

Research on Employment Survey of Vocational College Graduates

Jinsong Tan

International College, Krirk University, Bangkok 10220, Thailand

Abstract: The survey was conducted using a questionnaire survey method, supplemented by SWOT analysis. The survey subjects were students and teachers from universities in Chongqing Vocational and Technical College of Industry and Trade, and descriptive statistics were conducted using SPSS 26. Conduct a questionnaire survey to analyze the basic situation of the survey subjects and the opinions of some teachers, as well as the current situation, main problems, and reasons. Through analysis, vocational college graduates have advantages in professional skills and practical experience in employment, as well as disadvantages in education and skills. In addition, graduates from vocational colleges face threats such as technological and industrial restructuring in employment issues, as well as opportunities for school enterprise cooperation and independent entrepreneurship.

Keywords: Higher Vocational Colleges, Graduates, Employment, Problems and Countermeasures.

1. Research Background

As an important part of fresh graduates of colleges and universities, the employment situation of fresh graduates of higher vocational colleges and universities has always been a hot issue of concern to the government, society, enterprises, schools and families, and it is an educational issue, economic issues, as well as social issues and livelihood issues. At present, China is in the economic transformation and upgrading and the rapid increase in demand for talent development stage, the rapid development of the economy and society need a large number of talents, especially professional and technical personnel to provide support, but the reality of the employment rate of fresh graduates of higher vocational colleges and universities to enhance the employment rate, especially employment quality enhancement there is still a large room for improvement. Therefore, this paper precisely takes Chongqing Institute of Technology as an example, through researching and analyzing the employment situation of graduates of Chongqing Institute of Technology, we find its deficiencies and problems, and summarize the characteristics and trends of the problems, and then deeply analyze the causes of these problems from the aspects of the government, the society, the colleges and universities, and individuals, in order to provide the government, the society, the colleges and universities, and the individuals with the means for further improvement of their own work. To enhance the employment of fresh graduates in higher vocational colleges and universities to put forward more targeted and rationalized suggestions, and to jointly promote the employment of fresh graduates in higher vocational colleges and universities. Based on the questionnaire survey, to detect whether the employment problems of graduates in higher vocational colleges and universities with the propensity to work willingly, their professional recognition and social demand in this study hypothesized mediation relationship, to understand the relationship between the three variables at the same time, but also focuses on exploring the main influencing factors in the employment problems of graduates of higher vocational colleges and universities.

2. Preparation, Distribution and Recovery of Questionnaire

The investigation of the employment problem of graduates of higher vocational colleges and universities is the theme of the dissertation selection research, the theme involves a wide range, involves a large number of elements, and a large number of colleges and universities in China, the researcher's research ability and level can not manage such a grand topic and research content, so the researcher will be narrowed down to the scope of the study in order to Chongqing Industry and Trade Vocational and Technical College as an example of the research. The target of the questionnaire survey mainly includes the graduates of Chongqing Institute of Industry and Trade Vocational and Technical College and some leaders and counselors.

2.1. Preparation of the questionnaire

There are 41 questions in the Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Edition), and the author has divided the content of the scale into five dimensions for compilation, which are the basic situation, the tendency of work willingness, the degree of external recognition, the degree of social demand, and the problems of graduates. Each of the five dimensions has its own question, and each question is divided into five different evaluation levels: completely disagree, basically disagree, unclear, basically agree, and completely agree. Using the LikertScale, a score of 1 was given to "completely disagree", 2 to "basically disagree", 3 to "unclear", and 3 to "basically agree". A score of 4 was given to those who "basically agreed" and a score of 5 was given to those who "completely agreed". During the use of the scale, the subjects were required to check the corresponding evaluation level, and then the scores of the selected options were added up and converted into the corresponding Z-value for each frequency, which finally resulted in the values of each dimension. It is necessary to enter the Z-value of each dimension in the data view of SPSS26 software in order to be able to test and analyze the data more effectively.

The Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Teacher's Edition) has 27 questions in total, and the author has divided the content of the scale into three main dimensions for the compilation, in which the dimensions are the basic situation, the view on the current situation of graduates' employment, and the outside attitudes, respectively. Each of the three dimensions has its own question, and each question is further divided into five different evaluation levels: completely disagree, basically disagree, not sure, basically agree, and completely agree. Using the LikertScale, a score of 1 was given to "completely disagree", 2 to "basically disagree", 3 to "unclear", and 3 to "basically agree". A score of 4 was given to those who "basically agreed" and a score of 5 was given to those who "completely agreed". During the use of the scale, the subjects were required to check the corresponding evaluation level, and then the scores of the selected options were summed up and converted into the corresponding Z-value for each frequency, which finally resulted in the values of each dimension. It is necessary to enter the Z-value of each dimension in the data view of SPSS24 software in order to be able to test and analyze the data more effectively.

2.2. Instructions for distributing and recovering the questionnaires

2.2.1. Pre-test questionnaire instructions

The questionnaire for this study was distributed questionnaires through online method. There are 41 questions involved in the Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Version). A total of 27 questions were addressed in the Questionnaire on Employment Problems of Graduates of Higher Vocational Institutions (Teachers' Version). According to the research results of Prof. Wu Minglong (2009), the selection of the number of pre-test samples should be based on the number of three to five times the maximum number of questions in the questionnaire subscales, so the number of pre-tests in the scale prediction questionnaire of the Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges (Student Version) ranges from 123 to 205 is the best choice. In the Questionnaire on Employment Problems of Graduates of Higher Education Institutions (Teachers' Version) scale pretest number of 81 to 135 is the best choice. This study mainly used the convenience sampling method, and the survey subjects were the graduates and some teachers of Chongqing Institute of Industry and Trade Vocational and Technical College. A total of 205 questionnaires were sent out and a total of 200 questionnaires were retrieved from the Questionnaire on Employment Problems of Graduates of Higher Vocational Institutions (Student Version), with a survey recovery rate of 97%, while 135 questionnaires were sent out and a total of 110 questionnaires were retrieved from the Questionnaire on Employment Problems of Graduates of Higher Vocational Institutions (Teacher Version), with a survey recovery rate of 81%. In this study, we will collect the pre-test questionnaires and have utilized the SPSS24 software to analyze the items. Then, we will adopt the validation factor analysis (CFA). to test the reliability and validity of the questionnaire. The Cronbach alpha coefficient is calculated by using the internal consistency method, and it is possible to go into the internal consistency and reliability of the questionnaire. This is an essential step in constructing the formal questionnaire of this study to ensure the validity and reliability of the questionnaire.

2.2.2. Pretest questionnaire item analysis

The pre-test questionnaire items were analyzed one by one to refine them until they revealed their usability. The methods we used include extreme group test (T-value), correlation analysis, and alpha value item removal, all of which are the basis for our selection of research questions.

First, the high and low subgroups were selected based on the order of the total score of the subjects' questionnaires, each accounting for 27% of the total. Subsequently, the mean of each question was calculated for each of the two groups and a t-test was performed. The discrimination of the questions can be assessed by calculating the absolute value (T-value) of each question. larger T-values represent greater variability and stronger discrimination between the high and low subgroups for that question. For questions with a T-value greater than 3 and a significant difference, it means that the question effectively identifies the scores of the high and low subgroups and deserves special attention. This method can help us analyze the results of the questionnaire in a more targeted way.

According to Wu Minglong (2012), the correlation between the total score of each topic score needs to be considered when calculating the questionnaire score. If the correlation coefficient between the total score of each topic score is more than 0.4 and reaches a significant statistical level, which indicates that there is a correlation between the topic and the total score of the scale, then the topic should be retained. And if there is a question whose correlation coefficient is below 0.4, then it can be considered for deletion.

We can test the consistency between questions within the questionnaire by deleting the question alpha coefficient. According to scholars Wu Minglong (2012), when a certain question is deleted, the consistency α coefficient within the scale may be relatively lower. And if the alpha coefficient increases instead after deletion, the deletion of questions may be considered.

Among the topics in each dimension of the questionnaire "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges (Student Version)", the t-value ranges from 4.402 to 8.179, and the t-values are all higher than the judgment standard.³ The topics related to the total score range from 0.513 to 0.782, which are all greater than the judgment standard of 0.4, and the α -value ranges from 0.203 to 0.972, which are all smaller than or equal to the 0.972 judging criteria, therefore, the topics of each dimension can be retained.

In the topics of each dimension of the questionnaire "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges (Teacher's Edition)", the t-value ranges from 6.421 to 9.225, and the t-value is higher than the judging standard.³ The topics related to the total scores range from 0.642 to 0.858, which are all greater than 0.4 judging standard, and the alpha value ranges from 0.982, which are all less than or equal to the 0.982 judging criterion, therefore, the questions in each dimension were retained.

2.2.3. Pre-test questionnaire validity analysis

Validity (Effect), mainly refers to the degree of accuracy that can be achieved by measuring the means of measurement. Ensure that the measurement results can reflect the actual situation. Therefore, validity is one of the important indicators for assessing the quality of research. It not only ensures the accuracy and reliability of the measurement results, but also helps the researcher to understand the research object more accurately and make more precise conclusions. The

appropriateness of the title is measured in the study, i.e., whether it effectively conveys conceptual information about the research variable or dimension. In short, it is an assessment of whether the research questions are correctly designed and whether the questions accurately reflect the nature of a variable. For the validity analysis of this survey, SPSS version 24 was utilized and the test was conducted using exploratory factor analysis. The KMO coefficient measures the structural validity of the questionnaire and its value ranges from 0 to 1. When the kmo coefficient is approximately close to 1, then the questionnaire's structural validity is good. Secondly, if the significance level of Bartley's ball test is lower than 0.05, then the structural validity of the questionnaire is good. However, even if the overall validity is verified, we still need to evaluate each question further. This can be obtained by analyzing the component matrix.

In the validity analysis of the questionnaire "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Version)", the result of the coefficient of the KMO check is 0.987. The range of values of the coefficient of the KMO test is between 0-1, so the validity of the questionnaire is better the closer the questionnaire is to 1. According to the significance of the test of sphericity it can also be seen that the significance of this test is 0. The original hypothesis is rejected, so the validity of the questionnaire is good.

The result of the coefficient of the KMO check of the questionnaire "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Teacher's Edition)" is 0.974. The range of values of the coefficient of the KMO test is between 0-1, so the validity of the questionnaire is better the closer the questionnaire is to 1. According to the significance of the test of sphericity it can also be seen that the significance of this test is 0. The original hypothesis is rejected, so the validity of the questionnaire is good.

2.2.4. Pretest questionnaire reliability analysis

After the pre-test questionnaire has gone through item analysis and exploratory factor validity analysis, the next step is to carry out the reliability analysis of the pre-test questionnaire, which is generally the main method of internal consistency, in order to better obtain the Cronbach's alpha coefficient. And can be timely and clear to understand the internal consistency and reliability of the questionnaire. First of all, the Cronbach's alpha coefficient of each dimension of the questionnaire is obtained respectively, and the larger the

Cronbach's alpha coefficient is, the higher the coherence between the questions is. The higher the Cronbach's alpha coefficient, the higher the consistency between the questions.

The overall Cronbach's alpha coefficient of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Edition)" is between 0.234 and 0.972, and the range of coefficients is between 0 and 1, so the more reliable coefficients are the more reliable coefficients are the ones closest to 1. The result of this analysis is that the Cronbach alpha coefficient is between 0.234-0.972, which indicates that the questionnaire is very reliable.

The overall Cronbach's alpha coefficient of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Teacher's Edition)" is between 0.982, and the range of the coefficient is between 0-1, so the more reliable the coefficient is, the higher the coefficient is nearest to one. The result of this analysis is that the Cronbach alpha coefficient is between 0.982, which indicates that the questionnaire is very reliable.

3. Analysis of Questionnaire Results

3.1. Sample Analysis

The formal questionnaire is mainly in the form of network questionnaire, "Questionnaire on the Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Edition)" was sent out a total of 410, and a total of 405 were retrieved, with a recovery rate of 98.8%, and a total of 270 questionnaires were sent out on the Employment Problems of Graduates of Higher Vocational Colleges and Universities (Teacher Edition), and 265 were actually retrieved, with a recovery rate of 98.1%.

3.2. Analysis of the current situation of employment problems of graduates of higher vocational colleges and universities

The purpose of this survey is mainly to explore the employment problems of graduates of higher vocational colleges and universities in the future, and each question adopts the Likert 5-point system. 1 is the lowest score and 5 is the highest score. The critical value is 3 points, the higher the mean score is the higher the proof of agreement, according to the survey results, the analysis results are shown below:

The present analysis of the questionnaire of "Questionnaire on the Employment of Graduates of Higher Vocational Institutions (Student Version)" is shown in Table 1:

Table 1. Overall status analysis of the questionnaire "Questionnaire on Employment Problems of Graduates of Higher Education Institutions (Student Version)

Dimension	N	M	SD	Sort
Propensity to work willingness	405	3.51	0.40	2
Degree of external recognition	405	3.38	0.61	3
Social demand	405	3.25	0.84	4
Problems of graduates	405	3.91	0.67	1

Source: Organized by this study

According to the results of the analysis in Table 1, the mean score of employment problems of graduates of higher vocational colleges and universities is 3.38, which is higher than the critical value of 3, indicating that it is unclear overall. The mean scores of the four dimensions are the propensity to work willingness (M=3.51), the degree of

external recognition (M=3.38), the degree of social demand (M=3.25), and the existence of problems of graduates (M=3.91), and they are all higher than the mean scores, except for the degree of social demand. mean score, indicating that the survey on the employment problems of graduates of higher vocational colleges and universities is basically

unclear.

The current status analysis of the Questionnaire on Employment Problems of Graduates of Higher Vocational

Colleges and Universities (Teacher's Edition) is shown in Table 2:

Table 2. Overall status analysis of the Questionnaire on Employment Problems of Graduates of Higher Education Institutions (Teachers' Edition)

Dimension	N	M	SD	Sort
Perception of the current situation of graduates	265	3.87	0.63	2
Attitude towards outsiders	265	3.83	0.69	1

Source: Organized by this study

According to the results of the analysis of Table 2 shows that the average score of employment problems of graduates of higher vocational colleges and universities is 3.83, which are all higher than the critical value of 3, and the surface of its overall mostly unclear state, the 2 dimensions average scores are the view of the status quo of graduates (M=3.87), and the attitude of the outside world (M=3.83) respectively. Based on the above, it can be seen that most of the graduates of higher vocational colleges and universities are in the state of unclear about their employment issues, indicating that for the graduates of higher vocational colleges and universities, they do not attach great importance to the next career planning, and it is not very clear.

3.3. Analysis of differences in employment problems of graduates of higher vocational colleges in different contexts

The test of variance is to study the differences in different

dimensions of variables through independent samples t-test, chi-square test and one-way ANOVA. In this analysis, according to the characteristics of the data, the main application is to independent samples t-test and one-way ANOVA. The software used spss version 26 to realize the analysis steps.

(1) Analysis of differences in employment problems of graduates of higher vocational colleges under different genders

The questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Version)" was analyzed for differences in employment problems of graduates of higher vocational colleges and universities under different genders as shown in Table 3:

Table 3. Differential analysis of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Education Institutions (Student Version)" on the employment problems of graduates of higher education institutions under different genders

Variable	Your gender	Number of cases	Mean	Standard deviation	t	Sig
Propensity to work willingness	Male	230	34.94	4.028	-0.922	0.357
	Female	175	35.31	3.988		
External recognition	Male	230	23.57	4.285	-0.351	0.726
	Female	175	23.73	4.34		
Social demand	Male	230	9.66	2.481	-0.815	0.416
	Female	175	9.86	2.581		
Problems of graduates	Male	230	66.1	12.306	-0.715	0.475
	Female	175	66.93	10.206		

Table 4. Analysis of the differences of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Version)" on the employment problems of graduates of higher vocational colleges and universities under different ages

Variable	Option	Number of cases	Mean	Standard Deviation	F	sig	Multiple comparisons
Propensity to work willingness Below	18 years old	36	36.92	3.56	21.934	0.000	/
	18-25 years	300	34.36	3.93			
	26-30 years	69	37.38	3.42			
External recognition Under	18 years old	36	26.33	4.10	46.659	0.000	/
	18-25 years	300	22.54	4.01			
	26-30 years	69	27.01	3.17			
Social demand degree Under	18 years old	36	11.03	2.21	47.132	0.000	/
	18-25 years	300	9.11	2.36			
	26-30 years	69	11.86	1.94			
Problems with graduates Under	18 years old	36	66.56	4.91	1.58	0.207	1>3, 2<3
	18-25 years	300	66.96	12.75			
	26-30 years	69	64.25	6.68			

Note: where 1 represents under 18 years old, 2 represents 18-25 years old and 3 represents 26-30 years old

Source: Organized by this study

According to the results of the independent samples t-test above, it can be seen that the differences in the dimensions in terms of gender. The significance of the difference in the propensity to work willingness on gender is 0.357, which is significantly greater than 0.05, indicating that there is no difference in the degree of agreement on the propensity to work willingness of graduates of higher vocational colleges and universities on different genders, and according to the mean value, it can be seen that the evaluation of women is higher than that of men, so it can not be rejected the original hypothesis. By analogy, there is no significant difference in the degree of external recognition, social demand, and the existence of problems of graduates on gender, so the original hypothesis can not be rejected.

(2) Differential analysis on employment problems of graduates of higher vocational colleges under different ages

The results of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Version)" in terms of analyzing the differences in employment problems of graduates of higher vocational colleges and universities under different ages are shown in Table 4:

According to the above one-way ANOVA results can be seen in the dimensions, in the four dimensions, F-value were

21.934, 46.659, 47.123, 1.58, of which, the propensity to work willingness to work, the degree of recognition of the outside world, the degree of social needs there is a difference between the significance test results are 0.000, are significantly less than 0.05, graduates have problems Significance test results is greater than 0.05, indicating that there is no difference.

According to the results of multiple comparisons, it can be seen that the degree of agreement of graduates exist problems under 18 years old is greater than 26-30 years old, and the degree of agreement of 18-25 years old is less than 26-30 years old, according to this result, it can be seen that the older the age, the more the phenomenon of existence of graduation problems, and the more they consider it, so in the degree of agreement is higher than that of the group of the younger age point.

(3) Analysis of differences in employment problems of graduates of higher vocational colleges in different situations

The results of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Version)" in terms of analyzing the differences in employment problems of graduates of higher vocational colleges and universities under different circumstances are shown in Table 5:

Table 5. Analysis of the variability of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Version)" on the employment problems of graduates of higher vocational colleges and universities under different circumstances

Variable	Option	Number of cases	Mean	Standard Deviation	F	Significance	Multiple comparisons
Willingness to work Propensity	continue studying	168	33.71	3.964	15.398	0.000	/
	Already found a job	67	36.94	3.52			
	Not employed	48	34.94	3.878			
	Being ready to focus on employment	122	36.08	3.723			
External recognition	continue studying	168	21.7	3.39	31.406	0.000	/
	Already found a job	67	25.88	4.017			
	Not employed	48	22.67	4.353			
	Being ready to focus on employment	122	25.47	4.249			
Degree of social need	continue studying	168	8.8	2.098	24.594	0.000	/
	Already found a job	67	10.96	2.434			
	Not employed	48	8.9	2.399			
	Being ready to focus on employment	122	10.72	2.533			
Graduates have problems	continue studying	168	66.07	14.491	0.282	0.838	1<2, 2<3, 3>4
	Already found a job	67	66.31	6.911			
	Not employed	48	67.77	10.934			
	Being ready to focus on employment	122	66.57	8.588			

Note: where 1 stands for continuing to study, 2 stands for having found a job, 3 stands for not employed, and 4 stands for being ready to pay attention to employment issues

Source: Organized by this study

According to the above one-way ANOVA results can be seen in the dimensions, in the four dimensions, the F-value were 15.398, 31.406, 24.594, 0.282, of which, there is a difference in the propensity to work willingness, the degree of external recognition, the degree of social demand, the results of the test of significance are 0.000, are significantly less than 0.05, the graduates have a problem with the significance test The result is greater than 0.05, indicating that there is no difference.

According to the results of multiple comparisons, it can be seen that the degree of agreement to continue studying is smaller than the degree of agreement to have found a job, the degree of agreement to have found a job is smaller than the degree of agreement to be unemployed, the degree of agreement to be unemployed is larger than the degree of agreement to be preparing to pay attention to the employment problem. Most of the students feel that it is not necessary for them to continue their studies, and they are more or less ready

to consider the employment issue, and a very small number of them have already found a job.

(4) Analysis of differences in the employment problems of graduates of higher vocational colleges under different professional natures

The results of the differential analysis of the questionnaire

of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Version)" on the employment problems of graduates of higher vocational colleges and universities under the nature of different specialties are shown in Table 6:

Table 6. Analysis of variance of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Version)" on the employment problems of graduates of higher vocational colleges and universities under the nature of different majors Analysis of Variance

Variable	Option	Number of cases	Mean	Standard Deviation	F	sig	Multiple comparisons
Propensity to work willingness	Arts	79	35.92	3.974	6.515	0.000	/
	Science	67	35.96	3.249			
	Engineering	69	35.94	3.560			
	Agriculture	40	34.88	4.250			
	Medicine	63	32.65	3.940			
	Teacher training	71	35.27	4.140			
	Others	16	33.38	4.161			
External recognition	Arts	79	24.24	4.467	11.074	0.000	/
	Science	67	25.22	4.434			
	Engineering	69	25.64	4.640			
	Agriculture	40	22.38	3.663			
	Medicine	63	21.19	2.169			
	Teacher training	71	23.07	4.223			
	Others	16	20.75	1.438			
Social Demand Level	Arts	79	10.25	2.499	8.946	0.000	/
	Science	67	10.75	2.501			
	Engineering	69	10.58	2.773			
	Agriculture	40	9.32	2.495			
	Medicine	63	8.57	1.653			
	Teacher training	71	9.08	2.389			
	Others	16	8.06	1.482			
Problems of graduates	Arts	79	66.25	10.994	0.555	0.766	1>2,2>3,3>4,3>4,4>5,5<6,6<7
	Science	67	67.34	5.843			
	Engineering	69	66.81	8.872			
	Agriculture	40	67.8	11.152			
	Medicine	63	64.52	17.374			
	Teacher training	71	66.89	10.407			
	Others	16	64.63	16.840			

Note: where 1 represents Arts, 2 represents Science, 3 represents Engineering, 4 represents Agriculture, 5 represents Medical, 6 represents Teacher Training, 7 represents Others

According to the above one-way ANOVA results can be seen in the dimensions, in the four dimensions, F-value were 6.515, 11.074, 8.946, 0.555, of which, the propensity to work willingness, external recognition, social demand for the degree of difference, the significance test results are 0.000, are significantly less than 0.05, graduates have a problem with the significance of test results is greater than 0.05, indicating that there is no difference.

According to the results of multiple comparisons, it can be seen that the degree of agreement of liberal arts is greater than science, the degree of agreement of science is greater than engineering, the degree of agreement of engineering is greater than agriculture, the degree of agreement of agriculture is greater than medicine, and the degree of agreement of medicine is less than that of teacher training, and teacher training is less than others. Therefore, in summary, it can be concluded that the students of liberal arts, science,

engineering, agriculture, and medicine majors are still more positive and have the least ideas about the employment of graduates, and the employment rate is also higher. As for the students of teacher training and other majors, their employment status is not very good because of the limitation of their majors and the degree of demand.

3.4. Analysis of the differences between teachers in different backgrounds on the employment problems of graduates of higher vocational colleges and universities

(1) Analysis of the differences in teachers' views on the employment of graduates of higher vocational colleges and universities by gender

The results of the differential analysis of the questionnaire of "Questionnaire on Employment Problems of Graduates of

Higher Vocational Colleges and Universities (Teachers' Version)" on the employment problems of graduates of higher

vocational colleges and universities under different genders are shown in Table 7:

Table 7. Analysis of variance of the Questionnaire on Employment Problems of Graduates of Higher Education Institutions (Teachers' Version) questionnaire on the employment problems of graduates of higher education institutions under different genders

Variable	Your gender	Number of cases	Mean	Standard deviation	t	sig
Perception of the current situation of graduate employment	Male	144	49.31	8.555	0.702	0.710
	Female	121	49.69	7.765		
Outside attitude	Male	144	38.24	7.258	0.317	0.895
	Female	121	38.36	6.52		

Source: Organized by this study

According to the results of the independent samples t-test above, it can be seen that the differences in the dimensions of the situation in terms of gender. The significance of the difference between the perception of the current situation of graduate employment and outside attitudes on gender is 0.710, 0.895, which is significantly greater than 0.05, indicating that there is no difference in the degree of agreement between the teachers of higher vocational colleges and universities on different genders on the perception of the current situation of graduate employment and outside attitudes in higher vocational colleges and universities, and according to the mean value, it can be seen that males are evaluated higher

than females, so the original hypothesis can not be rejected. Therefore the original hypothesis cannot be rejected.

(2) Analysis of the differences in teachers' opinions on the employment of graduates of higher vocational colleges under different ages

The results of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges (Teachers' Version)" analyzing the differences in teachers' opinions on employment problems of graduates of higher vocational colleges under different ages are shown in Table 8:

Table 8. Difference analysis of the questionnaire "Questionnaire on employment of graduates of higher vocational colleges and universities (Teachers' version)" on the employment of graduates of higher vocational colleges and universities by teachers under different ages

Variable	Option	N	Mean	Standard Deviation	F	sig	Multiple Comparison
Perception of the current situation of graduate employment	22-30 years old	12	49.17	7.602	0.035	0.991	/
	31-40 years old	122	49.56	8.492			
	41-50 years old	88	49.31	7.322			
	51-60 years old	43	49.72	9.359			
Outside attitude	22-30 years old	12	37.75	7.412	0.096	0.962	/
	31-40 years old	122	38.46	7.227			
	41-50 years old	88	38.05	6.277			
	51-60 years old	43	38.49	7.350			

Note: where 1 represents 22-30 years old, 2 represents 31-40 years old, 3 represents 41-50 years old, and 4 represents 51-60 years old

Source: Organized by this study

According to the above results of one-way ANOVA, it can be seen that in the two dimensions, the F-value is 0.035, 0.096, where the significance test results are 0.991, 0.962, which are significantly greater than 0.05, indicating that there is no difference.

Again, according to the results of multiple comparisons, it can be seen that because the questionnaire does not differ in both dimensions in the analysis of differences between teachers under different ages on the issue of employment of graduates of higher education institutions, the multiple comparisons are basically equal in all ages. In summary, according to Table 18, it can be seen that among the teachers

of all ages, the 31-40 years old stage has the majority of teachers and more views on graduation is employment issues.

(3) Analysis of differences in teachers' views on the employment of graduates of higher vocational colleges and universities under different positions

The results of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Teacher's Edition)" analyzing the differences in teachers' views on employment problems of graduates of higher vocational colleges and universities under different positions are shown in Table 9:

Table 9. Difference analysis of the questionnaire of "Questionnaire on employment of graduates of higher vocational colleges and universities (Teachers' version)" questionnaire on the employment of graduates of higher vocational colleges and universities by teachers under different positions

Variable	Option	N	Mean	Standard Deviation	F	sig	Multiple Comparison
Perception of the current situation of graduate employment	Dean	20	48.2	9.362	0.855	0.427	/
	Clerk	62	50.56	5.988			
	Counselors	183	49.26	8.69			
Outside attitudes	Dean	20	37.95	7.722	0.242	0.785	/
	Clerk	62	38.82	5.588			
	Counselors	183	38.15	7.253			

Note: where 1 represents deans, 2 represents clerks, and 3 represents counselors

Source: Organized by this study

According to the above results of one-way ANOVA, it can be seen that in the two dimensions, the F-value is 0.855, 0.242, of which the significance test results are 0.427, 0.785, are significantly greater than 0.05, indicating that there is no difference.

Again, according to the results of multiple comparisons, it can be seen that because the questionnaire does not differ in both dimensions in the analysis of differences between teachers under different positions on the employment of graduates of higher education institutions, the multiple comparisons are basically equal among teachers under different positions. In summary, according to Table 19, it can

be seen that among teachers under different positions, most of the perceptions and attitudes on the issue of graduation is employment originated from counselors.

(4) Analysis of the differences in teachers' views on the employment of graduates of higher vocational colleges and universities under different academic qualifications

The results of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Teacher's Edition)" analyzing the differences in teachers' views on employment problems of graduates of higher vocational colleges and universities under different academic qualifications are shown in Table 10:

Table 10. Difference analysis of the questionnaire of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Teachers' Version)" questionnaire on the employment problems of graduates of higher vocational colleges and universities under different academic qualifications of teachers

Variable	Option	N	Mean	Standard Deviation	F	sig	Multiple Comparison
Perception of the current situation of graduate employment	Undergraduate	93	49.52	9.546	0.265	0.851	/
	Master's degree students	105	49.89	5.252			
	Doctoral students	40	49.05	9.061			
	Postdoctoral students	27	48.44	11.102			
External attitudes	Undergraduate	93	37.85	7.874	0.879	0.452	/
	Master's degree students	105	39.08	4.867			
	Doctoral students	40	38.13	7.616			
	Postdoctoral students	27	37.04	8.942			

Note: where 1 represents undergraduate, 2 represents master's degree, 3 represents doctoral degree, and 4 represents postdoctoral degree

Source: Organized by this study

According to the above one-way ANOVA results, it can be seen that in the two dimensions, the F-value is 0.265, 0.879, of which the significance test results are 0.851, 0.452, which are significantly greater than 0.05, indicating that there is no difference.

Again, according to the results of multiple comparisons, it can be seen that because the questionnaire does not differ in both dimensions in the analysis of differences between teachers under different positions on the employment of graduates of higher education institutions, the multiple comparisons are basically equal among teachers under different positions. In conclusion, according to Table 10, it can be seen that teachers with master's degree are in the majority and most helpful in this questionnaire.

3.5. Correlation analysis of employment problems of graduates of higher vocational colleges and universities

Correlation analysis is the most commonly used analysis method in correlation research, this time using spss26 version correlation analysis process.

(1) Correlation analysis of employment problems in the Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Edition)

The results of the correlation analysis of employment problems of the Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Edition) are shown in Table 11:

Table 11. Analysis of the results of the correlation of employment problems of the Questionnaire on Employment Problems of Graduates of Higher Vocational Institutions (Student Version)

Variable	Correlation	Propensity to work willingness	External recognition	Social demand	Graduates' problems
Propensity to work willingness	pearson correlation	1	0.355	0.209	0.486
External recognition	pearson correlation	0.355	1	0.629	-0.139
Social demand	pearson correlation	0.209	0.629	1	-0.368
Problems with graduates	pearson correlation	0.486	-0.139	-0.368	1

**Significant correlation at the 0.01 level (two-tailed).

Source: Organized by this study

According to the results of correlation analysis in Table 11, it can be seen that there are significant correlations at the significance level of each variable, among which, the relationship coefficients between the propensity to work willingness and the degree of recognition from the outside world, the degree of social demand, and the existence of problems of graduates are 0.355, 0.209, and 0.486, respectively. The coefficients of the relationship on all of them are greater than 0, so there is a positive correlation. The relationship coefficients between the degree of recognition from the outside world and the propensity to work, the degree of social demand, and the problems of graduates are 0.355, 0.629, and -0.139 respectively, from which it can be concluded that the relationship coefficients between the degree of recognition from the outside world and the propensity to work, and the degree of social demand are greater than 0, which is positively correlated, while the relationship coefficient between the degree of recognition from the outside world and the problems of graduates is -0.139, which is less than 0, and therefore is negatively correlated. 0, so there is a negative correlation. The relationship coefficients between the degree of social demand and the propensity to work, the degree of external recognition, and the existence of problems of graduates are 0.209, 0.629, and -0.368, respectively, in which the relationship coefficients of the degree of social demand and the propensity to work and the degree of external recognition are greater than 0, showing

a positive correlation, and the relationship coefficient of the degree of social demand and the existence of problems of graduates is -0.368, with a coefficient of relationship less than 0, therefore, the relationship is negative. relationship is negatively correlated. The correlation coefficients of graduates' existence problems with the propensity to work, external recognition, and social demand are 0.486, -0.139, and -0.368, respectively, which can be concluded that the relationship coefficient of graduates' existence problems with the propensity to work is 0.486, and the relationship coefficient is greater than 0, so that the correlation relationship is positive, and the correlation coefficients of graduates' existence problems with the external recognition, and social demand are all less than 0. The relationship coefficient of graduates' existence problem with external recognition and social demand is less than 0, so the correlation relationship between graduates' existence problem and external recognition and social demand is negative.

(2) Correlation Analysis of Employment Problems in the Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Teacher's Edition)

The results of the correlation analysis of employment problems of "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Teacher's Edition)" are shown in Table 12:

Table 12. Analysis of the results of correlation of employment problems of the Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Teacher's Edition)

Variable	Correlation	Perception of the current situation of graduate employment	External attitude
Perception of the current situation of graduate employment	pearson correlation	1	0.811**
External attitudes	pearson correlation	0.811**	1

**Significant correlation at the 0.01 level (two-tailed).

Source: Organized by this study

According to the results of the correlation analysis in Table 12, it can be seen that there is a significant correlation at the significance level of each variable, in which the relationship coefficient between the perception of the current situation of employment of graduates and the attitude of outsiders is 0.811, and it can be seen from the results that the relationship coefficient between the perception of the current situation of employment of graduates and the attitude of outsiders is

greater than 0, and therefore there is a positive correlation.

3.6. Analysis of results

According to the SPSS data results analysis of the two questionnaires, "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and Universities (Student Edition)" and "Questionnaire on Employment Problems of Graduates of Higher Vocational Colleges and

Universities (Teacher Edition)", it can be concluded in general that in today's society, many graduates of higher vocational colleges and universities are not very clear on their own employment planning and that, although schools pay great attention to this issue, but from the survey of teachers Although the school attaches great importance, but from the survey of teachers, most of the counselors are doing this work, the dean and the secretary did not actually play a leading role, the teacher's understanding of the employment of graduates is not very high, we need to continue to strengthen the employment problem solving efforts, after all, for higher vocational colleges and universities, the employment rate of the students is just like a school's signboard, the school wants to develop well, you have to rely on the students to do the publicity, the students are good, the school can go farther.

4. SWOT Result Analysis

4.1. Strengths

After investigating and analyzing the employment problems of graduates of higher vocational colleges and universities and applying SWOT analysis, the author concludes that the following strengths exist in the employment problems of graduates of higher vocational colleges and universities:

First, in terms of professional skills. Graduates of higher vocational colleges usually have solid professional skills, which form the core competitiveness in the job market.

Second, in terms of practical experience. Higher vocational colleges and universities usually pay attention to practical teaching, and graduates often have rich practical experience, which helps them quickly adapt to the work.

Third, in terms of adaptability. Graduates of higher vocational colleges usually have strong adaptability and learning ability, and can quickly adapt to different work environments and work requirements.

Fourth, in terms of teamwork ability. Higher vocational colleges and universities usually pay attention to cultivating students' teamwork ability, and graduates perform well in teams, which helps them establish good cooperative relationships with colleagues at work.

Fifth, in terms of innovative spirit. Some graduates of higher vocational colleges and universities have an innovative spirit and are able to think and solve problems independently, which helps them realize their potential at work.

4.2. Weaknesses (disadvantages)

After investigating and analyzing the employment problems of graduates of higher vocational colleges and universities and applying SWOT analysis, the author concludes that the employment problems of graduates of higher vocational colleges and universities have the following disadvantages:

First, in terms of education. Compared with undergraduates, graduates of higher vocational colleges may have disadvantages in terms of education. Some employers may prefer to choose undergraduates when recruiting, which puts graduates of higher vocational colleges at a relative disadvantage in the job market.

Second, in terms of skills. Graduates of higher vocational colleges are relatively single-skilled. Graduates of higher vocational colleges tend to specialize in a particular skill area, such as technology and craftsmanship. However, in the diversified modern society, employers often need employees

with compound skills, which makes graduates of higher vocational colleges and universities may face challenges in the job-seeking process.

Third, in terms of employment concepts. Some graduates of tertiary institutions may have problems with their employment concepts, such as placing too much emphasis on remuneration packages and being unwilling to start from grass-roots positions. This may cause them to lose their competitiveness in the job market.

Fourth, in terms of competitiveness. Competitive pressure: the number of graduates from higher vocational colleges and universities is relatively large, which makes the pressure of employment competition larger. Meanwhile, some employers may have limited recruitment quotas, which further aggravates the employment pressure of graduates from higher vocational colleges.

4.3. Opportunities

After investigating and analyzing the employment problems of graduates of higher vocational colleges and applying SWOT analysis, the author concludes that the following opportunities exist in the employment problems of graduates of higher vocational colleges and universities:

First, the employment market is diversified. With the development of economy and the adjustment of industrial structure, the employment market is becoming more and more diversified and needs different types of talents. Graduates of higher vocational colleges and universities can give full play to their professional advantages and find suitable job opportunities for themselves.

Second, policy support. In order to promote employment, the government has introduced a series of policies and measures to provide graduates of higher vocational colleges with more job opportunities. For example, it provides employment guidance, entrepreneurship support, vocational training and so on.

Third, the industry development trend in getting employment will be. Some industries are developing rapidly, such as artificial intelligence, big data, Internet of Things, etc., which need a large number of professionals. Graduates of higher vocational colleges and universities have professional advantages in these fields and can find more employment opportunities.

Fourth, school-enterprise cooperation opportunities. Cooperation between higher vocational colleges and enterprises can provide more internship and employment opportunities for students. Through school-enterprise cooperation, students can better understand the industry development trend and improve their professional skills and practical ability.

Fifth, self-employment opportunities. Graduates of higher vocational colleges and universities can also consider starting their own business, utilizing their professional knowledge and practical experience to create their own business. The government and the community also provide many policies and resources to support self-employment.

4.4. Threats

After investigating and analyzing the employment problem of graduates of higher vocational colleges and universities and applying SWOT analysis, the author concludes that the employment problem of graduates of higher vocational colleges and universities has the following threats:

First, economic fluctuation. Economic fluctuations may

affect the job market and bring employment threats to graduates of higher vocational colleges and universities.

Second, technological progress. The development of new technology may replace some traditional jobs, which will have an impact on the employment of graduates of higher vocational colleges and universities.

Third, industrial restructuring: industrial restructuring may affect the employment direction of graduates of higher vocational colleges and universities.

Fourth, fierce competition in the market. With the massification of higher education, the number of graduates of higher vocational colleges and universities is increasing, and the market competition is getting more and more intense. Graduates need to have certain professional skills and comprehensive quality to stand out in the job market.

Fifth, the industry is changing fast. Some industries are developing rapidly, and the demand for talents is also changing. Graduates of higher vocational colleges and universities need to pay constant attention to the development trend of the industry and improve their professional ability and practical experience in order to adapt to the challenges brought by changes in the industry.

Sixth, the employment concept is immature. Some graduates of higher vocational colleges and universities have misunderstandings in their employment concepts, such as pursuing high salary and stable jobs too much and neglecting their professional and career development planning. This may cause them to lose competitiveness in the job market.

Seventh, limited career development. Some graduates of tertiary institutions may encounter the problem of limited career development after employment, such as difficulties in promotion and unsatisfactory remuneration packages. This may be related to the employing mechanism and management style of the enterprise, etc., which requires graduates to make sufficient preparation and planning before employment.

4.5. Results of SWOT analysis

After analyzing the SWOT, it can be concluded that graduates of higher vocational colleges have the advantages of professional skills and practical experience in employment, as well as strong adaptability and teamwork spirit, which help them to gain more opportunities and competitiveness in the employment market. In addition, graduates of higher vocational colleges and universities may face some disadvantages and threats in employment, but by improving their comprehensive quality, changing employment concepts and seeking diversified employment paths, they can overcome these disadvantages and get better career development opportunities. In conclusion, graduates of higher vocational colleges and universities have professional advantages and potentials in the employment market, as long as they continue to improve their comprehensive quality and practical ability, and actively seek for suitable employment opportunities, they can achieve better development in the employment market and get some better employment opportunities.

5. Research Results

In general, after analyzing the employment problems of graduates of higher vocational colleges and universities by means of questionnaires combined with SPSS data analysis and SWOT analysis, it can be seen that more and more graduates of higher vocational colleges and universities are faced with almost more and more employment problems, and most of the graduates do not have a clear picture of their employment planning, and the school's attention is not very high, especially the deans and secretaries, who must put the employment work is well arranged to counselors, in order to be able to better publicize the importance of employment for students. In the SWOT analysis, it can be seen from the four aspects of advantages, disadvantages, opportunities and threats, no matter what problems they face, advantages and disadvantages, opportunities and threats coexist. Through the analysis, graduates of higher vocational colleges have advantages such as professional skills and practical experience, but also co-exist with disadvantages such as academic qualifications and skills in terms of employment problems. In addition, graduates of higher vocational colleges and universities have threats such as technology and industrial restructuring in employment problems, which are also accompanied by opportunities such as school-enterprise cooperation and self-employment.

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