

# The Career Decision-Making Course: Description and Field Test

Mark L. Savickas

The Career Decision-Making Course was designed to help students develop the decisional attitudes and competencies that increase readiness to deal with career-choice tasks and facilitate behavioral responses that meet these tasks. The course addresses career-choice process and content by using the teach-the-test method with Career Maturity Inventory materials. After describing the course, the current article reports the results for a field test of the course. The results indicated that, compared to a control group, 10th-grade students who participated in the course improved their foresight and reduced their decisional difficulties.

Of the four methods for instructional career counseling described by Healy (1982, p. 305), counselors may be least familiar with the "teach-the-test" method. Crites (1974) proposed this method of didactic career counseling when he suggested that counselors systematically teach clients the correct answers to items that appear in career development inventories. Crites reasoned that these items assess critical attitudes toward and competencies for career choice. Therefore, counselors might discuss with their clients those items that clients answer incorrectly. At a minimum, this discussion can help clients develop their career-choice attitudes and competencies by having them learn and understand the correct answers to items that they missed. Toward this end, Crites wrote programmatic discussion materials for his Career Maturity Inventory (CMI; Crites, 1973). Although the CMI title indicates that it is an inventory and implies that the CMI does not have "correct answers", the CMI Competence Tests are tests and the CMI Attitude Scale is essentially a test (Frary, 1988, p. 182). In addition to indicating the correct answers, Crites's programmatic materials explain the rationale for each CMI Attitude Scale item. Based on his experience in using these materials during individual career counseling, Crites concluded that teaching the test was a highly effective

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*Mark L. Savickas is a professor in the Behavioral Sciences Department, Northeastern Ohio Universities College of Medicine, Rootstown.*

method for increasing clients' readiness to make career decisions and the realism of their expressed educational and vocational choices.

During the last 15 years, counselors have devised several ways of using the CMI rationales with the teaching-the-test method. Flake, Roach, and Stenning (1975) combined the teach-the-test method with a second instructional counseling method, reinforcement-modeling. In individual sessions, counselors reviewed clients' incorrect responses to CMI items without indicating that the client had responded immaturely to the items. During this review, counselors ignored clients' immature statements and reinforced their mature statements. Flake, Roach, and Stenning concluded from their research that this counseling method increased the career maturity of clients. Healy (1982) suggested that counselors teach the attitudes measured by the CMI before administering the inventory and discussing incorrect responses in order to reduce "client errors, thereby lessening anxiety associated with career development learning" (p.318). Freeman (1975) used the Crites rationales to write 10 sociodramas that proved effective in increasing the career maturity of seventh grade students. Counselors at a community college used the rationales to compose a "Dear Abby" type feature for their newsletter (Julian, 1980). And most recently, Savickas and Crites (1988) augmented each item rationale with an activity that counselors may assign as homework or use as a microintervention during counseling sessions.

The current article introduces another approach to didactic career counseling with the CMI materials, a course on career decision making. The article is divided in two parts. The first portion describes the Career Decision-Making Course (Savickas & Crites, 1981) by explaining its model, methods, materials, and target population. The second portion reports the results of a field test of the course.

## **COURSE DESCRIPTION**

### **Model**

The Career Decision-Making Course adheres to Crites's (1976) model for comprehensive career counseling. This counseling model deals with which occupation a client will choose, yet emphasizes how the client makes that choice. Accordingly, the course juxtaposes the process of decision making that students should use with the content of specific occupations that high school students might choose. This juxtaposition makes choice content more meaningful to students in that they conceptualize and use the content of their interests, abilities, and occupational information as the subject matter for the decision-making process. Moreover, the course presumes that career choice develops over time and that this vocational development is characterized by a progression (stages) of choice tasks that lead to certainty about an occupational choice. Thus, recognizing the develop-

mental character of career choice as well as its process and content dimensions, the course is designed to move students toward career decision-making by: (1) developing the decisional attitudes and competencies that create a readiness to deal with career-choice tasks (maturation) and (2) facilitating behavioral responses that meet these critical tasks (adaptation). In short, the course aims to foster vocational development and prompt realistic career choice.

The course addresses the career-choice process by developing decisional attitudes and competencies known to increase the readiness to make a career choice (Crites, 1978). The feelings, subjective reactions, and dispositions that the course engenders include attitudes toward career decision making (involvement, orientation, independence, compromise, and decisiveness) and concepts about career choice (conceptions, criteria, and choice bases). The cognitive competencies, knowledge, and behavioral skills that the course develops include self-appraisal skill for evaluating occupational capabilities, knowledge concerning the world of work, understanding how to match personal characteristics with occupational requirements, competence in forming plans to enter an occupation, and coping skills that deal with problems that arise while implementing occupational plans.

The course addresses the content of career choice in tandem with decisional competencies. This pairing pursues the dual objectives of fostering vocational development and prompting career choice. Toward these ends, the course blends instruction about Holland's (1985) personality typology, occupational classification system, and personality-occupation matching model into the sessions that deal with three decisional competencies. First, students increase their skill at self-appraisal while simultaneously using Holland's theory of personality to increase their fund of self-knowledge. Second, students learn to improve and increase their vocational information-seeking behavior while simultaneously using Holland's model of work environments to understand the structure of the world-of-work and to gather occupational information. Third, students learn the principles of goal selection and practice using Holland's person-environment matching model to identify fitting occupations for themselves. Following these three steps, students plan how to turn an occupational preference into occupational entry and practice coping with barriers that can thwart occupational plans.

## **Methods**

The Career Decision-Making Course applies the CMI teach-the-test method in two ways. First, CMI items are the basis of discrimination exercises that enable students to conceptualize and recognize the attitudes and competencies. Second, the lessons incorporate individual CMI results into activities designed to stimulate and guide self-exploration. The curriculum augments discrimination learning and self-exploration activities with didactic instruction and experiential exercises carefully designed to

teach decision-making skills and reinforce their development and use. The general scheme of the course deals with each attitude or competence in two lessons. The first lesson is devoted primarily to discrimination learning and the second lesson is devoted to skill development. Both lessons for each variable are designed to provide succinct didactic instruction and to stimulate self-exploration in a nonthreatening manner.

## Materials

Teachers present the Career Decision-Making Course by following 20 lesson plans, the titles of which appear in Table 1. Each lesson plan follows the same format. The *Description* defines the attitude or competence of concern and briefly describes the lesson. The *Objectives* section concisely lists the goals for that lesson. In the *Preparation* section, the leader will find specific suggestions as to how to best prepare for that lesson. The *Supplies* section lists the materials needed to implement the lesson. The *Procedures* section outlines the details of presenting the session along with supplementary *Tips* offering guidelines to facilitate effective implementation of each procedure. Visual aids and student handouts accompanying the lesson plans are in a form ready for photocopying. Each lesson plan concludes with a list of follow-up and enrichment activities. Using the basic lesson plans only, the course fits the two-credit hour format of a college semester. Using the enrichment activities included with the basic lesson plans conveniently expands the course to fit the formats of a three-credit hour college course or a 6-week high school grading period.

## Target Population

The Career Decision-Making Course is designed for adolescents and young adults. Its lesson plans can be used effectively with students in junior high school through the 2nd year of college. The curriculum pertains to

**TABLE 1**  
**Lesson Plan Titles**

<b>Attitudes and Concepts</b>	<b>Competencies and Tasks</b>
Become involved now	Self-appraisal is crucial
Explore your future	Know yourself
Choose based on how things look to you	Appraise your activities
Control your future	Know about jobs
Work: A problem or opportunity	Select goals
View work positively	Choose a job
Conceptualize career choice	Plan
Clear up career-choice misconceptions	Look ahead
Base your choice on yourself	Problem solve
Use four aspects of self as choice bases	Course summary

such a broad range of students for two reasons. First, the lesson plans are designed for individuals dealing with the career-choice process rather than for individuals in a particular age group. Second, the lesson plans are in an outline form that details the goals and procedures for each session, yet leaves the parameters of pace, emphasis, and complexity to the teacher's judgment. Thus, teachers are encouraged to use the CMI results, in addition to student reaction to the sessions, to tailor the lesson presentations for each class they teach.

## **FIELD TEST**

The course implements the scientist-practitioner model of counseling in that it systematically translates theory and research on the career-choice process into instructional counseling methods and materials. To the degree that the course accurately translates the science of vocational psychology into practice, it is conceptually sound. Whether or not it effectively fosters vocational development and prompts career choice remains an empirical question. To address this question, the course was tested with the help of high school students and their teachers. The use of several different teachers and their classes avoided "mono-operation bias" (Cook & Campbell, 1979, p. 65) and allowed more opportunities to evaluate course effects. A pretest/posttest design was used to evaluate the effects of the course on two variables. First, because the course was designed to foster the vocational development of students, the study evaluated the course's effect on the prime component in career maturity, that is, future time perspective (Savickas, Silling, & Schwartz, 1984). Second, because the course was designed to prompt behavioral coping with the critical tasks of career choice, the study evaluated the course's effect on students' decision-making difficulties and career indecision.

## **Measures**

The Vocational Decision-Making Difficulty Scale (VDMD; Holland, Gottfredson, & Nafziger, 1973) was used to operationally define decision-making difficulties. Participants answered true or false to 13 items that deal with decisional difficulties due to lack of confidence about their decisional skill and lack of information about self and about occupations. Higher scale scores appear to reflect greater career indecision. Holland and Holland (1977) reported KR-20 reliability coefficients of .86, .84, .78, and .63 for four samples of high school and college men and women. Coefficient alpha for the current sample was pretest .56 and posttest .66. This unreliability for the individual scores is substantial; yet it does not threaten the internal validity of the current study because the average error variance across the sample is divided by a large sample size. Em-

pirical evidence has supported the validity of the VDMD (e.g., Slaney, 1980; Slaney, Palko-Nonemaker, & Alexander, 1981).

The Long-Term Personal Direction Scale (LTPD; Wessman, 1973) was used to operationally define future time perspective. The LTPD items deal with sense of continuity between the present and future, motivation for and commitment to long-term goals, and inclination to structure the future with events. Students responded to the 20 LTPD items on a 7-point Likert scale. Higher scale scores indicate greater foresight. Savickas, Silling, and Schwartz (1984) reported a coefficient alpha reliability for the LTPD of .87 for a group of college students. Coefficient alpha in the current study was pretest .69 and posttest .78. Evidence supporting the validity of the LTPD has accumulated in a program of research examining planful attitudes and planning competencies as they relate to career maturity and vocational behavior (e.g., Ringle & Savickas, 1983; Savickas, 1986; Savickas, et al., 1984).

### **Participants**

Ten classes of 10th graders, totaling 209 students and 10 teachers, at a midwestern, urban high school participated in this field test of the course. Unfortunately, the 10 classes could not be randomly assigned to treatment and control conditions because the teachers were recruited as volunteers to present the course. The six 10th-grade teachers who volunteered were involved in a demonstration career education program in this school. The other four 10th-grade teachers were not involved in the program nor were they invited to teach the course. Instead, they were asked to participate in the study by having their classes serve as a control group. Their classes were unaware of the study and spent the time in study hall.

### **Methods**

The six teachers each taught the course as a separate career education course that augmented the regular curriculum. To avoid confounding effects, the course was the only career education activity scheduled for the first grading period. The course was presented during the same 40 minute period, 5 days per week for 6 weeks. The evaluation measures were administered on the second and last day of the 6-week grading period. The week before the course began, the writer met with the teachers for 2 hours to orient them to teaching the course. The teachers were asked to adhere closely to the lesson plans. Each teacher was also told how to pace the course across the 6-week period. At the end of the 3rd week, the writer met with the six teachers to discuss their experiences with the course. The teachers reported no untoward occurrences or difficulties in presenting the course. From their reports, it seemed that they were adhering systematically, yet not scrupulously to the lesson plans.



## Results and Discussion

Table 2 reports VDMD and LTPD pretest and posttest mean scores and standard deviations for the experimental group, control group, and each of the 10 classes. A *t* test for change in VDMD scores from pretest to posttest between the experimental and control groups indicated a significant difference ( $t = -5.54$ ;  $p < .001$ ). A second *t* test for change in LTPD scores from pretest to posttest between the experimental and control groups also indicated a significant difference ( $t = 4.04$ ;  $p < .001$ ).

Analysis of covariance was used to corroborate significant differences in posttest means. Pretests were the covariate. These analyses also showed significant differences ( $p < .001$ ) for the VDMD and for the LTPD. These results mean that the experimental group, compared to the control group, had a significantly greater decrease in career indecision and significantly greater increase in future time perspective.

To interpret the meaning of these results and to compare these results to those obtained in studies of other career interventions, effect sizes were calculated for the two outcomes by subtracting the mean difference for the experimental group from the mean difference for the control group and dividing by the control group's posttest standard deviation. Cohen (1969) suggested the following guide to interpret the meaning of effect sizes: .20 = small, .50 = medium, and .80 = large. In this field test of the Career Decision-Making Course, the effect size for decision making was .91 and the effect size for time perspective was .48. These effect sizes compare to a mean effect size of .50 (standard deviation = .56) reported by Baker and Popowicz (1983) for 18 career education studies and to a mean effect size of .82 with the median and mode in the .4 to .6 range

**TABLE 2**  
**Pre- and Posttest Results for Experimental and Control Groups**

Groups	VDMD <sup>a</sup> Pretest		VDMD Posttest		LTPD <sup>b</sup> Pretest		LTPD Posttest	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Experimental</i>								
Group ( <i>N</i> = 141)	6.16	2.58	3.32	2.63	100.49	15.34	105.67	14.47
Class 1 ( <i>N</i> = 13)	6.00	2.77	2.62	1.76	101.00	10.42	102.77	13.70
Class 2 ( <i>N</i> = 23)	5.52	2.00	2.74	2.88	103.78	14.27	112.35	11.78
Class 3 ( <i>N</i> = 25)	6.76	2.28	3.88	3.27	99.58	15.04	102.56	17.31
Class 4 ( <i>N</i> = 23)	5.08	2.41	4.26	2.34	101.65	15.60	104.13	14.40
Class 5 ( <i>N</i> = 25)	7.28	2.73	1.76	1.96	93.38	17.14	102.04	14.58
Class 6 ( <i>N</i> = 32)	6.09	2.80	4.13	2.25	103.06	15.71	108.41	12.88
<i>Control</i>								
Group ( <i>N</i> = 68)	4.85	2.19	4.37	2.62	100.88	12.80	97.57	17.53
Class 1 ( <i>N</i> = 18)	5.33	2.35	3.61	2.52	95.89	13.15	93.82	16.21
Class 2 ( <i>N</i> = 13)	4.92	2.43	4.69	2.66	102.00	12.19	94.46	20.80
Class 3 ( <i>N</i> = 22)	4.64	1.71	4.73	2.10	105.43	8.79	101.55	13.20
Class 4 ( <i>N</i> = 15)	4.53	2.50	4.47	3.38	100.07	15.90	96.93	21.74

Note. <sup>a</sup>VDMD = Vocational Decision-Making Difficulty Scale.

<sup>b</sup>LTPD = Long-Term Personal Direction Scale.

(standard deviation = 1.17) reported by Oliver and Spokane (1988) for 58 career intervention studies.

In contrasting the treatment's medium effect on future time perspective with its large effect on career decision making, at least two interpretations seem reasonable. First, the content of the course directly addressed decision making, not time perspective. Therefore, it should have a larger effect on decision making than on time perspective. Second, the effect on time perspective suggests that didactic career counseling about decisional attitudes and competencies increases career maturity or at least the prime component in career maturity—future time perspective. For the students in this study, thinking about and discussing career choice had a positive effect on their sense of temporal continuity and their inclination to set long-term goals. The results reported above support the conclusion that classroom teachers, given a brief orientation, can use the Career Decision-Making Course to foster students' vocational development and prompt them to cope with career-choice tasks.

Further analyses were conducted to determine if the treatment produced homogeneous effects across the six classroom groups. An analysis of variance components was used to examine the homogeneity of treatment effects across the six classes. For the LTPD, the analysis of variance components indicated no significant differences across classes due to treatment ( $F = .83$ ;  $df = 5, 135$ ;  $NS$ ). For the VDMD, a significantly larger mean square among classes than within classes indicated an across-class effect beyond that explainable by within-class variation ( $F = 7.37$ ;  $df = 135, 5$ ;  $p < .001$ ). The across-class effect variance was estimated to be 2.25. Thus, instead of homogeneity, there was a difference across the six classes in effects on career decision making. Because of the significant among-class variance in the experimental group, the difference between the control and experimental groups was retested taking this variance into account. A variance components model with classes as well as students within classes was used for calculating the error variance of the difference between the two groups. Using this error variance, the difference remained significant ( $z = 3.0$ ,  $p < .003$ ).

Because students had not been randomly assigned to classrooms, one cannot automatically attribute the differences across classrooms to teacher differences. At least part of the differences could be due to average student differences among classes. To determine the extent of student differences, the VDMD mean squares within classes of the control group were compared to that of the experimental group. The mean squares within classes was significantly greater in the experimental than the control group ( $F = 1.92$ ;  $df = 135, 64$ ;  $p < .001$ ). The mean square within classes for the control group can be attributable to measurement error or short-term change in response. The significantly larger mean square within classes for the experimental group indicates that variability in improvement in scores on the VDMD is beyond the degree of measurement error found for the control group. Thus, student differences can be the cause of the treatment effect differences across classrooms.



The results of this field test of the Career Decision-Making Course were encouraging; yet they only begin to support the effectiveness of the course. In addition to replicating these findings, future research should examine the effectiveness of the course relative to both teacher and student differences. Teacher differences, such as how closely teachers follow the lesson plans and the amount of rapport they established with their class, may interact with the course itself in producing treatment differences. Student differences, such as degree of vocational development and level of career decidedness, could also interact with the course or the teacher in producing different treatment effects.

Future research might also investigate the effects of parts of the Career Decision-Making Course. For example, the first 10 lessons on attitudes and concepts, or some smaller subset, could be examined as an intervention for junior high school students who need to prepare to make a career choice. Or, the last 10 lessons on competencies and tasks could be examined as an intervention for students who are ready to make a career choice. Future studies should also determine if students who take the course actually use the decision-making skills that they have learned as they make work-role choices and address the issue of "transfer of training" to determine if improved decision making occurs in other life roles.

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