REPORT OF A COUNSELLING INTERNSHIP AT CABOT
COLLEGE OF APPLIED ARTS, TECHNOLOGY AND
CONTINUING EDUCATION INCLUDING A RESEARCH
REPORT ON THE CAREER COUNSELLING NEEDS OF
COLLEGE STUDENTS BASED ON GENDER, AGE,
AND LEVEL OF EDUCATION

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Report of a Counselling Internship at
Cabot College of Applied Arts, Technology and Continuing
Education including a Research Report on the
Career Counselling Needs of College Students Based
on Gender, Age, and Level of Education

by

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A report submitted to the
School of Graduate Studies
in partial fulfilment of the
requirements for the degree of
Master of Education

Faculty of Education
Memorial University of Newfoundland

1995

St. John's   Newfoundland

ABSTRACT

This report provides an overview of a counselling internship at Cabot College of Applied Arts, Technology, and Continuing Education. The primary activities described are those of individual counselling, research in the area of adult career development, and inservice training received by the student. The research project concentrated on the career counselling needs of adult students categorized according to gender, age, and level of education. Using a measure of career maturity– the Career Development Inventory (CDI) College and University Form– to help identify career counselling needs, results indicated several significant findings. The female students' mean score on the Career Planning scale was significantly lower than the male students' mean score, indicating a potential career counselling need. On the cognitive scales of the Career Development Inventory, mean scores increased as the level of education increased. No significant differences were evident on either of the eight CDI scales based on the variable of age. As discussed in the review of the literature, further research on the topic of adult career development and career maturity is needed.

ACKNOWLEDGEMENTS

The decision to undertake full-time studies in the Master of Education program was made with the understanding that it would involve hard work, long hours, and a commitment to succeed. The support of my family, friends, colleagues in the program, and program faculty was an immense help in the successful completion of the program.

It is with appreciation and gratitude that I acknowledge those who have helped me during the internship and in the completion of this research report.

I am grateful to have had Dr. Dennis Sharpe and Dr. William Kennedy as my internship faculty supervisors. I thank you for your time and support; your helpful comments, direction, and advice made the completion of this report possible. I also thank Mr. Gerald White for his valuable assistance and advice in analyzing the statistical data, and Ms. Donna Finn who helped to prepare this document.

I wish to thank Mr. John Harnett, my internship field supervisor for his support and guidance, for listening and sharing ideas. I also extend my thanks to Cabot College of Applied Arts, Technology and Continuing Education for acting as my placement site and granting me permission to conduct my research at the institution.

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INTRODUCTION

Rationale for the Internship

The Master of Education (Educational Psychology) Programme at Memorial
University of Newfoundland (MUN) requires graduate students to complete either a
thesis or internship after the successful completion of ten credit, and one non-credit,
graduate courses. This candidate chose to pursue the internship as partial fulfilment
of the Master of Education degree.

The internship was an extension of the counselling practicum which was completed
during the Winter Semester, 1994, at the MUN Counselling Centre. During the
practicum the intern learned much about her strengths and skills as a potential
counsellor. The internship was seen as providing the opportunity to apply and build
upon the skills and the knowledge previously acquired. However, during the
practicum, counselling skills which could be further developed and counselling
theories that may be better understood were also identified. Additionally, it was felt
that to become and to remain an effective counsellor one must continue to practice
specific counselling skills, plus gain further knowledge about the counselling process,
counselling theories, and counselling techniques. Given the intern's interests, along

with a desire to receive feedback from and seek consultation with other professionals in developing her counselling skills, a supervised internship option was chosen.

Goals and Objectives for the Internship

The intern's interest as a professional lies in adult counselling. The internship, as an extension of the practicum, provided the opportunity to work in this area and helped to:

- further develop and practice the necessary skills, competencies, and behaviours required for effective individual counselling with adults;
- further develop and bring into practice an understanding of the theoretical perspectives on guidance, counselling and therapy;
- develop and complete a research project which focused on one aspect of career counselling;
- explore and practice a personal counselling style and work toward any necessary changes;
- evaluate the ability to work effectively in her chosen field

During the internship the objectives were to:

- conduct individual counselling sessions in the areas of personal and/or career counselling;

- practice a variety of counselling skills while focusing on the skills of advanced empathy; specifically -- identifying themes, challenging, interpreting, and action planning;

- self-assess counselling skills and personal counselling style on a weekly basis, through feedback from and in consultation with the field supervisor, and in relation to the different theoretical perspectives;

- complete study and research in the area of career maturity in post-secondary college students (a primary objective).

The Internship Setting

The intern's interest lies in working with adults from different age groups at the post-secondary level. She wished to experience individual and group work in the areas of personal and career counselling, and for these reasons the internship was completed at Cabot College of Applied Arts, Technology, and Continuing Education.

Cabot College is well known both provincially and nationally as an educational training facility offering a variety of quality programs, many of which are nationally accredited. There are approximately 3,500 full-time students from various age groups attending Cabot College in the Adult Basic Education, Trades, Technology, Medical Sciences, Business and Applied Arts, and Continuing and Community Education programs. Cabot College's mission statement highlights its commitment to quality

education: "To provide a broad range of educational opportunities of consistently high quality in response to the changing educational needs of the community" (Cabot College Calendar, 1993-94, p. 16).

The Division of Student Services at Cabot College includes several resource areas: Registrar's Office, Counselling Services, Student Affairs, Financial Aid Services, Health Services, Admissions, Library and Audio Visual Services, Sports and Recreation, International Office, and Office of the Dean. Being aware of the many programs and services available at the College the intern felt that her interest in counselling adults at the post-secondary level would be fully met at this placement site. Counselling Services at Cabot College offers support to students in both the personal and career areas. As stated in the College calendar, services "are designed to help students, in a confidential environment, deal with social, personal, academic, financial, and vocational difficulties which may arise" (Cabot College Calendar, 1993-1994, p. 32).

Research Requirement

As noted earlier, a primary objective of the internship was to complete a research project in an area related to career counselling. The research topic was selected based on the intern's interest in career development and the career counselling needs

of adult students. It was also felt that this research would be of interest and value to the internship site.

CHAPTER II

THE INTERNSHIP: A DESCRIPTION OF ACTIVITIES

Preamble

The internship at Cabot College took place from May 9, 1994 to July 4, 1994, for a period of eight weeks. Although the number of full-time students at Cabot College is approximately 3,500, after June 10th and during that part of the intern's placement the number of full-time students had decreased to approximately 300. Final exams for diploma level programs concluded on May 26, the last day of classes for certificate level programs was June 3, and Intercession for technology students in the Common First Year program finished on June 10.

Individual Counselling

During the internship 29 clients were counselled for a total of 36 sessions. This number does not include telephone contact with students or potential students. While it is often difficult to categorize counselling sessions as being academic, personal, or career oriented, an attempt has been made to distinguish the sessions based on the reason given by the client for initial counsellor contact. Using reasons for contact as identified by the clients, the intern's counselling log revealed six clients with

primarily academic concerns, three clients seeking personal counselling, with the remaining 20 clients seeking assistance in the area of career counselling.

Counselling sessions at the Division of Student Services do not normally occur within a pre-set time frame, such as one hour sessions only, and appointments are not necessary. Flexibility is required, as students' program schedules are very demanding - students are generally in class 25-30 hours per week. The service is sometimes referred to as an "on demand" or "walk in" service. On an average, the individual counselling sessions which were conducted lasted 60-70 minutes. However, some of the counselling sessions were of 30-40 minutes duration while others lasted upwards of 90-100 minutes, depending on the issues discussed.

The majority of students that were counselled were focusing on issues related to career planning and career exploration. However, key concerns for some students, many of whom were displaced workers choosing to retrain, included making "the right decision" regarding occupational training; deciding what program would be "best" for them; and choosing an occupation where employment prospects were somewhat hopeful. Anxiety around decision-making existed for some individuals who felt that at "my age" they could not afford to spend one to three years in training, only to recognize later that they were not suited to, or would not be happy with, the occupational training choice they had made. For many of these students academic

upgrading and/or retraining represented only one aspect of the transitional process with which they were coping.

Other student issues fell in the academic and/or personal categories. Academic concerns focused on learning study skills, discussing program planning and program progress, plus requests for peer-tutors. Personal issues centred around self-esteem, assertiveness, stress management, sexual orientation and lifestyle changes.

Testing

Testing services are available to students through the Division of Student Services. Some of the assessment tools that are available for use include: the General Aptitude Test Battery (GATB), the Self-Directed Search (SDS), the Strong-Campbell Interest Inventory (SCII), the Career Assessment Inventory, the Personal Career Development Profile, and the Myers-Briggs Type Indicator.

During placement the intern became more familiar with the Self-Directed Search, as several clients were given this tool to assist them during their career exploration process. She choose to concentrate on the use of the SDS as an interest inventory because experience had previously been gained with the SCII during the practicum. The GATB is generally administered once monthly, on a small group basis, at Cabot College; while the Myers-Briggs is used less frequently and on an individual basis.

During the internship, the opportunity did not arise to observe the use of these instruments, however, there were opportunities for the intern to familiarize herself with the materials and the reference manuals. An introductory session was also attended where the development and use of the Myers-Briggs was discussed.

Supervision

On-site supervision was provided by Mr. John Harnett, a trained counsellor and registered psychologist, for approximately one hour per week. However, the field supervisor was available on a daily basis to answer any questions and to assist with any crisis situation that might have occurred. The format for the supervision meetings was assigned to the intern to allow fully for the presentation of any issues or concerns that may have arisen during the week. The meetings included a weekly update on the clients counselled and provided an opportunity to identify and consult on counselling related topics. A sample of some of the issues discussed:

- client preferences for a male or female counsellor, possible reasons for this preference, understanding and accommodating a preference;

- the counselling services mandate at Cabot College; short term counselling versus long term counselling/therapy;

- the depth of counselling, depending upon the client's needs and desires in combination with the counsellor's skills and experience in using particular techniques;

- the referral process; diminishing outside resources and waitlists;
- the development of a small career information resource centre on campus;
- the Educational Psychology program - program content, delivery process, and course relevancy.

Two on-site meetings also took place with one of the intern's faculty supervisors, Dr. Kennedy, in consultation with Mr. John Harnett. At this time progress in the internship was discussed and each person felt that the placement was progressing successfully; attention and extra direction were also offered regarding the research project.

Two off-site meetings were also arranged with both faculty supervisors, Dr. Kennedy and Dr. Sharpe, to seek further support regarding the research component. The majority of the on-site research work could not begin until midway during the internship and these meetings were valuable in helping the intern to focus on and clarify the work that needed to be completed during the limited time of the placement.

Workshops/Inservice Training

The internship at Cabot College occurred at a time when a number of professional development and training workshops were scheduled. The intern had the opportunity

and was encouraged to attend a number of sessions which proved to be most interesting and informative. A brief overview of the events attended is provided.

a) A one-day orientation on Total Quality: Philosophy and Principles. Instituting a Total Quality program is a current initiative of Cabot College.

b) A one-half day inservice delivered to counselling staff on Anger Management. This session was presented by Dr. Khalili, Senior Psychologist, Waterford Hospital, and focused on assessing and working with clients in the area of anger management.

c) A two-hour Open House at the Dr. Leonard A. Miller Centre. This visit provided an overview of the many services available to clients who are referred for assessment to the Centre.

d) Attendance at "Choices", a three-day personal and professional development event for faculty and staff at Cabot College. The intern attended presentations on Leadership Styles, Introductory Counselling Skills, and More About You (information on the Myers-Briggs Type Indicator).

e) Attendance at the national conference of the Canadian Association of College and University Student Services (CACUSS) which was held at Memorial University of Newfoundland on June 26-29. This conference was a wonderful opportunity to network with other professionals from colleges and universities across Canada and the United States. Valuable information was gained on

student services programs, counselling resources, and counselling techniques. Sessions attended:

- a one day pre-conference training workshop on Brief Therapy,

- presentations on Date and Acquaintance Rape Prevention Training,

- Women and Depression: At the Crossroads of Pathology and Well-Being,

- Divorce Counselling: Facilitating Personal Growth,

- Sexuality Counselling and the University Student: Gay/Lesbian Peer Counselling,

- Recognizing and Treating Post-Traumatic Stress Disorder in University Counselling and Health Services, and

- Legal Issues in Health and Counselling Services.

Research/Readings

The research project focused on the career development of post-secondary college students age 26 and older. The nature of the intern's work involved identifying career counselling needs through the administration of a career maturity measure and self-report form, and the analysis of students' responses. The title of the research project is: "The Career Counselling Needs of College Students Based on Gender, Age, and Level of Education". A detailed report of this project, including a bibliography, is provided in the following chapters.

Beyond counselling, carrying out the research work, plus other responsibilities, additional readings in areas related to either the research topic or counselling issues were completed. Coincidentally, a number of the readings were very related to some of the sessions which were later attended at the CACUSS Conference on June 26-29. Materials read during the internship placement included:

- The Career Development Quarterly, (December, 1993), 42(2).

All articles published in this volume of the journal focused on the career and personal counselling dichotomy, suggesting in fact that the two are not as separate, nor can they be separated, as often happens. This information and research was quite relevant for the intern as the majority of clients she met were seeking career counselling.

- Mitchell, Robert (1991). Documentation in Counseling Records. The ACA Legal Series, vol.2., VA: ACA.

In this book, one of seven in the ACA legal series, the author provides information on accountability and offers valuable guidelines on record keeping in counselling. The documentation process in counselling records is an area of interest for the intern. The material in this journal also complemented information that was presented at the CACUSS session 'Legal Issues in Health and Counselling Services'.

- The Counseling Psychologist, (April, 1991), 19(2).

This issue focuses on counselling lesbian women and gay men, understanding the issues associated with "coming out", and how sexual orientation needs to be considered in career counselling. This was selected reading for the intern because

during both the practicum and internship clients who were "coming out" sought support and advice. This was also a relatively new counselling area for the intern.

- Keirsey, David & Bates, Marilyn (1984). Please Understand Me: Character and Temperament Types. California: Prometheus Nemesis Book Company.

Based on the work of Carl Jung and Isabell Myers, this book provides a tool to help identify and better understand different temperaments. The four temperaments are described and then further discussed in relation to mating, children, and leadership. This information was useful to the intern as she intends to gain future training in the use of the Myers-Briggs Type Indicator.

- Pritchard, Carol (1988). Avoiding Rape On and Off Campus. New Jersey: State College Publishing Company.

This book provides important information for all students on date and acquaintance rape, coercive sex, and group rape. It discusses the myths and presents the facts. Practical information is supplied on how to avoid becoming a victim and what to do if confronted by a rapist. The information is clearly written and should be accessible to any interested client.

- Gibbs, Keith (1993). University Degrees and Learning with Ease. Gloucester, Ontario: Keith J. Gibbs.

This booklet provides 80 useful and easy to understand tips for post-secondary students. Advice is offered in several areas; study tips, essay writing, exam writing, time management, financial management, physical and mental health, plus information

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for part-time and graduate students. Although the book is targeting university students, most of the information is also applicable to the community college student.

Other Activities

As part of the counselling internship, a daily log of client sessions and case files highlighting the presenting concern(s) and any recommendations, actions, or referrals, were maintained. Also, as an intern practicing within the Division of Student Services, other related duties, beyond counselling and research, were assigned. These duties included assisting with graduation procedures, overseeing the interview and selection process for recruiting a summer student with the SHAD VALLEY project, attending staff planning meetings, in addition to answering student inquiries regarding financial aid, the admissions procedures, and general program information.

Review of the Objectives

The internship provided experiences that were directly related to the intern's eventual employment. There were opportunities to practice counselling skills with adults in a post-secondary setting and also to conduct research on the topic of career maturity in adult students. The internship also provided an opportunity to participate in the relationships between various sections of the Student Services Division.

Objective 1: To conduct individual counselling sessions in the areas of personal and career counselling.

This was accomplished by conducting:

a)   five personal counselling sessions with three clients;

b)   20 career counselling sessions with 20 clients;

c)   11 academic advising sessions with six clients.

Based on the intern's previous work experience as a Student Advisor, plus her
practicum experience, three to four client counselling sessions per day were expected.
However, the total number of client counselling sessions for this intern was
approximately one per day. As noted earlier in this report, counselling services at
Cabot College are frequently offered "on demand". One may speculate that the
number of client sessions was less than expected due to various reasons: a) the total
number of students in full-time attendance decreased dramatically after June 10th, b)
the "demand" for counselling services is less during this time of the academic year -
nearing the conclusion of the semester, and/or c) students who had previously
received counselling services preferred to maintain contact with the same college
counsellor.

Although the counselling sessions were categorized based on the reason given by the
client, it is important to recognize that career counselling must operate using a holistic
philosophy. As stated by Krumboltz (1993), "when we discover the complex
circumstances that are interwoven into our clients' problems, it becomes almost
impossible to categorize any given problem as either 'career' or 'personal'" (p. 143).

In fact, "compartmentalizing [clients] concerns diminishes our ability to help them see how their feelings, beliefs, abilities, and interests are interconnected" (p. 148).

Objective 2: To practice a variety of counselling skills but to focus on the skills of advanced empathy; specifically - identifying themes, challenging, interpreting, and action planning.

This was accomplished by:

a)   conducting individual counselling sessions;

b)   weekly on-site supervision where client issues, plus the counselling approach and skills employed, were reviewed;

c)   a self-reflective process - which was strengthened through journalling.

Clearly the counselling skills used in any counselling session are dependent upon the client-counsellor relationship, the number of sessions that they have spent working together, the type of issue that the client is striving to cope with or resolve, and also the counsellor's experience or practice with various skills and techniques. Throughout counsellor training, the emphasis was on providing an overview of the helping relationship, practicing effective communication skills, and helping clients to tell their story - the counselling model used was based on Gerard Egan's text The Skilled Helper, 1990. During the practicum and internship this intern worked to move beyond basic empathy and the use of probes into the skills of advanced

empathy. Brief case examples are provided to help demonstrate some of the counselling skills employed.

Case A: The client was a mature student, parent, and displaced worker, who was retraining for a new career. When the student visited she was very upset - stating that she was very stressed, "didn't know what to do", doubted if she could continue with the program, and felt close to "just quitting". The intern began the session by having the client tell her story. The client described a number of situations that were presently causing her distress. Throughout the session the intern noted that a number of self-defeating or negative thoughts were evident. In trying to cope with so many issues, and with so many demands on her time and energy, the client no longer felt in control and had started to doubt herself - doubting herself as a student, as a worker, as a parent, as an individual.

An underlying theme that was identified through the client's story was her waning self-confidence. Thoughts relating to her feelings of incompetence and her decreased ability to cope were expressed. During the session the intern wanted to help the client feel more in control and to clarify and focus on specific concerns. A list was complied of the many stressors that the client had identified and the question was asked, "If we were to work on one of these concerns first, which would be most helpful for you to focus on?". (Summarizing and moving to action). The client

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identifed her relationship with her teenage child as the most important issue which required immediate attention.

During the remainder of this session and in the following session, we explored coping behaviours and discussed some parenting skills. The intern also provided the client with several techniques to first practice and later try with her teenager. We role played situations as the techniques were demonstrated. During the sessions it was also pointed out how well the student was proceeding academically and how caring she was as a parent. Her request for counselling was described by the intern as a positive step in helping to avoid future conflict and in maintaining a healthy relationship with her child. (Interpretation) The client was feeling relieved and thankful as she began to have a different and more hopeful perspective on her situation.

Case B: This client was referred due to an incident during on-the-job training. The Instructor felt that the student, a skilled and effective worker, may be dealing with personal issues which were interfering with her ability to concentrate during training. The session began by exploring the student's feelings and thoughts about the program and her present performance. As the student described her efforts she mentioned on two occasions, "I have to do well." This was her final semester and exams were near. The intern sensed that the student had expectations beyond her own that she felt

she had to meet. The intern <u>probed,</u> "How do others, your family or friends, feel about your studies?". Response: "Oh good. I don't really have any time for friends or socializing." However, while the verbal response signified that things were good, non-verbally it was evident that the student was feeling upset. It was also noted that she did not mention family in her response. It was decided to <u>challenge the discrepancy</u> between the client's verbal and non-verbal messages. At this point the student cried for a few moments; she then began to talk about the stress of the program and her desire to succeed and to show her parents that she could do it. Probe: "So doing well and receiving your parents approval is very important to you." Response: (a nod) "Yes, especially my father's.". The session continued as we discussed the pressures she felt and how personal time and her personal life seemed to stay on hold as she gave so much time to the program.

<u>Self-reflection/journalling.</u> The intern also kept a journal during placement to help in recording and reflecting upon counselling experiences. A sample of journal notes follows:

" Tuesday, May 24. Today a student interview which began as a request for program information evolved into a personal counselling session. This session was quite valuable for me as I encouraged and allowed the individual to tell her story. I believe I was indeed empathetic - dealing not only with feelings but also cognitions and experiences. The opportunity also presented itself so that the skills of immediacy and

self-disclosure seemed appropriate". The entry continues with thoughts on this process.

Objective 3: To self-assess counselling skills and personal counselling style on a weekly basis, through feedback from and in consultation with the field supervisor, and in relation to the different theoretical perspectives.

This was accomplished through:

a)   weekly meetings and case discussions with the field supervisor;

b)   consultation with other counselling staff;

c)   meeting with the faculty supervisor Dr. Kennedy midway through the internship to discuss the intern's progress;

d)   reviewing and re-reading sections of the course text, <u>Theory and Practice of Counseling and Psychotherapy,</u> Gerald Corey, 1991;

e)   attending an introductory session titled 'Counselling Skills' which focused on Allen Ivey's work/text, <u>Intentional Interviewing and Counseling,</u> 1988;

f)   attending a one day, pre-conference training workshop on 'Brief Counselling: Beyond the Basics', presented by Dr. Brett Steenbarger.

The preference of this intern is toward the humanistic, nondirective, client-centered approach in counselling. However, in her previous work experience as a student advisor, youth counsellor, and employment counsellor; plus prior training in reality

therapy and control theory, she felt that she was leaning toward a more directive approach. Prior to counsellor training, the tendency was to introduce structure in the early stages of the helping process, and eagerly move into the problem solving and action stage. Upon reflection of the counsellor training, and based upon feedback from field supervisors and faculty, the intern believes that she has moved closer toward a non-directive approach and tends to use cognitive-behavioural techniques when working with clients in the helping process. At this stage, the intern feels that a more integrative perspective, based on a knowledge and practice of a variety of therapies and techniques will continue to be explored.

Objective 4: To complete study and research in the area of career maturity in post-secondary college students.

This was accomplished through:

a)   the initial research on the topic and presentation of a draft proposal;

b)   intensive research on the concept of career maturity and a discussion of ideas and critical feedback from faculty members;

c)   the administration of a career maturity measure, plus the intrepretation and analysis of results;

d)   the compilation of a final research report with recommendations;

e)   regular consultation meetings with faculty supervisor, Dr. Sharpe.

Conclusion

It was quite useful to complete the practicum and the internship, which was an extension of the practicum, at two different post-secondary institutions - one being a university setting and the other a community college setting. The practicum experience revealed a more formal and somewhat clinical approach where the counsellors' primary responsibilities are individual counselling, research, and some small group work. A direct involvement with other Student Affairs tasks was not evident, e.g. the peer-helper program. The internship experience revealed a more informal, non-clinical, "on demand" approach to counselling services. At the community college the counsellor's primary responsibility is also individual counselling, however, the counsellor is also actively involved in other Student Services tasks, e.g. academic advising, assisting with graduation procedures, assisting students with student loan applications, etcetera. While the intern believes that each setting and style of operations has its advantages and possible disadvantages, as a "new" student counsellor she has yet to decide which approach she would prefer.

Overall, it was felt that the eight week internship was a valuable experience and many of the goals and objectives the intern had set were met. The individual counselling sessions were especially challenging and rewarding. Reading and research related to career counselling, and specifically career maturity, was very usful as career counselling remains a primary task for most college counsellors. Having the

opportunity to carry out the research project was also worthwhile and a very good learning experience, as further knowledge on the concept of career maturity, the career counselling needs of students, and the research process itself was acquired.

CHAPTER III

RESEARCH COMPONENT

INTRODUCTION

Statement of Purpose

This research project has assessed the career counselling needs of post-secondary college students age 26 years and older. A career maturity measure and a self-report form was used to identify the needs according to the subjects' gender, age, and level of education. This study aimed to analyze the different, yet specific, needs of adult students.

Significance of the Study

Presently in our province, it is estimated that the ratio of students to counsellors in our schools is 1000 to 1, and this figure may be generalized to counselling services available in our post-secondary institutions (Government of Newfoundland and Labrador, Department of Education, 1994). This ratio indicates a substantial demand for counselling services and counsellor time. Given this knowledge, and understanding that the components of career development are varied, it would therefore be useful to assess and identify those components that are most critical to students seeking career counselling. This service could be both time and cost

effective for the counsellor and the institution. Additionally, the identification of career counselling needs, using a measure of career maturity, may also help the student better understand those aspects of career development that are causing feelings of frustration due to a lack of skills or information.

The career development and career maturity of adults is still a relatively new area of research. As stated by Westbrook (1983), a nationwide assessment (in the U.S.) "indicates the need for studies of adult career maturity" (p. 299). However, Super does suggest that the behavioral factors related to career maturity—"planfulness, exploration, information, decision-making, and reality orientation"—are basically the same for adolescents and adults but "the content in adulthood becomes more specific in its focus" (Herr and Cramer, 1992, p. 304). Super (1977) also noted that "the tasks, the topics to be explored, and the kinds of information needed by ... adults are different" (p. 295).

Assuming that career development needs may be identified using a measure of career maturity, patterns of needs may evolve, and relevant career counselling interventions can then be proposed. The patterns of needs, based primarily on the students' gender, age, and level of education, can help the counselling services unit—with limited human and material resources—to better serve particular groups. At present, the more generic set of career counselling interventions can sometimes fall short of

meeting the specific needs of various student groups, especially the older adult college student.

While career development needs may be identified using a measure of career maturity, one's level of career maturity may be enhanced using appropriate career counselling interventions. Career maturity outcomes have been found to be related to career satisfaction, career success, academic and work achievement, vocational decidedness and vocational identity (Westbrook, 1983; Westbrook, Sanford, O'Neal, Horne, Fleenor, & Garren, 1985; Nevill & Super, 1988; Crook, Healy, & O'Shea, 1984; Savickas, 1985; Iaffaldano, Wells, Hyland, & Muchinsky, 1985). A study by Healy, Mourton, Anderson, and Robinson (1984) states that "community colleges could help improve achievement and probably could increase retention rates by offering programs that increase aspects of career maturity ..." (p. 350). If these outcomes are possible, then identifying needs and offering interventions which subsequently enhance career maturity appear to be worthy endeavours.

Rationale

With respect to career counselling in the post-secondary setting, a recent Newfoundland provincial report recommends that we "make adequate provision for sufficient career guidance and counselling services throughout the post-secondary education system for all students ... at appropriate times, but especially for students

as they proceed through various programs" (Sharpe and White, 1993, p. 16). To provide adequate career guidance and counselling, the identification of career development needs and an understanding of career maturity in our adult student population is a primary requirement. The identification and assessment of career needs must first occur, prior to planning career counselling initiatives.

There are numerous aspects to career development and many factors that may influence it as it evolves. These factors can include education level, level of self-esteem, work experience, age, etcetera. Career maturity is a term often used to reflect or indicate the stage or level of one's career development—one's knowledge, skills, and behaviours as applied to, and revealing a readiness for, career decision-making. "Career development … is part affective, part cognitive, and increases irregularly with age and experience" (Thompson, Lindeman, Super, Jordaan, and Myers, 1984, p. 7). The problems one may face or the needs that one may have during the career development process are many. Campbell and Cellini (1981) provide a comprehensive list including 17 tasks and 80 subtasks in their taxonomy of adult career problems.

In this research project the intern used a career maturity measure, the Career Development Inventory, plus a Self-Report Form to help identify the career counselling needs of adult students (Appendices A & B). Mihal and Graumenz (1984)

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caution however that "career counselors should be aware of potential bias in self-assessments when dealing with counselees and should attempt to validate self-assessments whenever possible" (p. 253). In considering this caution the intern chose to use the Career Development Inventory (College and University Form) (CDI-CU), a published career maturity measure, which could provide objectivity and a standardization of scores. The Career Development Inventory was also selected because it is one of the few measures of career maturity which was designed for use with adults.

The scales of the Career Development Inventory (CDI) (College and University Form) score five components of career development: career planning, career exploration, decision-making, world-of-work information, and knowledge of preferred occupational group (Appendix C). Reality orientation, an additional dimension of career maturity, is not measured by this inventory. The CDI User's Manual reports that "the measure of internal consistency for the combined scales ranges from .79 to .88 with a median of .86. These scales clearly have adequate reliability for use in ... analyses of group differences" (Thompson, Lindeman, Super, Jordaan, and Myers, 1981, p. 14). The CDI User's Manual also reports on the content validity of the instrument and "strong evidence of the construct validity of the separate and combined CDI scales" (p. 17).

Super (1977) suggests that the CDI "is useful in assessing recycling concerns, that is, in identifying adults who, having been established, are exploring possible new roles" (p. 301). Herr and Cramer (1992) state that the Career Development Inventory (CDI) "... clearly attempts to appraise the construct of career maturity" (p. 672).

The self-report form which the intern developed was administered to students to solicit basic data. The form was used to collect identifying information such as gender, age, program of studies, and education level, but also included an open-ended question. This question asked students to identify the types of services and/or career counselling needs—information, skills, knowledge, help with personal issues, etcetera—which they required or had at that time.

Research Question

What are the career counselling needs of different groups of adult college students categorized according to gender, age, and level of education?

CHAPTER IV

REVIEW OF THE LITERATURE

Career Maturity: The Construct

Career maturity was first conceptualized by Donald Super almost forty years ago
(Westbrook, 1983). While some consider the construct to be multidimensional, others
suggest that there is little evidence to support this view. (Super & Kidd, 1979;
Westbrook, 1983). Originally career maturity was conceived in relation to the career
development of adolescents and was termed vocational maturity. Since that time,
numerous studies have posed a variety of questions, emanating from different needs
and perspectives, in an effort to further understand, define, and utilize information,
based on this concept.

Alternate terms have been used to refer to the construct of career maturity—vocational
maturity, adaptive vocational behaviour, personal flexibility, and career adaptability,
with the term "career maturity" being credited to John Crites (Westbrook, 1983;
Crites, 1978; Blustein, 1987a,b; Sheppard, 1971; Super, 1977; Phillips & Strohmer,
1982). Researchers have considered different factors that may influence the
development of career maturity, they have reviewed and modified the construct itself,
and have developed instruments to measure career maturity. Herr and Cramer (1992)

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suggest that "... the essential criteria of career maturity remain fairly constant. What does change however, across these approaches to career maturity, are the methods of measuring the presence of specific elements of career maturity" (p. 296).

Most work in this area has focused on the definition and measurement of the construct and the study of antecedents and outcomes related to it. Only a few authors have offered specific counselling interventions appropriate for, and dependent upon, the level of career maturity that different people of different ages exhibit. However, the wealth of research that centres around the topic of career maturity is evidence that it has some interest and level of meaning for many people and may therefore be worthy of continued attention. Nevill and Super (1988) state, "career maturity is now a well-established concept which has become central to many career education programs in schools and colleges. ... However [it] is still in need of further study" (p. 139).

To what does the term career maturity refer and why is it useful to understand and/or measure? Initially, Super defined vocational maturity conceptually as "the place reached on the continuum of vocational development from exploration to decline" and he theorized that a "vocational maturity quotient (VMQ) could be developed to indicate: 'whether or not the vocational development of an individual is appropriate for his age and how far below or beyond his chronological age his vocational development is'" (Westbrook, 1983, p. 264). But what purpose does the

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measurement of career maturity actually serve? Is the goal to enhance one's level of career or vocational maturity? Is it to determine the factors which may influence career maturity development? How does a high degree of career maturity relate to later career success and satisfaction? Can the measurement of career maturity be of benefit in identifying specific career counselling needs for various age groups in the post-secondary setting?

Based on Super's work, Herr and Cramer (1992) define career maturity as:

> The repertoire of behaviours pertinent to identifying, choosing, planning, and executing career goals available to a specific individual as compared with those possessed by an appropriate peer group; being at an average level in career development for one's age. Attitudinal and cognitive readiness to cope with the developmental tasks of finding, preparing for, getting established in, pursuing, and retiring from an occupation. (p. 27)

Understanding Career Maturity (CM) - CM described

Blustein (1987b) describes vocational maturity "as the readiness to cope with the specific vocational tasks that are associated with an individual's stage in life. [It] consists of two factors that represent relatively discrete domains, ... vocationally mature attitudes [and] the cognitive components of vocational maturity" (p. 67). While both domains may appear independent of one another, it is a combination of both that provides a total view of career or vocational maturity. Assuming that vocational maturity is a desired and possibly strived for state, Phillips and Strohmer

(1983) suggest that "vocational maturity has been widely recognized as a developmental yardstick used to measure the readiness of an individual to address the tasks imposed by his or her life stage" (p. 396).

Nevill and Super (1988) state that career maturity is developmental in nature and refer to it as a process. Accepting that career maturity is a process indicates its fluidity, its ability and openness to change, based on time and internal and external events - personal or situational, plus one's behaviours and thoughts. This idea leads to the questions: what elements to be obtained, or criteria to be met, would constitute a state of optimum or maximum career maturity? If career maturity is a developmental process, what would be an "ideal" measure of career maturity obtainable, possible, or desirable for adult college-level students?

In addition, Nevill and Super (1988) suggest that career maturity "should be viewed in the context of an individual's life-span and life-space" (p. 141). This view is also supported by Campbell and Heffernan (1983), as they reference the reality of midlife career changes and increased life expectancy, among other issues, in identifying increased and greater needs for career assistance for older persons. They note that theories of adult career development that "assume that stages in development are sequential and each is encountered only once" (p. 226) are in conflict with reality. Also, in Campbell and Cellini's (1981) taxonomy of adult career problems, it is clear

that issues related to career development can be faced by adults in midcareer, during periods of unemployment, work re-entry, and/or into pre-retirement and retirement. Accepting these career concerns as legitimate, it appears that some aspects of career maturity can resurface throughout one's work and life history, and career counselling assistance can be of value at different stages. Campbell and Cellini (1981) state that their "four major problem categories describe(s) problems that may occur at any age or stage in the career development process" (p. 178).

Super's work also reflects the notions of change, transition, and career concerns throughout life and "the terms trial and transition have been intended to denote [a] recycling of tasks through minicycles" (Herr & Cramer, p. 215). Although Super says that while "the content of the tasks may vary, the process remains the same" (Campbell and Heffernan, p. 236), he later chose to substitute the term career maturity with the term career adaptability when referring to adults. But can a measure of career maturity for adults, during different transition points, i.e., prior to college graduation, at the time of job loss, or entry into retraining; identify particular needs or factors that require attention? Will a measure of career maturity be useful in determining the type of support or career counselling services that will be most helpful?

Vocational maturity can also be "defined as a level of attainment along a continuum of occupational development which is expressed when selecting a vocation. It includes the person's feelings about a basis for choosing a job and his conceptions of the occupational choice process" (Sheppard, 1971, p. 400). This explanation refers to the individual's feelings and conceptions, similar to the two dimensions of attitudes and cognitions, which are evident in some career maturity measures. Actions or behaviours are not mentioned here, but one would expect that career maturity is also influenced by one's actions/behaviours, past and present, especially at the post-secondary adult level. Westbrook does state that attempts are made to assess all three domains—affective, cognitive, and psychomotor—in the existing career maturity measures (Herr & Cramer, 1992).

Indeed, our actions or behaviours, and what we learn from them, will influence our knowledge about occupations and career-related resources, our information-seeking skills and relevant future behaviours. The students' information and skill levels are very important in assessing their career counselling needs. However, Sharf (1984) reminds us of the difficulty that exists in determining an individual's level of actual information seeking behaviour, noting that individuals will vary not only in the amount, but also in the type, of vocational information seeking behaviour. Also, actions such as part-time and full-time work, extracurricular activities, volunteer work, occupational research, etcetera, can all serve as antecedents to vocational

maturity (Blustein, 1987a). However, some may question whether these actions are antecedent to career maturity or are in fact descriptors /criteria indicating a level of career maturity; a point on the continuum.

Career Development and the Career Maturity of Adults

Nevill and Super (1988) suggest that career maturity is developmental in nature. However, this notion may appear to be in conflict with the idea of career development needs appearing and reappearing throughout one's life span. Generally when the term developmental is used one will envision a linear and sequential, or evolutionary process. Developmental theorists suggest that "individual development proceeds through a series of stages ... [and] individuals do not return to 'lower' level stages once they have been satisfactorily negotiated" (Campbell and Heffernan, 1983, p. 226).

However, with respect to adult career development this theory does not seem to apply. This intern would suggest that the adult's level of career development—based on knowledge, skills, behaviours, and attitudes with respect to career related activities—and as reflected in a measure of career maturity, can and will fluctuate. It is not unusual in our rapidly changing world that the skills, knowledge, or behaviours, that once served us well become outdated, lost, less relevant or inappropriate.

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Super postulated four stages of career development: exploration, establishment, maintenance, and decline (Herr and Cramer, 1992). For the adult, perceived to be in the maintenance stage of career development but now displaced from a job or choosing to change careers, the methods or skills of job search used fifteen years ago may be quite different from those required today. If the individual chooses to retrain, the career planning process may seem unfamiliar or foreign and a return to the "exploration" stage may occur.

A recognition of career development as a lifelong and ongoing process, and as applicable to adults as well as to adolescents, may require us to rethink some of our ideas regarding career development stages, developmental career counselling, and the notion of what it means to have career mature attitudes. "Career maturity is a state, usually thought of as the peak of development, but a career may have no peak, one peak, or several peaks" (Super, Osborne, Walsh, Brown, and Niles, 1992, p. 75). Indeed, it appears that as an adult one "may enter or reenter any stage ... at any point in the life span ....[as] people are changing jobs in midlife, entering the workforce during late adulthood, and coming out of retirement and starting over" (Campbell & Heffernan, 1983, p. 227).

It is recognized that there are career problems for adults associated with the career development process. Identifying these career problems or career counselling needs

may be facilitated using a measure like the Career Development Inventory (CDI).

Low scores on one of the scales may indicate needs in areas such as career planning,

career exploration, decision-making, world-of-work information, or knowledge of

preferred occupational group. A useful descriptive analysis of the CDI's 120 items is

included in the Technical Manual. Campbell and Cellini's (1981) diagnostic

taxonomy is also useful in providing detail on four major categories, and

subcategories, of adult career problems. They state that "four common tasks were

identified as recurring across stages ... decision-making, implementing plans,

organizational/ institutional performance, [and] organizational/ institutional

adaptation" (p. 177).

It is therefore assumed that any individual, independent of age, education, work

experience, etcetera, can benefit from career counselling—support, guidance,

assessment, information and resources. The identification of specific career

counselling needs and appropriate interventions may be especially useful as one

progresses and/or recycles through the tasks associated with career development and

as may be reflected in measures of career maturity.

Factors and Outcomes Related to Career Maturity

Introduction

A review of the literature indicates that there are many factors or variables that may relate to career maturity. They may include gender, socioeconomic status, educational achievement, aptitude, ethnic background, decision-making style, work experience, age, self-knowledge (values, interests, abilities, attitudes), career salience, self-esteem/self-concept, childhood experiences and life history events, and present life stage and/or transition point(s) (Herr & Cramer, 1992; Sheppard, 1971; Iaffaldano et al., 1985; Blustein, 1987a, 1987b; Phillips & Strohmer, 1982; Crook, 1984; Healy, 1991; Lucas & Epperson, 1990; Nevill & Super, 1988; Westbrook et al., 1985, Guthrie & Herman, 1982). Many of these potential factors overlap or are interrelated. This research project focused on the variables of gender, age, and level of education only. However, it may be relevant when considering factors related to career maturity to distinguish whether particular factors influence the attitudinal and/or cognitive domains specifically.

Anticipated outcomes of enhanced career or vocational maturity are also many and varied. Possibilities include increased college success, greater career satisfaction and success, effective decision-making styles, career decidedness, career salience, vocational identity, and increased readiness and effectiveness in coping with the next

career development stage (Crook, Healy, O'Shea, 1984; Phillips & Strohmer, 1983; Nevill & Super, 1988; Healy, Mourton, Anderson, Robinson, 1984; Savickas, 1985; Westbrook et al, 1985; Herr & Cramer, 1992; Healy, 1991). From this information it is evident that some of the factors reflected in a measure of career maturity can also appear as potential outcomes of increased career maturity. This notion leads to a vision of career maturity as an anchor or core to a circular process; with the effect that one's level of career maturity is sometimes increasing or enlarging—at other times decreasing or reducing. Career maturity is therefore malleable and not static at any age.

While a variety of factors and outcomes may be related to career maturity, this research considered those of gender, age, and education level. Knowing that other factors can also influence one's level of career development, and subsequent score of career maturity, the variables of self-esteem, self-concept, decision-making style, work achievement, and others, are also discussed in this review. It is also important to recognize that the majority of the research on career development and career maturity refers to adolescents and young adults, whereas this project focused on the older adult student. However, consideration of the material is of value and some generalizations may be appropriate.

Gender, Age, Education Level

While Nevill and Super (1988) do not suggest that gender is related to career maturity, some differences related to gender have been found. These authors cite similar studies of high school students showing females scoring higher on the cognitive scales, suggesting that "females appear to mature vocationally at an earlier age than do males" (p. 148). Herr and Cramer (1992) refer to research by Hollender and state that "girls tend to be 'set' in a career earlier than boys (by about age 15).... and significantly more females than males report a definite vocational choice during this period" (p. 375). A 1980 study by Westbrook et al. found that "technical college female students ... attained higher scores than male students on all career maturity measures" (Westbrook, 1983, p. 295). Female medical students also showed a greater commitment to their career and "better developed vocational identity" (Savickas, 1985, p. 335).

While the literature reflects that males are less career mature than females, Iaffaldano et al.(1985), with respect to vocational maturity and decidedness, state that many males "guided by perceived societal norms, [may] feel compelled to choose a career early in life, before possessing any realistic knowledge about the profession or the skills necessary to plan for such a career" (p. 294). If this information is accurate, how does it play itself out in later academic studies or work situations? Does this relate to the number of studies focusing on male midlife career changers? Herr and

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Cramer (1992) cite other research which suggests that sex differences in career maturity is not evident "by ages 24 to 27" (p. 412). It is postulated, based on the majority of this research, that significant differences will be found between genders on scores of career maturity.

Age as a factor influencing the level of career maturity and career mature behaviors has also been considered in the literature. A study of male and female college students found age "to be significantly related to vocational maturity" (Guthrie & Herman, 1982, p. 199). Herr and Cramer (1992) cite a number of studies which suggest that career behaviour in adolescence is "also related to career behavior at age 25 ..." (p. 413), and "aspects of career maturity at the ninth grade ... [can] accurately predict career maturity at the twelfth grade and at age 25 ..." (p. 304). It is not clear, however, that an absence of career behaviours at an earlier age can be compensated by effectively applied career behaviours at a later age.

A recent study by Healy (1991), based on a sample of college students aged 17 to 58 years, examined the hypothesis that "age relates positively to decision-making skills, vocational identity, grades, and life satisfaction" (p. 208). However, while a relationship between age and grades was found, a positive relationship between age and the other factors was not evident. Also, "contrasts of participants who were older and younger than 26 years of age did not reveal significant differences either" (p.

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211). Another study which compared male workers age 30 and over, by age group and level of education, also revealed "no significant differences in vocational maturity mean scores between younger and older subjects" (Sheppard, 1971, p. 403). This information would suggest that significant differences would not be found in this research project, which included a comparison of student career counselling needs based on various age groups and using a career maturity measure.

With respect to level of education, Westbrook et al. (1985) found that neither mental ability nor scholastic achievement were related to career maturity. A study by Sheppard (1971) indicated that education level had little relationship with one's measure of vocational maturity. Within this research project, the variable of education level may not surface as being significant in helping to identify career counselling needs.

Self-esteem and Self-concept

A study of college students, conducted by Crook, Healy, and O'Shea (1984), looked at the relationship of work achievement to self-esteem, career maturity, and college achievement. The results suggest that "self-esteem influences mature career attitudes and work achievement directly, ... [and] mature career attitudes contribute directly to college and work achievement, ..." (p. 76). Based on this information, it would seem advisable to first work with students to increase their self-esteem, before counselling

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them around other issues relating to career maturity. However, this study considered only one component of career maturity—attitude, using Crites Attitude Scale of the Career Maturity Inventory—and it is not clear that self-esteem influences other areas of career maturity, such as career choice competency. One cannot assume, based on this study, that an individual scoring high or low on a career maturity index will also score high or low, respectively, on a measure of self-esteem. Iaffaldano et al. (1985) also noted that vocational decidedness is based upon attitude. Is it possible then that self-esteem, a factor which influences mature career attitudes, can also affect one's level of vocational decidedness?

Blustein (1987b) put forth a hypothesis which predicted that a low self-monitoring orientation and an internal location of identity—dimensions of the self-concept system—would be positively related to the two major components of vocational maturity—attitudinal and cognitive. His study samples consisted of undergraduates attending a community college. Results indicated that "low self-monitoring and an internal location of identity were associated with the cognitive components of vocational maturity (decision-making skills and world of work information), [but] were not related to the attitudinal components (self-report of career planning and career exploration activities) ..." (p. 75).

Savickas (1985) also found that vocational identity, reflective of vocational maturity, was related to ego identity achievement. The importance of self-awareness, a strong self-concept, and a sense of identity, are regularly discussed in the literature on career counselling and may directly or indirectly influence one's score on a career maturity measure. Healy et al. (1984) note that "... people manage their careers so they are consistent with their self-concept" (p. 348). Applied liberally, can we then propose that an individual with a "poor" self-concept may have less skills or knowledge in the area of career competencies and will therefore exhibit a decreased level of career maturity?

It is common knowledge that past and present experiences, one's social environment, personal and societal values, plus other significant individuals, can and do play a part in the evolving conception of self. A study of senior high students by Iaffaldano et al. (1985), which looked at vocational maturity as a component of vocational indecision, noted that a variety of life history antecedents impacted males' and females' vocational decidedness. Results showed that "the best predictors for females are generally academic in nature, (i.e., declaration of a major, positive academic average), while the best predictors for males tended to be those with a more social-interpersonal flavor, (i.e., social extroversion/popularity, athletic involvement)" (p. 293).

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An evolving self-concept in college students is therefore likely to have a direct impact, either positive or negative, on their level of career maturity. Does this information imply that for older students, who may be experiencing a decreased sense of identity or diminished self-concept due to job loss or career change, scores on a career maturity measure will be lower? This would suggest that scores may indeed be lower but, one might anticipate that low scores would be more evident on the attitudinal components and not the cognitive components of career maturity measures.

Work Achievement and Career Salience

Research by Nevill and Super (1988), based on a study of 372 undergraduate students, suggested that sex and socioeconomic status were not related to career maturity, but, "commitment to work [or work role] was related to both the attitudinal and the cognitive scales of career maturity" (p. 145). This information is similar to findings by Crook et al. (1984) that "mature career attitudes contribute directly to college and work achievement, ..." (p. 76). Also, while it is not clear that career salience is definitively similar to Nevill and Super's idea of commitment to work, it is noteworthy that in a study by Westbrook and Sanford (1985), career salience itself was not found to be related to other theoretical components of career maturity—career decisions, career activities, self-knowledge, and career concerns. As Osipow in Lucas and Epperson (1990) hypothesized, "work may not play an equally critical role

in everyone's life" (p. 387). But how is it that the importance of and commitment to work, and the work role, might vary so greatly between students, many of whom, it is assumed, enter college or university with a focus on preparing for future employment?

It may be that some individuals enter post-secondary studies still unclear or unconvinced regarding the connection of study and skill training to the obtainment of future occupations. Or, it may be that the work role is simply viewed as 'something one has to do' and the role itself does not inspire internalized feelings of importance or worth. Other students may feel a sense of importance or commitment to work, thereby scoring higher on career maturity, but may later become disillusioned, i.e., due to a poor labour market, and therefore reduce career exploration efforts, etcetera, and consequently score less on a measure of career maturity. "Knowing how important work is to an individual is essential in assessing readiness for career decision-making. If work and career are not important, then scores on vocational interest inventories have relatively little permanent meaning, ..." (Nevill and Super, p. 149).

It appears that the relevance, or connection, of study to work may need to be addressed on a regular basis in post-secondary settings, and especially during depressed economic times. Even adults who have many years of work experience

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may be weak in planfulness during career change and score low on a measure of career maturity (Dillard, 1985). Evidently work, as one aspect of career development, and its relationship to other life areas will need to be reinforced and highlighted.

Planfulness and Decision-making Style

Other factors that may contribute to career maturity are one's level of planfulness/time perspective and also decision-making style. Super and Kidd (1979), in discussing models of vocational maturity in adulthood, cite several studies that focus on "the planfulness dimension [because it has] been shown to be the most important group factor in vocational maturity, ..." (p. 259). A study by Blustein (1987a), based on a sample of community college students, examined the relationship between decision-making styles and vocational maturity. He found that "a reliance upon the rational style [as opposed to the intuitive or dependent styles] was the only significant decision-making style predictor of vocational maturity; ..." (p. 61). However, an earlier study by Phillips and Strohmer (1982) did not support a hypothesis that there was a relationship between rational decision-making and the cognitive and attitudinal components of career maturity. They suggest that "the link ... is a weak one at best" (p. 221).

However, whether an individual has, or develops, a rational and/or intuitive decision-making style can be influenced by a number of factors, i.e., earlier parent models, peer styles of decision-making, courses studied which focus on systematic strategies and logic. If we choose to assist students in developing a rational decision-making style this also relates to the concept of planfulness. Both entail learning, understanding, and practicing, clear, systematic methods that include a consideration of the past, present and future, in exploring options and alternatives.

Phillips and Strohmer (1983) state that a "planning orientation is clearly related to progress in the task of choosing an occupation" (p. 399). Super and Kidd (1979) note that "individuals who show greater career maturity in their decision making during the exploratory stage are likely to be better adjusted (and therefore more satisfied and successful) in the early years of work than those who were less mature in exploring" (p. 259). Lucas and Epperson also researched decision-making style "because of its relevance to effective career exploration" (p. 383). However, Phillips and Strohmer (1982) suggest that any counselling interventions "to enhance vocational maturity, strategies which focus on teaching clients to use logical, planful approaches in decision making may be less effective than those which focus on individual responsibility and nondependent approaches to decision-making tasks" (p. 229).

Summary

The review of the literature has provided a sketch of the complex construct of career maturity and reflected upon the more recent field of career development and career maturity in adults. A number of factors shown to be related to career maturity or one of the five dimensions of career maturity—"planfulness, exploration, information, decision making, and reality orientation"—were discussed and possible outcomes based on increased career maturity have been noted (Whiston, 1990, p. 78).

An understanding of the concept of career maturity is necessary because in this research a measure of career maturity was used to help identify career counselling needs of adult college students. Using the variables cited, significant differences between mean scores on one or more scales of the Career Development Inventory (CDI) were assumed to indicate a need and/or an area for career counselling. Patterns of needs were anticipated and were categorized by gender, age, and education level. However, the literature review suggested that differences in career maturity based on age or education level would not likely be evident. A difference in career maturity based on gender was supported by some researchers but not by others.

The assumptions of Westbrook et al. (1985) support further study of the measurement of career maturity. They suggest that "an individual who selects an occupation that is congruent with his or her abilities, interests, and values will more likely enter,

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succeed in, and enjoy the occupation more than an individual who selects an occupation that is not congruent with his or her abilities, interests, and values." Plus, "career maturity is related to satisfaction with career plans" (p. 339-340). Undoubtedly, identifying needs based on a measure of career maturity, and assisting others so that they may gain satisfaction and success in their chosen careers can be valuable.

Savickas (1985) suggests that vocational identity, "the possession of a clear and stable picture of one's goals, interests, and talents" (p. 329) is related to career crystallization, a component of career maturity. Vocational decidedness is deemed to be dependent upon two interrelated components—vocational identity and vocational maturity. (Iaffaldano et al., 1985). Considering this information it seems that, by understanding and counselling students based on identified needs and levels of career maturity, a stronger vocational identity may evolve, plus increased ease in vocational decision making. It is assumed that both states—clarity of vocational decisions and vocational identity—would be desired by most adult college students as they move, or recycle, through the career development process and into various life stages.

CHAPTER V

METHODOLOGY

Procedure

To help identify patterns of career counselling needs in college students based on gender, age, and level of education, the Career Development Inventory (CDI) (College and University Form) was administered. As reported in the review of the literature, a number of factors and outcomes are related to one's career development, and these aspects of career development may be reflected in a score of career maturity. Lower scores on a career maturity scale may indicate areas requiring career counselling and/or a career development need. For purposes of this research, significant differences (at the .05 confidence level) between mean scores based on the variables of gender, age, and/or education level, were assumed to reflect a potential area for career counselling or a career development need.

Results from the Career Development Inventory (CDI) can be used in planning career guidance programs and can serve as "a survey instrument to assess program needs of groups" (Thompson, Lindeman, Super, Jordaan, and Myers, 1981, p. 10). As also stated in the CDI User's Manual the "College and University Form is recommended for assessing the readiness of ... students to make career decisions and thus for

identifying those who need arousal, decision-making training, exploratory attitudes, occupational exploration in breadth, or in-depth exploration of a preferred field" (Thompson et al., 1981, p. 1).

Students were also asked to complete a short, self-report form indicating which career concerns were a priority at this stage of their career development. This form collected basic data on students and included an open-ended question. This question asked students to identify the types of career counselling needs and/or services which they had or wanted at that time. This information was also used to help identify patterns of career counselling needs.

Each student who participated in this project was asked to read and complete the Information/Consent Form (Appendix D), the Self-Report Form, and the Career Development Inventory. Individuals were free to complete the forms either during class time or at home. It was anticipated that on the average it would take an individual approximately one to one and one-half hours to complete all the necessary forms. The intern received the full support and co-operation of all Instructors involved as each allowed free access to their classrooms where students could be met.

<u>Sample</u>

The sample included 45 students, both males and females, age 26 years and older, who were full-time students in the apprentice/ pre-employment, technology, business and applied arts, or adult basic education programs at Cabot College of Applied Arts, Technology and Continuing Education. However, survey results from only 42 students were returned in time for inclusion in the research analysis and one survey was pulled from the sample as results indicated a distinct anomaly in scores. This resulted in a reduced sample of 41 for analysis purposes.

As noted earlier in the internship report, Cabot College has a full-time student population of approximately 3,500. However, at the time this research was conducted, June 6-30, 1994, the full-time student population had decreased to approximately 300. Due to this factor, the sample was in fact a convenience sample as subjects were students who happened to be attending classes at that specific time. Although limited, subjects were representative of several different programs.

Having completed the research, a review of the data indicated that 25 (61%) of the participants were male and 16 (39%) female. All participants were age 26 or older with the following age groupings evident: 11 (27%) students age 26-30, 12 (29%) students age 31-35, 11 (27%) students age 36-40, and 7 (17%) students age 41 and over.

<u>Instrumentation</u>

The aim of this research project was to identify patterns of career counselling needs of adult college students. It was felt that the career needs could be identified by assessing students' career maturity, using an already published measure, in conjunction with a basic self-assessment of career needs. Therefore, two instruments were used in the data collection process, the Career Development Inventory (CDI) (College and University Form) and a self-developed Self-Report Form.

As stated in the Career Development Inventory Technical Manual, "the CDI provides data useful in three major types of situations: surveying groups to facilitate planning of guidance programs, ... testing hypotheses in research, and counseling individuals and groups" (Thompson et al., 1984, p. 38). The User's Manual notes that the Career Development Inventory was developed for "use as a sound instrument for assessing career development and ... career maturity. This form can be used in counseling, planning career education, and evaluating programs and services" (Thompson et al., 1981, p. 1). However, while a career maturity measure, i.e., the Career Development Inventory (CDI), may help in the identification of students' career counselling needs, caution has been offered if using vocational maturity scores to assess the results of a career counselling program. For instance, Guthrie & Herman (1982), suggest that "a difference of 1 or even several years may not make a difference in an individual's vocational maturity score" (p. 203).

The Career Development Inventory (CDI) (College and University Form) includes eight scales and assesses five dimensions of career maturity: career planning, career exploration, decision-making, world-of-work information, and knowledge of preferred occupational group. The CDI User's Manual provides information on the dimensions that each scale measures. Career Planning (CP) seeks to measure planfulness by requesting students to estimate the amount of time given to career-related activities. Career Exploration (CE) assesses awareness and use of career related resources while Decision-Making (DM) measures knowledge and application of decision-making principles to career decisions. World-of-Work (WW) assesses world-of-work information and knowledge of career development, and Knowledge of Preferred Occupation (PO) measures the students' knowledge of the occupational group which they chose as being of most interest (Thompson et al, 1981, p. 16).

Two scales measure two group factors: Career Development—Attitudes (CDA) combines career planning and career exploration, and Career Development—Knowledge and Skills (CDK) combines decision-making and world-of-work information. An additional scale, Career Orientation Total (COT), combines career planning, career exploration, decision-making, and world-of-work information, and "is best viewed as a composite measure of four important aspects of career maturity" (Thompson et al., 1981, p. 3).

The CDI User's Manual and Technical Manual report at length on the reliability of the measure based on internal consistency analyses and short-term test-retest analyses. These manuals also provide evidence of the content and construct validity of the individual CDI scales, including discriminant analyses and canonical correlation analyses. (Refer also to notes p. 30.)

The Self-Report Form was used to collect basic identifying information, i.e., age and level of education, and also included a question requesting a self-report of career development needs. After a compilation of the various responses to this question the career development needs were categorized into appropriate groupings. For example: general requests for career and/or employment counselling, requests for labour and job market information, specific 'hard copy' requests i.e., use of a computer, requests or needs of further skill development, i.e., interview skills, etcetera. (Appendix E - Code Book).

Limitations of the Study

Some of the limitations of this research project were:

1.   The small sample size of 41 students. This sample size existed for two
        reasons: (a) the timing of the research—the full-time student population at the
        internship site had decreased dramatically by late June, and (b) the financial

cost to this student of purchasing greater numbers of the prepaid, computer scored, CDI answer sheets.

2. Resulting from a small sample size was a small number of cases for inclusion by variables of age and total years of education. Based on this sample size any possible generalizations are limited.

3. Completion time for the CDI and Self-Report Form was estimated at one to one and one-half hours. However, the time required by several students to complete the CDI and Self-Report Form was actually between two hours and two hours, fifteen minutes. Having to focus on this task for such an extended period may bring into question factors of student fatigue and concentration skills.

4. The Career Development Inventory (CDI) is a tested and well known tool for measuring career maturity. However, it was evident during the administration and student completion of the survey that ambiguity existed for some individuals regarding some of the CDI items; in particular, Part II—Knowledge of Preferred Occupation.

Analysis

Statistical analysis was performed using a one-way analysis of variance or chi-square using the Statistical Package for the Social Sciences (SPSS/PC+). A total of 28 variables and 41 cases were included.

Mean scores on the eight scales of the Career Development Inventory (CDI) were analyzed by gender (male/female), age groups (26-30, 31-35, 36-40, and over 41 years), and total years of education (8 thru 10, 11-11.5, and 12 or more years of education) using an analysis of variance to determine any significant differences. The Scheffé test, a multiple comparison technique appropriate for a set of means, was performed on those factors found to be significant at the .05 level. Gay (1992) notes that "the Scheffé test is very conservative ... [and] it is entirely possible given the comparisons selected for investigation, to find no significant differences even though the F for the analysis of variance [is] significant" (p. 439). The same statistical analyses were applied to the responses from question 9 of the Self-Report Form which asked students to rank the components of career development.

Student responses to question 8 of the Self-Report Form, "what type of information or services would be of most value to you", were also analyzed based on the variables of gender, age groups, and total years of education. A chi-square analysis was used to determine if there were any significant differences, by variable, between the groups.

Results

This research project focused on the question—What are the career counselling needs of different groups of adult college students categorized according to gender, age, and total years of education? The research results that follow will address this question.

Table 1 (p. 63) presents the mean, the standard deviation and the range of scores for the total group on each CDI scale. It also presents the percentage scoring below the group mean and the percentage scoring more than one SD below the group mean. As shown, the attitudinal scales of Career Planning and Career Exploration, along with Career Orientation - considered to be a good composite measure of career maturity overall - reflect the greater percentage of need.

The analysis of variance summaries for each scale of the Career Development Inventory (CDI) by gender is presented in Table 2 (p. 64). Results indicated that on two of the scales, Career Planning and Career Development - Attitudes, significant differences existed between males and females. Career Planning measures how involved an individual is in thinking about and making future career plans. It is also identified as reflecting an attitudinal dimension of career maturity. Career Development - Attitudes is a composite scale—a combination of Career Planning and Career Exploration scores. As is evident in Table 3 (p. 65), the female group scored significantly lower on both of these scales in comparison to the male group. There was also a tendency for females to score lower on the Career Exploration scale and on the Career Orientation scale. However, these particular gender differences were not significant (see Tables 2 and 3, pp. 64, 65). This information indicates that as a group, career planning is an aspect of career development that can be identified as a particular area of need for females.

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Table 1 - CDI Scale Results of Total Group

Scale	TGM*	SD	Range	% Scoring < TGM	% Scoring 1 SD < TGM
1. Career Planning	103	17.7	72-135	46.3	19.5
2. Career Exploration	114	20.9	76-159	53.7	22.0
3. Decision Making	89	16.3	42-117	43.9	9.8
4. World-of-Work Information	86	19.2	42-119	43.9	17.1
5. Career Development - Attitudes	110	17.9	71-146	53.7	12.2
6. Career Development - Knowledge and Skills	85	17.8	37-116	51.2	12.2
7. Career Orientation Total	96	18.5	63-135	53.7	19.5
8. Knowledge of Preferred Occupation	91	19.5	28-140	53.8	10.3

NB: N=41. *TGM - Total Group Mean

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Table 2 - Analysis of Variance Summaries of CDI Scales by Gender

Scale	SS	df	MS	F	Prob. of F
1. Career Planning	1707.64	1	1707.64	6.16	.02*
2. Career Exploration	1557.49	1	1557.49	3.79	.06
3. Decision Making	45.62	1	45.62	.17	.68
4. World-of-Work Information	62.94	1	62.94	.17	.68
5. Career Development - Attitudes	2316.76	1	2316.76	8.61	.01*
6. Career Development - Knowledge and Skills	.71	1	.71	.00	.96
7. Career Orientation Total	1109.16	1	1109.16	3.43	.07
8. Knowledge of Preferred Occupation	170.01	1	170.01	.44	.51

* $p \leq .05$

Table 3 - CDI Scale Results by Gender

Scale	Gender	Count (N)	Mean	SD	Range
1. Career Planning	Male	25	108.48	14.72	79 - 130
	Female	16	95.25	19.31	72 - 135
2. Career Exploration	Male	25	118.76	20.05	84 - 159
	Female	16	106.13	20.64	76 - 158
3. Decision Making	Male	25	88.40	15.90	42 - 100
	Female	16	90.56	17.31	56 - 117
4. World-of-Work Information	Male	25	87.04	21.32	42 - 119
	Female	16	84.50	15.85	58 - 119
5. Career Development - Attitudes	Male	25	116.16	16.10	84 - 146
	Female	16	100.75	16.87	71 - 138
6. Career Development - Knowledge and Skills	Male	25	85.52	19.07	37 - 112
	Female	16	85.25	16.27	54 - 116
7. Career Orientation Total	Male	25	100.60	17.66	65 - 129
	Female	16	89.94	18.46	63 - 155
8. Knowledge of Preferred Occupation	Male	24	89.04	19.20	28 - 121
	Female	15	93.33	20.47	61 - 140

Table 4 (p. 67) provides analysis of variance summaries of the CDI scales by age groups. Four age groupings were employed. The first three age groupings were by five year blocks, while the final grouping included the remainder of the students—age 41 years and over. No significant differences were found on either of the eight scales based on age. These results supported similar findings reported by Healy (1991) and Sheppard (1971); these studies also found no significant differences in career maturity based on age. However, a trend was observed on the career maturity scales related to the dimensions of knowledge and skills: Decision-Making, World-of-Work Information, and the composite scale Career Development - Knowledge and Skills. On each of these scales, in addition to the scale Career Orientation Total, the mean score decreased as age increased (see Table 5, p. 68).

An analysis of variance summary of CDI scales by total years of education is provided in Table 6 (p. 70). (See Code Book, Appendix E, for an explanation of the total years of education categories.) The results indicated significant differences on the scales of Decision-Making, World-of-Work Information, and Career Development - Knowledge and Skills (a composite scale). A significant difference was also found on the Career Orientation Total scale, however when the Scheffé test was completed it did not indicate a significant difference. A Scheffé test performed on the Decision-Making scale indicated that Group 3 (those with more than 12 years of education) was significantly different from Group 1 (those with 10 or less years of education).

Table 4 - Analysis of Variance Summaries of CDI Scales by Age Group

	Scale	Age Groups	SS	df	MS	F	Prob. of F
1.	Career Planning	1 - 4	369.26	3	123.09	.38	.77
2.	Career Exploration	1 - 4	499.29	3	166.43	.36	.78
3.	Decision Making	1 - 4	359.80	3	119.93	.43	.73
4.	World-of-Work Information	1 - 4	982.25	3	327.42	.88	.46
5.	Career Development - Attitudes	1 - 4	37.63	3	12.54	.04	.99
6.	Career Development - Knowledge and Skills	1 - 4	865.08	3	288.36	.90	.45
7.	Career Orientation Total	1 - 4	476.30	3	158.77	.44	.72
8.	Knowledge of Preferred Occupation	1 - 4	473.16	3	157.72	.39	.76

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NB: **Key: Age Groups**
Group 1: 26-30 years; Group 2: 31-35 years; Group 3: 36-40 years; Group Four: 41 years and over

Table 5 - CDI Scale Results by Age Group

	Scale	Age Groups	N	Mean	SD	Range
1.	Career Planning	1	11	107.64	21.64	73 - 135
		2	12	103.42	14.30	82 - 127
		3	11	99.55	17.57	73 - 126
		4	7	102.29	18.76	72 - 125
2.	Career Exploration	1	11	108.64	15.27	86 - 126
		2	12	116.00	21.78	88 - 159
		3	11	117.36	25.08	76 - 156
		4	7	112.71	23.34	84 - 158
3.	Decision Making	1	11	92.73	14.00	69 - 110
		2	12	90.33	18.90	42 - 110
		3	11	87.91	14.80	63 - 110
		4	7	84.00	19.03	56 - 117
4.	World-of-Work Information	1	11	93.18	22.81	42 - 119
		2	12	86.33	16.69	50 - 111
		3	11	82.82	19.48	50 - 119
		4	7	79.43	16.83	58 - 104
5.	Career Development - Attitudes	1	11	109.55	16.46	77 - 132
		2	12	111.50	18.16	84 - 146
		3	11	110.09	22.05	71 - 136
		4	7	108.86	16.17	90 - 138
6.	Career Development - Knowledge and Skills	1	11	91.73	18.04	61 - 112
		2	12	86.25	18.34	37 - 108
		3	11	82.55	17.41	49 - 116
		4	7	78.57	17.54	54 - 112

Table 5 - CDI Scale Results by Age Group (Continued)

Scale	Age Groups	N	Mean	SD	Range
7. Career Orientation Total	1	11	100.45	22.30	66 - 126
	2	12	97.92	18.33	65 - 129
	3	11	94.45	11.92	71 - 115
	4	7	90.71	22.87	63 - 135
8. Knowledge of Preferred Occupation	1	11	88.18	23.94	28 - 121
	2	11	93.36	13.90	70 - 112
	3	11	93.82	20.93	56 - 140
	4	6	84.67	19.98	61 - 121

NB: **Key: Age Groups**

Group 1: 26-30 years; Group 2: 31-35 years; Group 3: 36-40 years; Group Four: 41 years and over

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Table 6 - Analysis of Variance Summaries of CDI Scales by Total Years of Education

	Scale	Yrs. of Ed.	SS	df	MS	F	Prob. of F
1.	Career Planning	1 - 3	1151.46	2	575.73	1.93	.16
2.	Career Exploration	1 - 3	1629.18	2	814.59	1.94	.16
3.	Decision Making	1 - 3	1783.23	2	891.61	3.84	.03*
4.	World-of-Work Information	1 - 3	6140.12	2	3070.06	13.56	.00*
5.	Career Development - Attitudes	1 - 3	836.79	2	418.39	1.33	.28
6.	Career Development - Knowledge and Skills	1 - 3	4806.93	2	2403.46	11.57	.00*
7.	Career Orientation Total	1 - 3	2578.44	2	1289.22	4.40	.02*
8.	Knowledge of Preferred Occupation	1 - 3	550.21	2	275.11	.71	.50

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* $p \leq .05$

NB: **Key: Total Years of Education**
Group 1: Low thru 10 years; Group 2: 11 to 11.5 years; Group 3: more than 12 years

On the World-of-Work and Career Development - Knowledge and Skills scales, both Groups 2 (those with 11-11.5 years of education) and 3 were significantly different from Group 1 (see Table 7, p. 72). In each case, the greater the total years of education the higher the mean score for each group. Based on this information, a greater career counselling need appears to exist in the knowledge and skills dimensions of career maturity for groups with less than 11 years of formal education and training.

One question on the Self-Report Form asked students to identify the type of information or service that would be most helpful to them at this stage of their career development. An analysis using chi-square indicated no significant differences between the categories of need based on gender, age, or total years of education (Tables 8, 9, 10, pp. 74-76). However, a review of the column percentages indicates that across all variables, labour market and job market information was the type of information most frequently cited as needed. After this self-reported need, a more generic service—employment and/or career counselling—was the most frequently cited request. Unfortunately students did not provide specifics regarding particular counselling services. A "no comment" or "no response" code was received from only three respondents. Additional observations regarding the frequency of responses are: more males than females responded, as did younger students and students with 12 or more years of education.

Table 7 - CDI Scale Results by Total Years Education

Scale	Total Education	N	Mean	SD	Range
1. Career Planning	Group 1	7	99.57	20.15	72 - 122
	Group 2	14	97.50	10.26	73 - 117
	Group 3	20	108.70	19.93	73 - 135
2. Career Exploration	Group 1	7	127.57	18.31	105 - 159
	Group 2	14	109.79	21.33	86 - 156
	Group 3	20	111.85	20.58	76 - 158
3. Decision Making	Group 1	7	77.29	13.21	56 - 90
	Group 2	14	86.79	20.15	42 - 110
	Group 3	20	95.15	11.48	76 - 117*
4. World-of-Work Information	Group 1	7	61.86	11.64	42 - 73
	Group 2	14	83.93	13.91	50 - 111**
	Group 3	20	96.00	16.66	58 - 119**
5. Career Development - Attitudes	Group 1	7	116.29	21.33	90 - 146
	Group 2	14	104.21	15.38	77 - 134
	Group 3	20	112.15	18.07	71 - 138
6. Career Development - Knowledge and Skills	Group 1	7	64.57	10.55	49 - 78
	Group 2	14	82.79	17.82	37 - 112**
	Group 3	20	94.55	12.77	73 - 116**

Table 7 - CDI Scale Results by Total Years Education (Continued)

Scale	Total Education	N	Mean	SD	Range
7. Career Orientation Total	Group 1	7	85.71	18.72	63 - 116
	Group 2	14	90.43	16.26	65 - 126
	Group 3	20	104.40	17.15	71 - 135
8. Knowledge of Preferred Occupation	Group 1	7	85.29	14.01	61 - 107
	Group 2	14	87.92	15.70	56 - 121
	Group 3	20	94.25	23.03	28 - 140

*Group 3 is significantly different from Group 1

**Groups 2 and 3 are significantly different from Group 1

NB: **Key: Total Years of Education**
Group 1: Less thru 10 years; Group 2: 11 to 11.5 years; Group 3: more than 12 years

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Table 8 - Type of Information and Services Requested by Gender

Type of Information/Service	Gender			
	Male (n = 23)		Female (n = 15)	
	Freq.	%	Freq.	%
1. Employment/Career Counselling	8	34.8%	4	26.7%
2. Job Search/Related Skills	2	8.7%	0	---
3. Labour/Job Market Information	10	43.5%	7	46.7%
4. Job Creation/Entrepreneurship	1	4.3%	4	26.7%
5. Hard Copy Requests (i.e.. books, computer access)	1	4.3%	0	---
6. Employment in Foreign Countries	1	4.3%	0	---

NB: Chi-square analysis results by gender: Value 6.26; df 5; Significance .282
NB: A no response was also optional on this question

Table 9 - Type of Information and Services Requested by Age Group

Type of Information/Service	Age Group							
	26-30 (n = 30)		31-35 (n = 11)		36-40 (n = 9)		41 + over (n = 7)	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
1. Employment/Career Counselling	3	30.0%	2	18.2%	3	30.0%	4	57.1%
2. Job Search/Related Skills	21	10.0%	1	9.1%	0	---	0	---
3. Labour/Job Market Information	6	60.0%	5	45.5%	4	40.0%	2	28.6%
4. Job Creation/ Entrepreneurship	0	---	3	27.3%	2	20.0%	0	---
5. Hard Copy Requests (i.e., books, computer access)	0	---	0	---	0	---	1	14.3%
6. Employment in Foreign Countries	0	---	0	---	0	10.0%	0	---

NB: Chi-square by Age Group: Value 16.18; df 15; Significance .37

Table 10 - Type of Information and Services Requested by Total Years of Education

Type of Information/Service	Total Years of Education					
	0 thru 10 (n = 7)		11 - 11.5 (n = 13)		more than 12 (n = 18)	
	Freq.	%	Freq.	%	Freq.	%
1. Employment/Career Counselling	4	57.1%	5	38.5%	3	16.7%
2. Job Search/Related Skills	0	---	1	7.7%	1	5.6%
3. Labour/Job Market Information	3	42.9%	5	38.5%	9	50%
4. Job Creation/Entrepreneurship	0	---	2	15.4%	3	16.7%
5. Hard Copy Requests (i.e., books, computer access)	0	---	0	---	1	5.6%
6. Employment in Foreign Countries	0	---	0	---	1	5.6%

NB: Chi-square by Total Years of Education: Value 7.02; df 10; Significance .72

An additional question on the Self-Report Form asked students to rate the components of career development on a scale from 1 to 5; with 1 indicating the area the students felt they needed the most assistance with and a 5 indicating the area in which students felt they needed the least assistance. Results indicated that for the total group those areas which students felt they needed the most assistance with were Career Planning, rated number 1 by 43.9%, followed by Career Exploration, which was rated number 2 by 36.6% of students. The aspect of career development which was most frequently rated as an area requiring the least assistance was Decision Making, rated number 5 by 26.8% of students (see Table 11, p. 78). The analysis of variance summaries of the self-reported ratings by gender, age, and total years of education indicated a significant difference by age groups on the Career Exploration scale and by total education on the Knowledge of Preferred Occupation scale (Table 12, p. 79). However, a Scheffé test revealed that no two groups were significantly different by either variable on either scale (see Tables 13, 14, 15, pp. 80-82).

Comparative Summary of Mean Scores

The information in Table 16 (p. 83) does not address the research question directly, with respect to specific variables, but does compare the adult students' mean scores as a total group with the published group means of the CDI instrument.

Table 11 - Ratings of CDI Constructs by Total Group

Rated	Career Planning		Career Exploration		Decision Making		World-of-Work		Knowledge of Preferred Occupation	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	18	43.9	7	17.1	7	17.1	8	19.5	8	19.5
2	4	9.8	15	36.6	5	12.2	5	12.2	7	17.1
3	5	12.2	8	19.5	9	22.0	10	24.4	12	29.3
4	5	12.2	6	14.6	9	22.0	11	26.8	9	22.0
5	9	22.0	5	12.2	11	26.8	6	14.6	5	12.2
9 (no response)							1	2.4		

NB. N=41

Table 12 - Analysis of Variance Summaries of CDI Construct Rating by Gender, Age Group, Total Education

Scale	Variable	SS	df	MS	F	Prob. of F
1. Career Planning	Gender	5.97	1	5.97	2.24	.14
	Age Group	14.79	3	4.93	1.92	.14
	Total Education	7.88	2	3.94	1.47	.24
2. Career Exploration	Gender	.44	1	.44	.27	.61
	Age Group	13.74	3	4.58	3.32	.03*
	Total Education	1.39	2	.70	.42	.66
3. Decision Making	Gender	4.09	1	4.09	2.04	.16
	Age Group	6.18	3	2.06	1.00	.40
	Total Education	3.43	2	1.72	.82	.45
4. World-of-Work Information	Gender	4.82	1	4.82	2.73	.11
	Age Group	3.05	3	1.02	.53	.66
	Total Education	1.25	2	.63	.33	.72
5. Knowledge of Preferred Occupation	Gender	1.21	1	1.21	.71	.40
	Age Group	4.90	3	1.63	.96	.42
	Total Education	9.95	2	4.98	3.28	.05*

*$p \leq .05$

Table 13 - Rating of CDI Constructs by Gender

Scale	N		Mean		SD		Range	
	Male	Female	Male	Female	Male	Female	Male	Female
1. Career Planning	25	16	2.28	3.06	1.67	1.57	1-5	1-5
2. Career Exploration	25	16	2.60	2.81	1.35	1.17	1-5	1-5
3. Decision Making	25	16	3.04	3.69	1.57	1.14	1-5	1-5
4. World-of-Work Information	24	16	3.33	2.63	1.24	1.45	1-5	1-5
5. Knowledge of Preferred Occupation	25	16	3.04	2.69	1.31	1.30	1-5	1-5

Table 14 - Rating of CDI Constructs by Age

Scale	Age	N	Mean	SD	Range
1. Career Planning	26-30	11	2.55	1.63	1-5
	31-35	12	1.75	1.22	1-5
	36-40	11	3.27	1.68	1-5
	41+ yrs	7	3.00	2.00	1-5
2. Career Exploration	26-30	11	3.36	1.43	1-5
	31-35	12	2.25	1.06	1-5
	36-40	11	2.09	1.04	1-4
	41+ yrs	7	3.29	1.11	2-5
3. Decision Making	26-30	11	2.91	1.30	1-5
	31-35	12	3.00	1.41	1-5
	36-40	11	3.64	1.57	1-5
	41+ yrs	7	3.86	1.46	1-5
4. World-of-Work Information	26-30	10	2.80	1.32	1-5
	31-35	12	3.42	1.16	1-5
	36-40	11	3.09	1.58	1-5
	41+ yrs	7	2.71	1.50	1-5
5. Knowledge of Preferred Occupation	26-30	11	2.82	1.08	1-4
	31-35	12	3.42	1.38	1-5
	36-40	11	2.55	1.37	1-5
	41+ yrs	7	2.71	1.38	1-5

Table 15 - Rating of CDI Constructs by Total Education

Scale	Total Education	N	Mean	SD	Range
1. Career Planning	low thru 10 yrs	7	1.86	1.57	1-5
	11 - 11.5	14	2.36	1.65	1-5
	12 or more yrs	20	3.00	1.65	1-5
2. Career Exploration	low thru 10 yrs	7	2.29	.49	2-3
	11 - 11.5	14	2.71	1.38	1-5
	12 or more yrs	20	2.80	1.40	1-5
3. Decision Making	low thru 10 yrs	7	3.86	1.46	1-5
	11 - 11.5	14	3.00	1.18	1-5
	12 or more yrs	20	3.30	1.59	1-5
4. World-of-Work Information	low thru 10 yrs	7	3.00	1.73	1-5
	11 - 11.5	14	3.29	1.07	1-5
	12 or more yrs	19	2.89	1.45	1-5
5. Knowledge of Preferred Occupation	low thru 10 yrs	7	3.29	1.11	2-5
	11 - 11.5	14	3.43	1.22	1-5
	12 or more yrs	20	2.40	1.27	1-4

Table 16 - Summary of Mean Scores on CDI Scales by Total Group

	Scale	Total Group Mean Scores	SD	% of Students Scoring 1 SD < TGM*	% of Students Scoring 1 SD < PGM**
1.	Career Planning	103	17.7	19.5	12.2
2.	Career Exploration	114	20.9	22.0	2.4
3.	Decision Making	89	16.3	9.8	26.9
4.	World-of-Work Information	86	19.2	17.1	34.1
5.	Career Development - Attitudes	110	17.9	9.8	4.9
6.	Career Development - Knowledge and Skills	85	17.8	12.2	41.5
7.	Career Orientation Total	96	18.5	19.5	19.5
8.	Knowledge of Preferred Occupation	91	19.5	10.3	23.1

* TGM - Total Group Mean

** Published Group Mean (PGM) is 100, SD 20.

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The Career Development Inventory (CDI) User's Manual (1981) states that in scoring "the standard score used has a mean of 100 and standard deviation of 20" (p. 5). Based on this research, a potential career counselling need was assumed based on a score which fell one or more standard deviation below the mean. Table 16 (p. 83) provides an overview of the total group mean scores (TGM) on each of the eight CDI scales. The information reveals that the group's mean scores were in fact greater than the published group mean of 100 on the scales of Career Planning, Career Exploration, and the composite scale of Career Development - Attitudes. However, the total group mean on each of the remaining five scales—knowledge and skills related scales—fell from 4 to 15 points below the published mean.

Considering the students' results as a whole, this information may suggest that the areas of Decision-Making, World-of-Work Information, and Knowledge of Preferred Occupation, are aspects of career maturity in need of career counselling attention when compared to a published national norm. Some may argue that it is more appropriate to use the 'local' norm as opposed to the CDI norm when reviewing the data, although using different norms as the standard will reveal very different results.

Using our 'local' mean, the weaker areas—based on the percentage of students scoring one SD below the mean—were Career Planning and Career Exploration, with 19.5% and 22.0% of students respectively scoring one SD less. These scales are

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considered to reflect an attitudinal aspect of career maturity. Using the published mean, the weaker areas were Decision-Making and World-of-Work Information with 26.9% and 34.1% respectively scoring one SD less. These scales are considered a measure of the knowledge and skills dimensions of career maturity. Results also indicated that 41.5% of students scored one SD less than the published mean on the composite scale, Career Development Knowledge and Skills.

Using one standard deviation less than norm to help identify potential areas requiring career counselling attention, the 'local' versus 'national' norms indicated different needs. Specific areas for the career counselling of adult students are distinguished but would focus on the attitudinal dimensions using local norms and the cognitive dimensions using a national norm.

<u>Summary</u>

With respect to career maturity and the variable of gender, these research results vary somewhat from the findings reported in the review of the literature. Herr and Cramer (1992) suggested that no gender differences in career maturity are evident by ages 24 to 27. Also other researchers (Nevill and Super, 1988; Westbrook, 1983), when referring to younger females, found that on the average females were more career mature than males; most notably on the cognitive scales. An extrapolation of these earlier findings to the older female student group is not supported by this research.

No significant differences were found by gender on the cognitive scales and a significant difference was found on one of the attitudinal scales (CP), with the female group achieving a lower mean score than the male group.

No significant differences were found based on the variable of age, which is in keeping with research findings reported by Healy (1991) and Sheppard (1971). However, scores on the CDI scales were significantly different based on total years of education (education level), which is in contrast to the results reported by Sheppard (1971) and Westbrook et al. (1985). Respectively, these researchers reported that education level had little relationship with one's measure of vocational maturity, and that scholastic achievement was not related to career maturity. This research reports that in fact a significant difference does exist, at least on the cognitive scales of career maturity, with a higher mean score being positively related to total years of education.

To summarize, it appears that the cognitive dimensions of knowledge and skills represent an area of career counselling particularly relevant for groups with less than 11 years of education or training (i.e., less than high school graduation). This area may also be relevant to older age groups based on an observed trend in the results. Additionally, in comparing the published group norm with the local group norm, the cognitive dimensions again surface as weaker areas. It is also interesting to note that across all variables, adult students responding on the Self-Report Form most

frequently requested labour and job market information as a career planning need, one aspect of the career maturity dimension of knowledge and skills.

Additional information from the Self-Report Form indicates that 61% of respondents had never participated in a workshop or taken a course related to Career Education or Career Planning. This may help explain, in part, the need or deficit that is evident in the knowledge and skills areas and also the female group's significantly lower scores on the Career Planning scale. However, as cited in the literature review, other factors such as self-esteem, work salience, decision-making style, etcetera are also related to career maturity. These factors, combined with other potential factors, must also be considered when attempting to understand or explain the significant differences found in this research.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions provided in this report will concentrate primarily on any significant findings or trends resulting from this research project. The reader is cautioned, however, that based on a small sample size any possible generalizations are limited. Recommendations are based on the findings but also relate to adult students and career development in a general sense.

Information from the results reported in Tables 2 and 3 (pp. 64, 65), as related to gender, reveals that females as a group scored significantly lower than males on the scale Career Planning. However, previous studies cited younger females as scoring better than males on measures of career maturity and specifically in the cognitive areas. One may speculate on the factors influencing this result. A consideration may be that for the older female student, thinking about and planning for one's career was not a priority, or a part of life that received much attention, ten to twenty years ago.

For many women, raising a family and maintaining the home environment was, and for many still remains, the primary concern. Planning a career may have been a secondary concern if it was a concern at all. Many women worked to help support or to improve the family's financial situation only, creating dual-earner families.

Women's work was a result of financial necessity, not a result of career exploration and planning. Often their work was not viewed as a "career" and the woman's job was viewed as less important or secondary in relation to the spouse's career (Herr and Cramer, 1992).

Today, through education, the media, and family direction, most young women are learning that they can have it both—a family and a career. This knowledge is clearly a reality as we view an increase in the number of dual-career families as compared to fifteen or twenty years ago. This knowledge may also be revealed through more recent studies which show that young females are often more career mature than their male counterparts. An interesting note, with respect to adult females and career maturity, is the fact that earlier research on career development most regularly focused on males only, i.e., Super's Career Pattern Study. Campbell and Heffernan (1983) also noted that most adult development and career development models were "based on white males" (p. 226).

Today, recognition that many women are choosing to have a career can also be seen by the number of job entry and job re-entry programs which exist. These programs aim to help mature women make the transition from home back into the paid labour market. A component of these programs is career exploration and/or career planning.

Also needed are knowledge and skills on how to cope with a dual-career lifestyle (Gilbert, L.A. & Rachlin, V., 1987).

1. **It is recommended that further research be conducted regarding the career counselling needs of mature female post-secondary students, particularly in the area of career planning.**

2. **It is recommended that a career counselling program for female students, focusing particularly on career planning issues be made available at the post-secondary level and in a group setting.**

Although no significant differences were found between scores on the CDI scales by age groups, a trend was observed. On the scales related to career maturity knowledge and skills, the mean scores decreased as age increased (Table 5. p. 68). This information may contradict any suggestion that as one gets older, and as one supposedly increases one's life and work experiences, that knowledge and skills related to work and career also increase. The information in Table 5 (p. 68) may actually indicate a reverse effect.

A situation may exist for older students, who were previously in the workforce for a number of years, in which the skills and information related to decision-making and

world-of-work were no longer necessary or considered a high priority need. Also, previous skills and information in this area, if obtained earlier in life, may now be outdated or no longer appropriate. For adults who have been displaced from their jobs or who are considering a midlife career change, methods of choosing a career and seeking a job may be very different in relation to what worked ten or fifteen years ago. Even today it is not unusual to meet mature adults who have never written a resume or competed for a job through a formal interview process. For many of these adults, knowledge and skills in these types of processes was not required in previous years. Therefore, it appears that based on age, some adult students may require, for example, specific and up-to-date occupational information, information on career and life stages and how this may be relevant to them at their particular life stage, practice with job-getting methods, etcetera.

3. It is recommended that career counsellors working with mature adult students assess the students' career decision-making skills and work-related knowledge in order to provide support and training that is appropriate.

Information from the results reported in Tables 7 and 8 (pp. 72, 74) conclude that education level is also related to career maturity; the dimensions of knowledge and skills. The research found that with an increase in total years of education, mean scores also increased; particularly in the world-of-work category but also with

decision-making. It may be possible that part of any student's additional education, beyond secondary school, is related to seeking and/or obtaining information on careers, either directly or indirectly.

One may speculate that a relationship exists between wanting to further one's education and work salience. One reason for increasing one's level of education may be related to goals of career satisfaction and career success. To achieve these goals students would necessarily seek out the information and skills that can help make their goals a reality; subsequently scoring higher on cognitive scales of career maturity. However, Westbrook and Sanford (1985) did not find career salience to be related to other theoretical components of career maturity, but Nevill and Super (1988) did find that commitment to work was related to the cognitive and attitudinal scales of career maturity. Therefore, it may be valuable when working with adult students to help identify why they are entering or returning to post-secondary school.

For some students, the benefits of a college education may be viewed quite simply as offering limited assistance with "getting a job"; related to a notion of just wanting to get through college and get "the piece of paper." For other students, the benefits of a college education may be viewed as a stepping stone in pursuing a specific and desired career path, related to an understanding that ongoing education and training is necessary to maintain and further one's career. Hypothetically, an increase in

education level positively related to career or work salience, may result in heightened career maturity scores, particularly on the cognitive scales. However, age would not be viewed as an influencing factor. Therefore, furthering one's education while exhibiting a high measure of career salience, irregardless of age, may result in increased career maturity.

4. **It is recommended that further research be conducted on the cognitive dimensions of career maturity in relation to level of education.**

5. **It is recommended that career counsellors identify the adult students' educational level prior to career counselling and provide career counselling interventions specific to career related information and skills based on the education level.**

6. **It is recommended that career counsellors identify the level of career salience of their adult students to help determine the most appropriate career counselling interventions.**

The responses collected by question 8 of the Self-Report Form and as reported in Table 8 (p. 74), which refers to the type of career information and services needed by students, were not surprising. Up-to-date labour and job market information is

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generally a need of all students, independent of gender, age, type of training, or education level. This type of information is essential to career planning and job search.

It may be especially important or more relevant to older adult students who may feel that they have less time to "play" with career choices and training. less work years to offer, and often more financial responsibilities to consider, i.e., a home and family to support. Information on: job opportunities, the rates of pay offered, and training to complement previous skills and experience as relevant to today's labour market, represents specific needs and very immediate concerns. This type of information or service is also in a greater demand in geographic regions such as Newfoundland where the competition for jobs is very high and the economy is considered depressed.

7. **It is recommended that post-secondary institutions, and career counsellors specifically, ensure that up-to-date information regarding training programs and labour market demands for graduates of these programs be available to all students. In addition, information on labour market trends should be accessible to all students.**

Based on the results presented in this research project, including the information provided in Table 16 (p. 83). the career maturity and career development of adult

students deviates from previous research findings relating to the career maturity of adolescents and younger adults. Also, 'local' adult student needs based on the total group mean scores, indicate distinct differences as compared to the CDI sample group norms. Considering a summary of this information the following, and final, recommendation is made.

8. **It is recommended that further research be conducted on the career needs and career maturity of adult college students. To help better distinguish how the career development needs of younger and older adult students vary it is recommended that a larger sample be used and two distinct groups, i.e., one younger student group, age 18-22 years, compared with one older student group, age 35-40 years.**

An additional variable that one may wish to consider in future research in this area is that of program of studies. A typical research question may ask: Are the career counselling needs of adult college students different based on chosen program of study?

Summary

Career counselling is needed by many post-secondary students. This is evident based on the fact that 69% of the clients, or 20 out of the 29, whom this intern assisted

were seeking help in this area. The adult students' need for career counselling is also reflected in scores on a career maturity measure and in comparison to the CDI published mean scores. As Westbrook (1983) suggested, the career development and career maturity of adults is a relativity new area of research. Considering the increasing number of mature adult students returning to our post-secondary institutions, further support and continued research in this field must be encouraged.

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APPENDIX A: Career Development Inventory (sample items)

SAMPLE ITEMS FROM THE

CAREER DEVELOPMENT INVENTORY - College and University Form

by Drs. Donald E. Super, Albert S. Thompson, Richard H. Lindeman,
Jean P. Jordaan, and Roger A. Myers

Directions: The Career Development Inventory asks you about college, work, your future career, and some of the plans you may have made. Answers to questions like these can indicate what kind of help may be useful to you in planning and preparing for a job after graduation, or for graduate or professional school training before pursuing your occupational career.

The inventory consists of two parts. The person who administers it will indicate whether you should complete the first part, the second part, or both parts.

Please answer every question. If you are not sure about an answer, guess; the first answer that comes to you is often the best one. Work rapidly, but be careful to make your marks in the right boxes for each question.

Career Orientation

Career Planning
How much thinking and planning have you done in the following area:

1. Taking courses that will help me later in college, in professional or graduate school, in job training, or on the job?

a. I have not yet given any thought to this.
b. I have given some thought to this, but haven't made any plans yet.
c. I have some plans, but am still not sure of them.
d. I have made definite plans, but don't know yet how to carry them out.
e. I have made definite plans, and know what to do to carry them out.

Career Exploration
Would you go to the following source for information or help in making your plans for work or further education:

1. Friends?

a. definitely not
b. probably not
c. probably

d. definitely
Decision-Making
What should the student do?

1. E.R. took some tests that suggest some promise for accounting work. This student says, "I just can't see myself sitting behind a desk for the rest of my life. I'm the kind of person who likes variety. I think a traveling job would suit me fine." E.R. should:

a. disregard the tests and do what he or she wants to do.

b. do what the tests say since they know best.
c. look for a job that requires accounting ability but does not pin one to a desk.
d. ask to be tested with another test since the results of the first on are probably wrong.

World-of-Work Information

1. Which of the following changes of college major is the easiest to make? From...

a. Business Administration to Biology.
b. Physics to Business Administration.
c. History to Physics.
d. Engineering to Business Administration.

Knowledge of Preferred Occupation

Characteristics of Preferred Occupation

1. The Occupational Group you selected requires the use of

a. no special tools or equipment.
b. hand-tools, without real precision.
c. hand-tools, with real precision.
d. equipment, with simple handling or adjustments.
e. complex equipment requiring technical knowledge and skill.

APPENDIX B: Self-Report Form

I.D. Number_____

THE CAREER DEVELOPMENT NEEDS OF POST-SECONDARY STUDENTS

The following information is requested as part of the survey associated with the
research project of graduate student Brenda Newbook. *Please read each question
thoroughly and answer fully.*

PLEASE DO NOT PLACE YOUR NAME ON ANY OF THESE FORMS.

1. Date of Birth: _____
    day/month/year

2. Gender: Male _____ Female _____

3. Age Group (check one): 26 - 30 years ._____
    31 - 35 years _____
    36 - 40 years _____
    41 - 45 years _____
    over 45 years _____

4. Present Program of Studies: _____

5. Education Level: *(Last grade completed in school - circle one.)*

    Grade 1 2 3 4 5 6 7 8 9 10 11 12

6. Other Training: *(Please check if you have completed any of the following.)*
    BTSD____, ABE Level 1____ Level 2____ Level 3____, GED__

    Other post-secondary training (eg. college or university):
    _____

7. Have you ever participated in a work shop or taken a course related to Career
    Education, Career Planning, etc.? If yes, please name the course/workshop
    and briefly describe it. What was the duration of the workshop or course?
    _____
    _____
    _____
    _____
    _____
    _____

8. If you were seeking assistance with your career planning, what type of information or services would be of most value to you? Please list.

_____

_____

_____

_____

_____

_____

9. Some components of career development are described below. Please read each one carefully and then rank them from 1 to 5. *Number 1* indicating the area you feel you may need the *most* assistance with and *Number 5* indicating the area you feel you need the *least* assistance with at this time.

_____   Thinking about my future and making specific career plans.

_____   Finding and utilizing good sources of career planning information.

_____   Solving problems involving vocational and educational choices.

_____   My knowledge about jobs and what it takes to find and succeed at one.

_____   My knowledge about occupations in the group to which my preferred occupation belongs.

10. Other Comments:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Thank you.

APPENDIX C: Career Development Inventory (results printout)

CDI The Career Development Inventory: College Form

▶ NAME: SMITH JANE

▶ ID: ▶ SEX: F   ▶ DATE SCORED 3/ 2/94

Year : SOPHOMORE
Major : E   Omitted Items - Part I: 0   Part II: 2
Occupational Group Preference: *) Preference not marked

	Standard Scores	Percentile Local National	Percentile

	Standard Scores	Percentile		10	20	30	40	50	60	70	80	90
CP		37				*	-	-	+	-	-	-
		68				-	-	-	-	+	-	*
		31			*	-	-	-	+	-	-	
WW	96	23		*	-	-	-	-	-	+	-	-
CDA	99	49					*	-	+	-	-	
CDK	95	20		*	-	-	-	-	+	-	-	
COT	95	38				*	-	-	+	-	-	
PO	---	---				-	-	-	+	-	-	
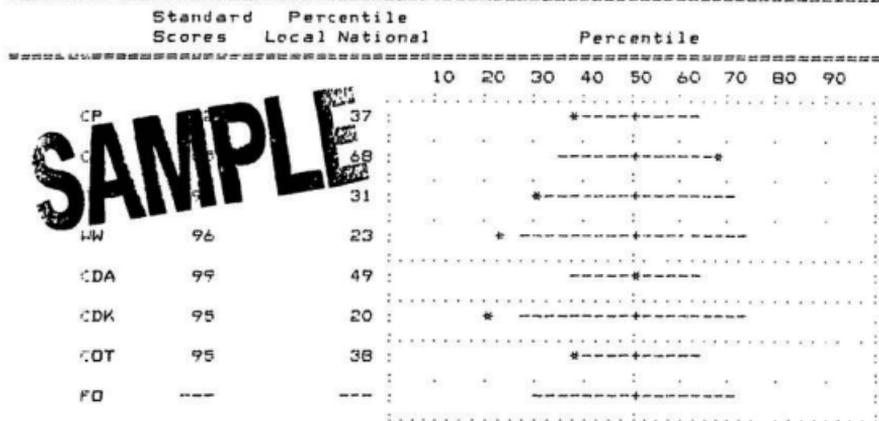
Description of CDI Scales: 10 20 30 40 50 60 70 80 90

Career Planning (CP): How involved you are in thinking about your future
    and making career plans.

Career Exploration (CE): How able you have been to find and utilize good
    sources of career planning information.

Career Decision-Making (DM): How able you are to solve problems involving
    vocational and educational choices.

World-of-Work Information (WW): How much you know about jobs and what it
    takes to find and succeed at one.

Career Development Attitudes (CDA): A combination of your Career Planning
    and Career Exploration scores.

Career Development Knowledge and Skills (CDK): A combination of your Career
    Decision-Making and World-of-Work scores.

Career Orientation Total (COT): A combination of your scores on the CP, CE,
    DM, and WW scales.

Knowledge of Preferred Occupation (PO): How much you know about occupations
    in the group to which your preferred occupation belongs.

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    1   109   3

▶ NAME: SMITH JANE   ▶ ID: ▶ SEX: F   ▶ DATE SCORED 3/ 2/94

Career Development Inventory developed by Drs. Donald E. Super,
Albert S Thompson, Richard H. Lindeman, Jean Pierre Jordaan,
and Roger A. Myers of Teachers College, Columbia University

YOUR CAREER DEVELOPMENT INVENTORY (CDI) SCORES IN PROFILE

The attached profile is designed to help you understand how you scored
on the eight CDI scales. These scales are briefly described on the
profile sheet.

How you did on each scale is shown in the two columns headed 'Percentile.'
If 100 or more students of your grade and sex took the CDI at your school
or college, the first percentile column has a number on it. This is your
LOCAL percentile. The second percentile column shows where you stand
compared to a NATIONAL sample of students like you.

What does a percentile mean? It tells you where you stand compared with
other students like you in grade and sex. If your percentile is 50, one-
half of the comparison group obtained a higher score and one-half obtained
a lower score than you did. If your percentile is 75, you are in the top
quarter of the group and scored higher than 75% of the group. Likewise, a
percentile of 35 would mean that you scored higher than 35% and lower than
65%.

To help in interpreting your CDI Profile, the accompanying chart shows a
series of dashes opposite each of the scales. These dashes indicate the
range of scores representing average performance on the scale. The width
of the range of dashes depends on how accurately the inventory measures
that particular scale.

Your NATIONAL percentile is marked by an arterisk. Note whether your
percentile is above, below, or within the range of the dashes for that
scale This helps you decide on which scales you scored significantly
above or below the average for your grade. In addition, if your
percentile is 90 or above, you scored definitely high; if 10 or below,
your score is definitely low.

Each of the scales is important, but the importance of a given scale
depends on your stage in career development. For example, scales CP and
CE measure how involved you have been in thinking about the future and in
getting help in planning, while scales DM and WW measure how much you
already know about how to make career decisions and about the world of
work in general. Also, you can compare your scores on the PO and KO
scales to see whether you need to broaden your knowledge in
general or to find out more about the field that you are considering.

Your counselor can help you relate your profile to your current career
planning. The highs and lows in the profile suggest career exploration
activities you may wish to concentrate on during the coming year.

SAMPLE

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APPENDIX D: Student Information/Consent Form

Dear Student,

I am a graduate student in the Faculty of Education at Memorial University of Newfoundland and under the supervision of Dr. William Kennedy and Dr. Dennis Sharp. As part of a research project, I am conducting a survey to help identify the career development needs of post-secondary students. I am requesting your permission to have you participate in this research.

Your participation will require the completion of an already published inventory entitled Career Development Inventory. This inventory consists of 120 items and takes approximately one hour to complete. Participation also requires the completion of a Self-Report Form which requests basic demographic information and your views on your career development needs. This form takes approximately ten minutes to complete.

All information gathered in this survey is strictly confidential and at no time will individuals be identified. Participation is voluntary and you may choose to withdraw at any time. This research project has received the approval of the Faculty of Education's Ethics Review Committee. Any questions or concerns regarding this research may be directed to Dr. Patricia Canning, Associate Dean of Research. The results of my research will be made available through the library at Cabot College.

If you are in agreement with participating in this survey please sign below. If you have any questions please do not hesitate to contact me at Cabot College, Room A222 or by phone at 778-2224.

Thank you.

Yours sincerely,

Brenda Newhook
Graduate Student.

I _____ (student name) agree to participate in the research project survey as described above. I understand that participation is entirely voluntary and that I may withdraw permission at any time. All information is strictly confidential and no individual will be identified.

_____   _____
      Date   Student Signature

APPENDIX E: Code Book

Code Book

Information from the Self-Report Forms was reviewed and coded for database entry. While some of the information was easily assessed and coded other information, from the open-ended questions, needed to be distinguished based on what was viewed as natural working categories. Codes and categories are provided below.

Question/Information	Code
1. Identification Number	As assigned

2. Gender

Male 1

Female 2

3. Age groupings:

26-30 years 1

31-35 years 2

36-40 years 3

41 and over 4

4. Present Program of Studies

Pre-employment or Apprenticeship 1

Business and Applied Arts 2

Medical Sciences 3

Technology Program (includes Computer Studies) 4

Adult Basic Education 5

5. Education Level (last grade completed in school) . . . . As given

Students chose one: Grade 1 2 3 4 5 6 7 8 9 10 11 12

6. Other training   Code

Academic Upgrading, BTSD, GED 1

One year pre-employment, or apprenticeship, and/or short courses
of special training 2

One year of college 3

Two years of college 4

Three years of college 5

One year university 6

Two years university 7

Three years university 8

One year college and one year university 0

No other training 9

This question did not ask students to specify what type of training they

obtained or program they had attended, nor were they asked if they had

successfully completed the courses or training.

6a. Total years of education.

This information was derived based on the students' responses to questions 5 and 6. The years of secondary schooling was combined with additional training/years of college or university to provide an overall estimate of total years of formal education or training. Approximately one-third of respondents had completed high school only. However, many of these individuals were mature students and high school completion was indicated on the response form by circling Grade 11; they had finished school prior to the introduction of Grade 12.

Code 1 (Academic Upgrading) and Code 2 (Pre-employment or Apprenticeship or short courses) were assigned a value of one year of further education beyond secondary school. For example: an individual who had grade 10 plus apprenticeship training was given a value of 11 years of total education, an individual who had grade 11 plus 3 years of college was given a value of 14 years of total education. This information did not appear as a question on the Self-Report Form but was tabulated as needed with respect to the research and research question.

7. Other courses in career planning/career exploration   Code

    Yes 1

    No   2

8. Type of information or service that would be of most value. The information provided by students varied but was categorized in six areas. The database was set up to allow for a total of three specific responses from any one individual. Areas of value:

- General employment or career counselling 1

  i.e., help with decision making, information on other training to complement this training, college programs and educational requirements.

- Job search skills, interview skills, resume preparation 2

- Labour market information/Job market information 3

  i.e., availability of work, rates of pay, information on where the jobs are, future trends, job opportunities.

- Information on: job creation, entrepreneurship, financial assistance, Human Resources Development services 4

- Hard copy/physical requests 5

  i.e., information booklets, access to computers to do resumes.

- Employment in foreign countries 6

  i.e., information on working overseas, where the jobs are and how to apply, health and environmental concerns.

- No response 9

9. In this question students were asked to rate several aspects of career development on a scale of 1-5, with a 1 indicating an area where they felt they needed the most assistance and a 5 indicating an area where they felt they needed the least assistance. The aspects of career development which the students rated were the aspects of career development measured in a career maturity measure the Career Development Inventory. Those areas are: career planning, career exploration, decision-making, world-of-work information, and knowledge of preferred occupation.

10. Other comments were also reviewed and categorized   Code

  - More information on the availability of jobs 1

  - Information on future trends 2

  - Personal support and/or career counselling 3
    i.e., especially for individuals who are out of the work force after a
    number of years of working.

  - A type of jobs booklet 4
    i.e., a listing of jobs in different fields and work opportunities across
    Canada in each field.

  - Preparation on making career choices and goal setting 5

  - Information on educational requirements/training 6

  - No comment 9