study was designed to: 1) determine the suitability of the MBI as a valid measure of perceived burnout in student nurses; and 2) ascertain if nursing students are experiencing burnout.

Literature Review

Burnout Defined

Freudenberger (1974) was the first author to describe burnout and make a clear distinction between stress and burnout. Doran (1988) states that burnout is the end product of chronic, unresolved, and harmful stress. This type of stress is called 'distress'. Edelwich and Brodsky (1980) define burnout as "a progressive loss of idealism, energy, and purpose experienced by people in the helping professions." Freudenberger (1980, 16) defines burnout: "To deplete oneself. To exhaust one's physical and mental resources. To wear oneself out by excessively striving to reach some unrealistic expectation imposed by oneself or by the values of society." The key phrases are "exhaust resources," "excessively striving," and "unrealistic expectations." Burnout is a "syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do 'people work'" (Maslach and Jackson, 1986, 1). These same authors (1986, 1) and Maslach (1982, 5, 7) note that along wit h increased feelings o f emotional exhaustion there is a shift in feelings from positive to negative, that emotional resources become depleted and workers feels they are no longer able to give of themselves at a psychological level. Depersonalization is described as negative and cynical attitudes, resulting in calloused and dehumanized perceptions of others and decreased participation in professional activities. The phrase "reduced personal accomplishments" refers to a feeling that one's achievements are less worthwhile. There is a tendency to evaluate oneself negatively, specifically concerning one's work with clients. Since 1976, Maslach has completed extensive research on burnout and in 1981 Maslach and Jackson established an instrument for measuring burnout called the "Maslach Burnout Inventory" (MBI).

> Burnout:
> *The key phrases are "exhausting resources," "excessively striving," and "unrealistic expectations."*

The People Most Affected by Burnout

Fong (1990) defines burnout as a "syndrome in which a previously committed, helping professional gradually disengages from full participation in a job in response to excessive job-related stressors. Motivation to perform wanes; feelings of emotional exhaustion, loss of caring … and a diminished sense of personal accomplishment become more prominent."

Moss (1989) states that burnout strikes people in all walks of life, but those in the helping professions are particularly vulnerable. This author suggests that these professionals concentrate on diagnosing and caring for other people's needs, but they are not taught effectively to identify and meet their own needs. Nurses, as "caregivers," are especially vulnerable to burnout (Alexander 1980; Constable and Russell 1986). Ray (1984) states that the nurses most at risk are the nurse educators, particularly those teaching in clinical settings. Liller and McDermott (1990) state that health educators are members of a unique "helping profession." Their responsibilities cross various disciplines including education, medicine, other health sciences, and the social and behavioural sciences.

The Educational Environment

Arnold and Jensen (1984) write that a modicum of stress is necessary for learning. Too much stress, however, can inhibit the educational process. Fehring (1983) notes that college students experience an exceptional amount of stress. He identifies long study hours, deadlines, examinations, noisy dorms, lack of sleep, and poor eating habits as contributory factors to a student's stressful life.

Baldwin (1980) describes her nursing student days as stressful, depicting the gravity of the clinical experience and also of theory courses. Davitz (1972) noted that students emphasized the degradation associated with criticism, when evaluative comments were made in the presence of other people. This author writes that, for nurse educators, "this finding does reaffirm the importance of understanding, respect, and sensitivity in relating to their students." Karns and Schwab (1982) write that "nurse educators teach it and use it in patient care, but they rarely apply therapeutic communication in their interactions with students in the clinical area." Beck (1991) identifies the need for caring in the learning environment. This author suggests that "caring is the essence of nursing" and admonishes that without specific modelling, teaching, and practice opportunities of "caring" in nursing schools, faculty members cannot ensure that their graduates will know and practice "caring" later.

Kushnir (1986) suggests that there needs to be a clear distinction between the instructive and evaluative roles of the nursing teacher. This author notes that nursing educators need to "de-emphasize evaluation, especially during learning, thus (a) reducing potential sources of anxiety and (b) creating a more supportive learning atmosphere."

College Students and Burnout

Meier and Schmeck (1985) write that "evidence exists supporting the presence of burnout in college students." These authors state that "burnout measures of students may help indicate potential college dropouts, as similar measures of professional burnout have helped identify individuals who intend to leave their jobs." Meier and Schmeck (1985) further intimate that "students may burn out because of the lack of caring and the boring routine in classes taught by burned-out instructors."

Edwards (1986) notes that 1) burnout is a valid construct for college students – it actually exists and relates to real world attitudes; 2) burnout in the college senior population exists to a lesser degree than it does in the working professional; 3) human services college seniors experience burnout similar to the human services professional on the emotional exhaustion and personal accomplishment subscales of the MBI; and, 4) The MBI depersonalization subscale is not a burnout factor for college students.

Nursing Students and Burnout

Beck and Srivastava (1991) write "there is considerable nursing literature on stress, dissatisfaction, and burnout in the practicing nurse, but thus far literature addressing similar concerns in the educational process of nurses is virtually nonexistent."

Storlie (1979) believes that burnout begins in nursing schools. One factor that has been associated with burnout is the role conflict experienced by nurse educators. Storlie (1979) describes the nursing faculty as teaching ideals unrelated to the "real world." This conflict of "nursing as it ought to be" as opposed to "nursing as it is" was also discussed by Miller (1985). Idealism needs to be tempered with realism (Farabaugh, 1984).

Brown (1991) writes that students lament over too many assignments and not enough time to do a good job in completing their tasks. Francis and Naftel (1983) note that academic pressures associated with the study of difficult material, long hours of classroom instruction, and the pressures of student clinical practice may combine to intensify psychological stress affiliated with the normal pressures of college life. Beck and Srivastava (1991) state that nursing students are subject to many of the same stressors in the educational process as their medical counterparts.

Jeglin-Mendez (1982) describes student nurse burnout. This finding was supported by Haack (1987) who noted that more than half the student nurses surveyed scored in the high range of burnout. This author stated that the presence of the "burnout syndrome at such an early stage of professional development suggests the need for burnout intervention in undergraduate programs." Bissell, Feather, and Ryan (1984) describe students "mirroring" burnout that they observe in the staff nurses with whom they come in contact. Lindop (1988) suggested that many student nurses experience a number of stressors that accumulate to produce an overwhelming stress reaction and cause them to withdraw from the program. Copp (1988) advocates that strategies to manage stress should be part of nursing education.

A study by Charlesworth, Murphy, and Beutler (1981) noted that "teaching nursing students to cope actively with anxiety and stress through a variety of procedures, while not clearly affecting their academic standing, might... substantially reduce their susceptibility to work stress and retard the development of burnout."

The intent of this pilot study was: a) to determine the suitability of the MBI as a plausible assessment tool for measuring perceived burnout in a student nurse population; b) to compare student nurse burnout with existing empirical data on burnout in the practicing nurse population.

Hypotheses

It was hypothesized that student nurses would exhibit levels of burnout similar to their professional counterparts, but to a lesser degree, as evidenced by the completion of the Maslach Burnout Inventory. It was further hypothesized that 1) third year nursing students would exhibit higher burnout scores than second year nursing

"teaching nursing students to cope actively with anxiety and stress...may... substantially reduce their susceptibility to work stress and retard the development of burnout."

students; 2) second year nursing students would exhibit higher burnout scores than first year nursing students; and 3) first year nursing students would exhibit minimal burnout.

Methodology

Subjects

A random sample of nursing students from all three years of the diploma nursing program at Humber College in Toronto were assessed for signs of burnout using the MBI. The MBI was administered to 45 third year students (42 females and 3 males; average age – 27. 69 years); 73 second year students (57 females, 11 males and 5 who did not signify gender; average age 26.15 years); and 55 first year students (43 females, 1 male and 11 who did not indicate gender; average age 23.10). A control group of 42 first year students (34 females and 8 males; average age age 25.39) who had been in the nursing program for only three weeks also were assessed using the MBI.

Instrument

Permission was obtained from the Consulting Psychologists Press to modify the 'Human Services Survey' version of the MBI by altering the wording of job/work to mean "the role of the student nurse – theory and practice" (see Appendix A). The MBI is a 22 item questionnaire consisting of three subscales: 1) Emotional Exhaustion (EE) – 9 items; 2) Depersonalization (DP) – 5 items; and Personal Accomplishment (PA) – 8 items. It offers a 7-step Likert-type scale for frequency of encountering the experience described in each item statement. The potential range of points for frequency in the EE subscale is 0-63; DP is 0-35; and PA is 0-56. "Burnout is conceptualized as a continuous variable, ranging from low to moderate to high degrees of experienced feeling. It is *not* viewed as a dichotomous variable, which is either present or absent" (Maslach and Jackson, 1986, 2).

The MBI is a brief, readily interpretable questionnaire that was developed to assess the extent of three constructs through the interpretation of the three subscales listed above. These three subscales have been found to be reliable and externally valid (Firth, McIntee, McKeown, and Britton 1985). The MBI has a relatively high

The MBI consists of three subscales: Emotional Exhaustion; Depersonalization; and Personal Accomplishment.

test-retest reliability as well as internal consistency, and its convergent validity has been demonstrated by the correlation between a respondent's MBI scores and behavioural ratings made independently by an individual well acquainted with the respondent (Green and Walkey, 1988).

Procedure

The MBI was administered by the theory teachers assigned to the students in each year of the program. The researcher met with the theory teachers to emphasize the importance of avoiding the use of the word "burnout" when distributing the MBI to the students. As well, each individual teacher received the directions in writing and a copy of the MBI. A letter addressed to the student accompanied the MBI and explained that the information gathered would be used for research purposes only. The students were advised that the material obtained would remain confidential and the research report would be written so that no one student could be identified.

The questionnaire was distributed to the students at various class times in the week following the Christmas break. The control group completed the questionnaire on their scheduled class day three weeks after enrolling in the nursing program.

Data Analysis

Each of the MBI subscales were analyzed in relation to high indicators of burnout. High scores on the EE and DP subscales are indicators of burnout in the respondents. The PA subscale is scaled negatively so that low scores indicate susceptibility to burnout.

Means and standard deviations were calculated using a statistical computer program called "Statview." These were then compared to the mean and standard deviation for each subscale as established by Maslach and Jackson (1986). For the comparison of the means and standard deviations see Table 1. See Appendix B for a graphic illustration.

The mean for all four groups was less than those established as norms by Maslach and Jackson (1986) for both the EE and DP subscales. The mean for the PA subscale was higher than the norm for first, second, and third year students, yet, it was lower for the control group.

Table I

Group	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Maslach & Jackson			
M	20.99	8.73	35.48
SD	10.75	5.89	7.11

Group	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Third Year			
M	18.58	5.07	38.73
SD	11.16	4.74	7.08
Second Year			
M	16.84	3.99	38.36
SD	9.02	3.53	5.74
First Year			
M	16.98	4.38	37.67
SD	8.76	4.60	6.92
Control Group			
M	15.48	4.98	35.19
SD	9.50	4.11	9.02
The Four Groups Combined			
M	16.97	4.51	37.64
SD	9.52	4.19	7.13

Students enrolled in all three years of the program indicated that they were experiencing some level of burnout as measured by the MBI.

The low score for the control group in this subscale could be accounted for in part because this group of students had not yet had any clinical experience, resulting in difficulty responding to the items on the MBI.

When the overall subscale means and standard deviations were calculated for the entire sample (215 subjects) they were significantly lower in the EE and DP subscales and significantly higher in the PA subscale than the norms established by Maslach and Jackson (1986, pg. 9).

As suggested by Maslach and Jackson (1986, pg. 5), the original numerical scores were used to analyze the data instead of the categorizations of low, average, and high burnout. Yet, these broad categories do have a suggested use in the counselling of people with burnout (Maslach & Jackson, 1986). "Statview" was used to conduct a one-way analysis of variance (ANOVA) on the data using year in the program as an independent variable. At a probability level of .05, for all four groups the ANOVA results for the EE subscale were $F_{3,211}$ = .775; for the DP subscale - $F_{3,211}$ = .832; and for the PA subscale were $F_{3,211}$ = 2.293. The analysis indicated no significant difference between the four groups on each of the three subscale measures. However, the differences between second year students and the control group ($F_{3,211}$ = 2.698) and third year students and the control group ($F_{3,211}$ = 2.988) did approach significance with the control group having substantially lower PA scores than either of the students in years 2 and 3 of the program. These low scores in PA for the control group again reflected their lack of clinical experience at the time of the survey.

Discussion

It appears from the results of this study that there is no significant indication of burnout in the nursing students enrolled in this nursing program as evidenced by the mean scores and the analysis of variance in each of the three subscales: EE; DP; and PA on Maslach's Burnout Inventory. Students enrolled in all three years of the

program indicated that they were experiencing some level of burnout as measured by the MBI. As noted by Edwards (1986), this study suggests that burnout in student nurses exists to a lesser degree than it does in the working professional.

Although the measurement of burnout did not reach the norms established by Maslach and Jackson (1986) for practicing nurses, the level of burnout indicates that nurse educators should be aware that the nursing curriculum may be stressful for student nurses. This was also evident in the control group that had not yet been assigned clinical practice. Students in this group reported scores that would indicate a degree of burnout as suggested by Maslach and Jackson (1986). For this group, the findings suggest some difficulty with interpretation of the form.

The results indicated no significant difference in levels of burnout as measured by the MBI, between students in the first, second, and third year of the program. Albeit, not statistically different from the norms established by Maslach and Jackson (1986), the means for the EE and the DP subscale were higher for third year students when compared to those in second year. Also the mean for the first year students was higher than the mean for second year students. This could indicate that the MBI, in its current format, is not sensitive to burnout in the nursing student population. It is recommended that the MBI be adapted further, prior to conducting subsequent research in this area.

Limitations of the Study

The following are limitations of the study:

1. Timing – the survey was distributed to all the students following the Christmas break. It would have been a better practice to have students complete the questionnaire in the early fall. Christmas has been suggested as a major stress factor.

2. The questionnaires were completed once by each of the first, second, and third year nursing students – these surveys should be completed periodically throughout all years of the program to determine which semester is the most stressful and most likely to promote further burnout. A longitudinal study would facilitate monitoring the change in the development of burnout and tracking individual patterns.

3. The personality type of an individual has been reported to be associated with burnout (Garden, 1989; Pick & Leiter, 1991). No attempt was made to have the students complete a personality assessment such as the Myers Briggs Type Indicator (MBTI) to relate the students' personality types to the degree of assessed burnout.

4. The responsibility for distribution of the questionnaires was assumed by the theory teachers of each group of students in the sample. Therefore the questionnaires were not completed on the same day nor at the same time. The results may have been somewhat skewed by students sharing with each other their individual responses to the items on the MBI. Also, the researcher cannot verify that the instructions given to the teachers were followed.

5. A small sample of students in each of the three years of the program were surveyed. The number of students was too small to support generalization of the results to a student nurse population.

Conclusions

This study appeared to be internally valid for student nurses enrolled in the nursing program at this particular college. However, without more research, the results cannot be generalized to include other student nurse populations. Likewise, the subjects in this study may not be typical of students enrolled in other human service programs within the same educational institution.

It is unrealistic to expect that nursing students would be totally exempt from burnout symptoms, given the stressful schedule of theory and clinical demands. Yet, what is an acceptable level of burnout? To date there are no established criteria as to permissible levels of student nurse burnout. Nurse educators should work together to establish a criterion for measuring allowable burnout within their profession as well as within their students. Those involved in nursing education also should assess what is meant when students say they are "burned out." Does this term have the same definition for student nurses as for their professional counterparts?

As suggested by Gold, Bachelor, and Michael (1989) tendencies toward student burnout should be monitored by administering a further revised

Burnout can be ruinous if allowed to continue unchecked.

form of the MBI at least once a semester during the formal education of nursing students. Scores that would suggest the early stages of burnout could be used as one indicator of the need for student counselling. Early counselling could alleviate some of the anxiety and stress associated with studying nursing, thus curtailing the manifestation of further burnout. This may be helpful in decreasing the documented attrition rate in nursing students and facilitating the transfer from the student nurse role to the position of a practicing registered nurse.

Freudenberger (1977) states that burn-out can be ruinous if allowed to continue unchecked. "It can spread, like any burning thing, through an entire organization, leaving only ashes behind. If guarded against by a watchful eye, however, the fire can be put out, the spirit rekindled, and positive results achieved."

Recommendations

The following recommendations are offered:

1. More research is needed to determine the significance of burnout as a factor in the retention or attrition of student nurses. This should be a longitudinal study to establish when burnout becomes evident in student nurses.

2. Freudenberger (1975) describes the people most at risk for becoming a victim of burnout as "over-committed and over dedicated, taking on too much for too long and working too intensely." The nursing students should complete a personality assessment and the MBI simultaneously, to assess the relationship of personality type to burnout. In this way, the association between coping abilities and the ability to combat burnout can be examined.

3. A study should be conducted to investigate the relationship between nursing students'

self concept and self-esteem to burnout. Meier and Schmeck (1985) found that "students scoring high on burnout possessed lower self-esteem."

4. This study should be replicated throughout various colleges in Ontario to assess the extent of student nurse burnout. This type of study would enable some generalization of the results to the student nurse population.

5. A larger sample of students in all three years of the program needs to be surveyed.

6. The MBI form needs to be adapted further to be more sensitive in assessing burnout in the nursing student. See Appendix A for the form that was used for this study and Appendix C for the suggested revised form.

7. The definition of what student nurses mean when they say they are burned out needs to be established. This analysis could be done through personal interviews with the student, interviews with a counsellor, and/or a questionnaire distributed to the students.

8. To prevent 'perceived burnout' the curriculum should incorporate more aspects of stress and time management. The nursing faculty need to provide learning environments that decrease the burnout - stress syndrome.

9. Burnout monitoring should become part of the educational culture, especially within the nursing field – teachers and students alike. See Appendix D for the form to be used by teachers.

10. Future research should be more "theory-driven." There needs to be a more clearly-specified theoretical framework to ensure an empirical interpretation of the burnout syndrome.

11. Prior to implementing strategies to prevent burnout, more research is required to assess perceived burnout in student nurses.

"If burnout is guarded against by a watchful eye, the fire can be put out and the spirit rekindled."

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Appendix A

Christina Maslach . Susan E. Jackson

Human Services Survey

The purpose of this survey is to discover how various persons in the human services or helping professions view their jobs and the people with whom they work closely. Because persons in a wide variety of occupations will answer this survey, it uses the term *recipients* to refer to the people for whom you provide your service, care, treatment, or instruction. When answering this survey please think of these people as recipients of the service you provide, even though you may use another term in your work. **Work (Job) = role as student nurse (theory and practice).**

On the following page there are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, write a "0" (zero) before the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel this way. An example is shown below.

Example:

How Often:	0 Never	1 A few times a year or less	2 Once a month or less	3 A few times a month	4 Once a week	5 A few times a week	6 Every day

How Often:

	0 - 6	Statements
1.	___	I feel depressed at work.

If you never feel depressed at work, you would write the number "0" (zero) under the heading "HOW OFTEN." If you rarely feel depressed at work (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week, but not daily) you would write a "5."

How Often:

	0 - 6	Statements
1.	___	I feel emotionally drained from my work.
2.	___	I feel used up at the end of the workday.
3.	___	I feel fatigued when I get up in the morning and have to face another day on the job.
4.	___	I can easily understand how my recipients feel about things.
5.	___	I feel I treat some recipients as if they were impersonal objects.
6.	___	Working with people all day is really a strain for me.
7.	___	I deal very effectively with the problems of my recipients.
8.	___	I feel burned out from my work.
9.	___	I feel I'm positively influencing other people's lives through my work.
10.	___	I've become more callous toward people since I took this job.
11.	___	I worry that this job is hardening me emotionally.
12.	___	I feel very energetic.
13.	___	I feel frustrated by my job.
14.	___	I feel I'm working too hard on my job.

15.	___	I don't really care what happens to some recipients.
16.	___	Working with people directly puts too much stress on me.
17.	___	I can easily create a relaxed atmosphere with my recipients.
18.	___	I feel exhilarated after working closely with my recipients.
19.	___	I have accomplished many worthwhile things in this job.
20.	___	I feel like I'm at the end of my rope.
21.	___	In my work, I deal with emotional problems very calmly.
22.	___	I feel recipients blame me for some of their problems.

(Administrative use only) cat.   cat.   cat.

EE: _____ _____   DP: _____ _____   PA: _____ _____

Appendix B

EMOTIONAL EXHAUSTION
BURNOUT (MBI)

Mean Scores   Series 1

DEPERSONALIZATION
BURNOUT (MBI)

Mean Scores   Series 1

PERSONAL ACCOMPLISHMENT
BURNOUT (MBI)

Mean Scores   Series 1

Christina Maslach . Susan E. Jackson

Student Nurse Survey

The purpose of this survey is to discover how student nurses view their course and the people with whom they work closely.

Example:

How Often:	0 Never	1 A few times a year or less	2 Once a month or less	3 A few times a month	4 Once a week	5 A few times a week	6 Every day

How Often:

	0 - 6	Statements
1.	___	I feel depressed at school.

If you never feel depressed at school, you would write the number "0" (zero) under the heading "HOW OFTEN." If you rarely feel depressed at school (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week, but not daily) you would write a "5."

* Appendix C is a modification of Appendix A propsed by the author
HOW OFTEN

	0 - 6	Statements
1.	___	I feel emotionally drained from school.
2.	___	I feel used up at the end of the school day.
3.	___	I feel fatigued when I get up in the morning and have to face another school day.
4.	___	I can easily understand how my clients feel about things.
5.	___	I feel I treat some clients as if they were impersonal objects.
6.	___	Working with my class assignments all day is really a strain for me.
7.	___	I deal very effectively with the problems of my clients.
8.	___	I feel burned out from my school work.
9.	___	I feel I'm positively influencing other people's lives through my course work.
10.	___	I've become more callous toward people since I started this course.
11.	___	I worry that the nursing program is hardening me emotionally.
12.	___	I feel very energetic.
13.	___	I feel frustrated by my school work.
14.	___	I feel I'm working too hard in this course.
15.	___	I don't really care what happens to some clients.
16.	___	Working with my class assignments puts too much stress on me.
17.	___	I can easily create a relaxed atmosphere with my clients.
18.	___	I feel exhilarated after working closely with my clients.
19.	___	I have accomplished many worthwhile things in this course.
20.	___	I feel like I'm at the end of my rope.
21.	___	In my clinical assignment, I deal with emotional problems very calmly.
22.	___	I feel clients blame me for some of their problems.

(Administrative use only) cat.   cat.

cat.

EE: ___ ___   DP: ___ ___   PA: ___ ___

Christina Maslach . Susan E. Jackson

Educators Survey

The purpose of this survey is to discover how educators view their jobs and the people with whom they work closely.

On the following page there are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, write a "0" (zero) before the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel this way. An example is shown below.

Example:

How Often:	0 Never	1 A few times a year or less	2 Once a month or less	3 A few times a month	4 Once a week	5 A few times a week	6 Every day

How Often:

0 - 6	Statements
1. ___	I feel depressed at work.

If you never feel depressed at work, you would write the number "0" (zero) under the heading "HOW OFTEN." If you rarely feel depressed at work (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week, but not daily) you would write a "5."

How Often:

0 - 6	Statements
1. ___	I feel emotionally drained from my work.
2. ___	I feel used up at the end of the workday.
3. ___	I feel fatigued when I get up in the morning and have to face another day on the job.
4. ___	I can easily understand how my students feel about things.
5. ___	I feel I treat some students as if they were impersonal objects.
6. ___	Working with people all day is really a strain for me.
7. ___	I deal very effectively with the problems of my students.
8. ___	I feel burned out from my work.
9. ___	I feel I'm positively influencing other people's lives through my work.
10. ___	I've become more callous toward people since I took this job.
11. ___	I worry that this job is hardening me emotionally.
12. ___	I feel very energetic.
13. ___	I feel frustrated by my job.
14. ___	I feel I'm working too hard on my job.
15. ___	I don't really care what happens to some students.
16. ___	Working with people directly puts too much stress on me.
17. ___	I can easily create a relaxed atmosphere with my students.
18. ___	I feel exhilarated after working closely with my students.
19. ___	I have accomplished many worthwhile things in this job.
20. ___	I feel like I'm at the end of my rope.

21. ____ In my work, I deal with emotional problems very calmly.

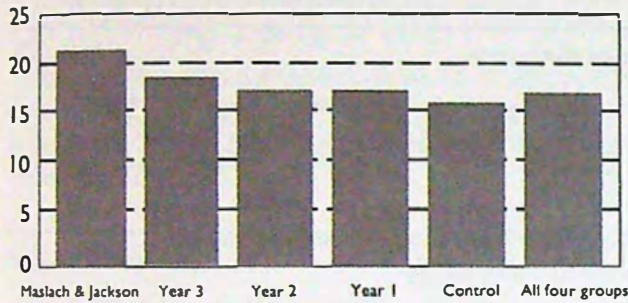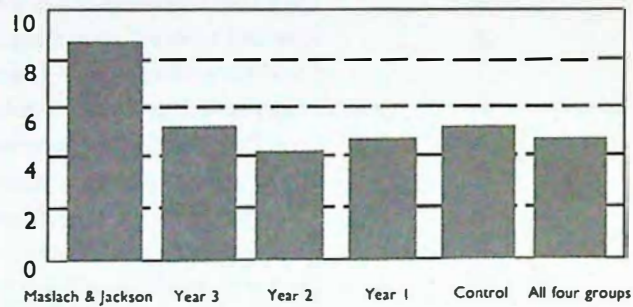22. ____ I feel students blame me for some of their problems.

Critical Incident Stress in the Ambulance and Emergency Care Student

ABSTRACT

Critical Incident Stress is a phenomenon which some emergency care workers experience following certain calls which results in one or more specific changes in behaviour that may be short or long term in duration. This study was conducted to determine if Ambulance & Emergency Care (AEC) students experience the same manifestations of critical incident stress following calls that would not normally be classified as critical incidents. A survey on stress was distributed to a group of AEC students near the completion of their program. The results of the survey indicated that sixty-five percent of the students had experienced stress as a result of one or more ambulance calls. In reaction to the calls, students reported behaviour such as flashbacks, nightmares, depression, and headaches. These behaviours are representative of critical incident stress manifestations. Students were asked to identify the type of ambulance call which brought on these changes and these results showed that the call types were not those usually associated with critical incident stress. Students were also asked to identify their strategies for coping with this stress, and through these responses the author has made a number of recommendations regarding the education and counselling of ambulance students.

by
Lynne Urszenyi

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Previously, Lynne's work has included experience in the hospital setting as an electrocardiogram technician, in industry as an occupational health and safety officer, and in the ambulance field as an emergency medical attendant.

Introduction

Most students experience some degree of stress during their college experience. Stress is a normal response of the body to changes in the environment, whether they be physical or emotional. Ambulance and emergency care (AEC) students encounter many experiences outside the realm of other students which may cause additional stress to the AEC students.

Critical incident stress is a phenomenon which some emergency care workers experience following certain calls, which results in one or more specific changes in behaviour that may be short or long term in duration.

This study was conducted to determine if AEC students experience the same manifestations of critical incident stress following calls that would not normally be classified as critical incidents.

Literature Review

In the emergency care field a critical incident is defined as any event which overwhelms the capacity of a person to cope psychologically with the incident (Miskiman, 1991). Such incidents are usually outside the range of normal human experiences and are psychologically traumatic to the emergency worker. Studies have indicated that more than eighty-five percent of emergency personnel have experienced some related stress reaction after a call involving a critical incident (Bell, 1991).

Critical incident calls cause a profound emotional reaction. Typically, the incident is unexpected or perceived as being unfair or senseless. The emergency worker usually views their efforts as having little control or effect on the outcome of the incident and the outcome of the incident is usually negative (Mitchell, 1988). Mitchell (1988) identifies the following types of calls as those being most likely to cause a stress reaction in the emergency care worker:

1. line of duty deaths
2. serious line of duty injuries
3. emergency worker suicide

4. disasters
5. unusually tragic death of children
6. calls where the victim is a friend or relative
7. events which attract excessive media attention
8. events which seriously threaten the lives of the emergency workers

Most people believe that emergency workers are never affected by the loss, tragedy or pain which they may experience on the job (Bell, 1991). Emergency service work is a male dominated field and generally the workers have been taught or conditioned very early not to show emotions. Emergency workers learn to cope with their feelings through joking, denial, repression or ignoring their emotions (Fish-Hildebrand, 1984). Many workers believe that if a call affects them emotionally it represents a weakness of character. Rarely do emergency workers show any signs of their stress on the scene of a call. They block it out and complete the job with which they are presented (Streiner, 1990). It is not until hours or days after the call that the manifestations of the stress may begin to be expressed. The emergency worker may experience sleeplessness, dreams, nightmares or flashbacks. The worker may wonder if the call could have gone differently, may second guess the senselessness and may keep questioning "what if" (Streiner, 1990). Often the signs of stress will be seen through an increase in arguments, withdrawal, depression, hostility, fatigue, headaches or the use of drugs or alcohol (Bell, 1991; Streiner, 1990).

Spence (1989) identifies additional factors which cause stress for the ambulance student or new emergency medical worker. She indicates that nothing which is taught in the classroom can prepare the student for the experiences which will be encountered on the street. Students often believe that they are going to save the world and the reality of death, often merciless, comes as a shock to them. Spence believes that the students soon become street-wise and hardened to the realities of life and death. They learn not to become engrossed in the patient's ordeal and learn to walk away from a call without carrying the emotional baggage with them. The students do not become cold-hearted, they just develop a new understanding of life which is unique to emergency medical workers (Spence, 1989).

Nothing which is taught in the classroom can prepare the student for the experiences which will be encountered on the street. Students often believe that they are going to save the world and the reality of death, often merciless, comes as a shock to them.

The idea that critical incident stress must be dealt with uniquely was originated by Jeffrey Mitchell, a professor at the University of Maryland. The development of a critical incident stress management plan stemmed from his own past years of experience as a firefighter/paramedic. Critical incident stress management (CISM) involves pre-incident stress prevention education, family support, referral networks and debriefing on the scene and after the incident (Bell, 1991).

The first critical incident stress debriefing team was formed in 1982 in Arlington, Virginia in response to the firefighters' psychological response to the Air Florida plane crash in Washington, DC. Critical incident stress debriefing (CISD) teams should be comprised of professional counsellors as well as trained peers. It has been demonstrated that regular counsellors/psychologists are ineffective in dealing with the emergency worker suffering from critical incident stress (Miskiman, 1991). These mental health practitioners often do not wish to hear the details of the incident and lack enough knowledge about trauma and emergency medical service to be able to understand the emotions of emergency care personnel (Miskiman, 1991).

The first step of CISM is pre-incident training of the emergency medical attendants (EMAs). The EMA must be taught what reactions can be expected following an incident, and that these reactions are not a sign of weakness but are normal manifestations and should not be a cause for embarrassment (Streiner, 1990). The second step of CISM is the debriefing after an incident. It must be stressed that the debriefing is confidential and is not meant to be a critique of the call. Bell (1991) describes the five steps to a critical incident debriefing:

1. FACTS: EMAs describe the incident and their role in the call. The emphasis is on the facts, not the emotional reactions.

2. THOUGHTS: EMAs discuss thoughts they had as they carried out their role during the incident.

3. REACTIONS: EMAs are asked to move from the cognitive (thinking) level to the feeling level; what was the worse thing about the event.

4. SYMPTOMS: EMAs are asked to define any signs of stress they may have experienced since the call.

5. TEACHING: EMAs must be assured that their reactions are normal and be taught ways in which they may help themselves cope with their feelings; exercise, diet, peer support, coping strategies.

Emergency workers must learn to cope with their stress. They must be able to realistically evaluate their abilities and realize that they cannot do everything. They must learn to talk about their problems and accept things which are out of their control (Van Bommel, Wellesley Hospital).

The Study

Subjects

Seven weeks prior to the completion of their ten month training program, ninety-nine ambulance and emergency care students were asked to respond to a survey regarding stress they may have experienced during the school year (Appendix A). At this point, most of the students had logged over 200 hours on an ambulance as a student. The survey was conducted anonymously and all ninety-nine students returned a completed form.

Results

Sixty-five percent of the students indicated that they had experienced a call which bothered them or caused them some degree of stress. The students were asked to identify all of the feelings, thoughts, perceptions and behaviours they have experienced following such a call. Forty-five percent experienced a sense of second guessing or "what ifs", 28% experienced flashbacks, 23% experienced a sense of helplessness, 19% experienced dreams or nightmares, 18% experienced irritability, 15% indicated they experienced sleeplessness, 12% experienced depression, 11% experienced headaches, 9% noticed an increase in arguments, 8% felt a sense of guilt, 6% experienced withdrawal from their friends or family and 3% experienced a loss of appetite. Other experiences identified included anger, muscle tension, sadness, frustration, and a retention in memory of odours related to the call.

The students were asked to identify what types of calls brought on these changes. Forty-two percent originated from vital sign absent (VSA) medical calls, 32% child/infant calls, 26% trauma related calls, 22% trauma VSA calls, 20% psychiatric calls, 17% attempted suicide calls, 11% calls

involving excessive media attention, 6% burn calls, 5% own life/health in jeopardy and 1% emergency worker injured calls. Other calls identified included elderly calls, violence-related calls, patient care being questioned afterwards, and a murder-suicide call.

The students were asked to indicate the mechanisms by which they coped with the calls which have caused them stress. Fifty-nine percent talked to their tutor crew, 59% talked to family or friends, 49% spoke to other students, 27% exercised, 19% listened to music, 16% did nothing — the feelings just went away, 12% read a book or saw a movie, 7% talked to faculty, and 5% consumed alcohol. Other coping mechanisms included taking a drive and cigarette-smoking.

The students were asked what things they would like to see in place to help them deal with these calls. Thirty-four percent indicated a desire for increased education in class on what to expect on the road and coping mechanisms, 24% wished to have a faculty mentor to discuss the call with, 22% indicated an increased understanding from their tutor crew, and 13% indicated in-college counsellors. Other suggestions included a student-run debriefing session and more class discussion of calls.

Analysis

Results from the study demonstrate that the majority of AEC students surveyed experienced at least one call which caused them some stress afterwards. The changes in behaviour that the students experienced after these calls are representative of the manifestations of critical incident stress. It is of particular significance that the types of calls identified by the students as being stressful are not the types of calls classically defined as critical incidents. Although some of the calls do represent typical critical incidents (emergency worker injured, excessive media attention, own life in jeopardy), the majority of the calls are of a type which seasoned emergency medical attendants would not regard as a stressful experience. Students were affected by calls ranging from elderly patients who reminded them of a family member to decomposing bodies of deceased patients who were not discovered for weeks. Some students identified their first time doing CPR as being traumatic and others found their first encounter with patient death stressful.

Many students identified the tragic loss of life and a sense of helplessness as being stressful. Some were upset by the lack of reaction to certain calls by the crew and other medical workers.

The survey demonstrated that the students have made attempts on their own to cope with their reactions. Talking to their crew members, family, and fellow students were the most common ways of dealing with these calls. The students indicated that they required more education in the classroom on expectations prior to their field placement and many students would have liked more understanding from their crews. It is interesting to note that twenty-four percent of the students indicated the need to discuss these calls with faculty mentors, yet only seven percent reported actually talking to faculty regarding a call. Perhaps the students did not see this as a role of the faculty or believed the faculty to be too busy to bother with the details of a call. The students may also believe that the faculty would regard a stressful reaction as a sign of weakness.

Recommendations

Ambulance and emergency care students experience many of the manifestations of critical incident stress following certain calls. This stress combined with the stress which all students experience represents a potential problem in the coping abilities of the students. The first step in helping these students deal with their reactions is an increased awareness and understanding from the tutor crews and from the faculty. The crew and faculty must be more sensitive to the student's first experiences and try to remember what it was like when they encountered some of these situations for the first time.

Prior to their field placement, the students should be educated by the faculty regarding expectations on the road and what their reactions may be to certain calls. The faculty must impress upon the students that stress reactions are normal and acceptable. The students should be told that they are not expected to handle all calls with the same "hardened heart" that their crews demonstrate. They must understand that they will eventually become unaffected by most calls and that this does not represent a lack of caring or feelings. They will become street-wise and the number of calls which cause them distress will

It is interesting to note that twenty-four percent of the students indicated the need to discuss these calls with faculty mentors, yet only seven percent reported actually talking to faculty regarding a call.

soon diminish. During the first meeting between the student and the crew, the crew should take the time to reiterate these points and assure students that the feelings they will encounter are normal and that the crew is available and willing to discuss these emotions. The faculty must also educate students in coping strategies. They must be encouraged to discuss their reactions with someone so that they can vent their emotions. They should be encouraged to seek methods of relaxation and temporary diversion from the stress, such as seeing a movie, listening to music or exercising. They must come to accept the things that they cannot change and learn to cope and adjust to these events.

The college must establish a system for helping these students deal with their reactions. The first step may be in assigning a formal faculty mentor. Most students did not choose to discuss their calls with the faculty, yet many identified a faculty mentor as someone they would have liked to access. Therefore, the identification of a formal faculty mentor may facilitate such access.

Although the faculty can listen to the students and can empathise a great deal with their feelings, the faculty are not trained counsellors. If students appear to require additional counselling to help them deal with a particular call, then something more formal will be required. Although the counsellors on campus are very well trained, they may not be the appropriate resource to deal with these situations. Miskime (1991) identified the problems that regular counsellors encounter in dealing with cases of critical incident stress. The counsellor must be able to identify with the student's experiences and have some working knowledge of the situations that the student may have encountered. Many of the ambulance services have a staff counsellor/psychologist who has the experience to handle these cases. The college should establish a link with these services whereby the student can access this help if required.

Another resource which may be beneficial to the student is a peer support group. The establishment of informal weekly or bi-weekly student discussion groups may be of use to the student. If a group of students gets together to discuss their feelings regarding calls they may not feel so alone in their reactions and will perhaps gain a great deal of support from each

other. These chances to talk must be completely voluntary and can be run by fellow students or by faculty, depending on the preference of the group.

Conclusion

Ambulance and emergency care students represent a special type of individual with unique experiences. The amount of stress that these students endure during their school year has not been well documented and has been overlooked by most training institutes. Educators must become more enlightened about the students' reactions to experiences in the field and must become better equipped to deal with these reactions. The establishment of a stress management system unique for these students should be developed and implemented to aid these students through their training period.

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AEC STUDENT STRESS SURVEY

The following survey is being conducted to provide research information on the degree of str which students may encounter on various ambulance calls. Please answer the questions bel carefully and honestly. The survey is anonymous. Thank you for your participation in this resear

1. As an ambulance student, have you experienced a call which has bothered you or has caus you some degree of stress afterwards?

    YES   NO

2. On the following scale please rate your feelings on your first few calls with your ambular crew:

    1 (very stressful)   2 (somewhat stressful)   3 (not stressful)

3. Have you experienced any of the following behaviours in the days following a particular ca (circle all that are appropriate)

    sleeplessness   dreams/nightmares

    flashbacks   withdrawal from friends/family

    irritability   depression

    headaches   loss of appetite

    increase in arguments   second guessing/"what if's"

    sense of guilt   sense of helplessness

    Other: _____

4. Please classify the call types for which you have experienced any of these behaviou (circle all that are appropriate)

    VSA (medical)   VSA(trauma)

    child/infant call   trauma

    suicide attempt   call with excessive media attention

    emergency worker injured   own life/health in jeopardy

    burns   psychiatric

    Other: _____

5. How have you dealt with calls which have bothered you? (circle all that are appropriate)

    talked to crew
                                           talked to family/friends
    talked to other students
                                           talked to faculty
    exercised
                                           listened to music
    saw a movie/read a book
                                           consumed alcohol
    did nothing ~ feelings just went away

    Other: _____

6. What things would you like to see in place to help you deal with these calls? (circle)

   1. Increased education in class on what to expect on the road and coping mechanisms.
   2. Faculty mentor to discuss the call with.
   3. In-college counsellors.
   4. Increased understanding from crew.

   Other: _____

   _____

7. If you have experienced a particular call(s) which has left you feeling stressed or anxious please *briefly* describe the nature of the call and the aspect of the call which upset you.

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

A Survey of Student and Teacher Perceptions of Teacher Effectiveness

ABSTRACT

The purpose of this study was to determine what teachers and students perceived as most important in teaching effectiveness. A questionnaire was developed, in consultation with students, to solicit what traits were most desirable in effective teaching (see Appendix A). Six traits were identified by students and the seventh, "ability to inspire interest" was suggested by the investigator, and met with general agreement. Two hundred questionnaires were distributed: fifty each to nursing students, nursing faculty, technology students and technology faculty. The sample reported in the study included forty-seven nursing students and faculty, forty-three technology students and twenty-one technology faculty.

"Knowledge of subject matter" scored highest in the preference of fifty-eight per cent of all respondents. "Communication" was second. "Well-organized material" ranked third and "ability to motivate" and "friendly and open" tied for fourth. "Ability to inspire interest" scored fifth and "classroom control" was the sixth and least important. The faculty scored "communication" and "motivation" significantly higher than the students, whereas the students wanted their teachers to "know their stuff" and to be well-organized.

by

Sheila Money

After careers in Public Health Nursing and Psychiatric Nursing, Sheila arrived at Humber College in 1975. She holds a diploma in Nursing, a diploma in Public Health Nursing, a B.A. (Hons.) Psychology and Sociology, York University, and an M.Ed. Adult Education, O.I.S.E. Sheila is presently a doctoral candidate at Michigan State University, in the Department of Adult Education. Since 1975, Sheila has taught nursing at the undergraduate and the graduate degree level.

Introduction

As early as 1900, surveys of teacher performance were being conducted. These early surveys were done by comparing teaching effectiveness with student achievement on the newly developed standard tests in school subjects. In the 1930s college professors became interested in understanding and explaining the relationship between teaching behaviours and educational progress, and teacher educators became concerned about the selection of potentially effective teachers.

The research of the fifties and sixties changed its emphasis from effectiveness to teacher behaviour. Many studies were reported, but Biddle and Ellena (1964) comment that "With all this research activity, results have been modest and often contradictory." In the last ten years, research has begun to focus on teacher and student behaviour and their interactions. Another trend is toward increased attention to methodological problems of teaching.

The purpose of this study was to investigate the opinions or perceptions of faculty and students at Humber College concerning teacher effectiveness.

Literature Review

Public demand for accountability in education provides a stimulus for increased research on teacher effectiveness. Earlier studies on teacher effectiveness (Borich,1977; Travers,1973) have suggested that there is much more involved in the teaching/learning process than knowledge of content. If teachers are to grow as effective educators they will need knowledge of the teaching/learning process and understanding of criteria for measuring effectiveness.

In his article, "Substance versus Style: A Teaching Controversy," Simpson (1991) criticized the notion that the teacher's knowledge of subject matter is sufficient for good teaching. This notion connotes close-mindedness and indifference to productive interaction. It is clear that researchers need to go beyond knowledge of content to get at the essence of teaching effectiveness.

Klemp (1977) studied the behaviour of outstanding performers in a variety of occupations and found three key characteristics that distinguished excellent performers: 1) they had higher level cognitive skills; 2) they had a high degree of interpersonal skills; and 3) they were highly motivated. These characteristics are represented in the first three factors of the present survey.

In their study of teacher effectiveness, Spinthall, Whitely and Mosher (1971) measured student gain and observed teacher behaviours in the classroom. This was in contrast to previous research which attempted to relate static personality traits or social status to teacher effectiveness. Behaviours observed were expressions of cognitive flexibility or rigidity. The researchers defined cognitive flexibility as dimensions of open-mindedness, adaptability and a resistance to premature perceptual closure. The overall findings were that cognitive flexibility/rigidity might represent a critical and differentiating factor in teaching. The concept of cognitive flexibility was represented in the present study in the factor of "ability to inspire interest" in course content. However it might not have been explicit enough for either faculty or students to rate it properly.

Ishler and Ishler (1980) discuss a method of teacher development that increases awareness and builds competence in teaching behaviour through the activities of diagnosis, goal setting, training in observation techniques and microteaching. The authors feel that, with carefully planned programs, teaching styles and behaviours can be improved.

Working with a committee of educational researchers, U.S. educator Patricia Cross concluded that "The quality of undergraduate education could be significantly improved if American colleges and universities would apply existing knowledge about three critical conditions of excellence: 1) student involvement, 2) high expectations, and 3) assessment and feedback" (Cross, 1986). This statement affirmed the reasonable supposition that students should have an active voice in assessing teacher effectiveness. Accordingly, it was considered important to elicit the viewpoint of the student in determining what factors contribute to effective teaching.

In their paper "Thirteen Characteristics of Superstar Teachers," Roueche and Baker (1987) cite such qualities as commitment, goal orientation, integrated perception, positive attitude, reward orientation, objectivity, active listening, rapport, empathy, individualized perception, teaching strategies, knowledge and innovation as necessary for superstar status in teaching. The "good" teacher obviously has many of these traits. The question remains as to whether some of these characteristics should be accorded a higher priority, or require a greater degree of intensity, than others. In higher education is the mix different than at others levels of education? Do some of these qualities play a more significant role than others or are they more or less interrelated?

A comparison of the thirteen factors identified by Roueche and Baker and the seven factors that were used in this survey will show that all thirteen of the Roueche and Baker factors were considered under six of the headings used in this survey. No mention is made in the Roueche and Baker study of one of the factors considered in this study: the concern for classroom control.

Thomson and Handley (1990) reported on a study that showed a positive relationship between teacher self concept and teacher efficacy. A positive self concept was associated with better teacher efficacy, but no causal relationship was inferred. Variables other than self concept are also involved in teacher efficacy.

A survey of 594 undergraduates in a small university found that non-traditional students viewed personality and interaction behaviours as indicators of effective teaching, whereas traditional students focused on behaviours that could specifically enhance grades. Keller (1991) suggested techniques and approaches for addressing the needs of both student types.

Teaching effectiveness has been the subject of vast amounts of research but the complexity of the topic and its importance to teachers warrants continued attention.

Selection of Factors that Contribute to Effective Teaching

In a discussion with ten nursing students, seven factors emerged that the students felt contributed to effective teaching. A teacher effectiveness survey was developed using these seven factors and respondents were asked to rank the identified factors in order of importance. The seven factors were:

1. knowledge of subject matter

2. effective communication

3. ability to motivate

4. friendly and open

5. well-organized course material

6. classroom control

7. ability to inspire interest.

These factors have also been identified in the literature as contributing to teacher effectiveness.

Procedure

Nursing students and faculty, and technology students and faculty were selected as the population to be studied. Fifty questionnaires were circulated to each of the four groups. There were 138 completed questionnaires: 40 each from nursing students and nursing faculty, 37 from technology students and 21 from technology faculty. The choice of population was one of convenience. All full time faculty received a questionnaire, and students were selected by whole classrooms.

Results

Of the 160 questionnaires returned, 22 were incorrectly scored and were discarded. Sample size was therefore 138, of which 54 were males and 84 were females. There were 61 faculty and 77 student respondents. Results of the survey are displayed graphically in Appendix B.

The first factor listed was "knowledge of subject matter." This factor was ranked first in importance considering inputs from all the respondents. There was a significant difference between the perceptions of nursing students and nursing faculty ($p.=.002$) with nursing students ranking knowledge more important than did the nursing faculty. Nursing students also ranked the importance of knowledge higher than did the technology faculty ($p.=.0002$). Technology students also ranked the importance of knowledge higher than the nursing faculty ($p.=.0097$). There were no other significant differences between the ratings of groups (nursing students vs. technology students, nursing faculty vs. technology faculty, and technology students vs. technology faculty).

The second factor listed was "effective communication." This factor was ranked second in importance considering inputs from all the respondents. There was a significant difference between nursing students and nursing faculty ($p.=.0084$) with nursing students ranking "effective communication" lower than the nursing faculty. Nursing students also ranked the importance of communication lower than did the technology faculty ($p.=.0292$). There were no other significant differences between the ratings of other groups.

The third factor listed was "ability to motivate." This factor was tied for fourth in the overall rankings from all the respondents. There was a significant difference between nursing students and nursing faculty, with nursing students ranking "ability to motivate" lower than did the nursing faculty ($p.=.0012$). Nursing students also differed from technology faculty ($p.=.0021$) and technology students similarly gave motivation a lower ranking than that given it by the technology faculty ($p.=.001$). There were no other significant differences between the ratings of other groups.

The fourth factor listed was "friendly and open." This factor was rated sixth in importance considering inputs from all respondents. Nursing students differed from technology students, as nursing students ranked "friendly and open" lower than did the technology students ($p.=.0474$). There were no other significant differences between the ratings of other groups.

The fifth factor listed was "well-organized material." This factor was rated third in importance considering inputs from all respondents. Nursing students differed significantly from nursing faculty in that they ranked "organized material" higher than did the nursing faculty ($p.=.0022$). Nursing students also ranked "organized material" higher than did technology faculty ($p.=.0001$). Technology students also ranked organized material higher than technology faculty ($p.=.0205$). There were no other significant differences between the ratings of other groups.

The sixth factor listed was "classroom control." This factor was considered the least important; it was rated seventh, considering inputs from all respondents. There were no significant differences between the ratings of any of the groups.

The seventh factor listed was "ability to inspire interest." This factor was tied for fourth in importance considering inputs from all respond-

ents (tied with "ability to motivate"). There were no significant differences between the rating of any of the groups.

Discussion

"Knowledge of subject matter" was ranked significantly higher by the students in both nursing and technology as compared to the faculty in nursing and technology. This may be the result of faculty taking it for granted that they are knowledgeable in their subject matter and thus rating communication higher. It is apparent from this survey that students feel knowledge of subject matter is very important if the teacher is to be effective.

"Effective communication" was ranked second in importance and faculty, particularly, scored communication as important. Although teachers felt that good communication skills were an important factor in teacher effectiveness, students did not recognize this factor to the same degree. A partial explanation might be that students take for granted the excellent communication skills of the teacher. However, teachers are continually working to enhance their communication skills and thus value this skill to a high degree.

"Ability to motivate" was considered more important by nursing and technology faculty than it was by nursing and technology students. These results perhaps reflect the fact that students surveyed are already studying in their chosen field and perhaps they do not feel the need to be motivated. Teachers' responses reflect a belief stemming from their educational background which frequently reinforces the idea that the typical student may lack a clear sense of purpose and will depend on external sources of motivation.

The factor of "friendly and open" was rated higher by the technology students than nursing students. This may reflect the paucity of interpersonal interactions in the technology course compared to the high degree of interpersonal interactions in nursing. Technology faculty might find it interesting that their students rank this factor higher than do the nursing students.

"Well-organized material" was given a higher ranking by students than by faculty. Faculty should therefore pay attention to organization in class and collaborate with students to confirm that their organization is understood by the students.

"Classroom control", defined in this study as "the ability of teachers to carry out their teaching responsibilities without undue disruption," was not of high importance to any of the respondents, relative to the other traits identified with excellent teaching. This finding suggests that at Humber College, discipline in the classroom is not a major concern for these students and teachers in technology and nursing.

The "ability to inspire " is a concept that is of a higher order than the ability to motivate. All groups ranked it fourth in order of importance. It seems likely that an ability to inspire interest or even enthusiasm would be an important attribute of an effective teacher, since interest and enthusiasm are essential to the pursuit of lifelong learning.

Conclusions

The literature identifies higher level cognitive skills and highly motivated people as necessary attributes of effective thinking. In this study, faculty identified communication skills and the ability to motivate students as critical factors in effective teaching. Students, on the other hand, valued teachers who "knew their stuff" and were well organized.

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APPENDIX A

Teacher Effectiveness Survey

Rank the following identified factors of teacher effectiveness in order of importance. (1 would signify the most important, 7 indicates the least important.)

- Knowledge of subject matter
- Ability to communicate effectively
- Ability to motivate
- Friendly and open
- Well organized material
- Ability to control classroom conduct
- Ability to inspire interest in course material
- List other factors you consider important and rate them.

Your age_____   Gender_____   Course_____

APPENDIX B

QUESTION # 1

KNOWLEDGE OF SUBJECT MATTER
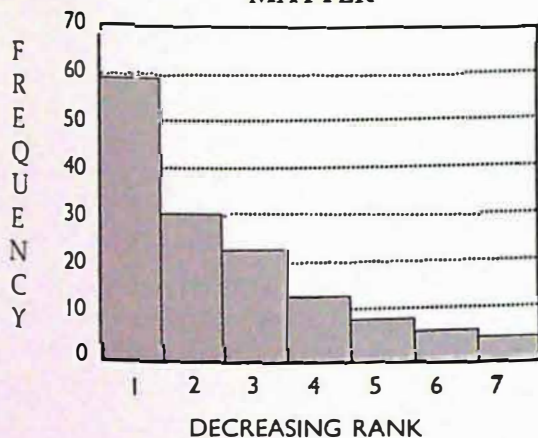
QUESTION # 2

COMMUNICATION

QUESTION #3
MOTIVATION

QUESTION #4
FRIENDLY AND OPEN

QUESTION #5
WELL-ORGANIZED MATERIAL

QUESTION #6
CLASSROOM CONTROL

QUESTION #7
INSPIRES INTEREST

Career Success Skills:

Better Opportunities for College Students and for Their Employers

ABSTRACT

College students in business are looking ahead to graduation in May 1993 and asking themselves: "Will I get a job?" For their part, employers are increasingly vocal about their requirements for new sets of knowledge, skills and attitudes which are needed for firms to compete successfully in the global marketplace. This paper traces the emergence of demand for these new skill sets, beginning in the mid 1980s in the USA, and cites various current Canadian and American authorities on these issues.

This paper also outlines work by the Marketing Advisory Committee at Humber College, which has recently been very active in assisting the Marketing Department to develop a better under-standing of the new skill sets, and in encouraging their inclusion in course curricula. Some classroom experimentation in providing learning of the new skill sets has been undertaken at Humber College. This experimental work is outlined, and some very preliminary research results are offered which have implications for curriculum design. The overall picture described in this paper suggests that, for future college graduates who have had training in career success skills, the answer is more likely to be "yes"; they will indeed have better prospects of getting a job.

by
John Leith Murray

John Murray graduated from U.B.C. in civil engineering and from Stanford University, with an M.B.A. He undertook various marketing and manage-ment assignments with Shell Canada over the following 29 years, in Vancouver, Toronto, Montreal and London, England. After leaving Shell he was involved in real estate develop-ment in Oakville, building and marketing townhouses. Shortly after joining Humber's Marketing Department, he participated in the start-up of the Canada/China Management Training Centre at Chengdu, Sihuan Province. His other activities include tennis, sailing, sking and golf, which he shares with his wife Tish and four sons.

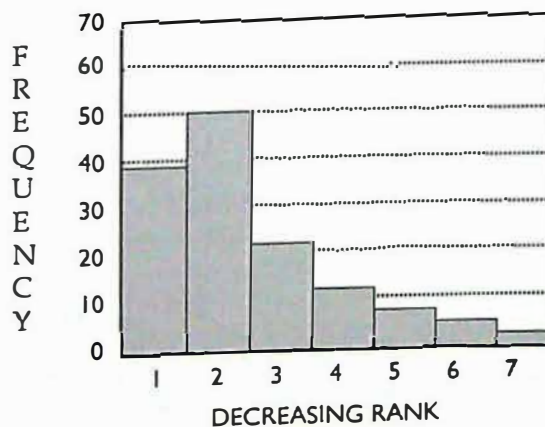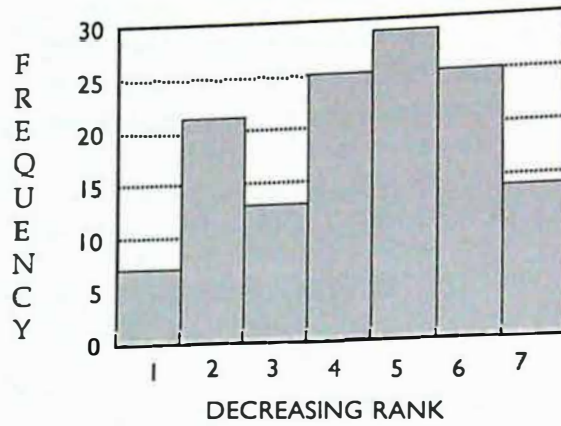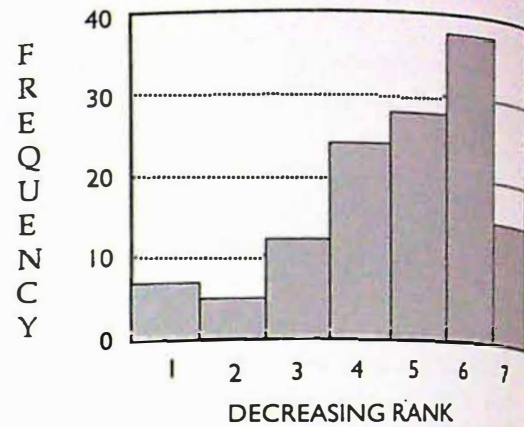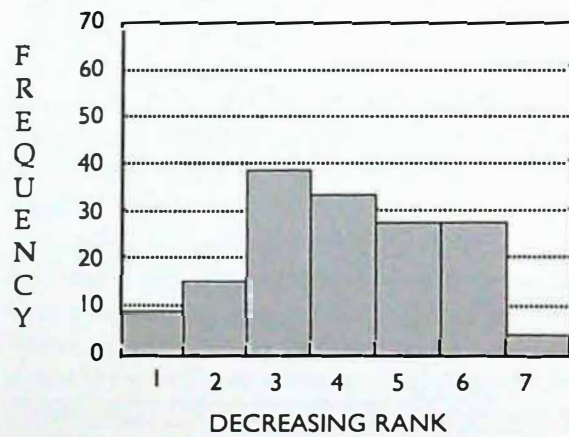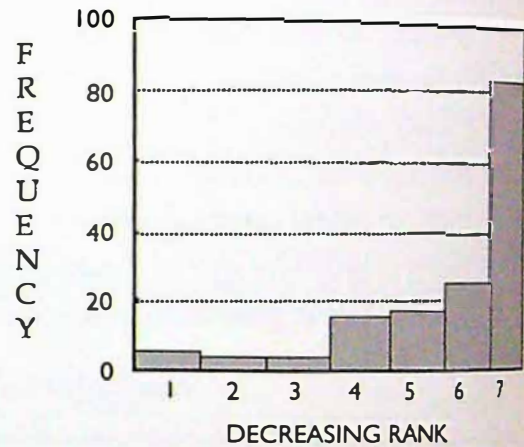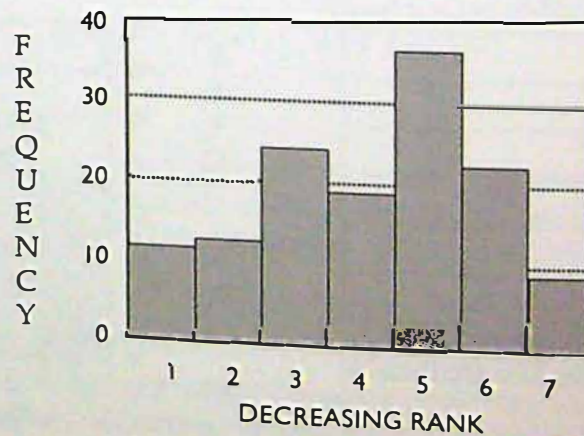College students in business are looking ahead to graduation in May 1993 and asking them-selves: "Will I get a job?"

Hardly a day goes by without two or three more reports in the business press describing plant closings, lay-offs of 10% of a firm's workforce, postponed business developments, or some other signal of Ontario's worst business down-turn since the Great Depression of the '30s. The unemployment level in Canada's larg-est province and the country's main manufac-turing base is presently over 11%, with no signs on the horizon that there will be much improve-ment. Meanwhile students in business schools at Ontario's 23 community colleges exchange uncertain glances when talk of graduation sur-faces. Uppermost in their thoughts is the ques-tion of employment.

At the time of their graduation, two factors will have an important influence on college graduates' prospects for employment: the health of Ontario's economy, in which many employ-ers are still cutting staff or operating under hir-ing freezes and secondly, the relevance of graduates' education to the needs of prospec-tive employers. There are numerous indications of Ontario's poor economic health and there is growing evidence that employers are finding that college business graduates are coming to them ill-equipped to meet demands of the workplace. Moreover, there are indications that both of these factors are related to short-comings in education.

Overview

Notwithstanding the uncertainty in Ontario's employment scene today, new skills and knowl-edge emerging in college education hold prom-ise of better opportunities for tomorrow's col-lege graduates and for their future employers. Although a consensus on the composition of these new skills has yet to be reached, the ques-tion arises: are Ontario's 23 community colleges typically offering business students opportuni-ties to learn these emerging new skills? The

answer is either no, or not nearly enough.

The following discussion touches on current difficulties in Ontario's economy and on some of the short-comings in education of the workforce which have contributed to this ill health. This leads to discussion on emerging new sets of knowledge, skills and attitudes which educational authorities now contend are vital in the global marketplace. The American Association of Community and Junior Colleges defined these in February 1989 as "transferable" skills, in which emphasis is placed on leadership, creative thinking, problem-solving, teamwork, communications and learning to learn, among others. Other educational authorities have labelled these skills variously as employability skills, workplace skills and life skills. In this discussion, they are referred to as career success skills.

This paper traces:

- perceptions of needed strengthening in existing Canadian college business education;

- emerging new skill sets demanded by the workplace;

- some classroom experimentation in integrating the new skills into college learning; and

- some preliminary research results based on these experiments.

Taken together, all of these offer promise of better employment prospects for tomorrow's college graduates in business.

Ontario, Canada's Industrial Heartland, is in Severe Recession

The Conference Board of Canada, in its October 1992 review of Canada's economic outlook, reports that the current global recession has been particularly hard on Canada. The Canadian economy has lost 600,000 full-time jobs since the recession began in April 1990, three months before the U.S. economy started to turn down. Relatively speaking, the Board continues, Canada has lost three times as many manufacturing jobs as has the United States during this recession.

Ontario, Canada's most populous province with 37% of the country's 27 million people, has historically been the country's wealthiest province. Broadly based manufacturing and service industries have enabled Ontario residents to enjoy the highest standard of living among all   Canadians. However,

Professor Charles MacMillan of York University notes that Ontario has been at the forefront of Canada's current economic downturn, accounting for about two-thirds of the nation-wide employment decline since 1990.

More sobering, he continues, is evidence that manufacturing unit labour costs grew 50% faster in Canada than in the United States over the past decade. The aggressive cost-cutting now needed to offset this erosion in Canada's competitiveness will impede improvement in the Ontario's current 11% unemployment rate well beyond 1992.

Since some of the causes of this difficult situation involve short-comings in business education, it is useful to consider the views of selected authorities on these issues:

Viewpoint of Professor Michael E. Porter, Harvard University

In 1991, with the recession well under way, the Government of Canada commissioned Harvard's Professor Michael E. Porter to undertake a study of Canada's ability to compete in the new global economic environment. In his report, *Canada at the Crossroads: The Reality of a New Competitive Environment* (1991), Professor Porter pointed out that while Canada's economy performed well over the past 30 years it is now at an economic crossroads and that its prosperity is at risk. He claims that Canadian industry is encountering difficulties as it confronts a changed and more competitive environment. Without change, the report continues, the standard of living of Canadians is likely to fall.

On page 7 of this report, several worrisome performance trends are cited relating Canada to the seven leading industrial countries (G7). Those most pertinent to education are:

- low productivity growth

- (high) unit labour costs

- unemployment

- lagging investments in upgrading skills and technology.

Professor Porter states that the underpinning of competitiveness, and thus of a country's standard of living, is productivity. To achieve sustained productivity growth, an economy must continually upgrade itself (p. 5). He claims that

...while Canada's economy performed well over the past 30 years it is now at an economic crossroads and...its prosperity is at risk.

what is most troubling, in viewing Canada, is the fact that in essential areas such as science, technology, education and training, significant barriers stand in the way of effective upgrading (p. 6).

The level of advanced skills in Canada, which he claims is critical to sustaining and upgrading sources of competitive advantage for Canadian industry, is inadequate (p. 49). Canada also trails other industrialized countries in the creation and adoption of new technologies (p. 51).

Professor Porter's points on needed upgrading of education, made in the context of Canada's economic performance, parallel recent research on the performance of Canada's universities in today's economy.

Assessing Canada's Universities

The Organization for European Economic Development (OECD) stated, in a September 1992 report, that the competitiveness of the Canadian economy has deteriorated during the past two decades, largely as result of an inadequate educational system.

Jock Finlayson, Vice President of Policy and Research at Ottawa's Business Council on National Issues, has similarly reported that the "institutionalized inertia" of Canada's universities makes it very difficult for them to respond to new demands or shifts in the marketplace.

Although the above references focus on Canadian universities, the implications are that they would also apply to post-secondary education in community colleges. This view is supported by the fact that the role of Ontario's community colleges, set out in the founding legislation twenty-five years ago, was specifically directed towards preparing students for employment. In this respect, the colleges were created to fulfil a different mandate from that of universities.

While Professor Porter, the OECD and Canada's Business Council on National Issues have each claimed that Canada has deficiencies in advanced skills and in the relevance of education, none has been specific in identifying remedies. Fortunately, however, several authoritative voices in the United States and Canada have spoken to issues relating to needed change.

What Constitutes the Needed Upgrading in Education & Training?

Over the past few years a number of authorities have called for "new" skills, or greater emphasis on a few specific skills, in order to meet the challenges of global competition in the '90s:

i ~ The American College Placement Council

The Resource Information Centre (RIC) of the American College Placement Council collects and maintains information on trends and projections that affect career planning, placement, recruitment and employment for college students in the U.S.A.

In 1987, RIC published an article entitled *The Ideal Job Candidate of the 21st Century* (Nagle, 1987). Based on extensive research, RIC claims that certain general ideas recur, which can be summarized in six main points:

- computer literacy ~ this skill is considered to be the most important ability for the '90s

- generalist, rather than specialist skills ~ the ability to draw inferences, solve problems, think creatively

- flexibility ~ the ability to be flexible and adaptable...see change as an opportunity

- creativity ~ the ability of the individual to influence the future by envisioning what he or she wants to achieve.

- communication/people skills ~ predicted to be the second most important job skill for the '90s.

- job search skills ~ the ability to search out employment opportunities and match one's skills and abilities to the positions sought.

ii ~ The American Association of Community and Junior Colleges

The American Association of Community and Junior Colleges published a listing of the skills employers are seeking, entitled "Workplace Basics", in the March 1989 issue of the AACJC Journal, citing:

Learning to Learn	Listening
Oral Communications	Problem-Solving

Creative Thinking	Self-Esteem
Personal/Career Development Skills	Interpersonal Skills
Teamwork	Negotiation
Organizational Effectiveness	Leadership

iii ~ Employment and Immigration , Canada

In a Canadian Journal, *Occupational Outlook*, the Government of Canada published an article entitled, "Skills: The Hottest and Most Transferable Ones," (Farris, 1988). These are:

- Communication Skills

- Speaking
  ~ Teaching and Instruction
  ~ Interviewing

- Math Skills
  ~ inputting and reading computer printout
  ~ controlling processes, keeping records and interpreting results
  ~ developing a foundation for on-the-job learning of advanced skills

- Commercial Skills
  ~ systems and procedures
  ~ selling techniques

- Computer Skills

- Attitudes, Adaptability and People-Handling Skills

iv ~ Conference Board of Canada

In May 1992, the Corporate Council on Education, Conference Board of Canada, published an array of the important skills required of the Canadian workforce, entitled *Employability Skills Profile: The Critical Skills Required of the Canadian Workforce*:

- Academic skills
  ~ Communications
  ~ Thinking
  ~ Learning

- Personal management skills
  ~ Positive attitudes and behaviours
  ~ Responsibility
  ~ Adaptability

- Teamwork skills
  ~ Working with others

A total of twenty-six skills were identified within this framework.

While there are gaps and overlaps when one compares the different skill sets recommended by various U.S. and Canadian authorities, there are areas in which there is a commonality of thinking. Drawing on the work done by the authorities mentioned above, the School of Business at Humber College has established a specific set of career life skills for the purpose of designing a learning experiment which is described in a following section. This skill set comprises the following:

Leadership	Creative Thinking
Problem-solving	Career Development
Flexibility	Teamwork
Communications	Computer Applications
Mathematics	Technology

Shortly after the commencement, in September 1992, of the classroom experiment involving these skills, it was decided to verify the relevance of the skill set chosen by the School of Business by obtaining input from representatives of Ontario employers of college graduates.

Viewpoint of Employers of Graduates – College Schools of Business

Beginning in May 1992, Humber College had established a new relationship with a number of senior business people who became members of the College's Marketing Advisory Board. The intent was for the College to achieve a better understanding of the needs and interests of employers of college graduates in business, as a basis for upgrading College programs and courses. The College is fortunate in now having representatives from General Electric, the Bank of Montreal, Imperial Oil Limited, Nestle Canada Ltd. and Ernst & Young serving on the Advisory Board.

A new working process is under development in the Advisory Committee, focusing attention on the marketplace for College graduates. To this end, industry members of the Advisory Board were asked to identify:

1. What are the key factors or challenges in the business environment that are impinging on your businesses today?

2. What business strategies are you adopting in order to successfully meet those challenges?

A key point to be learned from the Marketing Advisory Committee's array is the absence of traditional marketing subjects, which are the current mainstay of the College's course offerings. This would not imply that basic marketing skills

TABLE 1

Perceptions of Workplace Needs in Education

Marketing Advisory Board ~ Humber College
September 1992

Externally Driven Business Priorities	Internal Business Environment	Implications For Education
Drive for Productivity	"Right" size Reducing staff Cost pressure Customer-driven quality Focus on priorities	Quick learner/self-starter Sets/meets aggressive targets Creative/open minded Customer oriented Problem-solving skills Passion for quality/excellence Team leader/coach
Increased speed	Flatter organizations Quicker decision-making Eliminating functional boundaries Working in teams Process focused	Self-confidence/limited supervision Limited supervision Effective listening skills Communication skills Translate complex to simple Team facilitation skills Process management/charting
Focus on globalization	Building diversity Shifting investment globally	Appreciation for cultural diversity Strong personal/business ethics Basic world demographics Personal career flexibility

3. What are the implications for education to be derived from those strategies?

The responses of industry representatives on the Committee are displayed in Table 1.

are no longer necessary; however, it does make the point that there is indeed a shift of workplace emphasis toward the skill sets identified by AACJC, the Conference Board of Canada, and others.

One could not claim that the thinking of Humber College's Marketing Advisory Board, comprising only a small number of individuals, is definitive information. Notwithstanding, the Advisory Board has made a very useful contribution in emphasizing the need for attention to the findings of the 1989 AACJC study and the American College Placement Council study in 1987, whose work was broadly based and authoritative.

Do Community Colleges Offer Opportunities to Learn These Skills?

In spite of the evidence calling for college graduates to learn the kinds of career life skills arrayed above, college business courses typically do not include them in course design criteria.

If the preceding data argue in favour of moving more quickly towards offering college students opportunities to learn career life skills, the question then arises as to how this can be achieved in college programs.

How Difficult Is It For Students to Learn The New Skills Sets?

Commencing September 1992, Humber's Marketing Department embarked on an experiment involving teaching the new career success skills to a class of 30 freshman college students arriving directly from high school. The purpose of the experiment was, (a) to determine the degree to which it was feasible and practical to incorporate the learning of career success skills in a traditional survey course in business, "Introduction to Marketing," and (b) to determine the attitudes and interests of students in the process of learning these skills.

Regarding course delivery, lecturing time was sharply reduced to generate time for students to work in teams on problem-solving and on developing creative answers to text questions. Team members then wrote up short responses to text questions, each in his/her individual writing style, to obtain practice and feedback on written communication skills development. Subsequently, team members presented their group's responses to the total class and gained experience in fielding questions, handling disagreements and thinking on their feet.

Regarding evaluation of students' work, grading was based upon students' individual written work. For purposes of evaluating the effectiveness of the learning experiment, copies of written submissions from each student were photocopied to form an information base for tracking progressive improvement in each student's knowledge of course concepts, and his/her development of reasoned argument and clarity of written communication.

Preliminary research on the reactions of the students is encouraging, evidenced in the following verbatim responses which are fairly typical of the 160 responses drawn from research questionnaires:

"...the group discussions give a better understanding of the chapters..."

"...you get to find out other peoples' views..."

"...we get a lot of interaction and feedback that helps us understand how business works..."

"...I find this is a fun way to learn, and if it is fun, then you want to learn..."

"...learning how to communicate with other students has helped me to formulate my own ideas better...."

"...what is learned stays in your mind because of the constant build-up of ideas..."

"...we learn how to react to criticism..."

"...this helps you prepare for the future..."

Looking Ahead

It would appear that industry members of Humber College's Marketing Advisory Board have made a very useful contribution to the College's efforts to upgrade education by focusing attention on the need to offer today's business students the opportunity to learn and practice career life skills.

Although information on emerging new skills sets needed by college graduates has been available from various sources over the past few years, it has not yet found its way into college program and course review processes to any significant extent. Possibly this has been because representatives from both industry and colleges have not interacted as frequently as now appears to be needed, or in adequate depth, to offer learning opportunities in career life skills.

The active participation of industry members of Humber's Advisory Board may in future become an important factor in motivating College staff towards a greater understanding of the role of career life skills in today's business education, and also in engendering commitment to broadening the opportunities for students to acquire them. Finally, although research data are still very preliminary on classroom experimentation with career success skills, the results suggest that the learning of career success skills is practical, enjoyable, and effective from the students' standpoint. The results similarly suggest that teaching the skill sets is practical and enjoyable from the instructor's standpoint.

To return to the initial question in students' minds: "Can I get a job?" The overall picture described in this paper suggests that for future college graduates trained in career success skills the answer is more likely to be "yes." They will indeed have better prospects of getting a job. Not only will holders of these skills be more likely to get a job upon graduation, but also their prospects beyond merely landing a first job are likely to be significantly enhanced.

To return to the initial question in students' minds: "Can I get a job?" The overall picture described in this paper suggests that for future college graduates trained in career success skills the answer is more likely to be "yes."

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Training to Learn and Learning to Train

by

Dr. William E. Sinnett

ABSTRACT

The proposition put forward in the article is that given the current economic, job and labour market situations, learning-how-to-learn should be a critical, if not mandatory, component of every training experience. The corollary of this is that trainers themselves need to learn how to build in "learning-how-to-learn" experiences in their training. The distinction between learning and training is drawn and the point made that learning is not only critical for today's labour force but it can also be its own source of motivation through increased self-confidence and self-esteem.

The lack of inclusion of specific "learning-how-to-learn" skills in both train-the-trainer courses and in training courses themselves is analyzed and the nature of such skills is outlined through the writings of various authors. Three components are traced — the needs of the learner, learning style and training to learn. The article concludes with a suggestion that consumers of training, including employers, employees and those preparing for employment should insist on the incorporation of specific "learning-how-to-learn" skills as a value added component before buying or participating in any training experience.

Dr. Sinnett completed his baccalaureate at Queen's and his post-graduate degrees at OISE. He specialised in technical education Curriculum Development and Administration for his M.Ed. and in Adult Education for his Ph.D. His career in education spans over thirty years starting as a secondary school teacher and then in Humber and New Brunswick Colleges as an instructor, administrator, program developer, teacher trainer and educational planner. After serving as a Professor of Adult Education he returned to Humber. He was a manager in the Research and Development Unit of Business & Industry Services, and is now an International Consultant at Humber College.

Introduction

The proposal being explored here is that of training people to learn and, conversely, learning how to train them to learn. The significance of these complementary issues is embedded in the current demographic and labour market situations of North America today. We are an aging population. The flow of trained immigrants providing industry with the necessary skills for production has very nearly dried up, while the numbers of post "baby-boom" college and university graduates supplying the labour market have also declined. There are actual labour market shortages in the skilled and semi-skilled trades, while the advance of technological innovation, the trend to downsizing in organizations and the shift from manufacturing to services, all point to the need to develop the skills and abilities of the existing labour force. The reality of free trade simply adds further to our need to become more competent and effective in what we can do.

As a response to these situations it is pro-posed that our very future as a society – even if that is narrowly defined as our politico-economic wellbeing – depends upon our ability to learn, hence to train ourselves. The corollary is that, as adults, we need help to learn how to learn and thus to train ourselves, and this help can come from trainers who can assist trainees in doing just that. Putting this response to the problems of our changing economic situation as questions for discussion:

What is the significance of learning-how-to-learn for training purposes?; and, concomitantly,

What are some of the implications for training trainers to train people to learn?

Learning How to Learn

Learning and Training Defined

Just what meaning do we give to "training" and "learning"? Is training synonymous with

learning? Few would agree that learning encompasses only the notion of training: consider education, enlightenment, perspective transformation, paradigm shifts, therapy and religious conversion – do these not involve learning as well?

Training primarily focuses on skill or competence or ability, behaviour and performance as these relate to a job, occupation, role, activity or set of responsibilities. Learning is a broader concept embracing life itself. We say we learn how to live or how to relate to one another, not only how to do a job.

A basic assumption being made here is that training cannot take place without learning, and effective learning skills lead to effective training and thus to the acquisition and internalization of job competencies. Further, it is supposed that, as a necessary response to the effects of current demographic and economic change, including freer trade, job competence leads to effectiveness and productivity, competitiveness in the market place and increased exporting capabilities, whether those exports be products or services.

The Needs of the Learner

There is another important human side to this economic, free market and free-trade view of learning competence being proposed as critical to our future. Adult educators have known for a very long time that a major key to motivation and desire to learn in adults is self-confidence combined with self-esteem. Knowing how and being able to learn – to train oneself, if you will – is a powerful generator of self-confidence and self-esteem.

The ability to accomplish even the simplest task that at first seemed impossible or hopelessly difficult is a highly satisfying experience. We can thus affirm ourselves and build confidence and self-esteem through accomplishment – through doing things, knowing things, understanding things, solving problems and overcoming difficulties, making things work, making things happen and also from helping others to do the same. This is the power of learning, and training can be viewed as an aspect of learning in general. Thus the most basic and important of skills, surely, is the skill to learn. Why then, does not all training incorporate "learning-how-to-learn" as a taken-for-granted component of the experience? Why do not all train-the-trainer pro-

...the most basic and important of skills, surely, is the skill to learn.

grams incorporate and implement training for trainers to train trainees how to learn?

Perhaps one major reason is because we simply assume that people, trainees, already know how to learn. "They have been to school, haven't they?" Unfortunately, most of us learned very little about how to learn in school. However, we did learn a great deal about how the system works and our place in it. As Martin Buber (1961) and Paulo Freire (1970) remind us, we are often regarded as empty vessels to be filled, the socalled "banking concept" of education. We learned little of the meaning of taking responsibility for our own learning, how to ask the real questions about assumptions, values and feelings. Nor did we learn much about our own learning style, say, how convergent or divergent we might be in our approach to a topic or a quest, as so poignantly modelled by Kolb and Fry (1975).

We were not usually encouraged to trust our own experience or to draw upon the experience of our peers and cohorts. Perhaps we were lucky enough to have a teacher or professor help us develop some study and research skills – how to read effectively and efficiently – but few of us ever were given a chance to really explore how we feel about learning – what seems to work best for us and what have others found to be helpful.

Learning, and its integral aspect training, can be an anxious, difficult experience. In fact there may be no accomplishment, no sense of satisfaction and increase in confidence and esteem without such initial anxiety. However, most of us have never had an opportunity to talk about our pain, our feelings of inadequacy and perhaps our clumsiness. Learning-how-to-learn means learning how to unlearn some of the blocks and barriers that we have experienced. Educators and trainers talk about the learning domains: the thinking (cognitive); feeling (affective); and acting (psychomotor) aspects of learning. Put simply, the psychology of learning recognizes our need to learn intellectually, emotionally and somatically, that is, through our body.

So much of our learning experience has been of a cognitive or intellectual nature that the area of feelings, especially those of feeling good about ourself, is ignored. Thus learning to learn also involves knowing how you feel about a task, about being in a training session, about the job

you are doing or the skills you apparently lack. Brookfield (1986, 1987) makes the point admirably when he stresses the need for critical reflection on our taken-for-granted assumptions regarding learning. Acknowledging feelings is a critical aspect of learning-how-to-learn because we are not just "head" or "heart" or "gut" people, we are all three and all three are involved in learning and hence in training.

Smith (1982) addresses the notion of learning-how-to-learn quite directly by suggesting that there are three interrelated components:

1. the needs of the learner, i.e. skills and knowledge required for learning;

2. the learning style of the individual in terms of tendencies and preferences amalgamated with the context for learning; and

3. training to learn how to learn, i.e. structured or formalized recognition of needs and approaches to acquire the requisite skills and knowledge.

Training People to Learn

What are some of the key skills of learning-how-to-learn? What would training to learn consist of? The four basic communications skills of listening, speaking, reading and writing are, of course, fundamental. Particularly today, functional literacy (reading and writing), numeracy and basic computer literacy are becoming absolutely requisite. For many, these must be the first skills acquired. Given that basic literacy is prerequisite to learning-how-to-learn, there are, in addition: job related technical skills; getting along with people; planning; organizing; analyzing; synthesizing; inquiring, including questioning and researching; as well as problem solving.

It is probably not possible to develop a complete or totally satisfactory list of competencies and abilities, since circumstances for individuals vary so much. It is not the intention of this article to do so. However, in addition to our own experience the work of such authors and researchers as Smith (1982, 1988), Brookfield (1985, 1986, 1987), Cross (1981), Wlodkowski (1985), Koestenbaum (1987) and Kolb (1975) provide rich resources for identifying a variety of learning skills and approaches. These writers can help us develop the necessary meaning base and language for articulating and implementing

what Roby Kidd (1973) has called *Mathetics* – the science and art of learning-how-to-learn.

Modes and Styles of Learning-How-to-Learn

In terms of style or mode of learning, Smith (1982) suggests three possibilities for learning-how-to-learn; self-direction, collaboration and formalized institutional approaches. Each has its own strengths and weaknesses and must be chosen in context according to the needs and preferences of the learner. In any event, some fundamental questions should be asked. These include:

• Are there preorganizers available, i.e. is there an orientation, an overview, a "big picture" of what is available or what will or could happen within the context of the training event or process?

• What kind of resources are available, both human and physical?

• Can the need for flexibility and contingency be met?

• What is the sense of the training climate; is it positive and suitable for learning given the preferences and circumstances of the learner?

• Are there feedback mechanisms that can be developed or accessed?

• How will the trainee know that he/she has learned?

Finding and/or developing answers to these types of questions constitutes a set of skills for determining the appropriate mode and style of learning-how-to-learn in a training context. As Tough (1979, 1982) has contended throughout his several years of basic and replicated research – we as adults carry out many learning projects during our lives, but a better understanding and application of our own style and approach to learning, including how we ask for help from appropriate people and resources, makes such projects much more effective and ultimately more successful and satisfying. It is suggested here that the same can apply to training.

Learning as Process

Another point regarding the skills of learning-how-to-learn as mentioned above in Smith's first two major components (needs of the learner and learning mode or style) involves noting that

...the content of a learning-how-to-learn training session is process.

the content of a learning-how-to-learn training session is *process*. We often think of training as dealing with two major aspects – the "what" and the "how," i.e. content and process. In this case, the what *is* the how. Two important processes that could be the content of a possible training course or program including learning-how-to-learn are dialogue and reflection on the learning process itself, to name and clarify what is going on for the individual and/or group. Others could include the keeping of personal logs, diaries and journals, the use of mentors, models and resource persons, interpretations of intuition and dreams as well as the interactive use of media such as television and radio, films, plays, articles and books. All of these processes help make sense of the learning experience and give meaning to the training. Learning how to use them is to learn how to learn.

If a training session entails a need to challenge current perspectives and practices such as supervisory, management or leadership skills, Smith (1982) as well as Brundage and MacKeracher (1980) suggest that there is a cycle of learning phases. The cycle usually consists of conflict with the new approach, defense of the old approach, resolution of the new and the old ways of doing things and finally, internalization or incorporation of what has been learned using a different approach to the situation.

An understanding of the initial, anxiety-producing phases of learning could ease the negative tension so often experienced when trainees are challenged. Experienced facilitators, counsellors and therapists expect to meet with resistance in such challenging circumstances. Trainees themselves could also come to better understand their own feelings, hence to become self-directed with enhanced learning abilities. Confusion, uncertainty, frustration and anger come to be seen as "OK" because they are expected, and even necessary.

Knowing how we learn and being given the opportunity to do so via job training is an approach to training that will not only begin to address the skills gap that is now hindering our economic position as a country and a province, but will also help us grow in confidence and affirmation of who and what we are and can be as people.

An understanding of the initial, anxiety-producing phases of learning could ease the negative tension so often experienced when trainees are challenged.

Learning to Train People to Learn

This brings us back to Smith's third and final point which is the other side of training to learn – the concern for learning to train. Adult educators often use the term "facilitator" rather than trainer or instructor. The meaning of "facile" is in reference to that which is easily accomplished or attained. The facilitator is a helper and the notion of help to make things easier in the context of training is tied directly to helping trainees to train themselves through an understanding and application of their skills for learning. The concept of training trainers how to train their trainees how to learn for themselves puts the trainer in an expendable role. Trainers should, in a sense, be trying to put themselves out of a job!

There is, however, little possibility of this happening because in fact there are always those who have not yet learned how to learn and those who need to refresh, develop and enhance their learning skills as they take on more complex roles or new jobs. In addition, trainers primarily possess content expertise which can be shared.

What is being proposed, then, is that along with the usual components of any train-the-trainer program or course such as climate setting, establishing learning objectives, providing learning resources and opportunities, and assessing progress and evaluating accomplishments, there should be an integral component of learning skills. Effective ways of teaching or leading trainees toward acquiring the ability to learn should be as important as the skills and knowledge of the topic or content area related to performance on the job.

Again, Smith (1982) provides a number of course outlines for such training and learning experiences. It could be argued that this is exactly what a good train-the-trainer program does accomplish, but rarely is it structured to deal directly with the skills of training others to learn for themselves. In other words, potential trainers must themselves go through the transformation of learning-how-to-learn before they can effectively learn how to train others to learn.

Training to learn and learning to train is an approach that this author is fully convinced represents, if not a realistic solution, at least a significant contribution towards a solution to the impending economic and free-trade related cri-

sis in training needs. At the same time, it recognizes our need to express ourselves as affirmed human beings. Training trainers to train their trainees to learn is a way to lay the foundation for such an approach.

Insistence on the part of consumers of training – employers and those responsible for training in organizations – that every training course and experience incorporates a "learning-how-to-learn" component so that employees and those preparing to enter the job market have at least a modicum of learning skills, will go a long way not only toward changing the economic facts of this country but in providing the satisfaction that accompanies a life of learning. Lifelong learning means learning for living, and training for job competence and satisfaction is an integral component of that. Lest we lose sight of the context of training from within the economic viewpoint, Koestenbaum (1987) cryptically reminds us that:

> "In the long run, profitability is directly proportional to the quality of people engaged, to the thoroughness of their development, and to the degree to which the whole person is utilized" (p. 341).

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The Environment of Adult
Learners in the Ontario Colleges

ABSTRACT

The author has interviewed a sample of fifty continuing education adult learners at Humber College, employees of small manufacturing businesses (see Appendix A). Small companies represent over 80% of Ontario's manufacturing base.

There has been little written about the reasons why employees of small businesses do not avail themselves of education and training opportunities to the same extent as employees of large, established businesses. Most of the related literature cites cases and conditions related to large business, companies that employ HRD or training professionals.

The purpose of this article is to examine the level of understanding of the knowledge and skills required by adult learners, the level of commitment to education and training to develop those skills, and the conditions and practices that act as barriers to education and training.

The paper also examines implications of the research for the community college. Colleges have a critical role to play in providing education and training for employees. They have to overcome a number of structural barriers and adopt a new approach to instructor professional development.

by

Dr. Michael Sava

Michael Sava has eleven years of engineering experience in industry and twenty-five years as a learner, instructor and academic administrator in the college system. He completed a mechanical engineering degree as a full time student and earned a master's degree in applied science while working full time building DC9s and DC10s in Malton, Ont. Michael completed a Ph.D. in Adult and Continuing Education through Michigan State University. As an instructor and an academic administrator, Michael has been involved with students on a daily basis. In the last few years, the average age of these students has increased, bringing about a need for prior learning assessment and raising numerous other adult learning issues. Michael's doctoral research focuses on "Barriers to accessing education and training for employees of small manufacturing businesses".

The Global Environment

Once upon a time, the wealth of nations was measured in gold and jewels, and after the industrial revolution in means of production. Today, the foundation of national wealth is represented by the knowledge, skills, organization and motivation of people.

The economic and social well-being of North-America depends on the performance of its industrial manufacturing sector. In recent years, though, millions of industrial jobs have been lost (Warmbrod, 1983). Manufacturing workers, at all levels, must be prepared to operate in a permanently changing environment.

The inability of American and Canadian manufactured products to compete effectively on a global basis has originated a number of studies and reports. The consensus of all these reports is that productivity, quality, price and timely delivery are all related to the education and training of the workforce. The educational institutions related most closely to workforce training are the community colleges. They are in a position to supply the most appropriate level of training, at the time and venue most suitable for the trainees.

H. L. Gates (1992) quoted Gary Becker's definition of the notion of human capital : "education is an investment like any other capital investment, only more profitable."

Technical education programs in the field of manufacturing (Emhousen, 1987) can and should play a vital part in restoring competitiveness to North American manufacturing. Blache (1988) suggested that from conception through implementation, manufacturing technology is an intense human endeavor.

A nation's most important competitive assets are the skills and the cumulatively applied learning of its workforce (Reich, 1990). Cross (1991) recommended that manufacturing education and training must change if North America is to become globally competitive. That means that col-

leges must offer training that is relevant to the needs of the trainee, and is scheduled at a time that is convenient both to the trainee and the employer. Colleges must also provide training in a format and length that is compatible with the time the trainee can be released from work in the small business.

"Small businesses have created virtually all of the new jobs in our country in the last 10 years. Their inability to create more jobs than larger employers have been shedding is the central cause of stagnant employment in America" (from a speech by President Clinton to the nation's mayors – reported by S. Greenhouse, March 1993).

Daniel Bell, a sociologist, coined the term "post-industrial society" in 1973 to characterize the present age (Lynton, 1984). This new society could be symbolized by the computer, just as the preceding industrial society could be typified by the steam engine, the assembly line and the smokestack, or the agricultural age by the plough. Each of the successive states of society differed in the way human resources were utilized.

The fundamental nature of employment is changing rapidly, and a growing number of functions require a substantial level of newly-defined skills and sophistication. "The focus must change from investment in machinery and equipment to investment in people" (Denommé, 1990). By association, community college staff must strive continuously to recreate and regenerate themselves in order to make their contribution meaningful to a new and different group of students.

The Local Environment

Workers' skills are critical to industrial productivity and competitiveness, and to maintaining living standards. In recent years, technological advances have significantly altered the economy and raised skill requirements for small business. North-America's ability to compete in a knowledge-based, technology driven world will increasingly depend on its success in:

• removing barriers in education, training and retraining for its workers.

• creating a social context in which adult lifelong skills development is broadly and strongly valued and supported.

The fundamental nature of employment is changing rapidly, and a growing number of functions require a substantial level of newly-defined skills and sophistication.

• creating a social context in which traditional arts and sciences programs are sufficiently rigorous to prepare post-secondary students to compete on a global basis during job-specific training,

• dealing with the socio-economic implications of chronic underemployment of the available workforce (effects of high-tech manufacturing, communications and distribution).

The colleges, in turn, must create an environment where the majority of their staff can be positioned to respond to changes in the marketplace.

On a macro scale, from a list of 20 countries, The United States spent 5.7 of the Gross Domestic Product (GDP) including public and private funding of education (Toronto Star, Sept. 24, 1992). Canada was the top spender at 7.2% of the GDP. The results do not seem to reflect the effort.

Blair (1991) developed four key principles for improving the work force: (1) commitment to developing the skills of all; (2) understanding of the knowledge and skills required today and tomorrow; (3) guaranteed access to a wide range of education and training opportunities; and (4) belief in the economic importance and inherent dignity of all kinds of work and workers.

These principles have generated the following research questions, which this paper will discuss to some extent :

• What are employee needs for education and training?

• What is the level of understanding about employee education and training?

• What is the level of commitment to employee education and training?

• What are the barriers to accessing education and training? (see Appendix C for the complete research model and Appendix E for the Employee Questionnaire)

In our recessionary, "post-industrial" economy, worker skills, knowledge, equipment, plant and existing technology are rapidly becoming obsolete. Lester Thurow observed that "third world skills will bring third world wages" (Toronto Star, September 1992).

Dealing with these problems presents its own particular challenges. The growing obsolescence of worker skills, or the fundamental lack of skills

to meet competitive challenges, can only be addressed by cycles of planned, organized, appropriate education and training. These must be followed or combined with strategic workplace application of the training.

Figure 1 illustrates the typical training situation for a small company employee:

FIGURE 1

Entry level employees | Occasionally skilled employees | in → Small manufacturing business organization
- lack of formal training
- some job training
- low pay
- employees acquire skills on their own
→ Employees leave for a better paying job
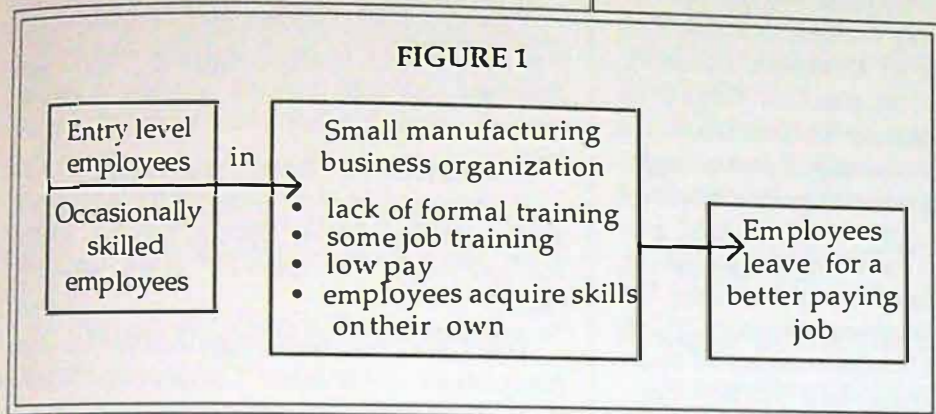
Employability Skills

Employability skills are a generic list of the kinds of skills, qualities, competencies, attitudes and behaviours that form the foundation of a high-quality workforce.

In 1991, the Conference Board of Canada and the Michigan Employability Skills Task Force produced practically identical profiles describing skills sought by employers, essentially academic (including technological job-related), personal management and teamwork skills.

The Report of the Premier's Council (1990) looked at the economies which have achieved stronger economic performance through superior worker training and labour market responsiveness. By contrast, it has listed inadequate reading, writing, analytical and interpersonal skills as the main barriers to further education and training in Ontario, where participation rates of people aged 17 and over in formal education and apprenticeship are only 72%, compared with 94% and 89% in Japan and Germany respectively.

A paradigm shift from traditional training to performance technology (Rosenberg, 1990) addresses the combined issues of education (transmission of knowledge), performance (up to the moment job guidance) and adult education (participation and contribution of the "learning" part-

ner to the new model of the "training" partner).

Most new jobs and innovations are found within businesses with 10 or fewer employees, none of which can afford expensive training and consulting. They can however find a lot of the needed resources in the local community college, if the colleges can rise to the challenge of meeting employers' requirements

An important category of adult learners in need of help from the colleges is the professionals, which in small manufacturing businesses are primarily engineers or technologists. The essential barrier to their further training is that at their level, many industries are technologically ahead of academia; the job specific knowledge they require is simply not available in schools.

Community Colleges

Community colleges are generally ahead of other traditional institutions in adjusting curricula to industry needs, and in forming cooperative partnerships with industry to overcome education and training barriers.

Colleges offer education and training for business employees to help improve products, management, manufacturing procedures, service delivery systems and any other factors that help improve productivity (see Appendix B).

The most important contribution of community colleges to economic development is the help they can offer to small businesses as a source of expertise in the education and training process, of potential employees, and of improvement of the productivity of existing employees (Gordon, 1989). Colleges can also negotiate hiring commitments in return for better student performance, organize special programs for disadvantaged youth, use college facilities during the summer months to provide youth with basic skills training, knowledge of English, technological literacy, and positive work attitudes, or involve employers to plan programs for the local

labor market. However, unless they acquire more of their partners' characteristics in business management, efficiency and customer service, the colleges will find themselves seriously outclassed by private, super-flexible entrepreneurial organizations offering similar services at far more cost-effective prices.

Beckman and Doucette (Feb. 1993) report on a "Survey of Community College Training Programs for Employees of Business, Industry, Labor & Government" in the U.S. Responses represented 763 colleges, or 73.2% of colleges surveyed, of which 96% provided some degree of customized workforce training. Two thirds of the training provided was for small and medium sized companies (under 500 employees), with 39.2% for employees in manufacturing. Job specific technical training represented 20.2%, computer training 18.6%, supervision and management 14.6%, and workplace literacy 9.8%. Fully 85% of the training was delivered by traditional methodologies.

Funding was provided by employers (35.5%), college operating funds (26.9%), tuition and fees (16.0%) and state and federal sources (15.5%). Nearly 85% of the colleges perceived that they were effectively meeting the training needs of their clients. The major obstacles were inadequate college training budgets (34.6%), the inability of employers to afford training (25.3%), difficulty in being recognized as providers of training (22.8%), lack of experienced trainers (22.3%) and inadequate support for curriculum development and related costs (22.2%).

The benefits of the college/business co-operation can be shown by the model in Figure 2, which includes the two additional partners which affect co-operation – government/community and the unions:

The importance of the college system can be appreciated by reviewing some figures in the 25th year of its existence in Ontario (R. Daly, 1992). The 23 Colleges of Applied Arts and Technology of Ontario account for 124,000 full time students and 800,000 part time students, or more than 10% of the province's population. It should be noted that all the increase of the last 5 years was provided by students age 25 and older.

Barriers

There are substantial barriers to access to education and training of small business workers. The literature generally presents opinions or perceptions of generic barriers which inhibit adult learning.

A common trait of all barriers is the lack, among adult learners, of basic skills in reading, writing and arithmetic, the "catch 22" of education and work.

The Science and Technology Task Group of the Association of Canadian Community Colleges (1991) listed a number of barriers to the increase of Canada's productivity, economic/industrial competitiveness and standard of living. Some of these are due to a societal/cultural climate which places low value on technological achievement, fails to appreciate the explicit linkage between quality of life and technological achievement and has the perception of low (intrinsic and extrinsic) rewards in manufacturing careers.

FIGURE 2: CO-OPERATION MODEL

COLLEGE   BUSINESS

Educated and well prepared workers
Trained and retrained employees
Application of new technology
Expansion of local business
Mutual use of facilities and equipment
Mutual use of expert advice
Mutual economic benefits
Mutual information sharing
Direct economic benefits
Improved business and educational climate
Increased tax base
Increased strength
Increased markets

GOVERNMENT/COMMUNITY   UNION

Cross (1981) classified the barriers to participation in Adult Education under three headings:

- Situational ~ arising from the individual's situation at a given time

- Institutional ~ arising from practices and procedures such as inconvenient schedules, locations, fees, wrong courses, prerequisites, and

- Dispositional ~ related to people's attitudes and perceptions of themselves as learners, particularly age, poor education and energy factors.

Feedback from Adult Learners

The following is a summary of some of the comments collected during discussions with adult learners:

- Our industry doesn't have a tradition of training.

- We have found your College to be very flexible.

- Colleges are traditional and conventional, definitely not in touch with the small business market and its needs. Graduates have no feel for costs and pricing.

- We get our training from night school classes. The level of instructors is quite variable.

- We cannot keep pace with technological changes.

- Most of us know *how*, but have no idea *why* we do things. The new tradesman has to work mentally. He also requires some theory background.

- We don't know how to motivate people. Money doesn't help with most of them.

- Many employees are afraid of training, particularly of computers.

- In a small company such as ours, each person must be multi-skilled.

- Most employees have problems communicating in English.

- Our younger employees are illiterate in any language.

- We have many problems with our women employees (age, culture, math, etc.). They are very resistant to change.

- Team work is critical.

- Where applicable, each employee must be certified for process safety. At this stage, our certification is only internal.

- We would prefer to have all our training on site.

- Keep training as short as possible. Half days are best. Saturdays are preferable.

- We have used small "fix" courses composed of 3-4 hour video-tapes. Best results are obtained when the trainer is another employee (pre-trained).

- Customer expectations are forever increasing. Our training is oriented to customer expectations of value: quality, price and service.

- You should make industry more aware of your services.

A Look at the Future

A comprehensive report prepared for the Premier of Ontario (1990) analyzes foundation skills as part of lifelong learning, examines the changing role of the colleges, outlines the training imperative and takes an extensive look at training in industry with particular attention to small business concerns and a new approach to training.

To better serve the adult learner, the institution of the future (Wright, ed., 1990) may:

- redefine the roles and titles of some senior academic administrators and place them on performance related contracts

- introduce strategic planning and linked industry-school objective

- introduce formal programs and courses related to market and clientele

- link quality of physical resources to marketing success

- target non governmental sourced income and set an organized policy of collaboration with business and industry

- move to small specific business units

- organize immediate response to market needs

- invest in training, not just in equipment

- introduce the right balance between central control and empowerment of industrial instructors

- measure success by more than just financial results, and

- recognize industrial training at par with academic instruction.

The responsiveness of the institution will be measured by its ability to combine the pursuit of knowledge with the practicalities of life, continuously relate school work to the world of work, place student work and projects in real settings, modify teaching and learning styles to promote management of self-learning, give new meaning to team work, use modern technology as a learning tool and integrate transition to prepare for a world of transitions.

The application of advanced computing to learning in the new institution will mean that people will be able to work and train differently, as instructional technology will closely follow the technological revolution in manufacturing processes.

To earn a living, people will work with new instruments, and the knowledge thus acquired will assist with their self training, as shown by the model in Figure 3 below:

FIGURE 3

ACQUIRE KNOWLEDGE

WORK   SELF-TRAIN

ACQUIRE KNOWLEDGE
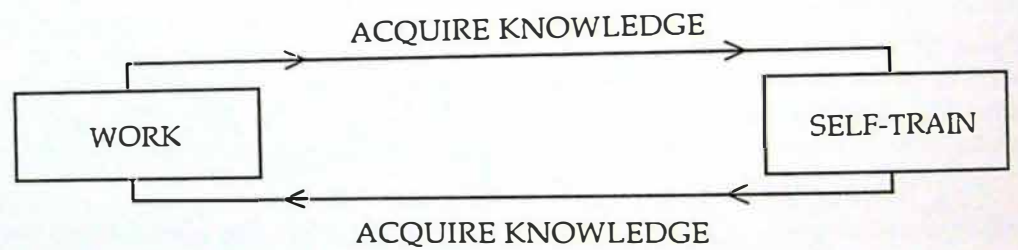
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Positions of respondents to the employee questionnaire

No.	Employee Position (Grouped category)	Number Reporting
1.	Machine Operator	9
2.	CNC Operator	6
3.	CNC Programmer	5
4.	Designer/draftsman	5
5.	Shipper/receiver	3
6.	Apprentice/bench	2
7.	General helper	2
8.	Production supervision	3
9.	Tool and die maker	2
10.	Inspection	2
11.	Operator	2
12.	Set up assembler	2
13.	Cylinder honer	1
14.	Maintenance	1
15.	Mold tester	1
16.	Service technician	1
17.	Wiring technician	1
18.	Plastic (acrylic) fabricator	1
19.	Mechanical fabricator	1
20.	Buyer/production/welding	1
	Total respondents	50

KEY IDEAS

Conveyed by Administrators and Industrial Trainers:

- Certification of the new, emerging, multi-skilled trades,
- Packaging of training in small modules for flexibility of selection,
- A new definition of training based on job profiles (as opposed to the classical disciplines), and
- A new definition of instructor professional development based on industrial training needs.

APPENDIX C

COMPLETE RESEARCH MODEL
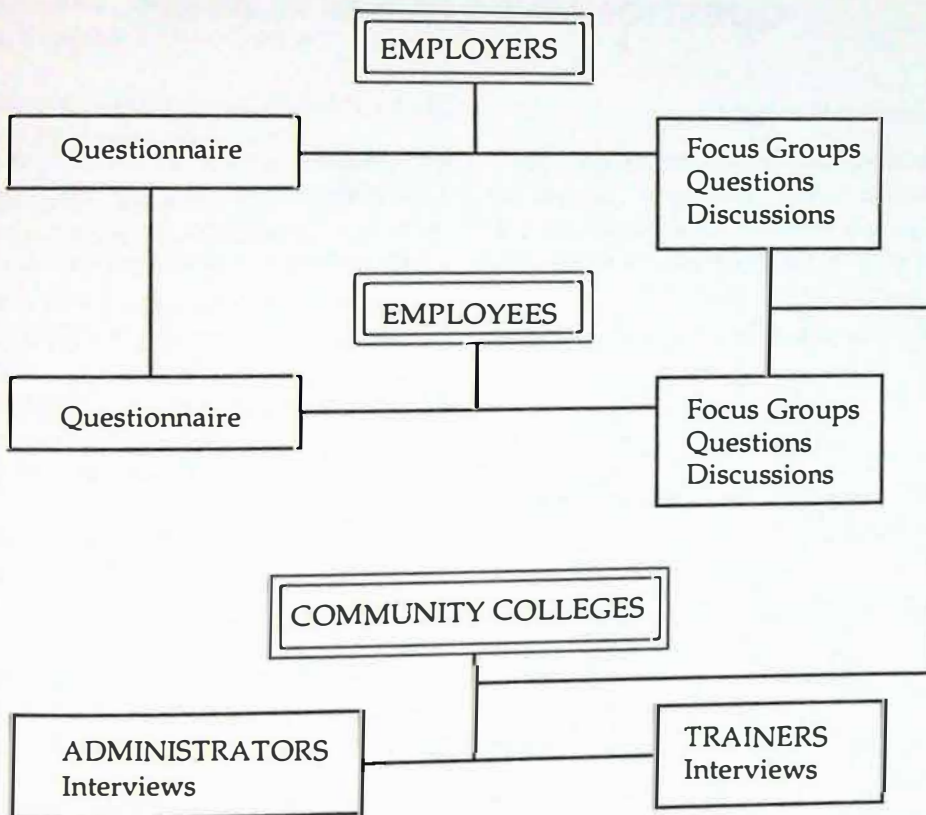
DEFINITION OF BARRIERS

- Barriers: Obstacles that interfere with the achievement of goals or plans for change.
- Barriers to training: Circumstances, regulations, attitudes, perceptions, structures, procedures or personnel which impede, restrict or otherwise inhibit the process of training.
- Individual barriers : Obstacles residing within another person that interfere with one's desire to bring about change.
- Personal (dispositional, socio-psychological) barriers: Obstacles residing within one's self that cause one to be resistive or negative about change.
- Organizational (structural, institutional) barriers: Obstacle based in the organization or institution that interferes with attempts to bring about change.
- Situational barriers: Barriers arising from the individual's situation at a given time.

APPENDIX E

QUESTIONNAIRE FOR EMPLOYEES

Dear Questionnaire Recipient :

I am examining how employers, employees and educators view the role of education and training for small manufacturing businesses. I appreciate your willingness to assist me. Your participation in this study is purely voluntary. All information will be held in the strictest confidence. Your name and organization will not be reported. All information will be reported anonymously as part of the entire population.

Thanking you in advance for your assistance and co-operation,

Sincerely,

Michael Sava
Associate Dean, Mechanical/Safety Programs
Humber College

COMPANY NAME: _____

Position: _____

Major Product(s): _____

Number of Employees : Total ___ Production Employees ___

Unions (if any): _____

Date Completed: _____

You are asked to participate in this survey by answering the following questions. Please circle the factor which best applies to your answer.

1. How much training do you need in:	Very little	Some-what	Above average	A great deal	Not applicable or no answer
a. job skills	1	2	3	4	NA
b. basic skills	1	2	3	4	NA
c. teamwork skills	1	2	3	4	NA
d. health and safety	1	2	3	4	NA
e. other (specify)					
_____	1	2	3	4	
_____	1	2	3	4	
_____	1	2	3	4	
_____	1	2	3	4	
2. How much do *you* believe that training is critical for your company's success?	1	2	3	4	NA
3. How much does *your manager* believe that training is critical to your company's success?	1	2	3	4	NA
4. To what extent would work related training increase *your* work motivation?	1	2	3	4	NA
5. How critical for successful training are appropriate *evaluation and follow-up*?	1	2	3	4	NA
6. To what extent is *employee* education and training emphasized by your company?	1	2	3	4	NA
7. How clearly can your manager communicate new job expectations that will require training by *employees*?	1	2	3	4	NA
8. How much time and effort are *you* prepared to invest to help define your own training needs?	1	2	3	4	NA
9. How much time and effort would your manager be prepared to invest to help define training needs?	1	2	3	4	NA
10. How much would training help *your* knowledge, skills and attitude towards work?	1	2	3	4	NA
11. How much does your manager believe that training would help knowledge, skills and attitude towards work?	1	2	3	4	NA

	Very little	Some-what	Above average	A great deal	Not applicable or no answer
12. To what extent is *your manager* a positive model, coach and reinforcer of the desired behaviors on the job?	1	2	3	4	NA
13. To what extent do *you* use the community college for: a. your own education	1	2	3	4	NA
b. your own training	1	2	3	4	NA
14. To what extent do *you* believe that the following factors act as barriers to your participation in education and training? a. lack of time	1	2	3	4	NA
b. low prior educational attainment	1	2	3	4	NA
c. job responsibilities ("too busy")	1	2	3	4	NA
d. return on your investment	1	2	3	4	NA
e. conflict between work schedules and education & training schedules	1	2	3	4	NA
f. financial support for you during (institutional) training	1	2	3	4	NA
g. selection of applicants for training	1	2	3	4	NA
h. retention of trainees in lay-off situations	1	2	3	4	NA
i. ability of training program to cross occupational or trade jurisdictional confines	1	2	3	4	NA
j. relevance of skills taught in the college	1	2	3	4	NA
k. portability of skills learned from training	1	2	3	4	NA
l. location of training programs relative to your location	1	2	3	4	NA
m. ability of training programs to train for multi-skill jobs	1	2	3	4	NA
n. your job and career expectations	1	2	3	4	NA
o. difficulty for you to meet job or training entry requirements	1	2	3	4	NA
p. peer pressure	1	2	3	4	NA
q. your age (time away from school)	1	2	3	4	NA

SECTION B

Human Resource Development

Human Resource Development
at
Humber College of Applied Arts & Technology

Humber's philosophy of staff development is defined in its Mission and Role Statement:

> *"Humanistic:*
>
> *The College provides an environment which reflects a commitment to the development of the whole person (1.3)*
>
> *To provide an environment that enhances the social and educational development of students, employees, and users of the College (2.10)*
>
> *To provide an environment that supports employee development and renewal, that encourages all individuals of the College community to participate in decision-making, and that encourages open communication (2.11)"*

ROBERT A. GORDON
President

Human Resource Development at Humber College
An Overview

Since their inception twenty-five years ago, the Ontario Colleges of Applied Arts & Technology have done remarkably well in preparing students for employment. These institutions have been able to continue hiring new, enthusiastic faculty members from the business, industry, and service sectors of society, thereby benefiting from up-to-date vocational expertise. As well as educating the students, each of these faculty shared and educated other staff members to new thoughts and practices within each discipline. However, times have changed. With the advent of the information age, change in each vocational area is occurring at unprecedented rates. This is coupled with a levelling-off of faculty and staff hiring due to decreased funding.

Faculty are still expected to educate students in current practices and skills, and teach the latest in applied theory within each vocational area. The longer a person has been at the college, the greater the chance of stagnation, both in vocational knowledge and educational practices.

For Humber College to remain a vital, dynamic institution, it requires vital, dynamic faculty and staff members who are committed to their own professionalism and to the need for currency in the classroom, management, and service areas of the institution. The continuing development of faculty and staff does not occur in isolation or without encouragement. The development must, at all times, be focused to help the college attain its mission and goals. Faculty and staff also have specific career and personal needs. It is the meshing of these - the needs and goals of the institution, and the needs and goals of the faculty and staff members - that underlies a successful human resource development program.

Humber College seeks to provide motivation and opportunities for human resource development, and by utilizing the principles of adult education, encourages greater participation by its constituents. Therefore involvement of faculty and staff in the identification of learning needs and the planning, implementation and evaluation of professional development activities is mandatory for success.

Organizationally, Humber College has a coordinated, decentralized model for human resource development whereby academic divisions, schools, and departments with the support of a central Professional Development department, have accountability for, and provide development activities for, the faculty and staff. The central Professional Development department assists with the co-ordination of resources and activities, as well as providing across-the-college development activities that are open to all members of the institution.

Humber College: A Profile

Situated in the north west sector of Toronto, in the City of Etobicoke, Humber College is one of the twenty-five Colleges of Applied Arts & Technology in Ontario. With a total of more than 12,000 full time registrations per year, a range of over 130 full-time programs, and more than 1,000 courses, Humber College is one of the largest community colleges in Canada. Founded in 1967, the College has campuses and centres located in the cities of Etobicoke and York.

1993/94 FACTS AND FIGURES

- 10,900 full-time students
- 18,000 part-time enrolment activity (per semester)
- 580 full-time faculty professors
- 231 part-time, partial load, sessional faculty (daytime)
- 293 continuing education faculty (night-time)
- 496 full-time support staff
- 578 part-time support staff
- 149 full-time administrative staff

HUMBER HAS 3 MAIN CAMPUSES LOCATED IN THE CITIES OF ETOBICOKE AND YORK

North Campus
205 Humber College Blvd.,
Etobicoke, Ontario M9W 5L7
(416) 675-3111

Lakeshore Campus
3199 Lakeshore Blvd. W.,
Toronto, Ontario M8V 1K8
(416) 675-3111

York Campus - Keelesdale
88 Industry Street,
Weston, Ontario M6M 4L8
(416) 763-5141

HUMBER CENTRES

Futures Campus
1548 The Queensway,
Toronto, Ontario M8Z 1T5
(416) 253-6761

Humber Towers
6700 Finch Avenue W.,
Suite 901,
Etobicoke, Ontario M9W 5P5
(416) 675-5014

Theatre Humber
829 The Queensway,
Toronto, Ontario M8Z 1N6
(416) 251-7005

Student Residences
203 Humber College Blvd.,
Building R,
Etobicoke, Ontario M9W 6V3
(416) 675-3111, ext. 4745 or
(416) 675-3413

Canadian Plastics Training Centre
110 Woodbine Downs Blvd., Unit 1,
Etobicoke, Ontario M9W 5S6
(416) 213-0931

Centre for Transportation and Safety
50 Galaxy Blvd., Unit 8,
Etobicoke, Ontario M9W 4Y5
(416) 798-0300

Humber College Sailing Centre
Humber Bay Park
(416) 252-7291

Humber Arboretum
North Campus
(416) 675-3111, ext. 5009

PROFESSIONAL DEVELOPMENT DEPARTMENT - HUMBER COLLEGE

As part of its ongoing commitment to human resource development, Humber College maintains a central Professional Development department which is comprised of one chairperson, one full-time consultant (or equivalent part-time secondments), and two full-time support staff. Faculty and staff are also seconded on a part-time basis to the department for special projects.

The Professional Development department endeavours to provide programs of interest to meet the needs of all staff. It also provides linkages to the various departments and divisions within the institution by supporting program-specific initiatives generated by the client-group.

PROGRAM FEATURES

The following activities represent some of the components of the human resource development program at Humber College.

Faculty Development

    Model for selection, orientation and development of new teachers at Humber College
    Certificate presentations
    Teaching in the Community College - credit course
    Part-time teacher activities
    Mentorship
    Content currency initiatives - sabbaticals
    Inservice Teacher Training Certificate Program

Support Staff Development

    Support Staff Advisory Committee
    Annual Support Staff Appreciation Week
    Support Staff orientation program
    Support Staff Career Development Grants
    Department/divisional workshops
    Support Staff Educational Exchanges

Management Development

    Academic Administrator Training
    Management Development Institute
    Administration Career Development Grants
    In-house management development

Leadership Training for Students

    Leadership orientation and training for student government leaders

Computer-based Training

    Staff Computer Facility

Cross-college activities

    Committee participation
    Intercultural programs
    Women at Humber
    Employment Equity
    Leadership roles for women
    Divisional activities
    Humber Showcase
    The Great Debate
    Focused workshops and guest speakers
    Employee Assistance Programs
    Wellness Programs
    Publications
    Information distribution

Provincial, National, and International Opportunities

Conference participation
National Institute for Staff and Organizational Development - participation
Staff exchanges
Campus visitors
International opportunities

Training Initiatives Resulting from Legislation

Human Rights Legislation and Special Needs
Freedom of Information and Protection of Privacy Act
Safety in the Workplace

Humber College Recognition and Awards Program

Distinguished Faculty Awards
Support Staff Distinguished Service Awards
Administrative Distinguished Service Award
Administrator's Excellence Award
Innovator (Innovation) of the Year Awards
Women's Distinguished Service Award
Student Life Appreciation Banquet and Awards
10-year Service Pins
25-year Service Recognition
Retirees' Dinner

The League for Innovation in the Community College

Conferences

Publications

Special Projects

Other Projects and Programs

Special Provincial Initiatives

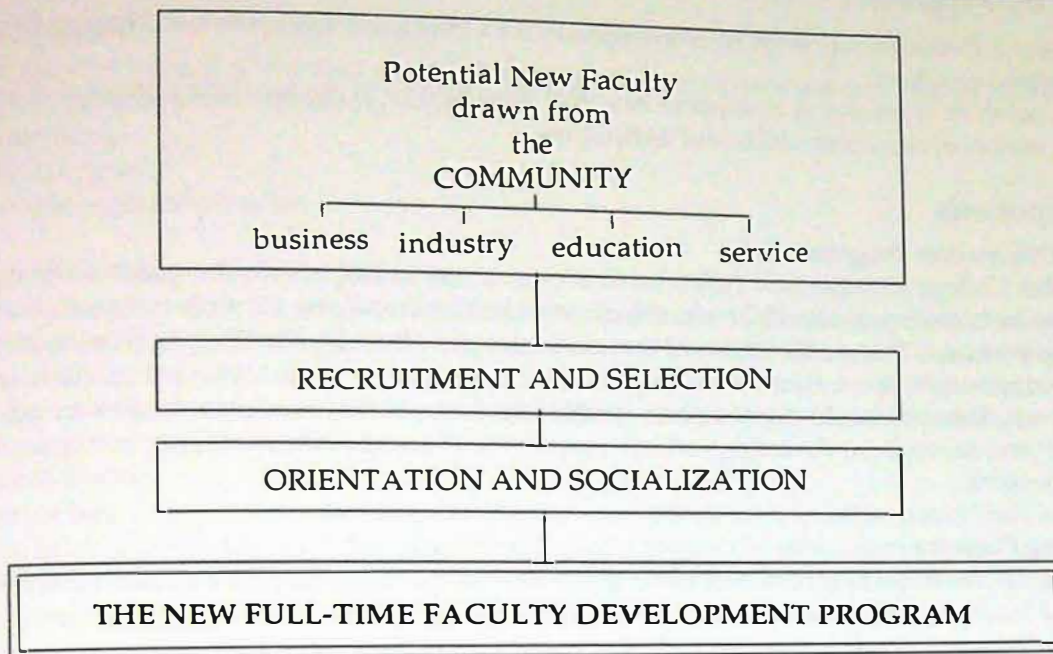Human Resource Development in the Third Decade
Prior Learning Assessment
College Standards and Accreditation Council
Advanced Training

Undergraduate, graduate and post-graduate studies hosted at Humber

Undergraduate: York University/ Atkinson College
Graduate: Ontario Institute for Studies in Education
Graduate: Central Michigan University
Post-graduate: Michigan State University

Professional Affiliations

MODEL FOR SELECTION, ORIENTATION AND DEVELOPMENT OF NEW TEACHERS AT HUMBER COLLEGE

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┌──────────────────────────────────────┐
│        Potential New Faculty          │
│            drawn from                 │
│               the                     │
│           COMMUNITY                   │
│  business  industry  education  service│
└──────────────────────────────────────┘

┌──────────────────────────────────────┐
│      RECRUITMENT AND SELECTION        │
└──────────────────────────────────────┘

┌──────────────────────────────────────┐
│    ORIENTATION AND SOCIALIZATION      │
└──────────────────────────────────────┘

┌──────────────────────────────────────┐
│ THE NEW FULL-TIME FACULTY DEVELOPMENT PROGRAM │
└──────────────────────────────────────┘
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ORIENTATION
- residential
- in-house
- mentoring
- socialization

ADULT EDUCATION COURSE: COLLEGE TEACHING
- learning journal
- problems & strategies clinics
- computer skills
- class visits
- observations of teaching

THE COMMUNITY COLLEGE COURSE
- core values/Mission
- the college student
- college services
- college structures
- decision-making processes

DIVISIONAL TRANSFER
- 3-year plan for professional development
- educational project

MODEL FOR SELECTION, ORIENTATION AND DEVELOPMENT OF NEW TEACHERS AT HUMBER COLLEGE

Objectives of the Program

1. To provide new full-time faculty with an orientation to the Ontario college system, to Humber College, and to their academic division or school.
2. To provide a network of resources to support new full-time faculty in the teaching process at Humber College.
3. To provide a review of classroom skills and techniques.

Program Components

1. Residential Orientation Program

Each year, Humber College engages new full-time faculty in a residential orientation process, during which they are exposed to a network of their peers and introduced, directly and indirectly, to the philosophy of the college, and to the specific skills of instruction. This residential orientation occurs over five days in August, three in an off-campus rural setting, and two days on campus. Each participant has an opportunity to do some practice teaching, and receives supportive feedback from peers and the program facilitators. Later in the week, candidates are introduced to those personnel and services throughout the college which support faculty and students. Faculty evaluations of this program are consistently positive.

2. The Mentoring Program

Each new full-time faculty member is matched, during the two-year probationary period, with a mentor from among the more experienced faculty in his/her division or school. Mentors are invited to an orientation meeting to discuss their responsibilities and expectations. It is expected that faculty and mentors will meet for approximately one hour each week (minimum) in order that a good mentor/mentee relationship can develop which will provide support, reflection and personal growth for the new full-time faculty.

3. Class visits and observations

New faculty are encouraged to invite their mentors to observe them while teaching a class. As well, experienced faculty mentors may also encourage a classroom visit from their mentee. These visits provide opportunity for supportive feedback and observation in a "friendly" environment.

4. The Adult Education course: College teaching

This nine-week program is divided into three main components:
- preparing for instruction
- delivering instruction
- evaluating instruction.

The goals of this course are to ensure that all new full-time faculty acquire the skills they will need to succeed as a community college professor. The sessions are interactive and permit teachers to devote time to the discussion of those theories that underlie their everyday classroom experiences.

5. The Community College course

This nine-week (part-time/evening) program exposes the new full-time faculty to a range of issues and college services offered in support of the teaching and learning process. Typically, these would include:
- student diversity
- the multicultural campus
- working with special needs students
- student counselling and placement services
- workplace safety and security
- program and curriculum review
- general education
- the history and structure of the Ontario colleges of Applied Arts & Technology.

6. Problems and Strategies clinics

Every attempt is made in this program to ensure that the individual concerns of each new full-time faculty person are addressed during the weekly meetings. The first hour of each meeting is set aside for group discussion centred upon challenges and problems which have arisen that week in the classroom, or to share successful teaching strategies. Candidates meet in small groups, taking turns to lead and facilitate the discussion.

7. Weekly learning journals

Participants are expected to assist the process of "reflective observation" by keeping a weekly journal in which they record and clarify their thoughts and feelings about the learning process in which they are participating.

8. Computer competency

In the May-June period at the end of the first year of the program, participants are expected to gain some "hands on" experience in at least three areas of computer competency:

- word processing
- a graphics program
- a grades-management program

9. Three-year professional development plans

New full-time faculty are encouraged to prepare their first 3-year professional development plan to coincide with the end of his/her first probationary year. Meetings are arranged where the faculty member can share such plan with his/her divisional Dean and Chair, as well as learn of divisional priorities for the coming year. In this way, an effort is made to align divisional and individual initiatives with the overall Mission and strategic plan of the college.

10. The Educational Project

During the second probationary year, new full-time faculty work with their divisional Dean and Chair to identify a project of interest and importance to the division - this project must also advance the learning needs and interest of the faculty member. It is expected that this project will represent a minimum of thirty hours of preparation work, and will result in a product that can be shared with colleagues within the division and throughout the college.

CERTIFICATE PRESENTATIONS

Certificates for completion of probationary requirements are presented to faculty during a reception hosted by the President of the college, Deans and the office of Professional Development.

TEACHING IN THE COMMUNITY COLLEGE: Credit course

This course is designed to prepare Humber's part-time teachers and others from the community to instruct adults in a community college setting. The course runs twice during the academic year and often full-time faculty will participate, using the course as an opportunity to improve their effectiveness in the classroom. These courses, coordinated through the Professional Development office, are taught by Humber faculty who must be capable of serving as good role models for the inexperienced teacher.

PART-TIME TEACHER ACTIVITIES

Professional Development, in co-operation with divisions, schools and continuing education, offers evening workshops for part-time teachers focusing on teaching skills, curriculum development, and student grading and evaluation. These workshops have been offered on a college-wide or divisional basis as required.

MENTORSHIP

Humber has a growing number of teacher mentors within its walls. This began with the secondment of a faculty member to Professional Development from Health Sciences who developed a mentorship program for her own division. This concept is now being utilized by other divisions and Professional Development is currently working with the International Office to develop a mentorship program for the teacher-training programs in which they are involved.

CONTENT CURRENCY INITIATIVES: Sabbaticals

As part of a continual professional development program for faculty, Humber College provides opportunities for sabbaticals and mini-sabbaticals where faculty can gain closer access to business and industry, thereby ensuring content currency in areas of individual expertise.

INSERVICE TEACHER TRAINING CERTIFICATE PROGRAM

Coming out of the 1987 Collective Agreement between the Council of Regents and the Ontario Public Service Employees' Union, a progr arto help faculty upgrade their teaching qualifications has been developed by a task force representing the above parties. The chair of Professional Development, Humber College, was a member of this task force. This certificate program, which is coordinated through Confederation College, is available to community college faculty in modular format, and through distance education across Ontario. Humber faculty are encouraged to participate in this program, which is offered in both English and French languages.

SUPPORT STAFF DEVELOPMENT

SUPPORT STAFF ADVISORY COMMITTEE

Humber College has a Support Staff Advisory Committee comprised of members who are nominated by their peers to provide guidance and advice as to the types of programming required by the Support Staff at the College. This Advisory Committee is supported by the Professional Development Office and takes a major role in the planning and implementation of support staff events.

ANNUAL SUPPORT STAFF APPRECIATION WEEK

In 1989 Humber initiated an Annual Support Staff Appreciation Week through the office of Professional Development. A planning advisory committee was struck and the Support Staff Union was invited to assist with the selection of membership. Union involvement is a key factor in the success of this Week.

The week consists of guest presentations, workshops, and tours of Humber campuses and divisional labs. Scheduling of activities is of prime importance since no college department is able to close down for any given period of time, and alternative staffing has to be provided to allow for participation. The evaluations have indicated that the Support Staff Appreciation Week is valuable and well-received. A support staff member is seconded to Professional Development to work on the planning of the week, and this has proved to be a valuable learning opportunity in itself.

SUPPORT STAFF ORIENTATION PROGRAM

A half-day orientation program for support staff was reactivated in 1988, and its prime focus was to orient support staff to the culture and philosophy of education at Humber College, and the services available to students and staff. These orientations are planned to occur three times each year and they are coordinated by a member of the support staff. In turn, this support staff member trains another support staff member for the next year's co-ordination.

SUPPORT STAFF CAREER DEVELOPMENT GRANTS

Career Development Grants are made available to support staff, each in the amount of $300 per year, college finances permitting. These grants support such activities as undergraduate and graduate course fees, career workshops and other related activities. A review committee, comprised of support staff members, reviews all applications and recommends and administers the awarding of grants.

DEPARTMENTAL/ DIVISIONAL WORKSHOPS

Workshops for target groups are presented as currency, information-updates depending upon departmental/divisional needs. Such workshops have been hosted by Campus Stores, the Registrar's office, Educational and Faculty Services, and Professional Development.

SUPPORT STAFF EDUCATIONAL EXCHANGES

Over the past few years, support staff from Humber College have participated in group exchange experiences with other colleges in Ontario and Michigan. Either a group from Humber travel by coach to a "twinned" college, or a group come to Humber, where they experience one to two days of discussions and sessions, during which they can compare their work experiences and share ideas for new practices. These educational exchanges have proved to be extremely successful and popular with the staff, not only for the benefits which they derive from meeting staff at other colleges, but for the collegiality and networking which occurs with their Humber colleagues during the coach travel. Each of these experiences has been organized and implemented by a support staff person, working with the office of Professional Development.

MANAGEMENT DEVELOPMENT

ACADEMIC ADMINISTRATOR TRAINING
Workshops are provided for academic administrators, some of which may be focused on a specific topic of interest, or they may be task-related. Academic Chairs meet on a regular basis to share ideas and identify their training needs.

MANAGEMENT DEVELOPMENT INSTITUTE
Senior administrators at Humber endorse and actively participate in the work of the Management Development Institute which is designed to provided learning opportunities for management personnel within the Ontario community college system. This institute is coordinated through a Task Force reporting to the Committee of Presidents. Humber annually nominates participants for this week-long case study.

ADMINISTRATION CAREER DEVELOPMENT GRANTS
Career Development Grants are made available to administrative staff, each in the amount of $500 per year, college finances permitting. These grants support such activities as undergraduate and graduate course fees, career workshops and other related activities. The Professional Development Department reviews all applications and recommends and administers the awarding of grants.

IN-HOUSE MANAGEMENT DEVELOPMENT
In-house management development has focused on supporting administrative participation in conferences, discussions related to the faculty workload formula, and issues in leadership. Several divisions have co-sponsored divisional retreats (often in conjunction with the office of Professional Development) which have focused on planning and development.

LEADERSHIP TRAINING FOR STUDENTS

LEADERSHIP ORIENTATION AND TRAINING FOR STUDENT GOVERNMENT LEADERS
Student Leaders attend a two day retreat with an agenda that includes seminars on time management, program planning, making meetings work, team building, and the setting of goals and objectives. In addition, monthly professional development seminars are provided on topics such as Robert's Rules of Order, the Role of Student Government, etc.

COMPUTER-BASED TRAINING

STAFF COMPUTER FACILITY (Room E345, North Campus)
Operated by the Academic Computing Department and Professional Development, the Staff Computer Facility endeavours to provide training and resources in computing across all employee groups at Humber. The facility, a medium-sized classroom, houses networked computers with access to the college IBM mainframe and to the Internet. Training is offered as follows:

- a logically-sequenced schedule of training sessions
- individual half-hour consultations, by appointment
- personal assistance on a drop-in basis
- special group bookings
- on-site training by request
- consultation on training design
- individual use of equipment (except during scheduled sessions)
- a continuing education course about the Internet

The facility is staffed by three personnel - a supervisor (a seconded faculty member), lab assistant (a university co-op student) and a staff person (an assigned part-time secretary).

The main purpose of the facility is computer training. A regular schedule of over 40 training sessions is offered each semester, with a copy of this schedule being mailed to every employee. Participants may attend just one session or a whole series. Any group within the college may book the facility, whenever it is available, in order to do its own training. The facility supervisor is available for consultation on the design of these special training sessions if needed, or may even give the special session.

Since its inception, the Staff Computer Facility has accumulated a collection of over 60 handouts, help documents, guides and handbooks, all of which have been written or compiled by Facility personnel and various volunteers at Humber. The facility endeavours to use all available channels of communication, including electronic (e-mail), the Humber Gopher, and files on disks. It also monitors and posts regularly to a local Listserv list, titled XTALK, which has been established to discuss issues related to computers at Humber. By utilizing an extensive range of delivery modes, and by focusing on the needs of the learner, the staff in this lab aspire to set an example of how time-independent and place-independent learning can result in quality training at reduced costs.

CROSS-COLLEGE ACTIVITIES

COMMITTEE PARTICIPATION
Faculty and staff are encouraged to participate on college and external committees to enhance personal and professional development, as well as to gain knowledge of the institution, its goals and its programs.

INTERCULTURAL PROGRAMS
The Intercultural Centre at Humber College is a vehicle for providing counselling and orientation for students and staff, thereby strengthening the understanding and bonds which need to be developed to help people from different cultural groups with their integration into a new community and to the college. Other initiatives linked to the Intercultural Centre include campus-based Intercultural Festivals in the Fall and Winter, when students and staff display foods, handicrafts, and information for different cultures. Workshop series and staff development activities also focus on issues relating to the intercultural nature of Humber's campuses.

WOMEN AT HUMBER
Faculty, staff and students are encouraged to join the workshops and activities promoted by the group, "Women at Humber", which focuses upon the promotion of women's issues and concerns.

EMPLOYMENT EQUITY
Humber College proactively pursues a policy of Employment Equity, a large part of which is focused upon the training and advancement of women into senior roles and positions throughout the College.

In the past, Humber College has sponsored women to participate in The League for Innovation in the Community College "Leaders of the '80s" program designed to train and promote women in the college system across North America. A follow-up of this program has revealed that more than 50% of the over 500 participants across the community college system have received promotions after this experience. As well, sabbatical leaves have been arranged for female staff from Humber to complete graduate studies at Harvard University, Michigan State University, and the University of Texas at Austin. Humber also encourages other Institutes of Higher Education to present courses on its campus. In such programs, over 70 per cent of the graduates in the Masters of Arts in Adult Education program through Central Michigan University are female, and approximately sixty-six per cent of the participants in the campus-based undergraduate courses through York University / Atkinson College are women.

LEADERSHIP ROLES FOR WOMEN
Senior administrative positions held by women include:

Administration representative, Board of Governors, Humber College
Vice President, Business Development
Executive Assistant to the President
Dean, Health Sciences
Dean, Liberal Arts & Sciences
Dean of Registrarial Services
Dean of Student Services

Associate Principal, Lakeshore campus
Director of Human Resources
Chairs, Health Sciences, and Human Services
Chair, Professional Development and Academic Computing
Chair, Centre for Language and Culture
Director, Client Services

DIVISIONAL ACTIVITIES
Divisional activities take two formats - stand alone or co-operative with the Professional Development department. Activities such as management development, divisional-specific workshops, release time for staff members, and skills exchanges have taken place during the past year. Workshops for target groups have also occurred - for example, a 2-day negotiation skills workshop for coordinators, and an evening's discussion on the legal implications of student appeals with members of the Student Appeal Committee.

HUMBER SHOWCASE

Humber continues to sponsor an annual showcase of educational practices presented by faculty and staff. This showcase takes place in the May-June period and consists of keynote speakers, over fifty workshops (involving approximately 85 presenters), and socializing luncheons and receptions. Faculty from other community colleges are invited to attend at a nominal fee. The co-ordination of the Showcase is provided by a faculty member who is seconded to the office of Professional Development to work with the planning committee each year.

THE GREAT DEBATE

An annual event, The Great Debate is well-attended by faculty, staff, and often students from across the college. The debate remains an effective way of informing the college community on issues of current concern, while providing an excellent opportunity for staff to mix socially with colleagues.

FOCUSED WORKSHOPS AND GUEST SPEAKERS

During each year, workshops and seminars are held for Humber's staff. Many of these workshops are requested by the staff themselves. Often external guest speakers of national reputation are invited on campus to deliver a workshop or keynote address at one of these events.

EMPLOYEE ASSISTANCE PROGRAMS

Human Resources offers faculty and staff access to employee assistance programs on an individual basis.

WELLNESS PROGRAMS

The Health Services Centres on Humber's campuses seek to provide a series of wellness programs throughout each semester, especially for students. These typically might include birth control seminars, acquaintance/date rape workshops, nutrition etc.

The Student Life department provides a strong activities program, which encourages staff to keep fit through aerobics, low impact and similar programs.

PUBLICATIONS

Publications are distributed/made available to Humber faculty and staff. These might include publications from:

- The Association of Canadian Community Colleges
- The National Institute for Staff and Organizational Development
- The League for Innovation in the Community College
- Journal of Higher Education
- Community College Review.

INFORMATION DISTRIBUTION

Events and programs are regularly publicized through the College Communique and are supported with program-specific flyers and brochures which are generally released by the office of Professional Development.

PROVINCIAL, NATIONAL, AND INTERNATIONAL OPPORTUNITIES

CONFERENCE PARTICIPATION

Faculty and staff are encouraged to attend conferences as part of their professional development. Financial support is provided where possible and appropriate. Major conference participation during any year might include:

- The League for Innovation in the Community College Conference
- The National Institute for Staff and Organizational Development Conference (Austin, Texas)
- Association of Canadian Community Colleges' annual Conference
- Management Development Institute

Conference participants are required to complete a conference report upon their return. This report is filed with each manager and shared with the college community as appropriate. This ensures maximum usage of the information gained.

NISOD (NATIONAL INSTITUTE FOR STAFF AND ORGANIZATIONAL DEVELOPMENT)

Faculty representing the academic divisions of the college participate in the annual NISOD Conference held in Austin, Texas each May. This group is selected by a college committee and meetings are held before and after the conference for scrutiny of program and feedback/sharing opportunities. Humber faculty present workshops at this prestigious conference, and a formal linkage is maintained by all Humber/NISOD participants over the years.

STAFF EXCHANGES

By networking with Canadian Community Colleges, the League for Innovation Colleges, and Colleges identified by individual staff, Humber encourages faculty and staff exchanges when suitable arrangements can be achieved. Humber has supported several such exchanges, for example, in Australia, New Zealand, and Hungary.

CAMPUS VISITORS

Humber College welcomes visits by faculty and staff from colleges, both from North America and beyond. By hosting such visitors on campus, the guests and the Humber staff gain much from personal interaction on educational issues. Visitors have come from Australia, New Zealand, England, Africa, Singapore, United States, and, of course, from other Ontario colleges.

INTERNATIONAL OPPORTUNITIES

As an integral part of Humber College, the International Projects Office is involved in the design and delivery of customized training programs to assist with human resource development and technical updating in many parts of the world. Programs are designed in conjunction with overseas partners to ensure that their specific needs are addressed and that the development of any training is appropriate to meet those needs.

Working closely with the Association of Canadian Community Colleges and other international organizations, the International Office provides opportunities for faculty and staff to apply for, and participate in, these international projects. Some recent projects include:

- a two month program to assist 8 government officers with the establishment and management of a competency-based education system
- a five month program for 5 teachers to provide the skills to implement a competency-based education system in technical education and update their existing skill levels
- a three month program in teaching techniques for 18 health care professionals
- a three month program for 15 curriculum developers in the use of DACUM and instructional design
- a one year program for 45 technical teachers in teaching techniques and skills updating
- an ongoing consultation service for the establishment of a regional vocational teacher training centre
- training-the-trainers workshops
- a two year attachment of a Humber administrator to an overseas Polytechnic for the development of an institutional planning system
- coordination of a engineering technical training project for 71 overseas students.

Working assignments in such locations as Singapore, Barbados, China, Africa and Syria are but a few examples of the professional development opportunities attained through the International Office.

TRAINING INITIATIVES RESULTING FROM LEGISLATION

HUMAN RIGHTS LEGISLATION: SPECIAL NEEDS

The Human Rights legislation and supportive funding from the Ministry of Colleges and Universities provided opportunity for informal and formal workshops to advise faculty and staff on issues pertaining to Special Needs students. Examples of such workshops would be:

- Special needs: impact on the coordinators' role
- Special needs students: workshops scheduled during Support Staff Appreciation Week and Innovative Practices Showcase
- Academic decision-management with special needs students
- Classroom planning and interaction with hearing-impaired and deaf students
- What it's like to be learning disabled
- Support services for students with special needs
- Employment opportunities for students with special needs

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY ACT

In accordance with the directives of this Act, Humber has established an internal plan for addressing requests made to the institution. Informational workshops have been provided to faculty and staff, alerting them of their rights and responsibilities with respect to freedom of information and protection of privacy.

SAFETY IN THE WORKPLACE

Ongoing programs are developed and presented to inform and train staff to implement initiatives resulting from the above legislations as they pertain to the community college.

College policies and practices are emerging as a result of staff involvement and awareness of the above legislations.

HUMBER COLLEGE RECOGNITION AND AWARDS PROGRAM

Exemplary and innovative contributions made to the field of education are recognized through a recognition and awards program which has been formally in existence since 1989 within Humber College. Humber College is proud to promote its faculty, staff, and students for these awards. Wherever possible, the college has developed a process for nomination and selection which utilizes peer selection, drawing upon former award recipients to participate on such selection committees. All awards are fully-documented in a Recognition and Awards brochure which is available for general distribution.

The Awards are presented at formal college ceremonies and appropriate college plaques are displayed in the main hallway of the campus for all to see.

A complete description of Humber's Recognition and Awards Program is contained in Section C of this publication:

> DISTINGUISHED FACULTY AWARDS
> SUPPORT STAFF DISTINGUISHED SERVICE AWARDS
> ADMINISTRATIVE DISTINGUISHED SERVICE AWARD
> ADMINISTRATOR'S EXCELLENCE AWARD
> INNOVATOR (INNOVATION) OF THE YEAR AWARDS
> - HUMBER COLLEGE
> - THE LEAGUE FOR INNOVATION IN THE COMMUNITY COLLEGE
> WOMEN'S DISTINGUISHED SERVICE AWARD
> STUDENT LIFE APPRECIATION BANQUET AND AWARDS

TEN YEAR SERVICE PINS

Upon completion of ten years of full-time employment with Humber College, faculty and staff are awarded the Ten-Year Service Pin. This pin is presented by the President at the annual President's Breakfast.

TWENTY FIVE YEAR SERVICE RECOGNITION

Humber College is proud to formally recognize staff and faculty who have attained twenty five years of service with the institution. A commemorative gift is presented to each staff member by the Chair, Board of Governors, and the President at the annual President's Breakfast.

RETIREES' DINNER

The Board of Governors and President of Humber College host an annual Retirees' Dinner in recognition of faculty and staff who have completed their careers at the College.

When and where-ever possible, Humber College promotes its faculty, staff and students for recognition, provinci ally nationally and internationally.

THE LEAGUE FOR INNOVATION IN THE COMMUNITY COLLEGE

The League for Innovation in the Community College is an organization of educational institutions selected for their commitment to institutional excellence and effectiveness. Membership is by invitation only and is currently limited to eighteen colleges/districts across North America. HUMBER COLLEGE IS THE ONLY CANADIAN COLLEGE TO BE A MEMBER OF THE LEAGUE FOR INNOVATION.

Human resource development and innovation are key focuses of the League, which is principally engaged in three types of activities:

1. sponsoring conferences and events, including workshops, seminars, institutes, and other showcases
2. preparing and disseminating publications, including newsletters, monographs, abstracts, and special reports
3. initiating, implementing, and coordinating special projects of various kinds.

CONFERENCES

"The Community College and the Computer"
The League sponsors the only major, bi-national conference on computing in community colleges. Held each fall, the conference attracts 1,000 individuals representing 250 or more colleges from nearly every American state and Canadian province. Humber College co-hosted the 1988 League Conference "Computing Across the College Spectrum" in Toronto, providing the conference administration and co-ordination through the offices of Professional Development and Conferences and Seminars. Approximately 100 faculty and staff members participated in this conference, either through the administrative implementation or by participation. Humber staff also presented workshops at the Conference. A team of Humber college faculty and administrators attends this annual event .

"Leadership 2000"
Each summer, the League, in collaboration with the Community College Leadership Program at The University of Texas in Austin, sponsors "Leadership 2000", an international executive development conference for community college leadership teams. The conference is one activity of a major grant from the W.K. Kellogg Foundation to assist leadership development for community colleges. Several Humber administrators have participated in "Leadership 2000" over the past years.

"Executive Leadership Institute"
The institute is also an activity of the Kellogg Leadership Project. Its purpose is to assist potential community college presidents to review their abilities and interests, refine their skills, and participate in discussions with outstanding community college leaders. Thirty participants, who are qualified by education and experience for the community college presidency, are selected annually for this intensive week-long experience. President Robert Gordon of Humber College is one of the presenting faculty at these Institutes.

Humber faculty and staff have also participated at other League conferences. Examples would be "Institutional Effectiveness in the Community College" and "Assuring Student Success: The Role of Student Development Professionals".

PUBLICATIONS

The League for Innovation supports an extensive array of publications which are provided to faculty and staff at Humber according to interest areas. Examples would be:

- Leadership abstracts
- Innovator newsletter
- Teletrends newsletter (computer)
- Monographs and special reports
- Resource directories
- Planning Guide for Instructional Computing.

SPECIAL PROJECTS

Computer applications
The League for Innovation, in concert with its computer partners, is extensively involved with experimentation for innovative uses of computers in the community college. Computer partners have invested over $20 million in development projects with the League and its member colleges, including the development of model applications, demonstration sites, regional training centres, competitions, evaluation projects. Past examples of Humber's involvement would include the Humber/IBM Joint Study Lab (a 15-station computer lab for introducing computers into the curriculum through faculty training)

Leadership Development
This project supports ten Kellogg fellows annually to pursue doctoral or post-doctoral studies in the Community College Leadership Program at The University of Texas at Austin. As a League member, Humber's staff, upon recommendation of the President, can be considered for this grant.

Teaching and Learning
This area supports faculty exchange programs, case studies, and software development for teaching and learning in the community college. Humber staff have participated in each of these activities.

OTHER PROJECTS AND PROGRAMS

Humber students and staff continue to be involved in such projects as the annual Juried Art Show for students, a new initiative aimed at development of "Programs for Older Adults", the National Institute for Leadership Development (specific to women in leadership roles) and the annual Innovator (Innovation) of the Year Award.

Information exchanges are numerous, and campus visits both to and from Humber College and League member colleges have yielded very positive and beneficial results for the professional development of faculty and staff in their continued strive toward institutional excellence. The Chief Executive Officer of Humber College (Dr. Robert Gordon) and Humber's League Representative (Dr. Roy Giroux) attend Board meetings of the League for Innovation to provide the profile and presence required for Humber's membership in this prestigious educational consortium.

Complete information on the League for Innovation can be obtained through the office of Humber's League representative:

Roy F. Giroux
Vice President, Educational and Faculty Services
Room D 157 North Campus
Phone: (416) 675-5052
Fax: (416) 675-9659

SPECIAL PROVINCIAL INITIATIVES

HUMAN RESOURCE DEVELOPMENT IN THE THIRD DECADE
In December 1987, the Executive of the Committee of Presidents for the Ontario Community Colleges endorsed the concept of a Task Force initiative titled *Human Resource Development in the Third Decade*. The purpose of this study was to promote a system-wide consultation in order to present a proposal to the Council of Presidents for the development and implementation of a comprehensive human resource development plan for the province in the third decade of the community college system. It was clear from a Task Force consultation that a field-based approach was essential. College personnel at all levels needed to be consulted and involved, and existing system policies, structures and mechanisms were to be reviewed. Systematic processes were designed to involved key constituents, including the Council of Presidents' Reporting Groups.

Humber College has played a key role in this initiative. Vice President Roy Giroux was appointed Chairman of the Task Force and has been instrumental in working the process through to its current status. The Blueprint proposal, together with its recommendations, was been tabled and accepted by the Ontario Council of Presidents for implementation. Humber faculty and staff contributed in large measure to the development and delivery of this consultative process and

report. Focus groups provided guidance for the consultation process and the inventory scan. Humber faculty and staff administered workshops and consultations across the provincial community colleges, and have also assisted with the drafting of the Blueprint proposal based upon the findings of the study.

The initiative is now completing its fifth and final year of programming. During its operation, over 170 individual programs or events have been staged, at campuses, regionally or provincially. A publications program has documented the development of the projects, and includes a 25th Year Anniversary Monograph, Resource Guides, Handbooks, Project Reports, and Newsletters.

A transition year is planned for 1994/95 to carry the human resource development initiative forward to meet the demands of the future.

More information about *Human Resource Development in the Third Decade* can be obtained through the office of:

Roy Giroux
Vice President, Educational and Faculty Services
Projects Coordinator
Human Resource Development in the Third Decade
Room D 157, North Campus
Phone: (416) 675-5052
Fax: (416) 675-9659

PRIOR LEARNING ASSESSMENT
Implementation of the provincial initiative in Prior Learning Assessment is requiring considerable training of faculty and staff which is being accomplished in stages. The Fall of 1993 was devoted mainly to providing information on PLA and discussions of how it will be implemented at Humber. During 1994/95, training sessions are being offered, which will include portfolio assessment and the development of challenge tests. It is anticipated that many faculty will recognize a need to review course outlines in the light of the need to assess PLA candidates against clearly-stated learning outcomes. The Curriculum Development Advisory Committee at Humber College is developing a series of train-the-trainer workshops to provide a team of faculty curriculum development experts who can assist their colleagues with the review of curriculum and course outlines.

COLLEGE STANDARDS AND ACCREDITATION COUNCIL
In May 1994, Humber faculty and staff participated in a Central Region (6 colleges) workshop titled "Building the New College Curriculum".

ADVANCED TRAINING
Campus workshops have been presented to faculty and staff to explain the current status of this provincial initiative.

UNDERGRADUATE, GRADUATE AND POST-GRADUATE STUDIES (HOSTED ON HUMBER'S CAMPUS)

UNDERGRADUATE STUDIES: YORK UNIVERSITY/ ATKINSON COLLEGE
Since the Fall 1986, Humber College has been able to host campus-based undergraduate studies through the Faculty of Education and Atkinson College (York University). Humber staff have joined members of the local community in courses leading to undergraduate degrees. Whenever possible, this program has been delivered in a format closely-aligned to the working schedules of Humber staff. Co-ordination of the program is achieved through the university and the office of the Vice President, Educational and Faculty Services at Humber. Humber participants include faculty, support staff and administration, who take additional courses on the university campus during the summer months. Approximately 60 Humber participants are enrolled in this program.

GRADUATE STUDIES IN EDUCATION: THE ONTARIO INSTITUTE FOR STUDIES IN EDUCATION
For more than four years, the Ontario Institute for Studies in Education offered graduate studies on campus at Humber College to assist Humber faculty and staff toward Masters Degrees. Approximately 12 candidates have completed their programs of study. Four of these staff have now pursued and completed doctoral studies through OISE.

GRADUATE STUDIES IN EDUCATION: CENTRAL MICHIGAN UNIVERSITY

Humber College has successfully negotiated, coordinated and implemented a campus-based Masters Program in Community College Education through Central Michigan University. Now into its eighth sequence, over 100 Humber faculty and staff have completed courses presented by faculty from Central Michigan as well as national educators such as Dr. John Roueche, and Dr. Don Rippey of the University of Texas, Dr. George Baker of the University of North Carolina, and Dr. James Hammons, University of Arkansas. Senior administrators from Humber College have also provided instruction in this program, which, to date, has successfully graduated over 100 Humber faculty and staff with Masters Degrees.

POST-GRADUATE STUDIES: MICHIGAN STATE UNIVERSITY

With permission of the Ministry of Colleges and Universities for Ontario, Humber College hosted a campus-based program of post-graduate studies leading to a Ph.D. through Michigan State University. Studies were in instructional and administrative leadership. The program for 35 candidates was initiated in the Spring 1990, and all coursework at Humber has now been completed. Several Humber staff have attained their doctorates, and the remaining candidates are pursuing the balance of their studies with Michigan State.

Information on campus-based undergraduate, graduate, and post-graduate studies can be obtained through the office of:

R. Giroux
Vice President,
Educational and Faculty Services
Room D 157, North Campus
Phone: (416) 675-5052
Fax: (416) 675-9659

PROFESSIONAL AFFILIATIONS

Humber College maintains affiliations with the following (among others):

- The Association of Canadian Community Colleges
- The League for Innovation in the Community College
- National Institute for Staff and Organizational Development (NISOD)
- American Association of Community Colleges (AACC)
- National Council of Staff, Program and Organizational Development (NCSPOD)
- National Council on Student Development (NCSD)

SECTION C

Humber's Staff Recognition and Awards Program: A Celebration of Leadership and Excellence

Central to Humber's institutional values of excellence, innovation, and a humanistic philosophy which prizes the worth of every individual, Humber recognizes the vital importance of its staff who create the educational environment for the students.

Humber's Recognition and Awards program annually seeks to recognize those staff who, through peer recommendation, lead the way in establishing and maintaining the climate of excellence which Humber proudly upholds.

Robert A. Gordon
President

Distinguished Faculty Award

ELIGIBILITY

- All full-time faculty members at Humber College are eligible for this award. (Individuals/Groups may receive this award once only.)

CRITERIA

This award is designed to honour full-time faculty who have made a significant contribution to their division, campus or to the College. Those nominated will have demonstrated professionalism that has contributed to the overall goals of the division, campus and/or the mission of the College. Some examples of activities/projects that faculty may have participated in, include:
- Committee work
- Community involvement
- Professional organizations
- New projects that support the goals of the College
- Programs to assist students in adjusting to the College.

NOMINATION

- Individuals are nominated by at least two of their peers; and nomination forms must be accompanied by a brief rationale stating why the individual/group has been nominated.

PROCESS

- Nominations are called for in January and nomination forms must be completed and forwarded to Academic Council Representatives by mid-March.
- A committee of Council members, one representing each division, reviews nominations and selects recipients.

PRESENTATION

Award winners receive:
- A plaque for distinguished service.
- Name inscribed on the Honour Roll which is prominently displayed within the institution.

Announcement of award recipients is made at the Annual President's Breakfast.

Support Staff Distinguished Service Award

ELIGIBILITY

- Completion of at least four years full-time service at the College.
  (Individuals may receive this award once only.)

CRITERIA

- Initiative and enthusiasm
- Human relations skills
- Professional skills
- Extra-curricular activities - educational/College-related
- Overall contribution to the College during the year

NOMINATION

- Individuals are nominated by at least two members of the Humber College community, and nomination forms must be accompanied by a brief rationale stating why the individual has been nominated.

PROCESS

- Nominations are called for in January and nomination forms must be completed and forwarded to the President's Office by mid-March.
- Nominations are reviewed and winners selected by the Support Staff Distinguished Services Awards Committee.

PRESENTATION

Award winners receive:
- A Distinguished Service Certificate signed by the President and Chair of the Board of Governors.
- A cheque for $250.00 to be applied toward a holiday weekend; the weekend to commence at 12:00 noon on any Friday.
- Name inscribed on Honour Roll which is prominently displayed within the institution.

Announcement of award recipients is made at the Annual President's Breakfast.

Administrative Distinguished Service Award

(For Hay Group Personnel)

ELIGIBILITY

- Completion of at least four years full-time service at the College.
  (Individuals may receive this award once only.)

CRITERIA

Administrative staff nominated for this award will have demonstrated dedicated performance, loyalty and commitment (to Humber College), which extends well beyond the normal requirements of the job. Specifically:
- Dedication to job-related functions
- Loyalty and commitment to Humber College
- Complementary service functions within the Humber College community
- Credibility with peers

NOMINATION

- Individuals are nominated by at least two members of the Humber College community, and nomination forms must be accompanied by a brief rationale stating why the individual has been nominated.

PROCESS

- Nominations are called for in January and nomination forms must be completed and forwarded to the President's Office by mid-March.
- Selection for the award is made by the President.

PRESENTATION

Award winner receives:
- A plaque recognizing distinguished service
- Name inscribed on the Honour Roll which is prominently displayed within the institution

Announcement of award recipients is made at the Annual President's Breakfast.

Administrator's Excellence Award

(for Hay Group Personnel)

ELIGIBILITY

- Completion of at least four years full-time service at the College.
  (Individuals may receive this award once only.)

CRITERIA

Administrative staff nominated for this award will have exhibited high levels of performance in accordance with the College values and mission statement. Specifically:
- Excellence in performance
- Innovation
- Risk-taking
- Professional development for self and others
- Caring for people, both staff and students

NOMINATION

- Nominations are called for in January and nomination forms must be completed and forwarded to the President's Office by mid-March.
- Selection for the award is made by the President.

PRESENTATION

Award winner receives:
- A plaque recognizing administrative excellence
- Name inscribed on the Honour Roll which is prominently displayed within the institution

Announcement of award recipient is made at the Annual President's Breakfast.

Innovator (Innovation) of the Year Awards

ELIGIBILITY

- The purpose of the Innovator (Innovation) of the Year awards is to recognize College employees who have designed and implemented a significant innovation that positively impacts the education of students at the College.
- Employees from all employee groups (faculty, including part-time; administrators; and support) are eligible for nomination.

CRITERIA

The major criterion for nomination is that the innovation has:
- Positive impact on students' educational process.

Additional criteria to be used for judging the merit of an innovation and its impact on students' education are:
- Creativity: The selected program will be as original as possible or be a unique adaptation of an existing program, process or concept.
- Effectiveness: There is evidence that the innovation leads to a better process for accomplishing a task(s).
- Replication: The significant components of the innovation selected can be replicated in other institutions with a minimum of difficulty. The description of the program will include any conditions necessary for replication.
- Timeliness: The innovation will not be more than five years old in the institution, but it must have been in existence long enough to have been tested.
- Value addition: There is evidence that the innovation adds value to or improves the students' education.
- Currency: There is evidence that the innovation is current in content and adaptive to technological application as appropriate.

NOMINATION

- Individuals require nomination by two members of the College community and nomination forms are accompanied by:
  - (i)   A two hundred word description of the innovation.
  - (ii)   Rationale for nominating this program.
  - (iii) Objective/purpose of the innovation.
  - (iv)   Impact of the innovation.
  - (v)   The role/contribution of the innovation to Humber and other community colleges.
  - (vi)   Endorsement by divisional /school/department/dean or manager.

PROCESS

- Nominations are called for in early December and nomination forms must be completed and returned to the Office of Professional Development in January.
- Selection for the awards is made by a College Committee sponsored by the Academic Council and chaired by Professional Development.

PRESENTATION

Humber College will recognize and honour the Innovators (Innovation) of the Year in the following ways:
College innovators of the year (up to 4 awards):
- Certificates of Recognition, presented at the annual Humber Showcase.
- Profiles of Innovator and the Innovation in major College publications.
- Opportunity to present a workshop profiling the Innovation at the annual Humber Showcase.

League Innovator (Innovation) Award

Humber College is the only Canadian College invited to membership in the League for Innovation in the Community College, a non-profit educational consortium of resourceful community colleges organized to stimulate experimentation and innovation in all areas of community college development.
As a member college, Humber recognizes:

Humber college's League Innovation of the year (1 award):
Criteria and process as described previously, plus:
• Name on College "League Innovator of the Year" plaque which is prominently displayed within the institution.
• All expenses paid to attend the Annual League for Innovation's National Conference for the current year.
• League for Innovation plaque and recognition in the League publication "Innovator".

Women's Distinguished Service Award

ELIGIBILITY

• All full-time College employees are eligible for this award (individuals may receive this award once only)

CRITERIA

Individuals nominated for this award will have demonstrated significant and measurable contributions to the goals, values and mission of the Women's Education Council (Women at Humber), e.g.:
• Exhibited dedicated support of quality and/or innovative programming for the training and development of women at Humber College.
• Served as a role model for monitoring, advising, encouraging, and networking in connection with women and women's issues.
• Involved in activities to enhance the work environment for women.

NOMINATION

• Individuals are nominated by at least two members of the Humber College community, and nomination forms must be accompanied by a brief rationale stating why the individual has been nominated.

PROCESS

• Nominations are called for in January and nomination forms must be completed and forwarded to the President's Office by mid-March.
• Nominations are reviewed and winners selected by the Women's Education Council.

PRESENTATION

Award winners receive:
• A plaque for distinguished service.
• Name inscribed on Honour Roll which is prominently displayed within the institution.

Announcement of award recipients is made at the Annual President's Breakfast.

ELIGIBILITY

- Any member of the college community (faculty, student and/or staff) is eligible and may nominate any person whose contribution meets the stated criteria.

PURPOSE AND CRITERIA

- The intent of the award is to recognize those who have contributed above and beyond their roles as students, staff, and/or faculty to enhance student life at Humber. The award acknowledges outstanding contributions toward vitalizing, enriching, supporting, and advancing student life at Humber College by providing leadership in any of the following areas:
  - Social/cultural events
  - Athletic achievement
  - Class activities
  - Teaching excellence
  - Special events/fund raising

- Outstanding accomplishments characterized by:
  - Leadership
  - Service
  - Dedication
  - Time commitment

- If the nominee is paid for his/her involvement at Humber, his or her contribution must be above and beyond this paid role.

NOMINATION

- Individuals are nominated by any member of the college community (faculty, student and/or staff) and nomination forms must be accompanied by a letter of nomination to be read at the annual Student Life Appreciation banquet.

PRESENTATION

- Recipients of the Student Life Appreciation Award are recognized at a banquet given in their honour. As well, they receive an individual plaque of recognition and their names are inscribed on a college plaque which is prominently displayed within the institution.

Humber College Award Recipients

Distinguished Faculty Award

1989   Wayson Choy
Linda Coles
Wayne Debly
Tony DiGiovanni
Joe Kertes
Dan Reeves
Betty Todd
Laurie Turner

1990   Jessie Bowles
Janice Cermak
Bill Cunning
Andrew Davidson
Mac Davis
Nancy Epner
Jerry Milan
John Sousa

1991   Marie Abrams
Adrian Adamson
Michael McFadden
John Murray
Grace Nostbakken-Young
Alfred Shin
Anne Thom

1992   Carolyn Beatty-Saxton
Ian Bruce
Paul Faris
Franca Giacomelli
Jean Jablonski
Ben Labovitch
Bob Nash

1993   Klaus Theyer
Norma DeCastro
Jill LeClair
Sheryn Beattie
Joe Tomona
Joe Benge
Loretta Martens

1994 Anne Harper
June Heaven
Susan Leslie-Berkis
Mark Schoenberg
Rickie Van Wouw
Siem Vandenbroek
David Warrick

Support Staff Distinguished Service Award

1981 Helen Burbery
David Lui
Roy Paige
Richard Rzepa

1982 Anthony Gfroerer
Joan Jones
Helen Mitrovic
Carla Tersigni

1983 Betty Butterfield
Fred Chan
Isobel DeSouza
Douglas Willford
Ferdinando Guido

1984 Cathey Burgess
John D'Amico
John Davies
Antonio Diserio
Doug Fox
Eleanor Matthews
Marie Seles
Jim Walmsley

1985 Linda Azzopardi
Jim Brady
Luigi Fiorante
Mary Ann Hinchliffe
Betty Murdin
Rhoda Sullivan
Thomas Yee

1986	Kernal Campbell
	Elaine Everett
	Helga Forstreteuter
	Joe Micelo
	Dorothy Strongitharm
	Mike Nyoz
	Richard Ulbrich

1987	Sue Bartlett
	Richard McFadden
	Susan McNulty
	Pat Methley
	Howard Payne
	Anna Rodgers
	Emmanuel Brunetta
	Tom Conlan
	Alice Coone
	Doreen Joseph
	Chris Little

1988	Jean Ball
	Riny Kooren
	Beth MacNeill
	Pasquale Mozzone
	Joe Rotondo
	Betty Tam-Cheune

1989	Lois Donechie
	Fred Ketteringham
	Angela McCormack
	Vito Montesano
	Allan Roddy
	Holsee Sahid

1990	Jake Beck
	Maria Difonzo
	Thomas Fortner
	Evelyn Hansen
	Ellie Salamon
	Judy Sallal
	Nancy Velluso

1991 Karen Angus
     Joanne Baker
     Pauline Currie
     Marie Levesque
     Silvana Marinucci
     Norma Nelson-Lomoro
     Margaret Riley
     Mike Smith
     Norman Taub

1992 Kent Belsey
     Irena Di Rito
     Vera Medwedyk
     Lindford Montague
     Judy Morson
     Domenic Panacci
     Joanne Santos
     Carole Weldon

1993 Jim Bialek
     Carol Bueglas
     Wanda Buote
     Amelia Colucci
     Bill Cooke
     Judy Lindley
     Mary Murphy
     Maureen Porter

1994 James Bilyk
     Joanne Bonham
     Mary Carr
     Marc Lappano
     Nicholette Sarracini
     Helen Tobin
     Irene Van Vliet

Administrative Distinguished Service Award

1989	Harry Kilty
1990	Richard Bendera
1991	John Hooiveld
1992	Mary Ann Hinchliffe
1993	Betty Campbell, Valerie Hewson
1994	Stephen Bodsworth

Administrator's Excellence Award

1989	Blair Carter
1990	Janis Miller
1991	Rick Embree
1992	Roy Giroux
1993	Carl Eriksen

Robert A. Gordon Leadership Award

| 1994 | Sheila Susini |

Innovator Of The Year Awards

League for Innovation Award

1986-87	Joseph Pusztai
1987-88	Melanie Panitch
1988-89	Robert C. Scott
1989-90	John Walker
1990-91	Toby Fletcher, Bill Pitman, Don Wheeler
1991-92	Andrew Brown, Tom Olien
1992-93	Arthur Lockhart
1993-94	George Byrnes

Humber Innovator Awards

| 1986-87 | Michael Harper | Sheila Susini |
| | Jim McConkey | Jim Knight |

1987-88	Nancy Epner	Dale Pratt
	Laurie Turner	Bob Eckenbach
	Susan Goodman	Ben Labovitch
	Greg McQueen	

1988-89	Ken Cummings	Rick Embree
	Michael Baldwin	Doug Leonard
	Marjory Overholt	Anne Thom

Humber Innovator Awards, cont'd.

1989-90	Henry Ruschin	Cynthia Niemi
	Mike Lake	Doreen Bell
	Jim Hardy	Don Wheeler
	John Maxwell	David Lloyd
	Anne Brobyn	

1990-91	Kathryn Barber	Stephanie Paulson
	Rebel Hardy	Sheryn Beattie
	Alan Ward	Arie Nadler

| 1991-92 | Sandra Nesbitt | Joy Trenholm |
| | Cathy Mitro | Moira Delaney |

1992-93	Joe Kertes	Chris Coleman
	Patricia Spindel	Katherine Warren
	Keelesdale Intercultural Festival Committee	

1993-94	Mary Carr	Cheryl Taylor
	Joanne Lehman	John McColl
	John Murray	John Riccio
	Jerry Smith	Joy Trenholm
	Angie Heinz	Margaret Woodruff

Women's Distinguished Service Award

1990	Ruth McLean
1991	Sheila Susini
1992	Maureen Wall
1993	Kate Dorbyk

Multicultural Award

| 1991 | Christina Bany |
| 1992 | Doris Tallon |

The Extra Mile Award

| 1994 | Financial Aid Department |

Recognition of Exemplary Team Work, Dedicated Service, and Outstanding Support to the Humber College Community

| 1994 | Unicol Credit Union (Andrea Pryer, Cathy Puntillo, Walter M. Purawec) |

Humber
College