

# THE INFLUENCE OF HUMAN CAPITAL, FAMILY CAPITAL AND CAREER COGNITION ON VOCATIONAL STUDENTS' CAREER PLANNING TENDENCY: EMPIRICAL ANALYSIS BASED ON ORDERED LOGIT MODEL

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## ABSTRACT

*China's higher vocational education has entered a new era of "connotation development" from "scale expansion", and career planning ability is becoming more and more important. It guides higher vocational students to correctly understand themselves and rationally plan the future, and can effectively improve graduates' employability. According to the survey data of 11287 vocational college students' career planning in China, based on cross-analysis table and logit model, it is found that personal capital, family capital and career cognition affect the formation of clear career planning of vocational college students. According to the results of the study targeted policy recommendations and feasible measures, so as to maximize the help of higher vocational students to improve employment competitiveness.*

**Keywords:** Higher vocational college students, Career planning, Influencing factors.

## INTRODUCTION

The "14th Five-Year Plan" reviewed and approved by the Fifth Plenary Session of the 19th CPC Central Committee clearly puts forward the key requirements of "enhancing the adaptability of vocational and technical education". Nowadays, China's demographic dividend disappears, and society needs a large number of high-quality technical talents. As an important part of China's modern vocational education system, higher vocational education undertakes the important task of training high-quality technical and technical talents, and is an important part of the supply side of vocational education personnel training. Accelerating the development of modern vocational education in China, cultivating students' career planning ability in higher vocational colleges, and formulating career planning in line with students' personal growth direction and career development direction are the key steps for students to successfully integrate with society and realize their lofty ideals in life. The National Vocational Education Reform Implementation Plan issued by the State Council proposes to improve the modern vocational education system with equal emphasis on academic education and training, and smooth the growth channels of technical and technical talents. Career planning can promote the future career development achievements and job satisfaction of higher vocational college students, which is not only conducive to alleviating the current

employment pressure of graduates, but also a strategic move to solve the shortage of high-skilled talents (Tian, 2019).

Since the Ministry of Education issued the Teaching Requirements of College Students' Career Development and Employment Guidance Course in 2007, career planning and employment guidance have been regarded as an independent and important course. In the past five years, higher vocational schools have continuously strengthened cooperation between schools and enterprises to jointly develop high-quality educational resources (Zhan, 2021; Achievements, 2021). School-enterprise cooperation has developed 87,000 courses and 52,000 kinds of teaching materials, focusing on cultivating students' career planning ability. However, compared with undergraduate colleges, Zhan Yufen (2021) pointed out that higher vocational colleges lack top-level design, lack of career guidance for students, and the career planning system and education system are not perfect (Hanoch, 2000). Moreover, the quality of students in higher vocational colleges is low, and most students have insufficient internal drive. By sampling the students in higher vocational colleges across the country, this paper finds that there are many rural students in higher vocational colleges, whose parents' education level and family income are low, and some students have such phenomena as "unconsciousness of entering a higher school, unconsciousness of employment, unconsciousness of development, unplanned career and unmotivated study". Some higher vocational graduates do not do a good job in scientific and reasonable personal career planning, and their career co-ordination ability and planning ability are slightly insufficient. The "2020 China Vocational Education Quality Annual Report" mentioned that "in the new journey of building a socialist modernized country in an all-round way, vocational education has a broad future and great potential, which will definitely provide strong talent support and skills support for building a socialist modernized power and realizing the great rejuvenation of the Chinese nation." Therefore, what are the factors that affect the career planning of higher vocational college students? It has become an important theoretical and practical subject that theoretical circles and practical departments need to study urgently. Based on the literature review to determine the research design, according to the results of the sample survey, the use of crosstab and logit model to analyze the influencing factors, and finally put forward the corresponding feasible measures to fully demonstrate the contemporary college students' academic concern for the employment of higher vocational college students. Studying the factors affecting the career planning of higher vocational college students is of great significance for implementing the national decision-making arrangements of cultivating high-quality and high-quality technical talents and "stabilizing employment" and "ensuring employment" of the CPC Central Committee and the State Council.

## LITERATURE REVIEW AND RESEARCH DESIGN

### Literature Review

According to the definition of China Association of Career Planners, college students' career planning refers to the process of systematic career planning during college. It includes study planning and career planning during college. The quality of career planning directly affects the quality of study and life during college, and more directly affects the success or failure of job hunting and even future career. Flum & Blustein believes that whether college students have a clear career plan will affect their employment and career development. Stringer puts forward that detailed planning, career choice, and confidence in achieving career goals are the first tasks to prepare for a career (Stringer, 2011; Holtzman, 2018). Holtzman believes that schools should offer basic courses or help them understand their majors and their related career choices. Ko's research results show that effective career planning needs to improve career decision-making self-efficacy and career decision-making level, and it is

necessary to formulate strategic career guidance and planning that can reflect this point. Especially for students in higher vocational colleges, it is extremely difficult to get employment due to the limitations of educational background. In order to make higher vocational college students out of the predicament, it is necessary to carry out in-depth research on the career planning of higher vocational college students. Throughout the relevant research at home and abroad, scholars analyze the current situation of college students' career planning and its influencing factors (Ko, 2020).

In terms of influencing factors, theoretical analysis by Sha Qifu and Wei Li shows that the career planning ability of Chinese college students is mainly influenced by personal conditions, families, schools and other factors (Sha, 2011; Bakar, 2006). At the level of personal conditions, Bakar & McCracken found that there is no significant difference in career development planning of students of the same major and different grades. Crites, Achebe and Lokan pointed out that there are significant differences in career feelings, career exploration, career plans and career actions of students of different grades, and they increase with the increase of grades (Nam, 2017; Kim, 2016; Na, 2020; Lu, 2019). Sagen found that participating in student organizations and serving as student cadres have a positive impact on career planning. Similarly, Nam found that there is a great relationship between career choice and class participation and career planning. Meng Xiangmin's research found that from a gender perspective, girls have clearer career plans than boys. Through frequency analysis, exploratory factor analysis, confirmatory factor analysis, correlation analysis and structural equation model analysis, Nam found that professional satisfaction has a static impact on students' career planning. At the level of family capital, Kim's apparent family information support, family expectation and family economic support will all affect students' career planning. Hyewon & Anna research points out that parents' education level affects college students' professional awareness. Lu Hancheng pointed out through analysis that family income is negatively correlated with whether students have a clear career plan, but positively correlated with employment choice (Bethanne, 2009). Bethanne & Ann found that in the early learning stage, compared with family social capital, family economic capital has a more lasting impact on students. At school, Orpen found that systematic career planning contributes to successful careers (Janice, 1982; John, 1965; Achebe, 1982; Sagen, 2000; Nam, 2017; Meng, 2020).

## Research Design

By reviewing relevant literatures, Scholars at home and abroad have made some achievements in studying college students' career planning, but scholars mostly analyze the factors that affect college students' career planning qualitatively from the theoretical aspect, and few scholars use measurement methods, and few scholars use empirical research to study the factors that affect college students' career planning in higher vocational colleges. Combined with the relevant research and the actual situation of higher vocational college students, it is found that grade, major, gender, class participation, parents' education level, parents' income, professional satisfaction, career planning cognition and career development cognition affect higher vocational college students' career planning. And the empirical research method is beneficial to adapt to the current scientific development trend of educational research. Therefore, this paper compiles the Questionnaire of Career Planning Status of Higher Vocational College Students. The first part is personal basic information and personal capital; The second part is family capital; The third part is students' cognition of career planning and career development. This paper selects the data of personal capital, family cultural capital, family economic capital and students' professional cognition, and investigates 11,287 higher vocational college students in China. This time, 13,687 questionnaires were distributed, 13,079 questionnaires were actually recovered, and 11,287 questionnaires were

valid, with an effective rate of 86.3%. According to the first-hand information and data obtained from the survey, using SPSS23.0 for data analysis, using crosstab and Logit model for empirical analysis of the main factors affecting vocational college students' career planning (Fan, 2016).

## CROSS ANALYSIS AND LOGIT MODEL EMPIRICAL ANALYSIS

### Descriptive Statistics of Variables

This paper selects grade, major, gender, student cadre, father's education level, mother's education level, father's income, mother's income, professional satisfaction, career planning cognition and career development cognition as explanatory variables; Career planning is formulated as an explained variable. The definition of variables and sample data in this paper are defined according to conventional mathematical statistics. For example, grades: freshman year=1, sophomore year=2, and junior year=3; Major: Liberal Arts and Others=0, Science=1; Gender: male=1, female=2; Class participation: Student cadres=1, not student cadres=0; The remaining variable definitions and their descriptive statistics are shown in the following table.

Variable	Variable definition	Minimum value	Maximum value	Average	Standard Deviation
<b>Explanatory variable</b>					
Father's education level	Primary school and below = 1, junior high school = 2, technical secondary school and high school = 3, junior college/undergraduate and above = 4	1	4	1.67	0.785
Education level of mother	Primary school and below = 1, junior high school = 2, technical secondary school and high school = 3, junior college/undergraduate and above = 4	1	4	1.39	0.68
Father's income	Below 500 = 1.500-1152=2, 1153-1874=3, 1875-2878=4, 2879-5411=5, 5412 and above = 6	1	6	3.23	1.533
Mother's income	Below 500 = 1.500-1152=2, 1153-1874=3, 1875-2878=4, 2879-5411=5, 5412 and above = 6	1	6	2.62	1.462
Professional satisfaction	No confidence = 1, a little confidence = 2, medium confidence = 3, relatively confident = 4, fully confident = 5	1	5	3.01	1.024
Career planning cognition	No confidence = 1, a little confidence = 2, medium confidence = 3, relatively confident = 4, fully confident = 5	1	5	3.09	1.027
Career development cognition	No confidence = 1, a little confidence = 2, medium confidence = 3, relatively confident = 4, fully confident = 5	1	5	2.99	1.053
<b>Explained variable</b>					
Career planning	None = 0, Yes = 1	0	1	0.68	0.465

According to variable descriptive statistics, the mean and standard deviation of parents' education level of higher vocational college students are 1.67, 1.39 and 0.785, 0.68

respectively, which shows that parents' education level of higher vocational college students is generally low to a certain extent. At the same time, according to the average income of parents, the average monthly income of their parents is 1874 yuan, and the family income is low. From the three dimensions of professional satisfaction, career planning cognition and career development cognition, the average value of the three is about 3, and the standard deviation of the three is relatively large, which indicates that the general higher vocational college students have not yet had a clear cognition of their major, career planning and career development, and there are great individual differences. The average value is 0.68 and the standard deviation is 0.465, which indicates that the career planning ability of higher vocational college students is generally low.

### Cross-Analysis of Influencing Factors of Vocational College Students' Career Planning

In order to further analyse the factors that may affect the career planning of higher vocational college students and put forward corresponding countermeasures and suggestions for improving the career ability of higher vocational college students, this paper makes a cross-analysis of variables, and the results are shown in Table 2 below.

Variable Name	Variable Classification	Career Planning		Total	X2
		None	Yes		
Grade	Grade one	28.2	71.8	100	67.989***
	Second grade	35.3	64.7	100	
	Third grade	35.7	64.3	100	
	Total	31.7	68.3	100	
Specialty	Liberal Arts and Others	31.6	68.4	100	0.258
	Science and Engineering	32.2	67.8	100	
	Total	31.7	68.3	100	
Sex	Male	29.8	70.2	100	7.989***
	Female	32.5	67.5	100	
	Total	31.7	68.3	100	
Is it a student cadre	No	33.4	66.6	100	30.618***
	Yes	28.2	71.8	100	
	Total	31.7	68.3	100	
Father's education level	Primary school and below	33.6	66.4	100	23.528***
	Junior high school	30.6	69.4	100	
	Technical secondary school and high school	27.6	72.4	100	
	College/Bachelor degree or above	27.1	72.9	100	
	Total	31.7	68.3	100	
Education level of mother	Primary school and below	32.5	67.5	100	9.611*
	Junior high school	29.8	70.2	100	
	Technical secondary school and high school	28.7	71.3	100	
	College/Bachelor degree or above	30.2	69.8	100	

	Total	31.7	68.3	100	
Father's income	Below 500	35.9	64.1	100	47.090***
	500-1152	33.9	66.1	100	
	1153-1874	30.8	69.2	100	
	1875-2878	32.1	67.9	100	
	2879-5411	27.6	72.4	100	
	5412 and above	26.4	73.6	100	
	Total	31.7	68.3	100	
Mother's income	Below 500	33.4	66.6	100	29.001***
	500-1152	32.4	67.6	100	
	1153-1874	32.2	67.8	100	
	1875-2878	31.5	68.5	100	
	2879-5411	26.3	73.7	100	
	5412 and above	24.5	75.5	100	
	Total	31.7	68.3	100	
Professional satisfaction	Have no confidence	84.6	15.4	100	4174.529***
	Have a little confidence	69.3	30.7	100	
	Moderate confidence	18.2	81.8	100	
	Be more confident	8.1	91.9	100	
	Have complete confidence	3	97	100	
	Total	31.7	68.3	100	
Career planning cognition	Have no confidence	85.7	14.3	100	4341.184***
	Have a little confidence	74.7	25.3	100	
	Moderate confidence	17.9	82.1	100	
	Be more confident	10.4	89.6	100	
	Have complete confidence	5.7	94.3	100	
	Total	31.7	68.3	100	
Career development cognition	Have no confidence	70.3	29.7	100	2796.885***
	Have a little confidence	64.4	35.6	100	
	Moderate confidence	19.8	80.2	100	
	Be more confident	12.7	87.3	100	
	Have complete confidence	9.9	90.1	100	
	Total	31.7	68.3	100	

Note: \*\*\* is significant at 0.1% and \* is significant at 5%.

From the three variables of grade, gender and major, the chi-square value of grade and gender crossover table is significant at the level of 0.1%, which shows that grade and gender are the factors affecting the career planning of higher vocational college students. In terms of grades, for newly enrolled freshmen in higher vocational colleges, they are full of longing for the future and are more inclined to plan their own future; In terms of gender, boys are more inclined to make their own career plans than girls; In terms of majors, liberal arts students and others (68.4%) are more inclined to make career plans than science and engineering students (67.8%). From the dimension of student cadres, the difference is significant ( $P < 0.001$ ), which shows that serving as student cadres is also a factor affecting career planning. Among them, 71.8% of student cadres have career planning, which is higher than that of non-student cadres.

Parents' education level and family income are also important factors affecting vocational college students' career planning. From the cross-analysis results, the father's education level and parents' income are significant under 0.1%, while the mother's education level is significant under 5%. The higher the education level of parents, the more attention they pay to their children's future planning, and the more attention they pay to cultivating their children's career planning ability. From the results of crosstab, compared with their mothers, the education level of their fathers has a more significant impact on the career planning of higher vocational college students. At the same time, parents' occupation often determines a family's economic income and social status. The higher the family income and social status, they can provide certain social resources for their children. Therefore, the stronger the career planning ability of higher vocational college students.

Professional satisfaction is also an important factor affecting the career planning of higher vocational college students. There was a significant difference in professional satisfaction ( $P < 0.001$ ). According to the cross-analysis table, Higher vocational college students with low confidence and no confidence tend not to make career plans, Students with medium confidence or above in their majors are more satisfied with their majors, and they tend to make their own career plans. The probability of making career plans for students with full confidence in their majors is as high as 97%, which is significantly higher than that for students without confidence in their majors (15.4%). From the Career Planning Cognition and Career Development Cognition Cross Analysis Table results, both of them are significant at 0.1% level, both of which are important influencing factors. 94.3% and 90.1% of students who have confidence in their self-awareness of career planning and career development make career planning, respectively. This shows that career planning cognition and career development cognition significantly affect the career planning of higher vocational college students.

### **Logit model analysis of influencing factors of vocational college students' career planning**

The explained variable of this model is "whether career planning has been made", and the dummy variables are Yes=1 and No=0. In order to further study the influence of each variable through the significance test on vocational college students' career planning. Logit model is used for further analysis. If the probability of career planning of higher vocational college students I is  $P_i$ , the specific form of Logit model is as follows:

$$P_i = F\left(\alpha + \sum_{j=1}^m \beta_j X_{ij} + u\right) = 1 / \{1 + \exp[-(\alpha + \sum_{j=1}^m \beta_j X_{ij} + u)]\}$$

Among them,  $P_i$  is the probability of the  $i$ -th higher vocational college student making career plans, and  $I$  is the number of higher vocational college students; The coefficient representing the  $J$ -th influencing factor in regression;  $M$  represents the number of influencing factors;  $X_{ij}$  is an explanatory variable, which indicates the  $J$ -th influencing factor of the  $I$ -th higher vocational college student; Intercept;  $U$  is the error term. According to the survey data, using SPSS23.0 data collation and analysis and Logit model regression. The regression results are shown in the following figure. Among them, Model I analyzes the influence of grades on career planning of higher vocational college students; Model ii analyzes the influence of majors on vocational college students' career planning; Model iii analyzes the influence of gender on career planning of higher vocational college students; Model iv analyzes the influence of student cadres on vocational college students' career planning; Model V and Model VI: The influence of parents' education level on vocational college students' clear

career planning; Model VII and Model VIII respectively analyze the influence of parents' income on vocational college students' career planning; Model IX analyzes the influence of professional satisfaction of higher vocational college students on making clear career planning; Model X analyzes the influence of vocational college students' career planning cognition on making career planning; ModelXI Analyze the influence of career development cognition on vocational college students' career planning; Model XII analyzes the influence of each variable which has passed the significance test on the formation of career planning of higher vocational college students. The measurement results of specific models are shown in the following figure.

Table 3 Measurement results of influencing factors of students' career												
Explanatory variable	Model I	Model II	Model III	Model IV	Model V	Model VI	Model VII	Model VIII	Model IX	Model X	Model XI	Model XII
Grade (with freshman as reference)												
Second grade	-0.329**											-0.092
Third grade	0.347***											-0.094
Major (with reference to liberal arts and others)												
Science and Engineering		-0.029										0.016
Gender (male as reference)												
Female			-0.126**									-0.012
Student cadres (with no as reference)												
Yes				0.243***								0.084
Father's education level (refer to primary school and below)												
Junior high school					0.138**							0.039
Technical secondary school and high school					0.281***							0.1
College/Bachelor degree or above					0.309**							0.607**
Education level of mother (refer to primary school and below)												
Junior high school						0.128**						0.001
Technical secondary school and high school						0.181						-0.149
College/Bachelor degree or above						0.108						-0.117
Father's income (below 500 as a reference)												
500-1152							0.087					0.089
1153-1874							0.227**					0.108
1875-2878							0.168*					0.067
2879-5411							0.382***					0.233*
5412 and above							0.444***					0.173
Mother's income (below 500 as a reference)												
500-1152								0.042				-0.174*
1153-1874								0.052				-0.201*
1875-2878								0.084				-0.221*
2879-5411								0.338***				-0.147
5412 and above								0.435**				-0.227
Professional satisfaction (based on lack of confidence)												
Have a little confidence									0.889***			0.51***



Moderate confidence										3.206***			2.141***	
Be more confident										4.132***			2.693***	
Have complete confidence										5.172***			3.366***	
Career planning awareness (based on lack of confidence)														
Have a little confidence												0.706***	0.238	
Moderate confidence												3.312***	1.892***	
Be more confident												3.939***	2.078***	
Have complete confidence												4.586***	2.517***	
Career development awareness (based on lack of confidence)														
Have a little confidence													0.270**	0.026
Moderate confidence													2.260***	1.016***
Be more confident													2.789***	1.096***
Have complete confidence													3.076***	0.956***
Intercept	0.936	0.773	0.859	0.692	0.681	0.729	0.582	0.691	-1.703	-1.788	-0.864	-2.874		
2Log likelihood	14025.31	14093.06	14085.28	14062.36	14069.56	14083.63	14045.89	14063.48	9806.194	9737.172	11327.87	8132.334		
Cox-Snell R2	0.006	0	0.001	0.003	0.002	0.001	0.004	0.003	0.316	0.32	0.217	0.41		
Pseudo R2	0.008	0	0.001	0.004	0.003	0.001	0.006	0.004	0.443	0.449	0.305	0.575		
Note: *** is significant at 0.1%, ** is significant at 1%, and * is significant at 5%.														

The measurement results show that the overall significance level of each model is not high, but the significance level of coefficients fully shows the influence of factors such as basic characteristics, family status and career planning cognition of higher vocational college students on their career planning. The specific analysis is as follows. From the analysis of four dimensions: grade, gender, major and student cadres, it is concluded that the three variables of grade, gender and student cadres only pass the significance test in Model I, Model III and Model IV, but fail to pass the significance test in Model XII, which may be due to the interactive effect after adding other variables; In Model II, the coefficient of science students is-0.029, which shows that liberal arts students are more inclined to make career plans. From the influence of parents' education level, the father's education level in junior college, undergraduate and above passed the 1% significance test in Model V and Model XII, and the coefficient of father's education level in Model V increased with the increase of educational background, which indicated that the higher education of father would have an important impact on children's career planning. Those with less education than a college degree failed the test in Model XII, mainly because of the interaction between the father's education and his income. Mother's education level has not passed the significance test in Model XII, which shows to a certain extent that father's education level has more important influence on the formation of career planning of higher vocational college students.

According to the regression results of parents' income, we can see that Model VII and Model VIII have passed the significance test in intervals [2879, 5411], 5412 and above, and the coefficients show a big trend with the increase of wages, which shows to a certain extent that parents' high income has an important influence on higher vocational college students' career planning. In Model XII, the significance level of parents' income is not high, because there is an interaction between parents' income and education level, and education level determines income to a certain extent. Logit model regression results show that professional satisfaction in Model IX and Model XII have passed 0.1% significance level test, and the coefficient increases with the increase of satisfaction in the two models, which shows that the

satisfaction degree of higher vocational college students to their major is an important influencing factor for them to make career planning. From the perspective of cognitive variables of career planning and career development, higher vocational college students who have medium confidence, relatively confidence and complete confidence have more clear career planning, and the more confident they are, the greater the coefficient of confidence.

## CONCLUSIONS AND SUGGESTIONS

### Conclusion

1. The tendency of vocational college students to make career planning decreases with the increase of grades.

Through the investigation of 11287 higher vocational college students in China, it is found that the proportion of higher vocational college students making career planning is low, the general career planning ability is low, and there is no clear goal for their future planning. From cross-analysis, we can see that freshmen are more inclined to plan their own careers, and with the increase of grades, the proportion of students who make career plans decreases; Logit model analysis shows that in Model I, the coefficients of sophomores and juniors are -0.329 and -0.347, respectively, and the growth of grades is negatively correlated with the career planning of higher vocational college students.

2. Major affects vocational students' career planning, and liberal arts students are more inclined to make career planning

Based on cross-analysis and Logit model analysis, it is found that 68.4% of liberal arts students will make career plans, which is higher than that of science students; In Model II, compared with liberal arts students, the coefficient of science student's is -0.029. Science students have a low willingness to plan their careers, so it is necessary to further improve their ability to plan their careers.

3. Compared with girls, boys have better ability to make career plans

From the cross-analysis table, 70.2% of boys make career plans, 67.5% of girls tend to make career plans, and the proportion of boys with career plans is obviously higher than that of girls; Through Logit econometric model analysis, in model iii, taking boys as reference, the coefficient of girls is -0.126, which shows that girls' willingness to make career planning is lower than boys', and boys are obviously more mature than girls in career preparation.

4. As a student cadre, the influence of vocational college students' career planning is not as great as imagined

Being a student cadre and participating in community practice is more conducive to obtaining more professional information and developing professional decision-making ability. From the results of cross-analysis, we can see that the proportion of vocational college students who have career planning as student cadres is 71.8%, while the proportion of students who do not have career planning as student cadres is 66.6%.

5. Higher vocational college students with higher education and higher income have more definite career planning, and the father's education level has more far-reaching influence on the career planning of higher vocational college students

According to variable descriptive statistics, the parents of higher vocational college students have lower education level and their family income is generally lower. Through cross-analysis, we can see that the proportion of making career planning is increasing with the increase of parents' education level and family income. The higher parents' education level, the more attention they pay to their children's career planning. At the same time, according to Logit measurement results, the coefficients in Model V, Model VI, Model VII and Model VIII show an increasing trend with the increase of parents' education level and income of higher vocational college students. It shows that parents' education level and family income have a positive impact on vocational college students' career planning. Through the coefficients of Model V and Model VI, we can see that the father's education level has a greater influence on the career planning of higher vocational college students; When parents have the same educational level, the influence factor of father's educational level is greater, and it has a far-reaching impact on children's future career development.

6. Internal drive plays an important role in making career plans for higher vocational college students

Higher vocational college students should realize the importance of career planning from the heart. From the descriptive statistical results of career planning cognition and career development cognition, it can be seen that higher vocational college students generally have low cognition and great individual differences. Students with poor cognition of career planning and career development tend not to make career planning, while more than 90% of students with complete confidence tend to make career planning. Logit model regression results show that students who have more than medium confidence in self-career planning cognition and career development cognition are important factors affecting career planning, and the higher their confidence, the more inclined they are to make career planning.

### Countermeasures and Suggestions

1. Higher vocational schools should carry out career planning education at different levels, grades and stages, and innovate teaching methods

Higher vocational colleges should help higher vocational students to make reasonable career planning by stages, levels and grades. At the same time, we should innovate teaching methods, build a career education service system integrating full time and space service, and improve the enthusiasm of vocational college students in all grades for career planning. For example, for freshmen who have the strongest willingness to plan their careers, higher vocational colleges should carry out courses related to career planning from the beginning of school, and require each student to write a career plan to help them adapt to the life of college students as soon as possible. It is possible to enrich the teaching form of career planning courses by excavating outstanding alumni to publicize their outstanding deeds and shooting short videos of career planning education, so as to further enhance freshmen's interest in career planning; For sophomore students, the sophomore year is a key period for students to master professional knowledge, and new technologies, new processes and new norms should be incorporated into teaching standards and teaching contents in time; For junior graduates, schools should implement the school-enterprise cooperation mechanism in time, strengthen students' practical training, train counterpart professionals in enterprises, and provide students

with practical opportunities. At the same time, analyze the employment policy and employment situation in time, actively carry out psychological adjustment and career orientation, and help them establish career goals and employment confidence.

2. Higher vocational colleges should improve the level of science education and further cultivate the career planning ability of science students

The core skills cultivated by science students in higher vocational colleges are hard skills that mainly embody "hands-on ability", and skilled operation of machinery should be the key training content of science and engineering in higher vocational colleges. However, liberal arts students have more social and humanistic knowledge and strong language expression ability, and have advantages over science students in interpersonal communication and adaptability of interpersonal relationship. Therefore, on the one hand, higher vocational colleges should set the teaching of science and engineering professional knowledge and skills according to the development direction of modern science and technology and industry, strengthen the production practice of higher vocational students of science and engineering, participate in social activities, and truly enter their future workplaces. By strengthening the practice teaching link, we can combine theory with practice, and cultivate students' practical ability and the ability to analyze and solve problems. On the other hand, it is necessary to strengthen the cultivation of communication ability of science and engineering students and improve their employment competitiveness.

3. Schools should further guide female college students in higher vocational colleges to make career plans

In view of the development of female college students in higher vocational colleges, Schools need to combine female students' majors, guide them to plan their careers according to their personality and physiological characteristics, and tell successful female employment and entrepreneurship cases through micro-classroom teaching, so as to help female students in higher vocational colleges coordinate their career goals and family life goals, and have an accurate positioning for their future development.

4. Parents, especially fathers, should play a guiding role, and home-school cooperation should promote the development of vocational college students' career planning

Parents' career choice and education level have far-reaching influence on their children's future career planning. Parents should constantly encourage their children to develop in an all-round way, transmit correct concept of choosing jobs and strengthen communication in employment planning. Children should be provided with material support, spiritual support and interpersonal support as much as possible. Father has a decisive influence on children's future employment direction. Father should guide children's professional understanding according to his rich experience and concrete practice, and guide children to plan for the future according to changes in social environment and employment environment. Help higher vocational college students establish a correct view of choosing jobs. At the same time, good ties should be established between schools and parents. For example, higher vocational colleges can hire parents as "off-campus employment guidance tutors", set up parents' committees, hold parents' symposiums and other ways to build a bridge between schools and families, so as to further promote the employment planning ability of higher vocational college students and stimulate their potential for innovation and entrepreneurship.

5. Higher vocational college students should take the initiative to accept career planning education and effectively plan their own career development

Higher vocational college students should fully understand the social environment with the help of the school employment guidance system, Understand the employment situation, change "passive" into "active", actively fill out career planning plans every semester according to their specific conditions, constantly adjust personal employment expectations and career goals, accurately evaluate and know themselves, establish scientific and reasonable career goals, and clarify their own direction; Improving students' class participation is an important way to stimulate internal drive and effectively improve students' enthusiasm; Higher vocational college students should take the initiative to participate in beneficial career time activities, apply what they have learned to professional social practice, develop the good habit of "listening more, asking more and thinking more", and enhance their confidence in career development and career planning.

Through empirical research, this study finds that serving as student cadres, professional satisfaction, career planning cognition and career development cognition have an important impact on the formation of clear career planning of higher vocational college students, which verifies the theories and views put forward by predecessors. At the same time, some new problems have been found. First, freshmen have the highest enthusiasm for career planning, and with the growth of grades, higher vocational students' willingness to make career planning decreases; Second, compared with girls, boys have stronger career planning ability; Third, liberal arts students are more inclined to make career plans; Fourth, family income and parents' education level have an important impact on the career development of higher vocational students, and the father has a greater impact. Therefore, on the premise of clarifying the influencing factors of career planning, we should strengthen the practical research of career planning for higher vocational students, do a good job in career planning and fill the preparation for career planning. It is conducive to the growth of talents needed for social development in the new era.

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