

AN INTERNSHIP IN GUIDANCE AND COUNSELLING
AT PRINCE OF WALES COLLEGIATE AND THE
L.A. MILLER CENTRE

CENTRE FOR NEWFOUNDLAND STUDIES

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HARRY HUNT



AN INTERNSHIP IN GUIDANCE AND COUNSELLING AT
PRINCE OF WALES COLLEGIATE AND THE
L.A. MILLER CENTRE.

by

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TABLE OF CONTENTS

	Page
ABSTRACT	i
ACKNOWLEDGEMENTS	ii
LIST OF TABLES	iii
 CHAPTER I	
INTRODUCTION	1
SETTINGS	2
 CHAPTER II	
GENERAL OBJECTIVES	5
INTERNSHIP ACTIVITIES	9
 CHAPTER III	
RESEARCH COMPONENT	14
1. STATEMENT OF PURPOSE	14
2. SIGNIFICANCE OF THE PROBLEM	16
3. LIMITATIONS OF THE STUDY	17
 CHAPTER IV	
REVIEW OF THE LITERATURE	18
1. CAREER DECISION-MAKING	18
2. COMPUTER-ASSISTED PROGRAMS	20
3. DISCOVER	22
4. CHOICES	23

5. CAREER DECISION MAKING INVENTORIES	25
6. CAREER DECISION SCALE	26
RESEARCH HYPOTHESIS	28
CHAPTER V	
RESEARCH DESIGN	29
1. SAMPLING	29
2. TREATMENT	29
3. INSTRUMENTATION	30
4. ANALYSIS	31
CHAPTER VI	
RESULTS	32
CHAPTER VII	
DISCUSSION	42
1. SUMMARY AND CONCLUSION	42
2. IMPLICATION	43
3. FUTURE RESEARCH	44
REFERENCES	46
APPENDIX A	48

ABSTRACT

This report presents a description of an internship in guidance and counselling at Prince of Wales Collegiate and the L.A. Miller Centre, from April 25th, to June 29th, 1994. The rationale for doing the internship was to gain as much experience as possible in guidance and counselling in a practical setting under supervised conditions.

A set of objectives as well as a research proposal was devised and carried out in the two settings. All of the objectives were adequately met throughout the internship period.

The research component focused on the evaluation of the career decision-making process as it pertained to CHOICES and DISCOVER career-assisted career-guidance programs. Results indicated that there was no significant difference at the .05 level for career decision-making between the two programs.

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LIST OF TABLES

		Page
TABLE 1	One Way Analysis of Variance to Determine Any Significant Differences in Certainty for Programs.....	34
TABLE 2	One Way Analysis of Variance to Determine Any Significant Differences in Indecision for Programs.....	35
TABLE 3	Two way Analysis of Variance to Determine Any Significant Differences Between Means for Age by Program For Certainty.....	36
TABLE 4	Two way Analysis of Variance to Determine Any Significant Differences Between Means for Age by Program For Indecision.....	37
TABLE 5	Two way Analysis of Variance to Determine Any Significant Differences Between Means for Gender by Program For Certainty.....	38
TABLE 6	Two way Analysis of Variance to Determine Any Significant Differences Between Means for Gender by Program For Indecision.....	39
TABLE 7	Two way Analysis of Variance to Determine Any Significant Differences Between Means for Grade by Program For Certainty.....	40
TABLE 8	Two way Analysis of Variance to Determine Any Significant Differences Between Means for Grade by Program For Indecision.....	41

CHAPTER I

INTRODUCTION

To complete the Educational Psychology program at Memorial University of Newfoundland, a number of options are available. These are: portfolio, internship, thesis and special project.

The internship option was chosen because it gave the intern the opportunity to do counselling with young people on a day-to-day basis. Particular interest was held for career counselling, specifically, two computer-assisted career guidance programs, DISCOVER and CHOICES. The internship afforded the intern the opportunity to conduct research into these programs with a view to determine whether they equally facilitate the process of career decision-making.

While the other options of portfolio, thesis, and special project have their merits as theoretical and scholarly documents, they would not have afforded the intern the opportunity to apply counselling skills in a supervised setting. In a practical sense, there was an advantage in applying the knowledge attained. Being asked to apply learned skills as a counsellor and receive feedback on the intern's effectiveness from the field supervisor was a positive experience. The major advantages of this was that it allowed the intern to refine learned skills and it contributed to the development of the intern's personal counselling style. The

process allowed the intern to apply learned skills in psychoeducational assessment, as well as individual, group, and career counselling.

SETTINGS

The counselling internship took place at two settings, Prince of Wales Collegiate (PWC), and the L.A. Miller Centre. Prince of Wales Collegiate has a student population of approximately 650 students. There is a broad range of problems arising from such a large clientele. This clientele included both inner and outer city students from all socio-economic levels. PWC is a senior high school with levels I, II, & III students in attendance. The students vary in academic abilities and hence the programs range from French Immersion to Special Education. Because of this diverse population, and the number of students, the school has the services of a full time guidance counsellor. It is also the only high school within the Avalon Consolidated School Board that offers the DISCOVER computer-assisted career guidance program. This program is being piloted for one year with an assessment and evaluation to determine if it is more successful in facilitating career decision making. Since the research component of the intern's proposal involved the examination of CHOICES and DISCOVER programs, this made the

setting of Prince of Wales essential to its successful completion.

The other site of the internship was the L.A. Miller Centre. Due to a strike by the Newfoundland and Labrador Teachers' Association, and hence the closing of educational settings, an alternate setting in which to complete the internship had to be found. Placement at the L.A. Miller Centre offered the intern the opportunity to work with the Work Skills Evaluation Program in the Centre's Psychology Department. The main focus was to provide a psychoeducational service for clients with special needs. The primary objective of the program is to assist the client and the referring agency to develop a vocational plan that reflects the client's physical, intellectual and emotional capabilities. At the L.A. Miller Centre the intern worked as an integral part of a multidisciplinary team which included physiotherapists, occupational therapists, psychologists, social workers, and speech pathologists. Together, the team discussed and assessed individual cases and recommended specific rehabilitation strategies for the clients. It is interesting to note that counselling theory was equally applicable whether working with students at Prince of Wales Collegiate or adults at the L.A. Miller Centre.

It was through the intern's experiences at Prince of Wales Collegiate and the L.A. Miller Centre that the main

objectives of the internship program were met, as outlined in the following section of this report.

CHAPTER II

GENERAL OBJECTIVES

To derive maximum benefit from the counselling internship, it is important that a specific framework of objectives be stated and followed. This section outlines the objectives that were felt to be important for the intern to achieve during the internship.

1. *To conduct research in the area of career guidance with senior high school students.*

As a guidance and counselling intern, there was an opportunity to conduct research by working with small groups of students. These small groups were students who volunteered to complete the DISCOVER program. Working with these groups afforded this intern the opportunity to use and become proficient in the application and use of the DISCOVER program. This enabled the intern to effectively offer the DISCOVER program to interested students and subsequently carry out evaluative procedures such as having the students complete the career decision scale to determine their readiness to make career decisions.

2. *To apply counselling skills in a practical setting.*

Working with individuals in a school setting enabled the intern to move from theory to practice. This experience

allowed this intern to develop and implement his own personal counselling style.

3. *To acquire experience in testing and assessment.*

The ability to offer accurate psychoeducational and career assessments, as well as interpretation of the results, is a crucial part of effective guidance. Testing and assessment are acquired skills that are learned, for the most part by practice over a period of time. The internship placement gave the intern experience in the proper administration and effective interpretation of various tests and assessment tools.

4. *To familiarize the intern with the day to day workings of a school guidance program.*

Exposure to a working environment similar to an actual career placement is important for any would-be guidance counsellor. There is a kind of uniqueness to a school guidance program that needs to be experienced first hand. An acquired understanding of how an actual school setting operated enhanced the intern's effectiveness as a guidance counsellor.

5. *To work as part of the team of administration and teachers to identify students in need of guidance services.*

Since a guidance counsellor is a staff member of a school, he/she must be able to work co-operatively with the team of students, teachers, parents, administrators, and other support staff. Most problems are brought to the attention of the guidance counsellor by parents and teachers. At other times, it is the administration that requires the help and expertise of the guidance counsellor in order to deal effectively with students. The team approach to identify students with problems is essential to the effectiveness of a school guidance department.

6. *To develop an understanding of the relationship between guidance and counselling theory and practice.*

There are many theories of guidance and counselling such as rational-emotive therapy (Ellis, 1987), client-centered therapy (Rogers, 1984), and reality therapy (Glasser, 1986). These theories have much to offer in terms of helping counsellors understand and work with human behaviour. In this intern's dealings with students, an attempt was made to apply these theories and modify them when and where necessary to meet the individual needs of clients.

7. *To complement the overall objectives and philosophies of the school.*

Each school has its own basic philosophy and educational

objectives. The guidance office has a major role to play in ensuring that this particular philosophy is followed and that its educational objectives are met. As a guidance counsellor, there was a concerted effort by this intern to ensure that his students were an integral part of the school philosophy and that they were encouraged to meet the educational objectives which contributed to a positive school environment.

8. *To enhance one's understanding of the school curriculum and explore ways the guidance office can be of benefit in meeting the curriculum.*

The guidance office played a major role in counselling students in such areas as course selections and program modification. A conscious effort was made to meet with teachers of all subject disciplines to discuss with them the content, objectives and prerequisites of the courses that they teach. The opportunity existed, therefore, to help students make the right choices of courses which would enable them to meet the appropriate graduation requirements.

9. *To implement effective counselling strategies that would enable one to deal with crisis intervention.*

The day-to-day workings of the guidance office were basically routine. However, there were extraordinary times when traumatic situations arose. In this intern's situation,

one such incident was the death of one of the teaching staff at Prince of Wales Collegiate. This had a traumatic effect on the students. Counselling traumatized students is a challenging process and requires the guidance counsellor to be a good listener and have a high degree of empathy. The thoughts and feelings articulated by those who were traumatized were dealt with in a sensitive and caring manner. Specifically, this intern's role was to be alert for and responsive to signals of stress and trauma within the class, corridors, washrooms and other school facilities. The intern's learning not only came from the ability to identify signals but the process and dynamics of crisis/stress counselling itself. An effective guidance counsellor in a trauma situation is one who demonstrates that he/she is a needed and valuable member of any school community.

INTERNSHIP ACTIVITIES

The foregoing objectives were an integral part of the internship practise, making the experience very memorable and worthwhile. During the internship, growth was experienced in the intern's counselling ability and in the development of his self-confidence. In essence, the intern, because of this experience, can be a more effective guidance counsellor. What follows is a summary of experiences through which the stated

objectives were able to be met in a practical and meaningful manner.

As an intern, there was experience with many crisis situations, including the death of a teacher and an attempted suicide by a student. Other problems dealt with were expulsion of students from school, career choices, grief therapy and study skills development. There was an opportunity to administer the WAIS, WISC III, KTEA, CAPS, CTBS, PIAT-R and other tests and inventories during the guidance internship. As the intern's practical experience grew, so did the confidence of this intern in his ability to administer these assessments and effectively interpret the resulting data.

Having completed an internship at two separate settings, Prince of Wales Collegiate and the L.A. Miller Centre, it became obvious to this intern that different sites have different organizational structures that determine the roles and responsibilities of a particular guidance office. At the L.A. Miller Centre the opportunity existed to work with The Work Skills Evaluation Program offered by the Psychology Department. The main focus here was to provide a psychoeducational service for clients with special needs. The primary objective of the program is to assist the client and the referring agency to develop a vocational plan that reflects the client's physical and intellectual capabilities,

along with personal characteristics. Here, the intern's involvement included working as part of a team. The team consisted of an occupational therapist, psychologist and a social worker. Assessments were conducted in areas such as cognitive level, learning problems and training potential. Aptitude tests and interest profiles were also administered. Based on the test results, vocational options were explored with clients and in consultation with a multidisciplinary team, written reports were provided for the referring agency.

At Prince of Wales Collegiate, involvement in team building was emphasized. There were constant consultations with teachers regarding the needs of specific students and their course selections for the coming school year. The input from teachers with respect to appropriate student placement is often as much value to a guidance counsellor as sessions with the students themselves. Much work was also done in consultation with the principal and the vice-principal. They played an important role in making sure that the curriculum was meeting the needs of the students. For example, recommendations were made for students who would benefit from a new basic reading course being introduced into high schools in September, 1994. It was noted that the administration looked to the guidance counsellor for recommendations for placement of students into such programs.

The intern's familiarity with high school graduation

requirements grew through discussions with teachers and administrators at Prince of Wales Collegiate. Of particular note was an increased understanding of the course requirements and courses offered for the French Immersion Program. In consultation with the current school guidance counsellor, Ms B. Langdon, an opportunity was afforded to learn much about specific course requirements and the role they played in student selection of programs.

Prince of Wales Collegiate has a heavy focus on career guidance and high academic achievement. The importance of the student as an individual is a major aspect of the overall philosophy of the school. As such, there is an attempt to meet the needs of all students, no matter what their ability level may have been. The guidance office complemented the philosophy and objectives of the school through counselling and assessment of students on a regular basis.

The internship also afforded the opportunity to conduct research. This is in keeping with objective number one as outlined under the General Objectives (see p.5). The intern's choice of research was based on a particular interest in computer-assisted career guidance programs, namely the CHOICES and DISCOVER programs. More specifically, it was decided to conduct research into the comparative effectiveness of these two computer-assisted career guidance programs.

The following sections deal with the design, methodology

and results of the research.

CHAPTER III

RESEARCH COMPONENT

Career Education has different focuses to fit the needs of different people in various settings. The Guidelines for the Development and Delivery of Guidance Services (1988) views career education as including "all the planned activities and experiences within the school curriculum that are designed to increase knowledge of self, educational alternatives, training paths, life-styles, job search skills and problem solving skills" (p. 20). One way of providing career education is through computer-assisted career-guidance systems. Zunker (1990) refers to the use of the computer in this context as a career "assistant" capable of providing various components of career-guidance programs. Computer-assisted career-guidance systems can provide instant access to enormous amounts of up-to-date information and give immediate personalized feedback.

STATEMENT OF PURPOSE

Factors that influence the process of career decision-making, such as accessibility of resources, availability of guidance counsellors, age, economic status, etc., offer numerous research possibilities. The intent of this research is to examine the impact of two methods of computer-assisted instruction on the process of career development. This study

focuses on two computer-assisted programs, namely **DISCOVER** and **CHOICES**, both of which provide on-line assistance and information in an interactive computerized environment. The question asked is whether they promote career decision-making. In particular, the study seeks to answer the following question:

Do DISCOVER and CHOICES, through computer-assisted instruction, equally promote career decision making among students?

The Variables for the study are as follows:

Dependent Variables: the measure of career decision-making, as attained by The Career Decision Scale (CDS; Osipow et al, 1976). (Appendix A)

Independent Variables: the current DISCOVER (used by level II & III students at Prince of Wales Collegiate) and CHOICES (used by level II & III students at Mount Pearl Senior High) computer-assisted career guidance programs.

The sample for this study was drawn from two high school populations - Prince of Wales Collegiate in St. John's, which uses the DISCOVER program, and Mount Pearl Senior High in Mount Pearl, which uses the CHOICES program. The Career Decision Scale was used to measure the promotion of career decision-making by CHOICES and DISCOVER.

The rationale and the theoretical relationship between these two variables will be discussed later in this paper. First, one needs to consider the scope of the problem and its significance for our schools.

SIGNIFICANCE OF THE PROBLEM

As outlined in the Guidelines for the Development and Delivery of Guidance Services (1988), the current counsellor-student ratio for all grades in Newfoundland is 1:1000. Consequently, there is a tremendous demand across age and grade levels for guidance counsellors to offer a number of services to students such as individual and group counselling, assessments, course selections and career education. As indicated earlier in this report, there are currently two programs that can be used to assist the guidance counsellor in offering career education; these are the CHOICES and DISCOVER computer-assisted career-guidance systems. The research provided in the literature review indicates the success of these computer-assisted programs in providing this information to students (Miller and Springer 1992; Roselle and Hummel, 1988; Pinder and Fitzgerald, 1984).

The significance of the problem for this proposal is the effectiveness of the two programs in facilitating the career decision process. A possible implication is the impact that the outcome of the comparison of the two will have on their use in the school system.

Career education and career decision-making is an important objective for students as outlined in the Guidelines for the Development and Delivery of Guidance Services (1988). Its effectiveness can be dependent on the use of different

programs. Differences in the outcome of these programs need to be assessed. If one is shown to be more effective than the other, this information can be useful to other counsellors in their assessment of both these programs.

LIMITATIONS OF THE STUDY

In addressing the analysis of the CHOICES and DISCOVER programs, two limitations must be taken into account. One is related to any differences in the results that could be due to the level of inservice carried out by a particular program. Guidance counsellors have received extensive inservicing for CHOICES but have received no inservicing for DISCOVER. The resulting amount of inservice and support regarding the use of these programs may have an impact upon the evaluation of each program. The second limitation is related to the amount of individual attention the guidance counsellor can give to students should a problem arise when using either of these programs.

CHAPTER IV

REVIEW OF THE LITERATURE

The main foci of career-assisted career-guidance systems, according to Zunker (1990), are: 1) encourage users to ask more questions of the process itself, 2) increase motivation through the unique use of immediate feedback, 3) provide the opportunity to individualize the career-exploration process which provides opportunities to personalize career-search strategies, 4) present systematic career-exploration and career-decision programs that may be assessed at any given time, & 5) give access to large databases of up-to-date information which is immediately available.

In order to better understand the implications of the use of the programs DISCOVER and CHOICES, one needs to be kept abreast of current literature related to their effectiveness for students utilizing these programs. By examining the research one can gain valuable insight into their use and how effective they can be. Proficiency in assessment of these programs would be enhanced by such knowledge.

CAREER DECISION-MAKING

Career decision-making and its relationship to career guidance has been the topic of research by many researchers to determine the extent to which students are able to make good

career decisions (Herr and Cramer, 1992; Brown and Brooks, 1991; Brown, 1984; Holland, 1974; Parsons, 1911). Having a career guidance program that gives students the skills to make good career decisions is a major focus in the work of guidance counsellors.

Holland (1974) stated that self-directed activities such as self-scoring and interpreting interest inventories, self-help books and computer-assisted guidance programs will be sufficient sources of assistance for most individuals as they make occupational choices. Brown (1984) states that the process of occupational choice was expanded in the 1920's and 30's to:

1. Develop self-awareness using test, inventories, and various other procedures to identify traits
2. Study occupations to determine which occupations offered a potential match for your traits
3. Using true reasoning, choose an occupation.

In more recent research, Parsons (1991) stated that career decision-making is a three-step process:

1. Develop awareness of self
2. Analyze and understand occupations
3. Using "true reasoning," choose an occupation.

Brown and Brooks (1991) view career decision-making as typically involving choosing from among several options in order to solve an immediate problem while working toward a long-range career objective. The immediate problem is finding employment.

In their study, Herr & Cramer (1992) found career

decision-making to be a "systematic method of processing information, predicting and weighing alternatives, clarifying values, examining risk-taking styles, and projecting action consequences" (p. 420).

In summary it can be said that the research indicates that career decision making is a systematic step-by-step process which, with the aid of specific self-directed activities, helps the individual develop an understanding of self and subsequently find an occupation through true and logical reasoning.

COMPUTER-ASSISTED PROGRAMS

One way counsellors can facilitate the decision-making process is through computer-assisted career-guidance programs. A number of studies indicate that computer-assisted programs do enhance the career decision-making process (Nugent, 1994; Zunker, 1990; Miller & Springer, 1992; Roselle & Hummel, 1988; Fukuyama & Probert, 1988; Pinder and Fitzgerald, 1984; Sampson, Shahnasarian, and Reardon, 1987).

According to Zunker (1990), two computer-assisted programs (CHOICES and DISCOVER) can increase the career decision process by: 1) encouraging users to ask more questions of the process itself, 2) sustaining motivation through the unique use of immediate feedback, 3) offering the

opportunity to individualize the career-exploration process by providing opportunities to personalize career-search strategies, 4) providing systematic career-exploration and career-decision programs that may be assessed at any given time, and 5) accessing large databases of up-to-date information which are immediately available.

Another study by Sampson, Shahnasarian, & Reardon (1987), designed to determine the extent to which students using computer-assisted programs received counsellor support, found that 95 percent of all institutions using computer-assisted programs provided counsellor assistance. The inference of the findings is that the effectiveness of computer-assisted career counselling programs is based as much or more on the direct involvement of a counsellor as it is on the software technology itself. For this reason, it is important that the term *computer-assisted* be used rather than *computerized*.

Nugent (1994) supports this contention. He found that computers can be an asset to the guidance counsellor as well as the career development process. Some computer-assisted programs help students plan by providing educational and training programs consistent with their personal characteristics. Indeed, this is in line with the findings of Isaacson (1986) who established that students who completed the computer-assisted programs were ready to take what they learned about their abilities, interests, and personality and

were better able to come to a career decision in consultation with the guidance counsellor.

The collective body of research proposes that computer-assisted programs are able to facilitate the career decision process. They do so by helping the students learn about their interests, abilities, and personality and, with the aid of the guidance counsellor, make more effective career decisions.

DISCOVER

One of the two computer-assisted programs addressed in the research is the DISCOVER program. To provide an overview of the functionality to DISCOVER, Rayman and Bowlsbey (1977), creators of the software program, state that DISCOVER provides assistance in the following areas:

1. Self-information, including values, interests, and competencies.
2. Exploration of occupations in a systematic way.
3. Teaching and low-risk practice of decision-making.
4. Relationship of self-instruction to occupational alternatives.
5. Informational assistance with implementation of choice.

Three studies look at the DISCOVER program from three different perspectives: The users intellectual development, user satisfaction, and the impact on decision making.

Roselle and Hummel (1988) researched the relationship of DISCOVER to a user's intellectual development. They found

that students with higher levels of intellectual development "manipulate the system more effectively than do students with lower levels of development" (p. 248).

In comparison to the research of Roselle & Hummel (1988), Miller and Springer (1992), investigated whether paying for the use of the DISCOVER program was related to satisfaction. Their research found that all students surveyed, whether paying or not, were satisfied with the DISCOVER program experience. They perceived it as "interesting, fun, easy to use, and accurate" (p. 636).

In another study, Fukuyama & Probert (1988) researched the effects of DISCOVER on career self-efficacy and decision-making of students. Their findings indicate a high correlation between students who had completed DISCOVER and their ability to make career decisions.

CHOICES

The second computer-assisted program examined in this research is the CHOICES program. CHOICES, as described by, The Department of Manpower and Immigration (1982), creators of the software program, state that "CHOICES provides assistance in allowing people to examine the ways in which their own interests, abilities, expectations, educational aspirations and a variety of other personal dimensions influence the range

of opportunities available to them" (p. 3).

Nugent (1994), views CHOICES as a systematic step by step procedure where the counsellor plays an integral part in the computer-assisted career-guidance program. "The counsellor first interviews a client, then the client fills out a self-assessment inventory of interests, aptitudes, and temperament... the client, with the counsellors help, then decides whether to use the computer program" (p.187). With the inventory and tests in hand, a student can enter the information into the program, thus enabling the system to offer an effective analysis of career options.

In support of this process, Pinder and Fitzgerald (1984) found that computerized guidance systems, such as CHOICES, are viable counselling interventions that can assist in meeting the career development needs of students. They go on to say that CHOICES can:

1. Be easily updated with current information on the new occupations that are constantly being created, allowing the counsellor to provide the latest information that is available, and
2. Be a relatively short intervention for the promotion of career decision-making.

Certainly, the ease of updating provides for a more effective and comprehensive list of career choices, expanding options for each student and facilitating choice through knowledge. Pinder and Fitzgerald's (1984) findings also indicate that in spite of the limited amount of time required to use the

CHOICES program, a significant change was found in career decision-making.

CAREER DECISION-MAKING INVENTORIES

The aforementioned focus on career decision making and career guidance has led to the development of various systems designed to measure the effectiveness of the computer-assisted programs in question. Indeed, there are a number of instruments used to measure the effectiveness of computer-assisted career-guidance systems in facilitating the career decision-making process. The most commonly used of these instruments are, the *Career Decision Scale* (Osipow, 1976) (Appendix A), *Career Decision Making Questionnaire* (Lunneborg, 1976), *Career Decision Readiness Inventory* (Appel, Haak, & Witzke, 1970), *Vocational Decision Making Difficulty Scale* (Holland, 1975), and the *Assessment of Career Decision Making* (Harren, 1979). For the purposes of this study the *Career Decision Scale* (Osipow, 1976) was chosen, based on its high rate of effectiveness, as found by Pinder and Fitzgerald (1984).

CAREER DECISION SCALE

Specifically Pinder and Fitzgerald (1984), found in their study that the best instrument for measuring the effect of computer assisted career guidance programs on the decision-making process was the Career Decision Scale (henceforth known as the CDS). They make this statement based on the number of variables the CDS is designed to measure: 1)lack of structure (lack of confidence, choice anxiety, potential choice avoidance); 2)perceived external barriers (for example, financial or parental); 3)approach-approach (difficulty in deciding among alternatives); and 4)personal conflict (difficulty choosing between occupations that reflect differing personal values). The CDS consists of (19) items with two major subscales. The first subscale consists of items (1) and (2) and is related to the degree of certainty of making a career decision. The second subscale consists of items (3) through (18) and represents antecedents to career indecision (see Appendix A). Items (1) through (18) are presented on a four point Likert scale. Item (19) is a free-response item for examinees whose situation is not described by the preceding (18) statements. The scores are analyzed by obtaining the overall scores for each student with regard to the degree of certainty (items 1 and 2) and the degree of indecision (items 3 through 18) (Fuqua, Newman, & Seaworth, 1988).

In summary, a review of the literature shows a high correlation between students who use computer-assisted career guidance programs and their ability to make career decisions (Nugent, 1994; Fukuyama & Probert, 1988; Roselle and Hummel, 1988; Pinder and Fitzgerald, 1984). The CDS was shown to be a more effective instrument for measuring the effects of computer-assisted career guidance programs on the decision-making process than other similar instruments (Pinder and Fitzgerald, 1984).

RESEARCH HYPOTHESIS

In order to provide focus and direction for this research, the following hypothesis is proposed:

The computer-assisted career-guidance programs, DISCOVER and CHOICES, equally enhance career decision-making among high school students.

CHAPTER V

RESEARCH DESIGN

SAMPLING

Gay (1992) refers to sampling as "the process of selecting a number of individuals for a study in such a way that the individuals represent the larger group from which they were selected" (p. 123). The process of selection in this study does not come from randomization, but from the researcher's knowledge of two schools which have similar populations, grades, courses, guidance programs offered, and location. Specifically, students were selected from levels one, two and three.

Prince Of Wales Collegiate has a career guidance program which offers to its students the DISCOVER computer-assisted program. Mount Pearl Senior High guidance program uses the CHOICES program. Both schools have approximately the same population (approximately 700) and the same grades (Levels I, II, & III). These two schools were chosen for two reasons: 1) both have a large number of students which gave a large sample to choose from and 2) the researchers knowledge that Prince of Wales Collegiate offers the DISCOVER program and Mount Pearl Senior High offers the CHOICES program.

TREATMENT

The CHOICES and DISCOVER computer-assisted career-guidance programs were administered to 20 Level II & III students at Prince of Wales Collegiate, and 20 level II & III students at Mount Pearl Senior High. The students at Mount Pearl Senior High completed the CHOICES program and the students at Prince of Wales Collegiate completed the DISCOVER program. Both programs were completed in early May.

INSTRUMENTATION

To measure the effects of both programs on the career decision making process, the *Career Decision Scale* (Osipow et al, 1976) (Appendix A) was used. The CDS is seen as the most valid measure for assessing career decision-making resulting from the CHOICES and DISCOVER programs at the various schools (Pinder and Fitzgerald, 1984).

The CDS was administered to two groups of students - 1) Level II & III students at Prince of Wales Collegiate who use the DISCOVER program and 2) Level II & III students at Mount Pearl Senior High who use the CHOICES program. The administration took place in early May when students finished both CHOICES and DISCOVER computer-assisted programs. In order to determine which program better facilitated the career decision process, the mean scores were calculated and a one

way analysis of variance was completed. The test retest correlation for the total *Career Decision Scale* yielded a correlation score of .90 and .82. A Cronbach Alpha was conducted and determined the internal consistency coefficient to be .856.

ANALYSIS

A one way analysis of variance was performed on the means of the scores from students who completed the DISCOVER program and was compared to the means of the scores from students who completed the CHOICES program (Table 1, p.34). This analysis was further broken down into two categories, one of which was *certainty* and the other *indecision*. A one way analysis of variance was run on the mean scores for *certainty* (items 1 & 2) (Appendix A) and also on the mean scores for *indecision* (items 3 - 18) (Appendix A). The researcher was able to determine if there was a statistically significant difference between the schools using the DISCOVER program and the schools using the CHOICES program.

A further two way analysis of variance was conducted to see if there was any significant difference between the two programs for age, grade and gender for the variables of *certainty* and *indecision*.

CHAPTER VI

RESULTS

This chapter outlines the results of the study. The two major factors measured were Certainty and Indecision, drawn from the *Career Decision Scale*. For the purposes of this study Certainty and Indecision relates to the level of confidence one gains from the career decision program.

With respect to these factors, the one way analysis of variance that was performed to determine any significant differences in Certainty, for CHOICES and DISCOVER, found no significant difference at the .05 level (Table 1, p.34).

The one way analysis of variance that was completed to determine any significant differences in *Indecision*, for CHOICES and DISCOVER, found no significant difference at the .05 level (Table 2, p.35).

Certainty and indecision were also measured with respect to age, gender, and grades.

With regards to the first variable, age, the two way analysis of variance that was applied to determine any significant differences between means for age (for certainty), by both CHOICES and Discover, found no significant difference at the .05 level (Table 3, p.36). Likewise, the two way analysis of variance that was conducted to determine any significant differences between means for age (for indecision), by CHOICES and DISCOVER found no significant

difference at the .05 level (Table 4, p.37).

Pertaining to gender, the two way analysis of variance that was performed to determine any significant differences between means for gender (for certainty), by CHOICES and DISCOVER, found no significant difference at the .05 level (Table 5, p.38). Comparably, the two way analysis of variance that was carried out to determine any significant differences between the means for gender (for indecision), by CHOICES and DISCOVER, found no significant difference at the .05 level (Table 6, p.39).

Finally, concerning grades, the two way analysis of variance that was conducted to determine any significant differences between means for grade (for certainty), by CHOICES and DISCOVER, found no significant difference at the .05 level (Table 7, p.40). Similarly, the two way analysis of variance that was completed to determine any significant differences between means for grade (for indecision), by CHOICES and DISCOVER, found no significant difference at the .05 level (Table 8, p.41).

TABLE 1

One Way Analysis of Variance to Determine Significant Differences in "Certainty" For Programs.

Program	# of Students	Mean	S.D	Sum of Squares	Mean Squares	df	F	P
Between Groups				8.10	8.10	1	2.14	.15
DISCOVER	20	4.95	2.09					
CHOICES	20	4.05	1.79					
Totals	40	4.50	1.97					

S.D = Standard Deviation; df = Degrees of Freedom; F = F Ratio; P = F Probability

TABLE 2

One Way Analysis of Variance to Determine Significant Differences in "Indecision" For Programs.

Program	# of Students	Mean	S.D	Sum of Squares	Mean Squares	df	F	P
Between Groups				.00	.00	1	.00	1.00
DISCOVER	20	32.85	9.91					
CHOICES	20	32.85	8.70					
Totals	40	32.85	9.21					

S.D = Standard Deviation; df = Degrees of Freedom; F = F Ratio; P = P Probability

TABLE 3

Two Way Analysis of Variance to Determine Significant Differences Between Means For Age
By Program For Certainty.

Age by Program	# of Students	Mean	S.D	Sum of Squares	Mean Squares	df	F	P
2 - WAY INTERACTIONS								
16	* 1	3.80	1.10					
	* 2	3.67	1.53					
17	* 1	5.50	2.32					
	* 2	4.00	1.67					
18	* 1	5.00	2.58					
	* 2	4.11	2.26					
19	* 1	5.00	.00					
	* 2	4.50	.71					
Entire Population	40	4.50	1.97					
*1 = Discover; *2 = Choices S.D = Standard Deviation; df = Degrees of Freedom; F = F Ratio; P = P Probability								
				2.53	.84	3	.20	.89

TABLE 4

Two-Way Analysis of Variance to Determine Significant Differences Between Means For Age By Program For Indecision.

Age by Program	# of Students	Mean	S.D.	Sum of Squares	Mean Squares	df	F	P
2 - WAY INTERACTIONS								
16	* 1	34.80	7.66					
	* 2	35.00	5.29					
17	* 1	30.90	11.14					
	* 2	34.50	6.06					
18	* 1	32.50	10.54					
	* 2	32.78	11.39					
19	* 1	44.00	.00					
	* 2	25.00	2.83					
Entire Population	40	32.86	9.21	289.12	96.38	3	1.04	.39

*1 = Discover; *2 = Choices

S.D = Standard Deviation; df = Degrees of Freedom; F = F Ratio; P = P Probability

TABLE 5

Two Way Analysis of Variance to Determine Significant Differences Between Means For Gender by Program for Certainty.

Gender by Program		# of Students	Mean	S.D	Sum of Squares	Mean Squares	df	F	P
2-Way Interactions					.64	.64	1	.17	.68
MALES	* 1	10	4.40	1.65					
	* 2	13	5.85	1.34					
FEMALES	* 1	10	5.50	.42					
	* 2	7	4.43	2.51					
Entire Population		40	4.50	1.97					

* 1 = Discover; * 2 = Choices

S.D = Standard Deviation; df = Degrees of Freedom; F = F Ratio; P = F Probability

TABLE 6

Two Way Analysis of Variance to Determine Significant Differences Between Means For Gender by Program for Indecision.

Gender by Program	# of Students	Mean	S.D	Sum of Squares	Mean Squares	df	F	P
2 - WAY INTERACTIONS								
MALES	* 1	35.70	10.13	107.79	107.79	1	1.25	.27
	* 2	34.62	8.52					
FEMALES	* 1	30.00	9.31					
	* 2	29.57	8.68					
Entire Population	40	32.85	9.21					

* 1 = Discover; * 2 = Choices

S.D = Standard Deviation; df = Degrees of Freedom; F = F Ratio; P = F Probability

TABLE 7

Two Way Analysis of Variance to Determine Significant Differences Between Means For Grade by Program for Certainty.

Grade by Program		# of Students	Mean	S.D	Sum of Squares	Mean Squares	df	F	P
2 - Way INTERACTIONS					4.24	4.24	1	1.09	.30
GRADE 11	* 1	14	5.07	2.13					
	* 2	5	4.20	1.30					
GRADE 12	* 1	6	4.67	.16					
	* 2	15	4.00	1.96					
Entire Population		40	4.50	1.97					

* 1 = DISCOVER; * 2 = CHOICES

S.D = Standard Deviation; df = Degrees of Freedom; F = F Ratio; P = F Probability

TABLE 8

Two Way Analysis of Variance to Determine Significant Differences Between Means For Grade by Program for Indecision.

Grade by Program	# of students	Mean	S.D	Sum of Squares	Mean Squares	df	F	P
2 - WAY INTERACTIONS								
GRADE 11	* 1	30.86	8.87	4.24	4.24	1	1.09	.30
	* 2	33.40	5.59					
GRADE 12	* 1	37.50	11.5					
	* 2	32.67	9.68					
Entire Population	40	32.85	9.21					

* 1 = Discover; * 2 = Choices

S.D = Standard Deviation; df = Degrees of Freedom; F = F Ratio; P = F Probability

CHAPTER VII

DISCUSSION

SUMMARY AND CONCLUSION

The major focus of this study was to measure career decision-making, by using the Career decision scale, to determine if DISCOVER and CHOICES, through computer-assisted instruction, equally promote career decision making among students. Further analysis was conducted to determine to what extent the sex, age and grade level affected career decision process.

On the basis of the statistical analysis, the findings confirm the research hypothesis that the computer-assisted career-guidance programs, DISCOVER and CHOICES, equally promote career decision-making among high school students. It was felt that because both programs were very similar in many areas, it was no surprise to the researcher that the hypothesis was supported. The results also indicated that there was no significant difference between sex, age and grade level in regards to career decision-making. This was possible because both programs generated the same interest level among all students who were tested. Both were time consuming to complete and interest level decreased in direct proportion to the length of time needed to complete a session.

While it was expected that there would be a few

differences, the consistency of the similarities was so strong that the statistical results were almost even.

IMPLICATIONS

Since there is no significant difference between career decision-making by using DISCOVER or CHOICES, other areas may need to be explored. One such area is cost factor. Several Community Colleges in Newfoundland have decided to implement the DISCOVER program. The Department of Education has decided to extend CHOICES in schools for another three years. Since both CHOICES and DISCOVER are equal in facilitating career decision making and since there is a big difference between the cost of the two programs, then a better monetary deal could be made by purchasing the less expensive program to be used universally across the province.

The initial cost of DISCOVER would appear to be higher than CHOICES, but DISCOVER has given blanket permission to photocopy materials, whereas CHOICES requires the continuing purchase of booklets.

There are also implications for the counsellor's role in assisting the students to interpret and understand their findings. There was no time spent with students before the career decision scale was administered. It is possible that if students were better able to interpret their results, then

one program may have been better at facilitating the career decision process than the other.

The researcher notes that the generalizability of the findings is limited given the relatively small sample. Further research needs to be completed with a randomized selection of a much larger sample in order to affect a greater degree of sampling reliability. A larger test population would allow a researcher to more accurately predict comparative results.

The ultimate implication is that both programs not only generate the same interest level but they are designed to give the same results using a basic approach. Hence, their effectiveness for students in terms of career decision-making is very similar.

FUTURE RESEARCH

From this study one could expand this research by conducting the following studies:

1. A study which does a sampling of guidance counsellors and teachers for their recommendations regarding the CHOICES and DISCOVER programs. This could be done through the administration of a questionnaire soliciting their views regarding the CHOICES and DISCOVER programs.
2. A similar study looking at factors that may influence outcome such as cost of programs. Yet another

survey where schools using these programs could indicate the specific expenses involved with each. All other variables being equal, cost could be a deciding factor for implementation of one of these programs.

3. A study looking at counsellor assistance after computer-assisted programs are completed. A study examining the effectiveness of counsellor assistance following the completion of a computer assisted program. One suggested approach would be to administer the career decision scale after the computer assisted program and again following counsellor assistance.

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APPENDIX A

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APPENDIX A- Career Decision Scale, Third Revision (1976)



