Analysis of the Employability College Students Self Evaluation Based on Career EDGE Model

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Abstract: Taking 2020 students of College of Science of Heilongjiang University of science and technology as the overall survey, the questionnaire design is based on the 18 questions subdivided by the underlying indicators of Career EDGE Model. The logistic regression model was used to analyze the employment ability of college students. It is concluded that good academic performance is the most significant, the second is to be able to better communicate with people, finally, rich life experience. Among them, the employability with good academic performance and self-evaluation is 1.635 times higher than that with good academic performance and self-evaluation. It can be seen that college graduates want to enhance their employability, not only work hard, but also communicate with the outside world. At the same time, having a correct evaluation of ourselves.
Keywords: Employability; Career EDGE Model; Logistic Regression; Self Evaluation

1. Introduction

In the study of College Students' employability, career edge model has been widely concerned. The establishment of career edge model tries to fill in the current situation that most of the models related to employability are either too complex to operate or too simple to comprehensively measure employability.

This paper designs a questionnaire based on career edge model, obtains data, and applies logistic regression analysis to analyze the situation of College Students' self-evaluation of employability, so that college students can understand how they can continue to make progress in the cultivation of employability, and provide guidance for the employment guidance department of the University[1].

2. Career EDGE model

The career edge model was proposed by Dr. Lorraine Dacre pool and psychologist Dr. Peter Sewell in 2007. The model consists of three levels[2].

The first level, namely the bottom part, includes: career development learning, experience work & life, degree subject knowledge understanding & skills, generic skills and emotional intelligence.

The second level, namely the middle level, includes: Reflection and evaluation; reflection and evaluation are the bridge between the bottom externalized employability performance and the upper level internalized self-consciousness. As a high-value introspective cognitive activity, reflection is the basis of students' deep learning; evaluation is the embodiment of self-awareness, It directly affects the students' enthusiasm for learning and social practice, and also affects the relationship with others. It is a self-monitoring of the effect of learning and practice. Obviously, reflection and evaluation are necessary to avoid the occurrence of learning without thinking.

The third level is the top part, which is composed of self-efficacy, self-esteem and self-confidence. Self-efficacy is the subjective evaluation of one's ability to complete a certain aspect of work. Through the second level of reflection and evaluation, gradually improve self-efficacy, enhance self-confidence, and then increase self-esteem, and finally achieve the improvement of employability.

3. Data acquisition

This paper takes the 2020 students of science and Technology College of Heilongjiang University of science and technology as the research object, and 212 students are investigated. The first part is the basic information, with five questions in total; the second part is based on the variables subdivided by five competency indicators in the bottom part of career edge model (see Table 1), with a total of 18 questions[3].

Table 1. subdivision variable table.

Bottom layer capability	Subdivision variable
Career development learning	They can quickly obtain and process career information, engage in work that is in line with their own characteristics and interests, and be able to show themselves in front of employers
Experience	Have rich life experience; have relevant internship or work experience
Knowledge, understanding and skills in professional field	Have good academic performance; have solid professional knowledge; can skillfully use professional knowledge to solve practical problems
General skills	General skills have rich imagination and innovation; have efficient time management ability; good computing ability; have good teamwork ability; strong adaptability; have a sense of responsibility
EQ	Can better regulate their own emotions; be able to identify other people's emotions and feelings; optimistic and enterprising; have a good interpersonal relationship

From April 10 to May 10, 2020, 202 valid questionnaires were collected, with an effective rate of 95%. There were 119 males and 83 females; 181 Han nationality and 21 ethnic minorities; 128 provincial and municipal level, 74 rural and county level; 36 party members and 166 Communist Youth League members; 115 only children and 87 non only children. In the questionnaire, the form of Likert scale was used to conduct self-evaluation by the respondents (for example, the self-evaluation of having good academic performance refers to whether the score you think you should obtain is consistent with the actual score). Each item is divided into five items: very inconsistent, relatively inconsistent, consistent, relatively consistent and very consistent, and the score is 1-5. The employability is measured by the number of offers obtained by 2020 graduates of the University of science. According to the survey, the average number of offers obtained by each graduate is 1.7. Those who are lower than the average are regarded as weak in employability, while those higher than the average are regarded as strong employability, with 0 and 1 assigned respectively.

4. Data analysis

4.1 Univariate binomial logistic regression analysis

After statistics and collation of the collected data, the univariate binomial logistic regression analysis was carried out on 23 independent variables by SPSS 21.0 statistical software, and the significance level was given as 0.05.

It can be seen that political outlook, taking into account other people's feelings, optimistic and positive attitude, good communication with others, good academic performance, skilled use of professional knowledge to solve practical problems, rich life experience, efficient time management ability, strong adaptability and other factors may be the influencing factors of employability. However, due to the large number of independent variables, there are 9 independent variables There may be collinear relationship between variables, so nine factors should be diagnosed and screened.

4.2 Multicollinearity test

Multicollinearity means that the model estimation is distorted or difficult to be accurately estimated due to the existence of accurate correlation or high correlation among the independent variables in the regression model. If the tolerance of each variable is less than 0.1 or the variance expansion factor Vif is greater than or equal to 10, there is a serious collinearity problem between independent variables. SPSS 21.0 was used to test the multicollinearity of independent variables in the model (see Table 5).

Table 2. collinearity test.

	B	Standard error	tolerance	VIF
(constant)	-0.158	0.226		
National political outlook	-0.233	0.074	0.917	1.090
Take into account the feelings of others	0.026	0.019	0.975	1.025
Optimistic and positive attitude	0.034	0.021	0.977	1.023
Be able to communicate well with others	0.033	0.019	0.972	1.029
Good academic performance	0.130	0.020	0.930	1.075
Can skillfully use professional knowledge to solve practical problems	0.002	0.022	0.966	1.035
Can skillfully use professional knowledge to solve practical problems	0.050	0.020	0.974	1.026
Efficient time management	0.038	0.019	0.965	1.037
Strong adaptability	0.054	0.020	0.945	1.058

The results in Table 2 show that the Vif of the nine independent variables is far less than 10. Therefore, it can be considered that there is no multicollinearity among the above nine independent variables, and the multivariate binomial logistic regression analysis can be carried out directly.

4.3 Multivariate binomial regression analysis

Using spss21.0 statistical software, multivariate logistic regression analysis was carried out on the above independent variables and dependent variables, and the significance test of regression coefficient was conducted. The specific regression results are shown in Table3.

Table 3. variables in the equation.

Independent Variables	regression coefficient	Significance level	Exp (B)
National political outlook		0.056	
National political outlook (1)	1.535	0.185	4.643
National political outlook (2)	0.298	0.781	1.347
Take into account the feelings of others	0.025	0.881	1.025
Optimistic and positive attitude	-.054	0.766	0.948
Be able to communicate well with others	0.386	0.032	1.471
Good academic performance	0.491	0.024	1.635
Can skillfully use professional knowledge to solve practical problems	0.192	0.224	1.211
Can skillfully use professional knowledge to solve practical problems	0.364	0.009	1.439
Efficient time management	0.038	0.892	1.039
Strong adaptability	0.214	0.101	1.238
constant	-5.580	0.000	0.004

Therefore, the logistic regression model was

$$P = E(y = 1) = \frac{e^{(-5.580+0.386x9+0.491x10+0.364x17)}}{1 + e^{(-5.580+0.386x9+0.491x10+0.364x17)}}$$

It can be seen from table 2 that good communication with people, academic performance and rich life experience have a significant positive impact on employability. The greater the regression coefficient is, the greater the impact is (B) It can also be concluded that having good academic performance is the most significant, followed by good communication with people, and finally rich life experience. The employability with good academic performance consistent with self-evaluation is 1.635 times higher than that with good academic performance and self-evaluation; the employability consistent with communication ability and self-evaluation is 1.471 times higher than that with communication and self-evaluation In the same way, the employability of college students with life experience self-evaluation is 1.439 times higher than that of college students with life experience self-evaluation inconsistent.

5. Conclusion

It can be seen from table 3 that good communication with people, academic performance and rich life experience have a significant positive impact on employability. The greater the regression coefficient is, the greater the impact is (B) It can also be concluded that having good academic performance is the most significant, followed by good communication with people, and finally rich life experience. The employability with good academic performance consistent with self-evaluation is 1.635 times higher than that with good academic performance and self-evaluation; the employability consistent with communication ability and self-evaluation is 1.471 times higher than that with communication and self-evaluation In the same way, the employability of college students with life experience self-evaluation is 1.439 times higher than that of college students with life experience self-evaluation inconsistent.

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