

A Career Development Course for Academic Credit: An Outcome Analysis

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Abstract

An undergraduate career development course focusing on theoretical models, concepts, and practices was analyzed using pre- and post- course measures of the Career Decision Scale, the Career Maturity Inventory and the Career Factors Inventory. Significant increases were found on measures of Career Certainty, and significant decreases were found on Career Indecision, Career Choice Anxiety, and Generalized Indecisiveness. Females demonstrated statistically significant mean score changes on measures of Career Choice Anxiety, Generalized Indecisiveness, Career Certainty and Indecision and on Career Competencies. Males showed a statistically significant change only on the increased Need for Self-Knowledge. The two gender groups differed only on the post-course measure of Career Indecision.

Despite the significant body of scholarly knowledge on career development issues, factors, and strategies which have been gathered, researched and reported in the last century, there is a dearth of opportunities for Canadian students to study and apply these understandings to their own career choice and development issues. Although the integration of career development into the academic curriculum is receiving increasing interest in a number of Canadian post-secondary institutions (Crozier, Douglas, Dobbs, & Hung, 1998) only three Canadian universities have awarded credit at the undergraduate level (Crozier, 1998).

In response to the student need for a more knowledgeable approach to their own career issues, and in recognition of the study of careers as a legitimate academic pursuit, Dalhousie University has recently been offering an elective half credit course open to all Arts and Social Sciences and Science undergraduates: Introduction To Career Portfolios (ASSC/SCIE 1100.03).

This course examines theoretical and practical issues in career development. The class explores the scholarly work of career development researchers, economists, demographers, educators, writers and theorists as their work relates to issues in career choice and development. Through an experiential learning model (Kolb, 1984) which is incorporated into discussions, exercises, weekly labs, exams and research papers, students also develop a portfolio which documents their theoretical applications as they reflect on their work and learning history. Through assessing personal and environmental factors impacting on decision-making over one's life span, students create a purposeful context for viewing their careers as well as reflect upon and propose career development strategies.

The course content includes principles, theories and practices relating to the meaning and nature of work, leisure, self

and identity; career choice and decision-making; issues and strategies in self-assessment; occupational research; and, the future of work. Special issues are also considered such as gender, culture, special needs, dual careers, stress, burnout, job loss and career management in an uncertain economy. Students are encouraged to tailor the research assignments to meet their personal areas of interest.

The purpose of this study was to examine the impact of this course by conducting a quantitative analysis of factors related to the students' experience of their study and application of career choice and development constructs and issues. The factors which were analyzed were measured on indices of Career Maturity, Career Indecision, Generalized Indecisiveness, Career Certainty, Career Choice Anxiety, Need For Self-Knowledge and Need For Career Information.

Method

Participants:

After obtaining the Institutional Ethics Review Board's approval, all students enrolled in this course in 1999 and again in 2000, were invited by the professor to participate in this study. An independent consultant also met with the classes and explained how anonymity was ensured and the safeguards in place to ensure the professor was blind to who was and was not participating in this study. The consultant collected and analyzed the data, interpreted the results to the class, and was available for individual consultation. The class was comprised of students from all years of undergraduate study from primarily Arts and Social Sciences and Science Faculties. After signing an informed consent form, forty eight students (53%) anonymously participated in both pre- and post-course quantitative assessments.

Instruments

Quantitative measures were gathered through the pre- and post- course administration of three career assessment instruments: The Career Decision Scale (CDS); the Career Maturity Inventory (CMI); and, the Career Factors Inventory (CFI)

The Career Decision Scale (CDS) was introduced by Osipow et al. in 1976 and was revised in 1987. It is "intended as a rapid and reliable instrument for surveying high school and college students about their status in the decision making process. The scale provides an estimate of career indecision and its antecedents as well as an outcome measure for determining the effects of interventions relevant to career choice or career development ..." (Osipow, 1987, p.1). Norms are provided for college students for both the Certainty Scale and the Indecision Scale. Test-retest reliability co-efficients range from .70 to .90. Percentile scores (grouped as low, middle and high) are provided for both scales. Certainty scores at or below the 15th percentile (low) and Indecision scores at or above the 85th percentile (high) are considered significant. The Career Decision Scale has been reviewed as unsurpassed in the career indecision literature (Meier, 1991, Harmon, 1994 and Herman, 1985).

The Career Maturity Inventory (CMI), (Crites, 1978, 1995) provides a measure of career maturity which can be "generally defined as the extent to which the individual has mastered the vocational development tasks, including both knowledge and attitudinal components, appropriate to his or her state of career development. Maturity is assumed to be an underlying psychological construct reflecting this developmental level just as intellectual, moral, and social development are assumed to be psychological constructs" (Betz, 1988 p.79).

Similarly, Savickas (1990) stated, "simply defined, career maturity means readiness for making realistic career choices. Clients below a certain threshold of readiness lack the life experiences and personal inclinations to make realistic choices. These clients need to develop attitudes that move them closer to the choice threshold" (p.58). This 50 item instrument yields scores for two scales measuring Attitude and Competence which are combined to form the total

Career Maturity score. Crites (1978) recommends using this instrument for "(1) studying career development, (2) screening for career immaturity, (3) evaluating career education..." (p.270).

Internal consistency co-efficients for the five subtests range from .58 to .90, test-retest reliability ranges from .64 to .66 and content validity for the Self Appraisal subtest was built by collecting case records. Criterion related and construct validity was supported through a strong relationship with other Career Choice Competencies (Crites, 1978). The CMI has been highly regarded and used in hundreds of studies (Crites, 1995).

The Career Factors Inventory (CFI), measures four scales: (1) Need for Career Information, (2) Need for Self-Knowledge, (3) Career Choice Anxiety, and (4) Generalized Indecisiveness. The individual results are then profiled in standard score bands derived from general college samples.

The CFI has been administered to over 4,000 people and college students serve as the normative group. Test-retest reliability for college students range from a low of .68 to a high of .82. Internal consistency ranges from .73 to .92. The CFI has been correlated with several instruments to establish convergent validity and research has demonstrated that its scales "are operating in a manner consistent with their definition and development" (Chartrand and Robbins, 1997, p.13). The CFI has been designed, and used successfully, to measure the effectiveness of career planning courses (Chartrand and Robbins, 1997, Chartrand and Nutter, 1996) .

In summary these three psychometric instruments address questions derived from the theoretical and research literature. The results, in addition to being useful to the participants, allowed an exploration of the impact of the course on measures of Career Certainty, Career Indecision, Career Maturity (Attitude and Competence), Need For Career Information, Need For Self- Knowledge, Career Choice Anxiety, and the Generalized Indecisiveness of students enrolled in the course Introduction to Career Portfolios (ASSC/SCIE 1100.03).

Results

Data Analysis

The survey data were examined to

determine if there were differences within the group of participants between scores attained on the test instruments at the beginning of the course and scores resulting from a second administration at the end of the course . Group means were compared with paired samples t-tests.

Career Certainty/Career Indecision:

Career Certainty scores, a measure of the degree of certainty that the student feels in having made a decision about a major and a career, and Career Indecision scores, a measure of career indecision, were received from 48 students pre- and post- course as measured on the Career Decision Scale. These scores are presented in Table 1. On both scales, statistically significant changes were noted in percentile scores from pre- to post-course. Certainty scores increased from a mean of 46.4% pre-course to 54.9% post-course ($p=0.04$). Indecision scores decreased from a mean of 71.4% pre-course to 64.7% post-course ($p=0.05$).

Career Maturity:

Career Maturity, a measure of Attitude and Competence, as assessed by the Career Maturity Inventory, was completed pre- and post- course by 48 students. Overall, there were no significant changes in the mean scores. For the Attitude scale, the pre - course mean score was 16.7 and the post - course mean score was 17.3 ($p=0.23$). On the Competency scale the pre - course mean score was 18.9 and the post - course mean score was 18.6 ($p=0.49$). The total Career Maturity score was essentially unchanged as the pre - course mean score was 35.8 compared to the post - course mean score of 36.0 ($p=0.68$).

Need for Career Information, Self-Knowledge, Career Choice Anxiety and Generalized Indecisiveness:

Pre- and post-course measures were completed by 47 students. Of the four scales, three showed a decrease in mean scores and one showed an increase from pre- to post-course. Significant decreases were measured on the Need for Career Information, Generalized Indecisiveness, and on Career Choice Anxiety. The Need for Career Information, the perceived need to acquire specific information about or experience in various occupa-

tions before making a career decision showed a slight decrease (from 23.3 to 22.6, $p=0.22$). Generalized Indecisiveness, the general tendency to have difficulty making decisions showed a decrease in scores over time (from 14.2 to 12.9, $p=0.042$); and Career Choice Anxiety, the level of nervousness one feels when faced with a career decision showed a significant decrease (from 16.9 to 14.7, $p<0.0001$). The Need for Self-Knowledge, the desire to have greater self-understanding before making a career decision showed a slight (non-significant) increase in mean scores (from 15.3 to 16.2, $p=0.135$).

Gender Differences:

When the students were divided on the basis of gender and pre- and post-course score differences examined, statistically significant mean score changes were seen within the group of female students ($n=30$). Female students showed decreases on the measures of Career Choice Anxiety (from 16.6 to 14.1, $p=0.002$), and Generalized Indecisiveness (from 14.5 to 12.5, $p=0.02$) of the Career Factors Inventory. Increased mean scores were noted on both scales of the Career Decision Scale. Certainty scores increased from a pre-course mean of 51.7% to post course mean of 62.6% ($p=0.04$). The Indecision scale showed a decrease from a mean of 66.7% pre-course to a mean of 56.6% post-course ($p=0.03$). The competency scale of the Career Maturity Inventory showed a drop in mean scores from 19.5 pre-course to 18.4 post-course ($p=0.04$).

Male students ($n=18$) showed a statistically significant change in mean scores only on the Need for Self Knowledge subscale of the Career Factors Inventory where the scores increased from 14.1 to 16.4 ($p=0.03$).

When the two gender groups were compared on all scales of the study instruments, the only significant between-group difference seen was on the Career Decision Scale measure of Indecision post-course (mean percentile for males 78.1, for females 56.5, $p=0.02$).

Discussion

The course Introduction To Career Portfolios was designed to teach theoretical models, concepts, and practices relat-

ing to career choice and development. Students were encouraged to maximize the personal benefits that could be gained from the study of this material by applying this knowledge to their own personal situations.

Rather than encouraging students to focus on making career decisions, emphasis was placed on examining their career issues from each of the multiple theoretical perspectives that were studied. In spite of this emphasis, or perhaps because of it, career indecision scores decreased. For example, as one student in a lab discussion group commented " ... I am ready with answers. I am ready to explain myself. I wasn't secure in my thoughts and who I was as a person and now I know I am able to confront the questions."

Sometimes career indecision is an appropriate response to a future that is uncertain, especially for careers which consist of multiple contracts from a variety of employers. Therefore, students were required to read and reflect on the benefits of indecision (Gelatt, 1989), (Krumboltz, 1992), particularly as indecision can have a positive impact on a portfolio career (Handy, 1989). Students were asked, in their labs, to discuss how studying this material affected their decision making, one student said, " I don't have any more answers, but I feel like I have more questions which are going to lead to more answers later on. It is good to be able to have those questions." Another student commented, " I realize that I am an 'undecided' person not an indecisive one. The distinction was one that I really had never thought of. Now I feel more confident to proceed knowing that the things I am going through are OK, and I can keep going."

As students became more career certain, perhaps as a result of integrating the theoretical frameworks into their own life experiences, they appeared to become more confident in their interactions with others over career issues. The confidence was not just about being more certain, but about being better able to articulate the basis of that certainty. As one student commented in class, " ... now I understand what I mean by what I say I want and why I want it." Consistent with decreased career indecision and increased career certainty, career choice anxiety scores also decreased. Career anxiety was usually

expressed indirectly e.g., " We're talking about evaluating ourselves ...How do I go about doing this? My life seems so cluttered, how do I dig down in this mess and make a foundation for myself?" Career anxiety reduction was expressed more directly e.g., "It's not so scary anymore." "I obtained the insight that I am someone to be proud of....I really do have self worth. ...I should be more confident in myself. I learned how to set goals that I could reach and achieve." (anonymous reflective exercises).

The combined results of the Career Factors Inventory revealed a decrease in the Need For Career Information and a slight non-significant increase on the Need For Self -Knowledge. Perhaps the research and reflective components of the course were sufficient for some students but led others to see the need for further exploration. As one student commented in a lab discussion group, " There is much more to career development than just picking your career then getting appropriate information. I know there are many influencing factors when choosing a career, and it is important to analyze them while making your decision."

The Career Maturity Inventory revealed only slight non-significant changes in scores. This could be because neither Attitude nor Competency was impacted by this intervention, or because the sample size was too small which could have caused a Type II error. As this study focused on whether the intervention impacted measures of career maturity, the Career Developer, a supplement to the 1995 CMI and described as an "adjunct" to facilitate "teaching the test" (Crites, 1995, p. 48), was not used for this study. The use of the CMI without its supplement (which teaches the answers to the test questions) may have reduced its sensitivity to changes over time. It is also possible that the most recent revision did not adequately adjust this instrument for use with a post-secondary population. Indeed, an adult population may be better served with the construct of career adaptability rather than career maturity. Career adaptability has been defined by Savickas (1997) as "the readiness to cope with the predictable tasks of preparing for and participating in the work role and with the unpredictable adjustments prompted by

changes in work and working conditions" (p. 254). Regardless, as reliability and validity studies are needed for the revised version of the CMI, these results support the recommendation for "extreme caution" (Levinson, Ohler, Caswell, & Kiewra, 1998, p.478).

The scores of female students were more dramatically impacted than the scores of males. Females showed greater decreases in Career Anxiety and Indecision as well as greater increases in Certainty scores at the end of the course. The scores of male students changed significantly only on the increased Need for Self-Knowledge. The two gender groups were different only on the career Decision Scale measure of Indecision post-course. The small sample sizes (18 males, 30 females) may preclude the attribution of true gender differences on these measures. However, it is possible that the females found the introspective nature of the course requirements combined with the cooperative and interactive learning methods as well as the explicit links to societal issues a more immediately beneficial learning environment (Tobias, 1990; Miranda and Magsino, 1990; Beall and Sternberg, 1993).

A limitation of this study is that only 53% of the students participated in this research. While a larger sample size may have increased this study's validity, ethical constraints did not allow the researcher to use coercion or rewards to increase the students' participation. There is a potential bias in this sample as it is not clear what motivated some students to participate while others did not. As this course was open to students in all years of undergraduate Arts, Science and Social Sciences, there were a number of uncontrolled variables including a wide range of student interests, needs and career problems. These students were a mix of those who had decided, those still yet to decide, those who did not know how to decide and those who were indifferent to deciding. Personality factors (such as decidedness and motivation) are one of the challenges to analyzing the effectiveness of this course. As Johnson and Smouse (1993) reported, personality variables are not easily changed with a career planning course intervention. Their results suggested that students with problems of decisiveness or motivation did not benefit from a course. Perhaps

these students needed an intervention more tailored to their concerns. Similarly, as Oliver and Spokane (1988) stated, "It may well be that clients with poor self esteem, poor sociability, or goal instability will fare better in individual counseling or more structured treatments" (p.459).

Career development courses for academic credit are well established at American universities (Isaacson and Brown, 1993). As Canadian universities increasingly express an interest in offering career courses, they may find that discussions center around concerns of academic credibility, philosophical issues related to the purpose of a university, and the complex nature of designing interventions to influence the career development of a wide range of student needs, interests and concerns. This course, which was designed to have a high standard of scholarly excellence and personal significance, demonstrated that many students can personally benefit from a theoretically integrated approach to the understanding of their career issues. Counsellors with expertise in career choice, career development and work related issues can offer much from the research literature and their professional practices to enrich the career development experiences of students in a classroom.

Conclusions and Implications:

These results suggest that the study and application of career development theory, concepts and practices can have a positive impact on the career concerns of university students. Career Choice Anxiety, in particular, appears to be positively affected by this course. Additionally, participants show significantly decreased Career Indecision and increased Career Certainty. While anecdotal comments from the participants support the view that students benefited from this course to a significant extent, further research in this area is required to substantiate these findings and provide more insight into how and why this course has a positive impact on the students' career concerns.

It is challenging to conduct research which analyses the outcomes of a career course while accepting both ethical constraints and a number of uncontrolled variables. Perhaps as a consequence,

there is insufficient information available to maximize the impact of this type of intervention. A qualitative study which asks open ended questions about how this body of knowledge has affected students' understandings of their own personal career issues could provide valuable insights to instructors. In addition, qualitative studies exploring the experiences of expert instructors could also help universities to anticipate some of the pedagogical, political and developmental challenges inherent in offering a course of this nature. This type of data would be invaluable to course instructors, career consultants and administrators who have come to realize that it is time for more Canadian universities to give credit to career development.

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TABLE 1

Table of pre- and post- test scores for the combined, female, and male samples on the Career Decision Scale (CDS), Career Maturity Inventory (CMI), and the Career Factors Inventory (CFI).

Scale	Pre-Test Combined	Post-test Combined	Pre-Test Females	Post-Test Females	Pre-Test Males	Post-Test Males
CDS Certainty	46.4	54.9*	51.7	62.6*	37.5	42.05
CDS Indecision	71.4	64.7*	66.7	56.6*	79.3	78.1#
CMI Attitude	16.7	17.3	16.84	17.3	17	17.28
CMI Competence	18.9	18.6	19.5	18.4*	18	19.1
CMI Total	35.8	36	36.37	35.83	35	36.38
CFI Need For Career Info.	23.3	22.6	22.81	21.93	24.37	23.94
CFI Career Choice Anxiety	16.9	14.7***	16.6	14.1**	17.56	15.94
CFI Generalized Indecisiveness	14.2	12.9*	14.5	12.5*	13.69	13.69
CFI Need For Self Knowledge	15.3	16.2	15.9	16.1	14.06	16.44*

* = $p < 0.05$

** = $p < 0.01$

*** = $p < 0.0001$

= $p < 0.05$ when compared to post-test females