The Employability Skills and Impact Factors among Graduate Students from Ningxia Polytechnic

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Abstract
Employable skills are including professional skills and soft skills which enable workers to be successful on the workplace. **T**his research aims to investigate the employability skill of graduated students from Ning Xia polytechnic and the impacting factors against their employability skills on their job market**.** A total of 446 participants were randomly selected as a sample size for this research. The quantitative approach utilized in this research, the data collected and analyzed by SPSS and AMOS. The overall mean of vocational students' employability skills was 3.84 (SD = 0.63). **T**he finding of this research concluded that the five factors: Curriculum, Teacher Level, Teaching Methods, and Employment Guidance have a great impact on employability of students who are graduated from Ning xia Polytechnic. However, this research will be benefit for vocational educators and researchers as a future reference in their study and research.
Keyword: Employability Skill, Vocational Students, Job Market, Impact Factors

Introduction
According to the employment report of China Higher Vocational Students in 2020 (Blue Book of employment) issued by Macbeth college, the number of college graduates in China is reached 8.74 million in 2020, an increase of 400000 compared with 2019. Among them, the number of graduates in higher vocational education is about 3.85 million. If we take into account the number of unemployed people in previous years, this figure is expected to reach 9 million (MyCOS, 2020).

Affected by the novel coronavirus pneumonia, the employment demand of enterprises is decreasing, and the employment situation of higher vocational graduates is becoming increasingly severe. The "employment gap" between the supply of graduates and the demand of enterprises in the job market is deepening. In addition to the decline in the total demand

of enterprises for college graduates, there are differences between the knowledge reserve, professional skills and quality of higher vocational graduates and the requirements of enterprises for them.

In China, with the increasingly prominent employment problem of college students, the research on applying employability to solve the employment problem of college students has gradually increased in recent years. The research contents mainly focus on the concept and connotation of employability, the structure of employability, the influencing factors of employability, and the ways to improve employability. The research objects mainly focus on graduates or undergraduate students, There are few empirical studies on the current situation of Vocational College Students' employability. Therefore, this paper believes that it is very necessary to investigate and analyze the current situation of Higher Vocational Students' employability, so as to provide a timely and powerful reference for the education and teaching reform and employment guidance of higher vocational colleges. This paper will take Ningxia vocational and Technical College as an example.

Problem Statement
The main problem that faces many graduates is that they are not aware of the employability skills that employers demand. This report tried to find the level of employability skills among business students. Therefore, the problem statement of this thesis was: "Whether business students have all those employability skills that employers seek?" 60% of students think that "the lack of their ability" is the cause of employment difficulties (Bin, 2018).

Employability Skills
In the new global economy, workers need more than technical knowledge and skills, which are often job-specific and non-transferable. In addition to these skills, if they want to continue to contribute to the development and growth of an industry or company, they must also have soft skills - "employability skills". Employability skills are the skills, knowledge, understanding and personal attributes that enable a person to obtain employment and to be successful and satisfied in their chosen career (Lorraine & Sewell, 2007). Barnett (2006) explains that employability skills enable people to obtain suitable employment and at the same time develop their careers during social and technological change.

Guo Xin (2017) of Jilin University applied for a doctoral dissertation for the Study on the Cultivation of Chinese University Students' Employability. She believes that undergraduates' employability is the total of personality traits externalized by individual undergraduates through the learning and practical acquisition of professional employability, employment personality orientation, social coping ability, and employment development ability acquired through employment. Xiao Yan and Wang Yanan (Yan & Nan 2018) believe that the structure of employability can be divided into three dimensions: human capital, social capital, and psychological capital.

Objectives of the Study
The purpose of this study is as follows:
1. Identify the employability level of students in Ningxia Polytechnic.
2. Identify the influencing factors in the employability of Ningxia Polytechnic.
3. To form a framework of employability skills to improve employability.

Method

The researches will be a study employing a quantitative approach. The research questionnaire was developed based on previous studies and was pilot tested on 30 pupils of Ningxia Polytechnic. The Cronbach's Alpha was calculated, and the worth of more than 0.7 suggests that the things form a scale that has excellent internal consistency reliability. The response scale used in this study is just five Likert scales that are 1: strongly disagree to 5: strongly agree. A purposive random sampling method can be employed for distributing the questionnaires. The purpose of this study is that identify the employability level of students and the influencing factors in the employability of Ningxia Polytechnic. The employment skills framework is finally formed to improve employability.

Participants

The target population of this study was selected graduates of Ningxia Polytechnic (n = 1887). The total population is 1887, the sampling is 300, taking into account the cost, conditions and limitations, to prevent the number of questionnaires collected is not enough, the author decides to increase the sample size by 40%. This study decided to issue 450 formal questionnaires. When selecting the samples, random sampling is carried out with a sampling error of 5% and a confidence degree of 95%. The 450 students were randomly selected, and their random samples were selected by a random number generator (www.random.org). Of the 450 students selected, 446 students returned the questionnaires.

Instrumentation

The instruments used in this study were The Self-Evaluation Scale of Vocational College Students' Employability. The instrument used in the study was created with a survey questionnaire based on the review of references. Based on the literature analysis, the preliminary version of the self-assessment scale of vocational college students' employability was compiled, which contains basic information and subscales. All the questionnaires used to consist of four parts, including basic information and subscales. For better distinction and statistics, the first letters of each item in the four parts are represented by A, B, C, and D respectively. The first part is "Personal Basic Information" (A), which is used to understand the students' basic personal information and school performance; The second part is "employability structure" (B), which is used to understand students' perception of their employability situation; The third part is "Influence Factors of Employability" (C); The fourth part is "Open Question of factors affecting employability" (D).

Students answered the questions using a 5-point Likert scale, where "1" was "I do not possess this skill" and "5" was "I have a lot of this skill". Likert's 5-point evaluation method was used for self-evaluation in the questionnaire. The reliability estimates of each construct ranged between 0.84 and 0.96, and the reliability estimate for the complete study was 0.95.

Procedure

In this study, the questionnaire was distributed through WeChat on-site establishment, so that the amount of distribution can be controlled. The data is collected through the questionnaire star website. After the questionnaire is collected, the questionnaire data is downloaded and exported at https://www.wjx.cn. Then, the results were imported into SPSS and AMOS software for sorting.

Analysis and Results

The participants consisted of 43.95% male students and 56.05% female students (n = 446). It is obvious from Table 1 that students of Ningxia Polytechnic generally think that their employability is high. In their opinion, except that the average score of professional ability is 3.397 <3.67, which belongs to the middle level, other abilities are of high level, so students generally think that their employability is very high.

The employability of students is as follows : Professional ability （M=3.39，SD=0.71、Individual ability M=4.01，SD=0.59）Vocational ability（M=3.98，SD=0.61）、Social ability（M=4.01，SD=0.59）、Innovation and entrepreneurship ability M=3.86 SD=0.63. The data shows that students perform best in Individual ability, followed by Vocational ability, but perform worst in Professional ability, the mean of employability in all dimensions except Individual ability is not more than 4 points. This phenomenon should attract the attention of vocational colleges.

Table 1
Level of Ningxia Polytechnic Students' Employability

Employability		N	Mean	SD	Level
Professional ability		446	3.397	.705	Medium
Individual ability		446	4.068	.595	High
Vocational ability		446	3.981	.608	High
Social ability		446	3.918	.624	High
Innovation	and	446	3.854	.634	High
entrepreneurship ability					
Valid N (listwise)		446			

It is obvious from Table 2 that students of Ningxia Polytechnic generally believe that the five factors of Student Factors, Curriculum, Teacher Level, Teaching Methods, and Employment Guidance have a great impact on employability. Among them, Teacher Level has the most influence (M = 4.094, SD = 0.667), followed by Teaching Methods (M = 4.094, SD = 0.667). Although the score mean of Curriculum factor is high (M = 3.832, SD = 0.656), it is the lowest mean compared to other influencing factors.

Table 2
Level of influencing factors in the employability of Ningxia Polytechnic Students'

Influencing factors	N	Mean	SD	Level
Student Factors	446	3.866	.630	High
Curriculum	446	3.832	.656	High
Teacher Level	446	4.094	.667	High
Teaching Methods	446	4.093	.656	High
Employment Guidance	446	4.008	.693	High
Valid N (listwise)	446			

Table 3
Convergence validity and reliability

Variable	Item	Normalized factor load	CR	AVE
	B1	0.678		
	B2	0.735		
	B3	0.652		
	B4	0.677		
Professional ability	B5	0.715	0.901	0.504
	B6	0.697		
	B7	0.653		
	B8	0.783		
	B9	0.784		
	B10	0.706		
	B11	0.739		
	B12	0.782		
Individual ability	B13	0.736	0.912	0.565
	B14	0.733		
	B15	0.791		
	B16	0.653		
	B17	0.855		
	B18	0.666		
	B19	0.676		
	B20	0.681		
	B21	0.723		
Vocational ability	B22	0.782	0.904	0.542
	B23	0.803		
	B24	0.794		
	B25	0.750		
	B26	0.683		
	B27	0.672		
	B28	0.744		
	B29	0.813		
Social ability	B30	0.855	0.920	0.591
	B31	0.817		
	B32	0.790		
	B33	0.755		
	B34	0.834		
	B35	0.796		
	B36	0.855		
Innovation and entrepreneurship ability	B37	0.825	0.932	0.634
	B38	0.792		
	B39	0.785		
	B40	0.863		
	B41	0.584		

Table 4
Discriminant validity

	1	2	3	4	5
1. Professional ability	0.709				
2. Individual ability	0.643**	0.752			
3. Vocational ability	0.643**	0.787**	0.735		
4. Social ability	0.573**	0.744**	0.725**	0.769	
5. Innovation and entrepreneurship ability	0.577**	0.740**	0.736**	0.762**	0.796

Note: diagonal is the square root of ave, and diagonal is the ave coefficient; * * P < 0.01

As shown in Table 4, the AVE of five aspects of employability involved in the study are all higher than the threshold of 0.5, which indicates that each scale has achieved good convergent validity. The discriminant validity of the scale is evaluated by comparing the square root of the variable AVE and the correlation coefficient between the variables. The results showed that the square root of AVE of all variables were higher than 0.7, and the correlation coefficient between two variables was in the range of 0.5-0.7. There was no case that the correlation coefficient was higher than the square root of AVE, which provided strong support for the discriminant validity of the scale. The results of confirmatory factor analysis fully show that the structural model of students' employability obtained by exploratory factor analysis is reasonable, which is composed of five dimensional hierarchical structure of Professional ability, Individual ability, Vocational ability, Social ability and Innovation and entrepreneurship ability.

Table 5
Goodness of fit test

Good fit	Evaluation standard	Test results	Model adaptation judgment
χ^2/df	More suitable between 1 and 3	1.421	yes
GFI	Above 0.9, the closer to 1 the better	0.993	yes
RMR	＜0.05	0.024	yes
RMSEA	Less than 0.08 is fine, less than 0.05 is a good fit	0.034	yes
AGFI	Above 0.9, the closer to 1 the better	0.962	yes
TLI	Above 0.9, the closer to 1 the better	0.995	yes
CFI	Above 0.9, the closer to 1 the better	0.997	yes

As displayed in Table 5, that all model fitting indicators basically meet the corresponding standards, so the model has a good degree of fit.
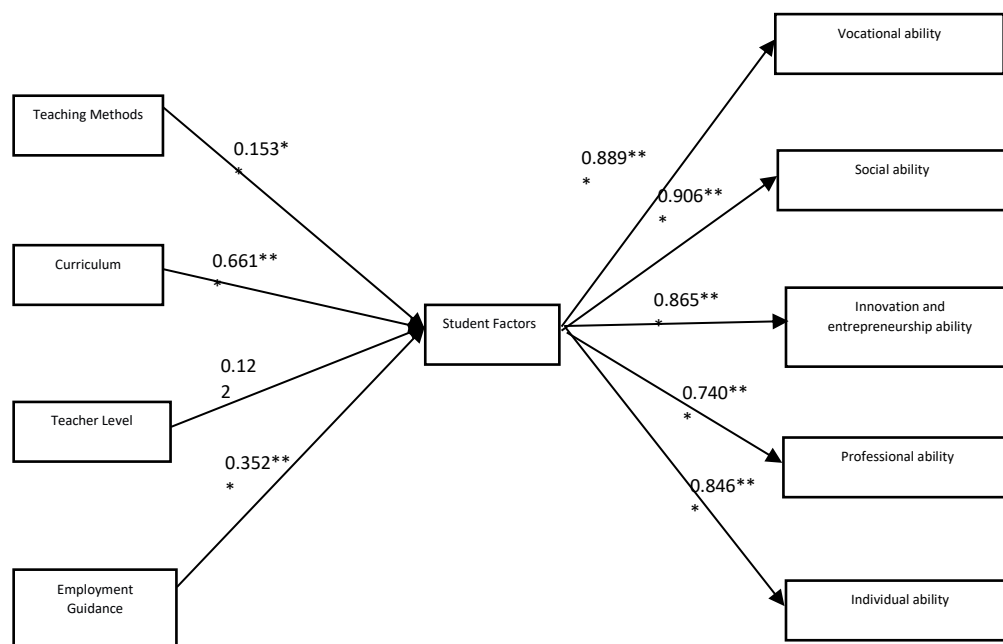
Figure 1 Model of Ningxia Polytechnic students

As displayed in Figure 1, From the results of the above structural equation model, we can see that Teaching methods, Curriculum, and Employment guidance all have a significant effect on Student factors, while the Teacher level has no significant positive effect on Student factors. In addition, Student factors also have significant positive effects on Vocational ability, Social ability, Innovation and entrepreneurship ability, professional ability and Individual ability. Therefore, it can be judged that Student factors play an intermediary role.

Discussion

The findings show that the employability skills of vocational students are moderately high (M= 3.84, SD = 0.63). This is similar to findings reported by Huang Xing jun (Jun, 2019). Based on the USEM employability structure model, this paper investigates and analyzes the employability of 180 students in Wuhan polytechnic, aiming to provide reference for higher vocational colleges to improve students' employability. The results show that the self-efficacy and meta-cognitive ability of higher vocational students are relatively strong (M= 3.7, SD = 0.4), and the subject comprehension is relatively weak. There is room for improvement in general skills such as English, computer, and reading and writing (Jun, 2019).

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A study by Zhang Yanfeng, Yang Fen (Feng & Fen 2021) using 430 students of 4 vocational schools in Zhejiang Province, on the basis of USEM employment ability model, this article has built an "Employment Ability Model for Higher Vocational Graduates" which

includes four dimensions as psychological quality, ability to transfer knowledge, vocational attainment and vocational skills. It has conducted regression analysis on employment ability of students and results of such empirical study indicate that teachers' academic level, students' participation in the study, configuration of majors, social practice, cooperation between enterprises and schools and employment guidance are key factors to promote employment ability of the graduates. This study suggests higher vocational schools to widen employment channels for graduates, deepen industry-education integration, optimize network recruitment platforms, guide graduates to change employment ideas and provide targeted instruction for employment. The conclusion of this paper is consistent with the results of this study.

The development of employability skills among students is important for the future of the nation. As a result of new development in the world of work, one can't remain static in one specific organization. People move from one organization to another based on their employability skills. Borrowing the concept of protean career, where one drives his or her career and invents his or her own career over time, the need for employability skills is much stronger and more significant (Danial, Bakar1 & Mohamed, 2014).

Implications of Research
Overall, this study shows that the students of Ningxia Polytechnic think that their employment skills are at a high level. But this is not consistent with the evaluation of enterprises. Therefore, schools need to recognize this difference and continue to explore the causes of the problems.
Theoretical viewpoint: through the study of employability and its influencing factors model and factor confirmatory analysis, two effective self-test tools are obtained. One is the questionnaire of employability, that valid and trustworthy with 41 items; One is the questionnaire of factors affecting employability, that valid and trustworthy with 40 items.

Education viewpoint: professional teachers and teachers' power departments in vocational colleges implement curriculum upgrading, and schools strengthen employment guidance.

Conclusion
From the results of the above structural equation model, we can see that Teaching Methods, Curriculum, and Employment guidance all have a significant effect on Student factors, while the Teacher level has no significant positive effect on Student factors. In addition, Student factors also have significant positive effects on Vocational ability, Social ability, Innovation and entrepreneurship ability, professional ability and Individual ability. Therefore, it can be judged that Student factors play an intermediary role. From the results of this research, authors provided some suggestions for Future research, and this research can:
(1) Expand items in the self-measurement scale of Vocational College Students' employability.
(2) Through the introduction of other related independent variables and variables to improve the model.
(3) Further research is needed to determine whether this model can be replicated for other populations.

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