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## **The Impact of a College Career Course on Students' Career Decision States**

Adam K. Miller, Debra S. Osborn, James P. Sampson Jr., Gary W. Peterson, and Robert C. Reardon

### Abstract

The college experience for many students is marked by challenges and concerns surrounding educational and career choices. These challenges and concerns may be reflected in a student's career decision state, or the extent that one is certain, satisfied, and clear about one's career goals. This study examines students' career decision states at the beginning and at the end of a career course intervention. The article concludes with a discussion of the implications of the findings for further practice and research.

**Keywords:** career courses, career decision-making, career decision state, career choice certainty, college student career development

Career courses may be viewed as instruction created to help undergraduate students explore occupations; acquire relevant educational information; develop greater self-knowledge in relation to interests, values, and skills; and develop necessary tools and skills for making career decisions and solving career problems (Sampson, Reardon, Peterson, & Lenz, 2004). A survey by the National Association of Colleges and Employers (2016) revealed that 33% of 842 university respondents were offering career courses for credit. In the present study, we examined the efficacy of a career course intervention for improving college students' career decision states.

At the conceptual level, career decision state is a subjective state of being, or state of recurring consciousness, regarding one's career goals or aspirations. It is composed of both cognitive and affective components (Leierer, Peterson, & Reardon, 2017–2018). Career decision state may also be thought of as a single continuum from

being highly goal directed, satisfied, and confident to being immobile or frozen, dissatisfied, and confused. Furthermore, when individuals seek career services or are about to embark on a program of study, an overarching issue is whether they are ready to make an important career decision or are ready to pursue a training program.

### **Purpose of the Study**

The aim of this study was to assess the career decision states of students at the beginning and end of a college career course. The was a comprehensive, 3-credit-hour course, which has been continuously offered for 45 years by a large southeastern university and which enrolls more than 375 students annually. Twelve sections of the course were taught annually (including the summer term) by one lead instructor and three co-instructors. The course was influenced by cognitive information processing (CIP) theory (Reardon, Lenz, Peterson, & Sampson, 2017; Sampson et al., 2004). In Unit I, students learned about CIP, with a focus on increasing self- and option knowledge. In Unit II, students learned about social conditions that affect career decision-making, including labor market trends, family relationships, globalization, technology, and organizational culture. Unit III focused on the job search process, including résumé and cover letter writing and strategies for interviewing and negotiating offers. Students received a grade based on the quality of their completed assignments and papers. Two research questions guided the study: (a) To what extent does this career course positively affect college students' career decision states? and (b) To what extent does this career course have a differential impact on college students' career decision states depending on class standing (i.e., lower division and upper division)?

## **Method**

### **Participants**

Participants were 164 undergraduate students enrolled in 10 sections of a career course over two semesters at a large university in the south- eastern United States. Students who

completed all three units of the course composed the voluntary participants included in the study. Of the participants, 82 (50.0%) were women and 81 (49.4%) were men, with one individual (0.6%) identifying his or her gender as other. Regarding class standing, 32 (19.5%) were freshmen, 37 (22.6%) were sophomores, 35 (21.3%) were juniors, and 60 (36.6%) were seniors. Most participants identified as Caucasian ( $n = 95, 57.9\%$ ), followed by African American ( $n = 34, 20.7\%$ ); Hispanic or Latina/o ( $n = 18, 11.0\%$ ); other ( $n = 13, 7.9\%$ ); Asian ( $n = 3, 1.8\%$ ); and Native American, Alaskan, or Hawaiian ( $n = 1, 0.6\%$ ). (Percentages may not total 100 because of rounding.)

### Measures

**Career decision state.** We used the Career State Inventory (CSI; Leierer et al., 2017–2018) to measure career decision state. The CSI consists of three dimensions: certainty, satisfaction, and clarity. We believe that the CSI can be used to screen for career decision-making readiness before a career intervention, much in the same way that a thermometer can be used to screen for a fever to help inform a medical intervention. Certainty is measured by the Occupational Alternatives Question (OAQ), satisfaction by a single item, and clarity by three items from the My Vocational Situation (MVS; Holland, Johnston, & Asama, 1993). We treated the three CSI dimensions as independent variables, with pretest correlations of .58, .35, and .56, respectively, for the total sample. The three variables of the CSI predict the total score of the Career Thoughts Inventory (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996),  $R^2 = .34, p < .001$  (Leierer, Wilde, Peterson, & Reardon, 2016).

**Career choice certainty.** The CSI uses the OAQ to measure career choice certainty. The OAQ is a career indecision measure that was initially used in Self-Directed Search validity studies with high school students (Zener & Schnuelle, 1976) and was revised by Slaney (1980). The concurrent validity and the test–retest reliability of the OAQ have been demonstrated in previous studies (e.g., Bullock-Yowell, Peterson, Reardon, Leierer, & Reed, 2011). The OAQ consists of two parts: (a) “List all the occupations you are considering

right now” and (b) “Circle the occupation that is your first choice (if undecided, write undecided).” The OAQ produces one of four scores (1 = a first occupational choice is listed with no alternatives, 2 = a first choice is listed with alternatives, 3 = no first choice is listed, just alternatives, 4 = neither a first choice nor alternatives are listed), with lower scores indicating greater certainty.

Career choice satisfaction. To measure career choice satisfaction, the CSI uses a single item first developed by Zener and Schnuelle (1976) and later modified by Holland, Gottfredson, and Naziger (1975). In their study of 1,005 high school juniors and 692 college juniors, Holland and Holland (1977) examined responses to Alternatives 3 and 6 in the Satisfaction item and found that being dissatisfied or undecided was related to a wide range of psychological variables, including negative attitude, indecisiveness, anxiety, anomie, immaturity, and alienation. Respondents rate the item (“How well satisfied are you with your first choice?”) using a 6-point Likert-type scale (1 = well satisfied, 2 = satisfied, but have a few doubts, 3 = not sure, 4 = dissatisfied and intend to remain, 5 = very dissatisfied and intend to change, 6 = undecided about my future career), with lower scores indicating a greater degree of satisfaction with one’s choice.

Vocational clarity. The CSI uses three true/false items drawn from the MVS to measure vocational clarity: (a) “If I had to make an occupational choice right now, I’m afraid I would make a bad choice” (Item 6), (b) “Making up my mind about a career has been a long and difficult problem for me” (Item 8), and (c) “I am confused about the whole problem of deciding on a career” (Item 9). The CSI authors selected these items a priori as having content validity for career decision state with respect to vocational clarity regarding a career goal. A false response to an item is scored 0, and a true response is scored 1. Consequently, scores for vocational clarity range from 0 (all false responses) to 3 (all true responses), with lower scores indicating a higher degree of clarity and confidence in one’s career decision-making and higher scores indicating decision-making difficulty and confusion.

## **Procedure**

At the completion of the 1st day of class, a research assistant invited students to participate in the study and provided a folder containing a research consent form, the CSI, and a demographic data form. At the end of each semester, students participating in the study completed the CSI a second time.

## **Research Design and Data Analysis**

The study was quasi-experimental and used a repeated measures, pretest– posttest design to examine the impact of the career course on students' career decision states as measured by the CSI. We analyzed the data using a  $2 \times 2$ , repeated measures multivariate analysis of covariance (MANCOVA), with main effects for time (pretest vs. posttest) and interaction (Time [pretest vs. posttest]  $\times$  Class Standing [lower division vs. upper division]), to examine possible differential effects of the career course on career decision state relative to class standing. The three dimensions of the CSI were the dependent variables in this study, whereas gender was used as a covariate throughout the analyses to partition this source of extraneous variance.

## **Results**

Results of the repeated measures MANCOVA indicated a significant multivariate main effect for time (pretest vs. posttest), Wilks's  $\Lambda = .68$ ,  $F(3, 158) = 25.51$ ,  $p < .001$ ,  $\eta^2 = .33$ . Inspection of the univariate tests revealed that students completing the course reported significantly lower certainty (OAQ) scores (indicating greater career choice certainty),  $F(3, 160) = 52.56$ ,  $p < .001$ ,  $\eta^2 = .14$ ; lower satisfaction scores (indicating greater career choice satisfaction),  $F(3, 160) = 36.25$ ,  $p < .001$ ,  $\eta^2 = .18$ ; and lower clarity (MVS) scores (indicating greater vocational clarity),  $F(3, 160) = 63.52$ ,  $p < .001$ ,  $\eta^2 = .28$ . These findings suggest that students completing this career course had positively changed their career decision states in terms of career choice certainty, career

choice satisfaction, and vocational clarity.

There was also a significant multivariate interaction effect, Wilks's  $\Lambda = .95$ ,  $F(9, 384) = 2.80$ ,  $p = .042$ ,  $\eta^2 = .05$ . This finding indicates that there was a significant multivariate differential effect of the career course on lower division students as compared with upper division students. Subsequently, there were significant interaction effects with respect to all three CSI dimensions: certainty,  $F(1, 163) = 5.23$ ,  $p = .023$ ,  $\eta^2 = .03$ ; satisfaction,  $F(1, 163) = 6.74$ ,  $p = .01$ ,  $\eta^2 = .04$ ; and clarity,  $F(1, 163) = 3.17$ ,  $p = .077$ ,  $\eta^2 = .02$ . These interaction effects are shown in Table 1, with pretest and posttest means presented by group (lower division vs. upper division) and by CSI dimension. Post hoc paired-samples *t* tests for all six pretest–posttest comparisons were significant ( $p < .001$ ).

---Insert Table 1 About Here---

As can be seen in Table 1, lower and upper division participants' mean scores differed at pretest, but the gaps virtually closed at the posttest. These results suggest that the two groups start the course with considerably different career decision states, with lower division students more uncertain, less satisfied, and less clear than upper division students; however, by the end of the course, the career decision states of both groups are very similar. Moreover, the effect sizes of each comparison using Cohen's *d* indicated that the course had a greater impact on the career decision states of lower division (as opposed to upper division) students.

### **Discussion**

The results of this study suggest that this career course, as representative of career courses in general, is an effective approach in helping students acquire readiness to navigate the career decision-making process. Furthermore, career decision state can be added to the list of learning outcomes that appear to be affected by a career course. Our findings suggest that, in general, this particular college career course enabled students to become more

(a) certain about an occupational choice, (b) satisfied with their current occupational choice situation, and (c) confident about the process of making a career choice. More specifically, this course had a differential impact on participants' career decision states as a function of class standing. Although both lower and upper division students demonstrated significant growth in readiness for career decision-making, lower division students experienced significantly greater gains than did upper division students.

Our results are consistent with those of other studies reporting the positive effects of career courses on career-related variables (Osborn, Howard, & Leierer, 2007; Reardon, Melvin, McClain, Peterson, & Bowman, 2015). Specifically, students started the course indicating that they were between a 2 (a first choice is listed with alternatives) and a 3 (no first choice is listed, just alternatives) on the OAQ rating scale but finished the course with more certainty regarding their career choice (see Table 1). Furthermore, most students began the course between a 2 (satisfied, but have a few doubts) and a 4 (dissatisfied and intend to remain) on the satisfaction rating scale and completed the course between a 1 (well satisfied) and a 2 (satisfied, but have a few doubts). Finally, most students rated their vocational clarity between a 1 and a 2 (i.e., endorsed one or two items as true) at the beginning of the course but endorsed no items or one item as true at the end of the course. Changes in all three dimensions represent considerable practical differences from pretest to posttest, with effect sizes between 0.45 and 1.09. The largest shift occurred with students who attained greater vocational clarity, followed by those who experienced greater satisfaction and certainty with their career choice.

Analysis of the results also revealed that there was a significant difference in the course experience between lower and upper division students. Specifically, lower division students began the course with lower levels of career-related certainty, satisfaction, and clarity compared with upper division students (see Table 1). However, by the end of the course, the two groups were nearly the same in all three dimensions of career decision state. Although these group differences at the beginning of the course may be attributed to age-related career maturity, we believe that by



requiring all students to experience the respective units and master the course objectives, lower and upper division students became more homogeneous at the end of the course with respect to their career decision states.

Several limitations should be considered when interpreting the results of this study. First, no control group was used to account for other sources of variance. Therefore, it cannot be stated with certainty that shifts in career decision state were directly attributable to course participation. Second, the study relied on a self-selected convenience sample, with no random sampling; consequently, generalizability of the results is limited. Finally, several of the career decision state variables (e.g., satisfaction and clarity pretest scores) possessed positively skewed distributions, and thus our results should be interpreted with caution.

### **Conclusion**

The college career course examined in this study has consistently demonstrated its ability to be influential in promoting certain desirable career-related learning outcomes (Reardon et al., 2015). Understanding how certain factors (e.g., class standing) affect students' experiences in career courses can assist instructors in delivering interventions that meet student needs. We invite others to explore the relationship between career interventions and career decision state as a phenomenon of inquiry.

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**TABLE 1**

**Descriptive Statistics, t-Test Scores, and Effect Sizes for Lower and Upper Division Participants for Three CSI Dimensions**

Group	Dimension and	test	Pre		Postt		
			M	SD	M	SD	
	Certainty <sup>a</sup>						
Lower	division (n = 69)	81	2.0	2.25	0.55	.57*	.93
Upper	division (n = 95)	41	2.0	2.12	0.54	.05*	.47
	Satisfaction <sup>u</sup>						
Lower	division (n = 69)	.75	3.12	.84	.42	.43*	.06
Upper	division (n = 95)	.85	2.05	.83	.47	.22*	.58
	Clarity <sup>c</sup>						
Lower	division (n = 69)	.78	1.20	.65	.84	.67*	.11
Upper	division (n = 95)	.41	1.27	.61	.73	.30*	.80

Note. For the three dimensions of the Career State Inventory (CSI), lower scores indicate greater career-related certainty, satisfaction, and clarity, respectively.

<sup>a</sup>Certainty was measured using the Occupational Alternatives Question (1 = a first occupational choice is listed with no alternatives, 4

= neither a first choice nor alternatives are listed). <sup>b</sup>Satisfaction was measured using a single item (1 = well satisfied, 6 = undecided about my future career). <sup>c</sup>Clarity was measured using three true/false items from the My Vocational Situation (0 = all false responses, 3 = all true responses).

\* $p < .001$ .