Advances in Intelligent Systems Research, volume 163

8th International Conference on Management, Education and Information (MEICI 2018)

The Empirical Analysis about Effects of Career Decision-Making Difficulties on the Career Decision Status in College Students

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Keywords: Students; Career Decidedness; Career Undecidedness; Career Decision-Making Difficulties

Abstract. Objective: explore the specific impact of different types of career decision-making difficulties on the determination of college students' career goals so as to provide an empirical basis for colleges to carry out targeted career education. Methods: extract 31 projects from the Chinese version of CDDQ to measure 9 types of career decision-making difficulties, and use Logistic Regression Analysis to process research samples. Results: only lack of motivation for career decision-making, information about self and information about the career decision-making process have significant effects on the career goal-setting status. Conclusion: enhancing the motivation for career decision, the knowledge about self and information about career decision- making process can significantly increase the possibility for career decidedness.

Introduction

The goal has properties of guidance, incentive as well as optimizing behavior[1]. Higher education is a kind of professional education on the basis of complete secondary education according to the division of social specialties. It aims to cultivate senior professionals who are needed by the society[2]. Therefore, college students' self-determined career development goals based on their own traits and social needs can not only help them find new personal goals but also save themselves when they are at a loss. Moreover, it can also stimulate them to learn consciously and make a good study plan based on their college career, so as to prepare for the smooth entry into the workplace in the future. However, many college students are ignorant or hesitant to set a career goal that suits their own development. The lack of professional goals has seriously affected the enthusiasm and consciousness of Chinese college students [3][4]. Although, some scholars think that career undecidedness is a normal phenomenon in the course of personal career development from the point of view of career development theory, more people regard it as a career problem that needs to be intervened. And they have thoroughly studied and discussed it from theoretical explanations, specific causes and intervention methods [5][6]. At the same time, according to career development process, after university students have experienced the secondary education in the growth stage, their career development goes to the transition of career exploration and establishment period. During this period, the main tasks of college students are that through various exploration activities of self-recognition and work, they should gradually clarify the direction of their career development, make a specific career plan and develop the knowledge and skills needed in the field of work[7]. Therefore, whether it is from the perspective of promoting career development or enhancing their self-conscious learning motivation, the choice and determination of career development goal is a realistic problem that young college students need to solve after entering university.

By the decidedness state, career goal can be divided into career undecidedness and career decidedness. If one has not yet determined the occupation he is pursuing in the future, it is called career undecidedness. However, if one has decided his future occupation, it is called career decidedness. The choice and determination of career goal is a process of career decision-making. In this process, one will adopt impulsive, fatalistic, obedient, intuitive and other decision-making strategies based on their own

characteristics and condition[8]. It is one of the major decisions in life. Therefore, the ideal decision-making method is planful. That is to say, career goal should be decided by a scientific and systematic approach. Specifically, the process of career choice is that one independently integrates his own knowledge with knowledge of various choices to gradually clarify the direction or goal of career development. Planful decision-making is a normative decision-making model which can help one become “ideal decision makers” for more appropriate and wiser career decisions. However, the various difficulties that occur in this process, such as the lack of decision-making motivation, unreasonable beliefs and the lack of self-awareness, can have a negative impact on an one's career decisions and hinder the choice and determination of career goals. The main purpose of this paper is to explore the specific impact of different types of career decision-making difficulties on the determination of college students' career goals so as to provide an empirical basis for colleges to carry out targeted career education in line with the actual needs of college students to improve their career choice ability.

Research Methods

Research Sample. The stratified sampling method was used to extract research samples from two key universities of Wuhan directly under the Ministry of Education (one for liberal arts colleges and the other for science and engineering colleges). Considering that freshmen have just entered the university, they are not included in the sample range. A total of 800 questionnaires were distributed and 721 were recovered, with a recovery rate of 90.13%. Among them, 646 are valid questionnaires, that is to say, the effective recovery rate was 80.75%. Men accounted for 55.73%, women accounted for 43.03%, and 1.24% did not report gender. The average age of samples was 20.79±1.19 years old. 36.84% students are in the sophomore year, 37.30% in the third year, 25.08% in the fourth year, and 0.77% were not reported. According to the respondents' response to the “determination degree of your career goal” (answer options: OK, Uncertain), the overall samples were divided into career decidedness group and career undecidedness group. There were 268 students in the career decidedness group, accounting for 41.49%. And 372 respondents are in the career undecidedness group, accounting for 57.59%. Six did not answer, accounting for 0.93%. Details of the samples are shown in Table 1.

Table 1 Sample Details (N=646)

Groups	Age	Gender		Student Source			Grade			Major	
		Male	Female	Cities	Small Town	Rural	Sophomore	Junior	Senior	Natural Science	Humanities and Social Sciences
Career Decidedness Group	21.10 ±1.27	141	124	47	91	116	75	90	103	153	114
Career Undecidedness Group	20.52 ±1.07	218	153	66	132	167	163	151	58	265	106
In Total	20.76 ±1.19	359	278	113	223	283	238	241	161	418	220

Measuring Tools. Based on the "ideal career decision maker" model (Gati et al., 1996), the ideal career decision maker should be: 1) Recognize the need for career decision-making and want to make such a decision; 2) Be able to make decisions that are consistent with one’s goals by an scientific and systematic approach. Anyone who fails to achieve the desired career decision-making status is difficult to make professional decisions. These difficulties can affect career decision-making in two ways: one is that they hinder the process of decision-making; the other is that they lead to non-optimal decisions. Gati et al. used a method by the combination of experience and theory to propose a widely accepted classification model for career decision-making difficulties, In addition, he also developed the Career Decision-Making Difficulties Questionnaire (CDDQ) [9]. The questionnaire measures the following 10 types of career decision-making difficulties: (1) Lack of motivation. High scores indicate a lack of

willingness to make career decisions; (2) Hesitancy. High scores indicate that there are always difficulties in making any decisions; (3) Unreasonable faith, High scores indicate a distorted understanding of career decision-making; (4) Lack of knowledge about career decision-making processes. High scores indicate that they do not know how to make informed career decisions; (5) Lack of information about self. High scores indicate that decision makers feel that they do not fully understand themselves; (6) Lack of information about occupations. High scores indicate lack of information about a large number of existing occupations; (7) Lack of knowledge of how to get information. High scores indicate that you do not know how to obtain information about yourself and your career; (8) Unreliable information. High scores indicate that the decision makers know that they are contradictory to the information they are considering; (9) Internal conflicts. High scores indicate conflicts and contradictions between factors which are valued; (10) External conflicts. High scores indicate conflicts and contradictions lie in the preferences or opinions of decision makers and important ones.

In 2005, Xueping Shen made CDDQ localized. The study of Shen Xueping (2005) showed that the Chinese version of CDDQ performs well in internal consistency, test-retest reliability, structural validity and criterion validity [10]. The Chinese version of CDDQ includes the above 10 types of career decision-making difficulties, a total of 35 projects and three of which are identification projects. Considering that tools for measuring unreasonable career beliefs have been developed [11], this study only extracts 31 projects from the Chinese version of CDDQ to measure 9 types of career decision-making difficulties. The questionnaire was analyzed using a Likert 9 point (1 = complete inconformity to 9 = fully consistency).

Data Processing. The data was recorded and managed by using Visual FoxPro6.0, and was statistically analyzed by using SPSS17.0 for windows.

Research Results

Descriptive Statistics, Correlation and Reliability Analysis. For the sake of comparison, firstly, each type of career decision-making difficulty projects was summed up separately, and then divided by the number of respective projects. The subsequent statistical analysis was carried out with the average scores of the projects. The descriptive statistics, correlation and reliability coefficients of each study variable are shown in Table 2.

Table 2 Descriptive Statistics, Correlation and Reliability Coefficients of Each Research Variable

Variable	M	SD	1	2	3	4	5	6	7	8	9
1 Lack of motivation	4.57	1.814	.627								
2 Hesitancy	4.99	1.713	.083*	.624							
3Lack of knowledge about decision-making process	4.53	1.919	.141**	.382**	.876						
4 Lack of information about oneself	3.89	1.727	.177**	.365**	.582**	.849					
5 Lack of information about occupations	5.09	1.873	.150**	.333**	.529**	.547**	.828				
6 Lack of knowledge of how to get information	4.65	1.854	.105**	.375**	.517**	.554**	.648**	.617			
7 Unreliable information	4.10	1.658	.152**	.334**	.390**	.535**	.423**	.526**	.704		
8 Internal conflicts	4.70	1.506	.188**	.359**	.367**	.423**	.452**	.459**	.563**	.769	
9 External conflicts	3.98	1.845	.153**	.178**	.218**	.308**	.289**	.276**	.343**	.399**	.734
10 Career decidedness	1.58	.494	.274**	.129**	.302**	.321**	.239**	.227**	.247**	.148**	.128**

Note:①* means P<.05, ** means P<.01；②Bold diagonal is Cronbach'α coefficient.

It can be seen from Table 2 that there is not only a significant relationship between various types of career decision-making difficulties, but also a significant positive relationship with the determination status of college students' career goals. That is to say, the greater difficulty in individual career decision-making, the more difficult to clarify the career development goals. Among them, "lack of motivation", "lack of knowledge about decision-making process", "lack of information about self" and "lack of information about occupation" are the most closely related to the determination of career goals. At the same time, it can be seen from Table 2 that the internal consistency coefficient of the nine subscales of the career decision difficulty questionnaire is from 0.617 to 0.876. It has high reliability and can be used for further statistical analysis.

Analysis of the Differences between Career Decidedness and Undecidedness Groups in Various Career Decision-making Difficulties. It can be clearly seen from Fig. 1 that the scores of career undecidedness group in the nine career decision-making difficulties are all higher than those of career decidedness groups. Because there is a significant correlation between various types of career decision-making difficulties, the multivariate analysis of variance (MANOVA) is used for the significance test. At the same time, in order to control the impact of demographic variables and natural maturity factors on occupational goals, gender, source, discipline, age and grade are used as covariates, and then MANOVA is performed. The results are shown in Table 3.

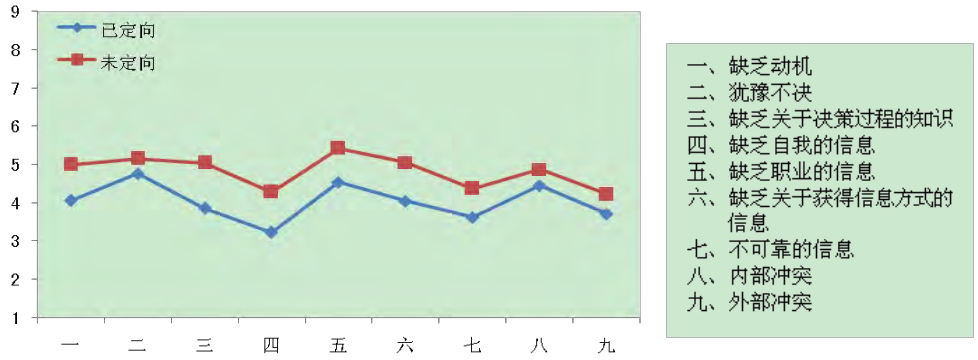

Figure 1. Differences between Career Decidedness and Undecidedness Groups in Various Career Decision-making Difficulties

It can be seen from Table 3 that the overall career decision-making difficulty of career undecidedness group is greater than that of career decidedness groups. The inter-group effect test further found that, in addition to external conflicts, the career undecidedness group was significantly higher than the decidedness group in the other eight types of career decision-making difficulties.

Table 3 Results of Multivariate Analysis of Variance

Multivariate Tests			
Test Method	Value		F Value
Wilks' Lambda	.859		8.82**
Hoteling's Trace	.164		8.82**
Tests of Between-Subjects Effects			
Dimensionality	Decidedness Group（M±SD）	Undecidedness Group（M±SD）	F Value
Lack of motivation	4.05±1.84	4.96±1.70	22.96**
Hesitancy	4.75±1.78	5.19±1.62	12.78**
Lack of knowledge about decision-making process	3.87±1.85	5.04±1.82	44.28**
Lack of information about oneself	3.25±1.51	4.37±1.72	51.01**
Lack of information about occupations	4.57±1.99	5.48±1.69	22.92**
Lack of knowledge of how to get information	4.05±1.76	5.09±1.80	23.86**
Unreliable information	3.63±1.52	4.46±1.67	20.48**
Internal conflicts	4.45±1.58	4.90±1.42	8.95**
External conflicts	3.70±2.01	4.21±1.87	3.46

Note: ** means P<.01.

Logistic Regression Analysis of the Impact of Various Types of Career Decision-making Difficulties on the Determination of Occupational Goals. In order to further study the influence of various types of career decision-making difficulties on the determination of college students' career goals, and to find the key influencing factors, this study used logistic regression analysis. The results are shown in Table 4.

Table 4 The Results of Logistic Regression Analysis of the Impact of Various Types of Career Decision-making Difficulties on the Determination of Occupational Goals

Predicted Variable	B	*SE*	Wald	Sig	Exp (B)
Lack of motivation	.208	.058	12.727	.000	1.232
Lack of knowledge about decision-making process	.205	.067	9.289	.002	1.228
Lack of information about oneself	.274	.080	11.764	.001	1.316
Incremental Contribution（ΔR^2）	Cox & Snell R Square		Nagelkerke R Square		
	.118		.160		

Note: ① The control variables are gender, source, grade, discipline and age; ② B is the non-standardized regression coefficient; ③ The control variables use the Enter method and the predicted use the Forward Stepwise (Conditional) to enter the regression equation.

It can be known from MANOVA that although each career decision-making difficulty have certain influence on the determination of college students' career goals, multivariate logistic regression analysis finds that their differences lie in the influence degree. Specifically, after controlling the relationships among each other, only three types of career decision-making difficulties--- “lack of motivation”, “lack of information about self” and “lack of knowledge about decision-making process”, are significant for the determination of college students’ career goals. Moreover, the Exp(B) of the three types of career decision-making difficulties shows that: (1) When the other factors are the same, if the decision-making motivation is increased by one unit, then the college student's career decidedness will increase by 0.232 times; (2) With the same other factors, if one unit is added to the knowledge of career decision-making process, then the college student's career decidedness will increase by 0.228 times; (3) If other conditions remain unchanged, by adding one unit to the information about self, then the college student's career decidedness will increase by 0.316 times.

Discussion and Enlightenment

In recent years, several foreign longitudinal studies have found that career decidedness can not only promote good behavior performance, but also improve individual self-esteem, life satisfaction and social adaptability[12][13][14]. College students are preparing to enter the work world. Early determining career development goals can help them make career plans and preparations during university. However, due to the impact of exam-oriented education, the career awareness of college students in China is generally inadequate, and they are in a muddle about their future as well as ambiguous or uncertain about their career goals. In this study, 57.59% of the samples were in a career undecided state. It can be expected that if the freshmen are included in the sampling range, the proportion of career undecided college students will be higher. Why can't young college students determine their direction of vocational development? Scholars at home and abroad have studied and discussed it widely from the gender, emotion, self-concept, cognitive belief, self-efficacy, personality traits, family upbringing and so on. This study, based on the "ideal decision maker model", explores the specific impact of career decision-making difficulties on the determination of college students’ professional goals, and has obtained some meaningful research findings.

Firstly, all kinds of career decision-making difficulties have different effects on college students' career goals. The multivariate logistic regression analysis found that "lack of motivation", "lack of knowledge about decision-making process" and "lack of information about self" are the main factors that affect the choice and determination of college students' career goals. It prompts us to focus on the above three factors when we carry out career education for college students to improve their career choice ability. To be more specific, we should firstly increase college students' career awareness and stimulate their career decision-making motivation. Motivation is the basis of behavior and without the strong motivation of career decision-making, college students naturally can't determine career development goals. There are some specific ways to motivate career decisions, including campus culture, subject infiltration, career courses and so on.

Secondly, it is necessary to help students understand themselves fully and grasp the knowledge about the process of career decision-making through a variety of methods, such as self-help activities, career courses, career groups, and individual coaching. Only after the students have formed a comprehensive understanding of themselves, will they not be confused and lost when facing the choice. Moreover, they will know more clearly what they want, what they are suitable for, and what they can do. And after mastering the knowledge about career decision-making process, it can benefit them make wise career decisions firmly.

Thirdly, although the career decision-making difficulties proposed based on the "ideal career decision-maker" model has a significant impact on the determination of college students' occupation goals, the influence is not very large. It can be seen in Table 3 that the incremental contribution rate of "lack of motivation", "lack of knowledge about decision-making process" and "lack of information about oneself" to career goal determination is 16%. If the other six types of decision-making difficulties together with the above three types of difficulties are introduced to the regression equation, the overall contribution rate is up to 23.5%. It can be concluded that at present, many college students don't determine their career goals according to the scientific and systematic career decision-making procedures based on full awareness of their own characteristics. The result is consistent with the related research results[15]. In the future, there are still some problems that need further research and discussion in the theoretical and practical circles: what factors prevent college students from becoming "ideal decision-makers"? And how to guide them to adopt scientific and systematic procedures of career decision-making for career choice?

Acknowledgements

This paper is supported by the Student Work Quality Project of Wuhan University of Technology (xgb2016-sz010).

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