

# A FRAMEWORK OF EMPLOYABILITY SKILLS AMONGST NINGXIA POLYTECHNIC GRADUATED STUDENTS

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A FRAMEWORK OF EMPLOYABILITY SKILLS AMONGST NINGXIA  
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YU JING

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## ABSTRACT

The purpose of this research is to assess the employability level of graduated students in Ningxia Polytechnic, and form an employability framework to improve the employability of students. Five employment ability variables studied are professional ability, individual ability, vocational ability, social ability, innovation and entrepreneurship. A total of 446 China Ningxia Polytechnic graduated students participated in this research. An instrument of the self-evaluation scale of vocational college students' employment ability was developed and the validity of the content was judged by experts. The instrument consists of 41 items employability, 40 items influencing factors and 9 item basic information, which has met the psychological measurement standards. The confirmatory factor analysis was performed by AMOS SEM to test the convergence validity and discriminant validity of the variables and Cronbach's alpha used to measure internal consistency of the scores produced. The self-evaluation scale of vocational college students' employment ability shows good convergence and discriminative validity. The overall mean of vocational students' employability skills was 3.84 (SD = 0.63). The instrumental analysis (CFA) was developed through the verification process using verification factors. Finding shows the value of the degree index (fit), which is an Absolute Fit, RMSEA 0.0067 (<0.08); Incremental Fit, CFI0.918, TLI0.921(>0.9) and Parsimonious Fit, Chisq/df 2.832 (< 5.0). The results of the study found that all five factors which are student factors, curriculum, teacher level, teaching methods, and employment guidance have great impact on employability. Finally, the employment skills framework is formed to improve employability skills amongst Ningxia Polytechnic graduated students. This study has implications for the development of a framework to improve the employability of vocational students and also provide a reference for the reform of Vocational Education in Ningxia.



## RANGKA KERJA KEMAHIRAN KERJA DI KALANGAN PELAJAR LULUSAN POLITEKNIK DI NINGXIA

### ABSTRAK

Tujuan penyelidikan ini adalah untuk menilai tahap kebolehpasaran pelajar di Politeknik Ningxia, dan membentuk satu kerangka kebolehkerjaan untuk meningkatkan kebolehpasaran pelajar. Lima pemboleh ubah kemahiran kebolehkerjaan yang dikaji dalam kajian ini ialah keupayaan profesional, keupayaan individu, keupayaan vokasional, keupayaan sosial serta inovasi dan keusahawanan. Seramai 446 orang pelajar lulusan Politeknik Ningxia, China terlibat dalam kajian ini. Satu instrumen skala penilaian sendiri keupayaan kebolehkerjaan pelajar kolej vokasional telah dibangunkan dan dinilai kesahan kandungan oleh pakar. Sebanyak 41 item kebolehkerjaan, 40 item faktor yang mempengaruhi dan 9 item maklumat asas telah dibina berasaskan piawaian pengukuran psikologi. Analisis faktor pengesahan dilaksanakan dengan menggunakan AMOS SEM untuk menguji kesahan penumpuan dan kesahan diskriminasi pemboleh ubah-pemboleh ubah manakala *Alpha Cronbach* digunakan untuk mengukur ketekalan dalaman bagi skor yang dihasilkan. Skala penilaian sendiri keupayaan pekerjaan pelajar kolej vokasional mempunyai konvergensi dan kesahan diskriminasi yang baik. Min keseluruhan kemahiran kebolehpasaran pelajar vokasional ialah 3.84 (SD = 0.63). Analisis pengesahan faktor (CFA) dilakukan melalui prosedur pengesahan konstruk. Dapatan kajian menunjukkan indeks kesepadanan model iaitu *Absolute Fit*, RMSEA 0.0067 (<0.08); *Incremental Fit*, CFI0.918, TLI0.921(>0.9) dan *Parsimonious Fit*, Chisq/df 2.832 (< 5.0). Kajian mendapati bahawa faktor pelajar, kurikulum, tahap guru, kaedah pengajaran dan bimbingan pekerjaan mempunyai kesan yang besar terhadap kebolehpasaran. Akhirnya, satu kerangka kemahiran kebolehkerjaan dibentuk untuk meningkatkan kebolehpasaran di kalangan pelajar lulusan Politeknik Ningxia. Kajian ini memberi implikasi kepada pembentukan kerangka kebolehkerjaan untuk meningkatkan kebolehpasaran pelajar vokasional dan memberi rujukan kepada reformasi pendidikan vokasional di Ningxia.

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## LIST OF ABBREVIATIONS

ACAPS	The Assessment Capacities Project
AGFI	Adjusted goodness-of-fit index
AMOS	Analysis of Moment Structure
ASTD	The American Society for Training & Development
ASTE	American Society of Tool Engineers
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CFI	Comparative fit index
CNKI	China National Knowledge Infrastructure
CPC	Communist Party of China
CTC	The College of City Technology
DHFETE	Department of Higher and Further Education
EQ	Emotional Intelligence
GFI	Goodness-of-fit index
GNVQS	General National Vocational Qualification
HEA	The Higher Education Academy
HEI	Higher Educational Institution
ILO	International Labour Organization
IQ	Intelligence Quotient
QCA	Qualifications and Curriculum Authority
RMR	Root Mean Square Residual
RMSEA	Root Mean Square Error of Approximation
SD	Standard Deviation

SEM	Structural Equation Modeling
SPSS	Statistical Product and Service Solutions
TAFE	Technical and Further Education
TLI	Tacker-Lewis index
TVET	Technical and Vocational Education and Training
UKCES	UK Commission for Employment and Skills
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPSI	Sultan Idris Education University
WESO	World Employment and Social Outlook



## CHAPTER 1

### INTRODUCTION



Around the world, countries have been pushing to expand education. The underlying view is clearly that improving the skills of the citizen will improve the economic position of both individuals and the nation (Eric Hanushek, 2016). Viewed from history and reality of social and economic development in the various countries, education is a key power source for social and economic development. Vocational education is an important part of the modern national education system and plays a special and important role in the implementation of the strategy of strengthening the country with talents.





At present, China is experiencing an important transition of economic and social development. As a result of its important social functions and special historical contributions, vocational education is developing into one of the most important socio-cultural phenomena in contemporary China. The scientific research, development and inheritance of vocational education will bring about a profound influence on the sustainable growth of vocational education in China (Hou Song, 2016).

The Guidelines on National Mid-and-long Term Educational Reform and Development Planning (2010-2020) (*Guidelines on National Mid-and-long Term Educational Reform and Development Planning (2010-2020)*, 2010) clearly mention that the development of vocational education is an important way to impel the economic development, promote employment, improve the people's livelihoods and is the key to ease the structural contradiction between labor supply and demand and consequently, it must be placed in a more prominent position. In recent years, with the continuous growth and development of Higher Vocational Education in China, the employment problem of students in higher vocational schools has gradually become prominent and has been highly concerned by the society.

In 2021, the enrollment of higher vocational education increased by 1.394 million, which not only cultivated high-quality technical and skilled talents for the society, but also effectively alleviated the severe employment situation. However, there is still a certain gap between the total amount, structure, training and use of skilled talents, especially high skilled talents, and the actual needs (Zheng JingXin, 2022). Employability skills are indispensable in the current era of technological disruption and





globalization. Employers complain about the insufficiency of skills among the workers (M. Mourshed, D. Farrell, & and D. Barton, 2012).

According to the report of the 19th CPC National Congress, general secretary Xi Jinping said employment is the biggest livelihood. We should adhere to strategy of employment first and positive employment policy, so that we can realize a higher quality and bigger employment. Establish vocational skill training on a large scale, focus on addressing structural employment contradiction, and expand employment by encouraging business startups (The report the 19th CPC National Congress, 2017).

This research uses the real demand of society for the employability of high vocational graduates as the starting point and takes Ningxia Polytechnic as the example.

Then the researcher does research on employability situation of present high vocational graduates according to enterprise's requirement, and analyze present employability supply of high vocational graduates. On the basis of these, the paper puts forward approach to improve student's employability and give related instrumental suggestions.

## **1.2 Background to The Research**

### **1.2.1 The International Background**

Around the world, countries have been pushing to expand education. The underlying view is clearly that improving the skills of the country will improve the economic position of both individuals and the nation (Browne Report, 2010). Vocational



education is education that prepares people to work in various jobs, such as a trade, a craft, or as a technician. Vocational education is sometimes referred to as career education or technical education (American Society of Tool Engineers (ASTE), 2016). The economic competitiveness of a country depends on the skills of its work force. The skills and competencies of the work force, in turn, are dependent upon the quality of the country's education and training systems. Vocational education is perceived as one of the crucial elements in enhancing economic productivity (Mustapha & Greenan, 2002). The advent of globalization has demanded more specialized labor markets, higher levels of skills, and diversified vocational education. For years, there has been a growing awareness that general education is often too academic and does not prepare young people adequately for the world of work. Undoubtedly, as compared to general education, vocational education and training has a closer and more direct link with economic and professional development. With this growth, organizations and enterprises are required to respond in a strategic manner to the changes which take place in order to benefit from the economic growth. They have to take drastic measures to upgrade their structures and operations and adapt the qualifications of their employees to the new challenges (George Mouzakitis, 2010).

At the International Conference on Technical and Vocational Education held in Tangshan, China, on July 4, 2017, UNESCO Director-General Irina Bokova pointed out that under the 2030 Agenda for Sustainable Development and the Sustainable Development Goals In the background, people began to pay more attention to the cultivation of vocational and technical skills. Education 2030 is a lifelong learning agenda that takes into account all aspects of work and life skills, in particular access to affordable, high-quality vocational and technical education and training, access to



vocational and technical skills for employment, decent work and entrepreneurship, eliminate the gender gap and ensure vulnerable people's opportunities (United Nations Educational, Scientific and Cultural Organization (UNESCO, 2017). Many countries have fully realized the importance of vocational education and regarded the development of vocational education as an important means of coping with the crisis, promoting employment and meeting the challenges of the new technological revolution. By closely integrating the promotion of the development of vocational education with the transformation of the mode of economic development, closely integrating with the educational reform and development and with the lifelong learning and development of everyone, China will continuously improve the quality of vocational education (UNESCO, 2017).



Social Outlook Trends 2017 (WESO), as the workforce growth rate exceeds the growth rate of new employment opportunities, the global number of unemployed is estimated to exceed 201 million by 2017 and an additional 2.7 million by 2018 Unemployed. Guy Ryder, director-general of the International Labor Organization, said: "We are facing the double challenge of repairing the damage caused by the global economic and social crisis on the one hand and creating high-quality jobs for tens of millions of new workers entering the labor market each year (ILO, 2017)."

According to the report of the 2030 China Vocational Education (2016) the process of globalization and regional integration is accelerating in the 21st century, and the division of labor in globalized production is more specialized. Major countries all over the world have formulated new economic development strategies, using



manufacturing as an important engine for economic recovery and implementing such programs as “re-industrialization,” “high-value manufacturing” and “industry 4.0.” It is an important guarantee to train a large number of technical and technical personnel that meet the requirements of industrial upgrading in order to achieve a new economic development strategy. Workforce needs not only expertise and skills, but also rapid adaptation to core competencies such as problem-solving skills, critical thinking, creativity, team work skills, communication skills, and conflict resolution skills needed for emerging technologies to meet rapidly changing skills and skills needs.

This is actually the requirement for vocational education to enhance the training of employability to meet the needs of the job market. There is gap between graduate attributes not only their employment readiness but also their employability skills

## 1.2.2 Domestic Research Background

On May 8, 2015, the State Council released the “Made in China 2025” strategic report, which laid an overall plan for the transformation, upgrading and leapfrog development of China's manufacturing industry. It is determined that by 2025, China will reach the goal of becoming a “manufacturing power” from a “big manufacturing country” and reach the international leading position or the international advanced level. By that time, China's manufacturing industry should narrow the gap with established industrial countries in terms of innovation, quality and efficiency. Vocational education and training are the fatal weaknesses in the structural adjustment of China's economy. With



China's strategic development in 2025, China wants to transform itself into an innovation-driven industrialized country, which can only be achieved through a highly qualified workforce (The State Council, 2015).

The second meeting of the Working Group on Employment of the Group of Twenty in 2016 was held on the 27th in Shanghai. Kong Chang sheng, vice minister of China's Ministry of Human Resources and Social Security, pointed out that improving the quality of employment and realizing decent work are the common aspirations of all countries in the world and are also an important part of the agenda of the leaders of the Group of Twenty. The Chinese government has always attached great importance to employment and has made positive achievements in creating more and higher-quality employment as a strategy to improve people's livelihood. At present, China is facing a change in the mode of economic development, entering a new normal of economic development and setting new and higher requirements for improving the quality of employment (China News Network, 2016).

The key to the competition in the new era lies in talents. Talents are the driving force to promote the development of all walks of life. The foundation of talents lies in education. The competition of talents in the development of the world economy is not only reflected in the competition of senior professionals, but also largely reflected in the overall quality competition in the production and management front-line workers. Generally speaking, the workers in the production line are generally mostly higher vocational and technical personnel. To educate higher vocational and technical personnel, that is, higher vocational education, has played a crucial role in the economic development of all countries in the world. In the continuous economic development of



China, it is bound to play a strategic role in the process of China's modernization (Xu Xinwen, 2016).

The premise of economic transformation and development lies in the upgrading and replacement of human resources in the society as a whole. The upgrading of human resources in today's society has gradually focused on the level of employability, that is, the ability of laborers to obtain and maintain their jobs and achieve a good career (Jia Lijun, Guan Jingjuan & Yang Yapei, 2013). Economic globalization, on the one hand, has led to a gradual shift in employment opportunities for graduates from all academic levels and a reduction in employment orientation. On the other hand, the impact of economic globalization on the traditional industries and the original employment pattern has left a large surplus of skilled urban workers. All of these will increase the employment difficulty of graduates from vocational colleges (Zhang Hanzhi & Chen Haobin, 2014).

In April 12, 2021, the national occupation education conference conveyed the important instructions of general secretary Xi Jinping. General secretary Xi Jinping pointed out: "In the new journey of building a modern socialist country in an all-round way, vocational education has broad prospects and promising prospects. We should build a number of high-level vocational colleges and majors, speed up the construction of modern vocational education, and cultivate more high-quality technical and skilled talents, skilled craftsmen and craftsmen from large countries." With the rapid development of Higher Vocational Colleges and the close cooperation between Higher Vocational Colleges and enterprises, the professional quality and skill quality of higher vocational students are gradually recognized by the society and enterprises. The



cultivation of vocational ability, craftsman spirit and excellence habit of higher vocational students is not achieved overnight. It needs students to consciously cultivate and train around vocational goals on the basis of correct career expectations. Only with clear career goals, orderly career planning and building vocational skills and professional quality according to the planning, higher vocational students are expected to come out of the employment dilemma of high initial employment rate and high turnover rate (Tang Wei & Zhang Zihan & Zhang Change, 2021).

The key to higher vocational education lies in the provision of operable technical personnel. Therefore, how to improve the employability of students in higher vocational colleges and solve their employment problems has become the focus of the current society. One of the most important reasons for the difficulty of obtaining employment for higher vocational students is the lack of employability skills. Vocational and Technical Education aims at cultivating skilled personnel, emphasizing job-oriented training, highlighting the training of post technical skills so as to enhance the employment rate of students (Fan Xinyi & Xu Guoqing, 2012). The cultivation of the employability of higher vocational students is not only the need of the development of higher education but also the need of social and economic development.

### 1.2.3 Local Research Background

The Ningxia Hui Autonomous Region where the author come from is one of five ethnic minority autonomous regions in China. It is located in the northwest of China and is the only provincial-level autonomous system of the autonomous region of the PRC with a



land area of 64.4 thousand square kilometers. The existing population is 6.18 million, of which the Hui population is 2.22 million. The Hui population accounts for nearly 36% of the autonomous region, nearly 20% of the country and is called “the Muslim Province” of China by other countries (YU Lijun, 2014).

Ningxia as an underdeveloped western region, Its income level, industrial structure, information level, scientific and technological innovation ability and education are still relatively backward, forming a traditional industrial structure dominated by agriculture and animal husbandry (Sun Jianping, 2017). In Ningxia, the industries that need applied specialists mainly include: agriculture and water conservancy, forestry, energy, information industry, transportation, communications and tourism. Major needs are: animal husbandry and veterinary, biological application technology, marketing, electronic application technology, computer application technology, accounting, business English, tourism services, energy and chemical industry, agricultural management, mechanical and electrical integration technology. According to the current situation of Ningxia applied talents, Ningxia applied talents are mainly cultivated through higher vocational colleges.

Although vocational education in Ningxia has made great strides in recent ten years, the level of higher vocational education in Ningxia has not kept pace with the economic development and social needs of Ningxia. There is also a single structure of the level of vocational education, lack of high-level high-quality professional talent, low level of technology and other issues (Xu Jie, 2014). In recent years, higher vocational colleges in Ningxia have developed rapidly. The government has built a Vocational Education Park, the school scale is expanding, and the teaching conditions

are getting better and better. Higher vocational colleges have trained a large number of skilled talents for the society. However, compared with developed areas, Ningxia's vocational education is relatively backward, still adopts traditional education methods, backward school running ideas, relatively insufficient teachers, poor training conditions, and the trained talents can't meet the needs of enterprises (Zhu Zimin, 2016).

At present, there are 39 vocational colleges in Ningxia, including 12 higher vocational colleges and 27 secondary vocational schools, with approximately 124,000 students. More than 100 majors in higher vocational colleges basically cover major regional industry categories such as energy and chemical engineering, equipment manufacturing, light industry and textiles, agriculture, forestry, animal husbandry and fishery, civil engineering, water conservancy, electronic information, and modern services. The school-running mechanism that links vocational and higher vocational education and general education and adult education has established a vocational education and training system with complete levels, complete professional categories, and more suitable for industrial development (Ningxia Daily, 2020) .

The Ningxia Polytechnic that I taught is a multi-disciplinary comprehensive public full-time college. It is also the first national model higher vocational and technical colleges of Ningxia. The college currently offers 37 majors, which are close to the frontier needs of economic development in Ningxia and train urgently needed applied talents for all walks of life in society, Such as modern textile, pharmaceutical, e-commerce, chemical technology and other talents. At present, the college's employment mainly comes from the cooperation with well-known enterprises in Ningxia, which



provide enterprises with order-based training of talents and supplemented by employment guidance to complete the employment of graduates.

“The core of the employment problem for college students is not the difficulty of finding a job, but the difficulty of finding a desired job. Many students lack of competitiveness, but graduates’ job expectations are generally high,” said Wang Sixu, director of employment guidance service center for college and technical secondary school graduates in Ningxia (Gao Fei & Wang Wei, 2021).

Pay attention to the employment ability of local higher vocational college students, analyze the factors which restrict the employment ability of higher vocational college students, promote the vocational college students' employment ability, to improve the quality of higher vocational college training. Not only to be able to work, but also to have the ability to claim jobs is more important. This research will take Ningxia Polytechnic as an example to conduct an investigation and analysis of the current status of employability of students and provide various factors that can reflect the overall employability of students. As a starting point, according to these factors to improve the employment of graduates of higher vocational colleges approach. Based on these factors, the article will propose to improve the graduation of vocational colleges ways to generate employability. It is of great practical significance to explore the employment ability of higher vocational students, pay attention to the cultivation of employability of higher vocational students, to promote the successful employment of higher vocational students, deepen the reform of higher vocational education, improve the teaching quality of higher vocational education and promote the harmonious development of society.



Scholars in China started late in the study of employability. There are many studies on the employability of college students, but there are still few studies on the employability of higher vocational students. In the Chinese Journal Full-text Database, only 897 results were retrieved using the keywords of “employability in higher vocational education,” and the time was concentrated in 2002. This shows that the attention to the employability of higher vocational students has only started from this time. There is no more research and analysis on the employability of students in higher vocational colleges, and there are not many theoretical references for the employability of higher vocational students. However, higher vocational graduates account for a large proportion of all college students. At the same time, higher vocational graduates have made tremendous contributions to China's economy and society (Li Yuzhen & Xiao Huaiqiu, 2016). Therefore, it is necessary to study the employability of higher vocational graduates. Scholars in Ningxia have little research on employability, which leaves a lot of study space for the study.

### 1.3 Statement of Problem

On June 15, 2022, the National Bureau of statistics released the employment data for May: the unemployment rate of young people aged 16-24 was 18.4%. "The high unemployment rate among young people needs to be taken seriously. The main reason is that under the influence of the epidemic, enterprises have difficulties in production and operation, and their ability to absorb employment has declined. At the same time, young people tend to seek jobs with strong stability, exacerbating the contradiction between supply and demand." On June 15, Fu Ling Hui, spokesman of the National



Bureau of statistics and director of the Department of comprehensive statistics of the national economy, said at the press conference held by the state information office on the operation of the national economy in May 2022 (Chen Jie, 2022).

In addition, structural contradiction between graduates and enterprises becomes more prominent. The employment market appears great contrast, with graduates hard to find jobs while enterprises hard to recruit employees. On the one hand, high vocational graduates with too high self-expectation cannot find an ideal jobs, facing unemployment after graduation. On the other hand, part of enterprises cannot find appropriate employees who meet the technical requirement, facing the problem of labor shortage. The gross of skilled craftsmen in China is gravely insufficient and the shortage of technician is very prominent. According to the data shown by human resource and social security department, at present, the number of skilled craftsmen only accounts for 19% of the gross of whole employment; and high technical talents only accounts for 5% (Data resource: www.cnr.cn, 2016). Zhang Chewei, director of the Institute of Population and Labor Economics at the China Academy of Social Sciences said, “the coexistence of employment squeeze and labor shortage reflected the structural contradiction of employment in China. The structural contradiction is a kind of mismatch, such as the mismatch between jobs and people, regional mismatches, etc. The employment squeeze shows that there is lack of appropriate jobs for graduates in reality.” The structural contradiction of employment become severe, which reflects the low employment quality of graduates is caused by the mismatch between labors’ skills and job requirements, labor supply and those sought by employers. Especially the great shortage of technical talents actually reflects the gap and contradiction between the graduates’ self-ability and the enterprises’ needs (Feng Hua & Wang Xiaoye, 2015).



High vocational graduates, as a crucial human resource of society, play an important role in talent market (Wang Yali & Liu Yabin, 2011). Economic and social development in China has made its movement into a new period, facing the industrial upgrading, China needs large quantities of high-quality technicians urgently than ever before. The transformation of economy forced enterprises present new requirements to high vocational graduates. With the global competition becoming intensifying and high vocational education in China continually developing, the employment problem of students in high vocational colleges is becoming severe and has drawn great attentions from the whole society. A lot of research shows that, with the requirements of many employers becoming choosier, the high vocational graduates, on the bottom level of high education, are facing bigger challenges and pressure. Chinese 3-year Vocational College Graduates' Employment Annual Report (2017) published by MyCOS Institute points out that there is mismatch between high vocational graduates' comprehensive quality and employment ability and real demands of employers. This is because with the number of high vocational graduates rising each year, the graduates' comprehensive quality and employment ability vary greatly, and cannot meet the requirements of employers. To fundamentally solve this problem, we have to reform the training scheme of high vocational education, strengthen and improve employment guiding work for graduates, so as to enhance comprehensive quality and employment ability of graduates. As a result, we can make radical improvements in employment quality (MyCOS, 2017).

Compared with ordinary college students, vocational college students' professional basic knowledge is lower, the starting point is lower, the employment ability is relatively weak (Tang Guoying, 2016). To solve the employment problem of



higher vocational college students not only need the support of the government and society, more importantly, vocational colleges should improve the employability of graduates, so as to realize the smooth employment of higher vocational college students and maintain social harmony and stability. How to solve the existing problems of higher vocational students' employment has become a topic of common concern in society.

Chinese 3-year Vocational College Graduates' Employment Annual Report (2017) (employment blue book) released by MyCOS Institute show that the unemployment rate of graduates in the past two years has reached 17.6%. Many vocational students face unemployment pressure after graduation, and the unemployment issue becoming more and more serious. The key to higher vocational education lies in the provision of operable technical personnel. Therefore, how to improve the employability of students in higher vocational colleges and solve their unemployment problems has become the focus of the current society. One of the most important reasons for the difficulty of obtaining employment for higher vocational students is the lack of employability skills among graduate. Vocational and Technical Education aims at cultivating skilled personnel, emphasizing job-oriented training, highlighting the training of post technical skills so as to enhance the employment rate of students (Fan Xinyi & Xu Guoqing, 2012). Although vocational education has always stressed that employment-oriented, but only pay attention to the employment rate, do not attach importance to the quality of employment is also a short board of vocational education. Improving employability is the key to solve the employment problem.



Qiao Zhihong pointed out: "Employment ability is an important factor affecting the employment of college students. Help students find a satisfactory job." In his investigation, Lai Desheng pointed out that 60% of students think that "the lack of their own ability" is the cause of employment difficulties. It can be seen that the key to solving the employment difficulties is to improve the employability of students (Guo Bin, 2016).

Higher vocational students have higher expectations in the choice of employment units. The survey found that 34.2% of students hope to work in state organs after graduation, 55.7% of students hope to work in accounting firms, banks, shopping malls, factories and other units, and 10.1% of students will choose to work in small enterprises. Most of the students hope to find a decent work unit with a good working environment. Obviously, this employment expectation is too idealistic for newly graduated higher vocational students. They are short-sighted in the cultivation of employability because they do not consider the depth of career expectations. (Tang Wei & Zhang Zihan & Zhang Change, 2021).

Vocational education has become a new force serving the economy and society. In recent years, it has attracted the attention of the state and all sectors of society. The employment of vocational students has become a global problem in the century. In the face of the continuous expansion of Vocational Colleges and the improvement of the recruitment threshold of enterprises and institutions in society, on the one hand, the majority of vocational school students are mercilessly idle by the society and enterprises, on the other hand, employers and enterprises are eager for talents, resulting in a labor shortage, In this way, the contradiction between the difficult employment of

vocational college students and the labor shortage of employers has become the focus of the whole society (Liu Min, 2020).

In 2021, the number of college graduates in Ningxia will reach a new record, with 37530 college graduates in the region alone. Due to the economic downturn and the impact of the sudden epidemic, some enterprises fell into business difficulties and reduced staff and salaries or even shut down production, resulting in a significant reduction in recruitment plans, and the employment situation of college graduates is very serious. (Song Keyu, 2021).

Today employability is far bigger a challenge than unemployment. Industry leaders feel that the "skills" and "quality" of the workforce need a lot of improvement (Harshal Vashi's. 2021).

In the current enterprise management, some enterprises lack advanced human resource management concepts and do not have a clear positioning for the employability required by enterprises, which is also an important factor causing the deviation between the employability of students in Higher Vocational Colleges and the needs of enterprises. From the development of colleges and universities in China, higher vocational colleges are relatively lax in their contact with enterprises and do not grasp the needs of enterprises, so it is difficult to achieve targeted training, resulting in students' employability and skills failing to meet the requirements of enterprises (Liang Ning, 2021).

In view of this situation, taking Ningxia Polytechnic as an example, this paper evaluates the employability level of graduates of Ningxia Polytechnic, and forms an employability framework to improve the employability of students. The most important thing is that no scholars have done research on the employment ability of Ningxia Polytechnic, so the author hopes to fill this gap. Through this research that obtained a framework to improve students' employability and achieve the goal of cultivating students' employability.

#### 1.4 Objectives of Research

The purpose of this study is as follows:

1. Identify the employability skills level of students in Ningxia Polytechnic.
2. Identify the Factors contributes to employability skills development among students of Ningxia Polytechnic.
3. To develop a framework of integrating/improving employability skills among Ningxia Polytechnic students.



## 1.5 Research Questions

This research will do a more in-depth study on the issue of “student employability and its development in Ningxia Polytechnic” on the basis of literature review of relevant research on employment ability of higher vocational students. Based on the background and purpose of the study, this article will address the following research questions.

RQ1: What is the employability skills level of students in Ningxia Polytechnic?

RQ2: What are the main factors affecting the employability of Ningxia Polytechnic?

RQ3: What is the framework for improving the employability of vocational college



## 1.6 Research Hypothesis

The research develops basic six hypotheses based on previous studies in order to answer the research questions. These hypotheses are presented as follows:

H<sub>1</sub>: Student Factors is positively impacted students' employability skills.

H<sub>2</sub>: Curriculum is positively impacted students' employability skills.

H<sub>3</sub>: Teacher Level is positively impacted students' employability skills.



H<sub>4</sub>: Teaching Methods is positively impacted students' employability skills.

H<sub>5</sub>: Employment Guidance is positively impacted students' employability skills.

H<sub>6</sub>: Teaching methods, Curriculum, Teacher level, and Employment guidance may affect the employability by affecting Student factors.

## 1.7 Conceptual Framework of Research

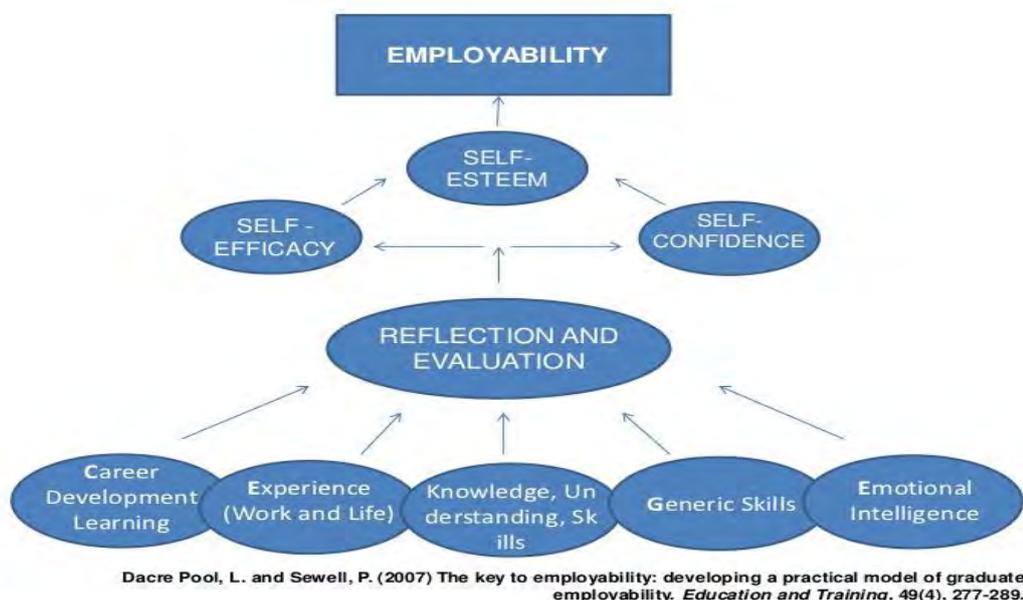


Figure 1.1. Employability Framework

The model depicted in Figure 1.1 above illustrates the essential components of employability and also suggests the direction of interaction between the various elements. The mnemonic CareerEDGE is used as an aid to remember the five components on the lower tier of the model. It is suggested that providing students with

opportunities for them to access and develop everything on this lower tier and essentially, for reflecting on and evaluating these experiences, will result in development of higher levels of self-efficacy, self-confidence and self-esteem – the crucial links to employability (Dacre Pool, Sewell, 2007).

According to Boffo (2017) the CareerEDGE model proposes an effective reading of the capacity/skills/knowledge that are necessary for an appropriate transition. Even though the model stresses in a less evident way the role of social dimensions and environment, in the same way it influences personal development. Despite some limitations, Soares et al. (2017) found that the CareerEDGE model is straightforward for academics, students, employers and parents to recognize and understand the prospects for employability. Another study done by Sumanasiri et al. (2015) has justified the CareerEDGE model as a comprehensive and widely accepted model of employability (Smith, et al., 2014; Pool & Sewell, 2007, as cited in Sumanasiri et al., 2015).

Figure 1.2 briefly summarizes the conceptual framework of this study.

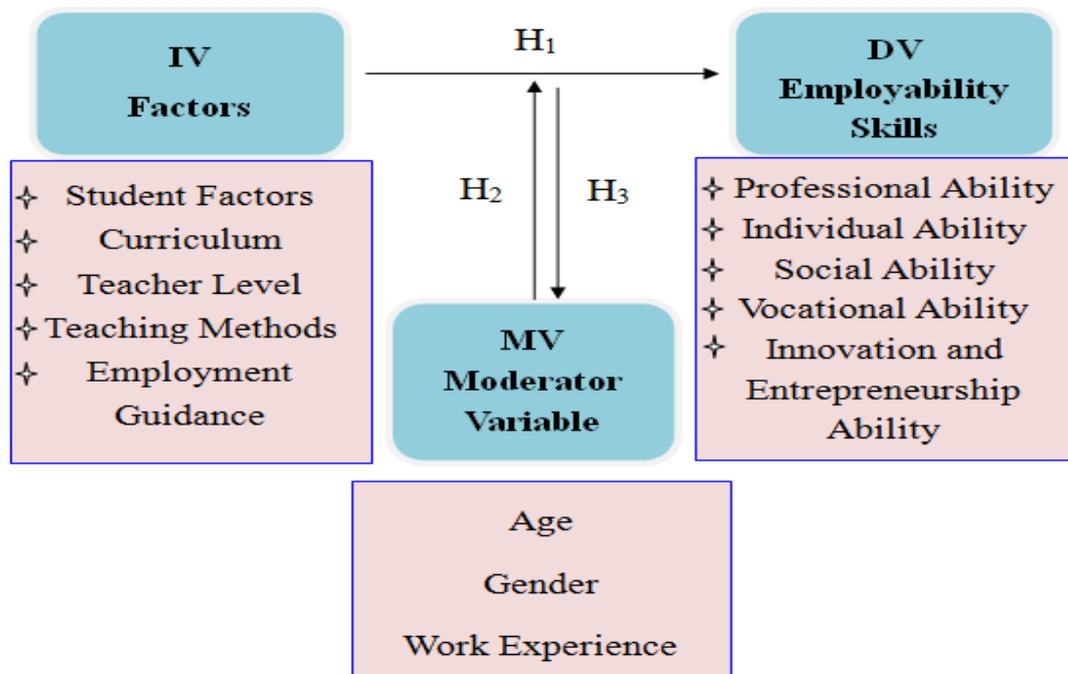


Figure 1.2. Employability Framework of This Study

The independent variables of this study are factors that affect employability, including (Student Factors, Curriculum, Teacher Level, Teaching Methods, Employment Guidance). The dependent variable is employability, which includes 5 abilities (Professional ability, Individual ability, Vocational ability, Social ability, and Innovation and entrepreneurship ability). Moderator variable includes 3 (Age, Gender, Work Experience). The description of employability and the sources of influencing factors are explained in detail in Chapter 2. Explain the source of the mediation variable here.

Table 1.1

*Moderator variable Source*

Moderator variable	Source
Age	Guo Bin, 2018; Chen Yong,2012
Gender	Guo Bin, 2018; Henok Sirgew, 2018.
Work Experience	Guo Bin, 2018; Mohd Basir. (2016)

**1.8 Research Significance**

As far as the actual situation is concerned, the employment situation of vocational students is not optimistic. The employment issue has caused increasing concern. As a new form of higher education, higher vocational education is the main force in the process of popularization of higher education. The high-skilled applied talents it cultivates not only helps to optimize the structure of social talents, but also promotes the rational distribution of talented people in the society and helps to promote the sustained and healthy development of the local economy. To study the employability of higher vocational students in Ningxia, and to help vocational colleges understand the current employability and training methods of current students, we can provide targeted advice for higher vocational colleges in improving students' employability. Broadening the horizon of research on employability can provide guiding suggestions on the construction of pertinent employability and the strategies for improving employability. To improve students' employability is an urgent problem to be solved in higher vocational colleges. It can ensure the long-term development of higher vocational colleges. As the society changes its emphasis on academic qualifications, the demand



for high-skilled and applied talents in the society has greatly increased, and higher demands have also been placed on the comprehensive capabilities of talented people. By studying the ability structure and evaluation criteria that college graduates should have in the job search process, the factors that influence the employability have been more fully understood. From the perspective of graduates' self-evaluation of employability and comparison of employing units, the theory of the relationship between employment ability and employment quality in higher vocational education is enriched. Therefore, it is of great theoretical significance and practical value to study the employability of higher vocational students, explore ways of fostering employability that meet the needs of the development of social industries, and cultivate highly skilled applied talents with comprehensive competitiveness.



### **1.8.1 Theoretical Significance**

In theory, the employment issue has always been a problem that the society attaches great importance to, and employment is the key to the development of higher vocational colleges. Higher vocational education is based on the training of high-quality skilled personnel required for the first line of production, construction, and management services. It adheres to the principle of “employment-oriented and service-oriented” and “not only learning books, but also paying more attention to skills training; not comparing levels but requiring improvement of quality.” This requires that the cultivation of talents in higher vocational colleges must be based on the actual needs of production, and that specialized talents should be trained for specialized positions. At the same time, the traditional “employment first” value concept should be abolished.



While pursuing a high employment rate, we must pay attention to improving student employment results. Under the current situation of prominent employment conflicts, it is imperative to actively promote and develop students' employability and adaptability to social development in higher vocational colleges. The theoretical significance of strengthening the employability of graduates from higher vocational colleges is expressed in the following two aspects:

#### **1.8.1.1 One effective self-test tools for vocational school students' employability are compiled**

Formed a vocational school student employability test questionnaire: through the study of employability and its influencing factors model and factor confirmatory analysis, one effective self-test tools are obtained. Based on the existing questionnaire and the actual situation, this study designed a questionnaire suitable for measuring the employability of students in Ningxia Polytechnic. According to the requirements and principles of questionnaire preparation, a formal questionnaire on the current situation of students' employability in vocational colleges and universities was compiled according to the structural elements of employability.

#### **1.8.1.2 Construct the structural framework of students' employability in Ningxia Polytechnic.**

Based on the theoretical research on the literature review and analysis at home and abroad, this study summarizes the indicators of employability. On this basis, the research questions of this research are put forward. According to the principles and



requirements of preparing questionnaires, the Self-Evaluation Scale of Vocational College Students' Employment Ability is compiled, and then the quantitative data analysis is carried out through the data collected by the questionnaire. The SPSS 20.0 and AMOS software was used to carry out reliability analysis on the valid data collected by the survey. Conduct an in-depth analysis of employability and clarify specific components, and analysis of factors affecting employability. Finally, develop an employability improvement framework.

## 1.8.2 Realistic Significance

From a realistic point of view, exploring the structure of graduates' employability suitable for the development of enterprises has a strong practical significance for the students' personal growth, the long-term development of the school, and the economic benefits of the company and society.

### 1.8.2.1 Improve the comprehensive employability of higher vocational students Promoting the reform of Vocational Education in Ningxia

At present, the school running mechanism of Vocational Education in China is not flexible enough, and the educational concept is backward, The management system is obsolete, and there is still a big gap between the number, structure and quality of talent training and the market demand. In terms of specialty setting, training mode and teaching management, it does not fully reflect that vocational education closely follows the development needs of the market economy, so that many graduates of vocational



schools lack practical ability and employability required by the workplace, and are unable to find suitable jobs.

The employability framework will propose in this study and the suggestions to improve the employability of vocational students provide a reference for the reform of Vocational Education in Ningxia.

#### **1.8.2.2 Put forward suggestions to improve the employability of vocational students.**

For graduates, improving their employability can not only improve their overall quality, but also possess the characteristics and abilities of practice, study, and creativity. It also enables them to meet the needs of enterprises and society and to achieve smooth and high-quality employment. From the perspective of graduates of higher vocational colleges, through the study of the employability of higher vocational college graduates, targeted measures can be taken, which can effectively relieve the employment pressure of higher vocational college graduates (Ha Liwen, 2007). At present, the society does not understand higher vocational colleges, and has low recognition of graduates of higher vocational colleges. Higher vocational college graduates frequently run into trouble during the employment process. Analyzing and researching the employability of graduates of higher vocational colleges can make graduates of higher vocational colleges more aware of their own employment ability and the needs of employers and encourage higher vocational college graduates to strengthen their self-education and improve their employability, and ultimately achieve smooth employment (Li Wenhong, 2011). Studying the ways to improve the employability of higher vocational students

can enable the graduates of higher vocational colleges to have a comprehensive understanding of themselves, an accurate self-analysis, and to make a judgment of sustainable development in the future life choices, thereby enhancing their competitiveness in the job market and ensuring the fair distribution of talents in the society.

The main source of students in higher vocational colleges in Ningxia is Ningxia local students, supplemented by other provinces. In recent years, with the reform and strong support of national policies, various vocational colleges have expanded their enrollment and continuously reduced their admissions scores, making the overall quality of higher vocational students decline. The study of student employability can be conducted through survey interviews to understand the level of student's employability and find out the weak links. This can not only enable teachers to implement targeted teaching, understand the direction of teaching reform, establish the goal of teaching reform, but also can stimulate students to self-improvement of the internal driving force of employment. After self-recognition of students through the evaluation of employability, they understand the ability of the employer to focus on and the individual's lack of employment, so that they can improve themselves, understand themselves, improve their employability, and improve the quality of their employment. Finally, they are successful and satisfied with employment.

Study and analyze the employability of students in higher vocational colleges. Through the organic combination of foreign advanced experience and China's educational national conditions, the effectiveness and ability of higher vocational colleges in running schools are enhanced, and the social status and reputation of higher



vocational colleges are enhanced to a certain extent. Make higher vocational colleges more aware of the evaluation and requirements of employers on the employment of higher vocational college graduates, and further deepen the employment-oriented school-running mode such as “combination of work and study,” “school-enterprise cooperation” and “process teaching.” Provide the basis for the reform of education and teaching in higher vocational colleges, promote the prudent examination of existing talents training mode and teaching mode in higher vocational colleges, timely change the mode of talent cultivation according to social needs, improve the quality of education and teaching, and promote the health of higher vocational colleges in China.

### **1.8.2.3 Input high-matching talents for enterprises to solve social employment problems**



From a corporate and social perspective, improving the employability of graduates is conducive to the input of talents with a high degree of matching, meeting the needs of enterprises, and creating maximum value for enterprises. Due to the economic transformation and the adjustment of the industrial structure, the degree of technological intensiveness has also increased, and more stringent requirements have been put on graduates' employability. As the main force of social human capital, higher vocational graduates should have been the creators of social wealth. Nowadays, in the face of the gap in the demand for talents, they have become involuntary unemployed. Domestic and foreign scholars have been constantly researching this issue, but most of the starting point and end result are related to the student's own development, while ignoring the company's development needs for talent. However, only when the supply of employment capacity meets the needs of society can the economy be promoted more





quickly and effectively. The purpose of higher vocational education is to cultivate practical and skilled talents. The society has increasingly recognized and valued its practical production role.

For a long time, the focus of the reform and development of higher vocational education is on professional settings, practical skills training, vocational qualification education, etc. It is only responsible for one-time employment of students and does not take into account the actual employment effects and career development of students. For business needs, it only stays at the level of professional and job matching. It does not delve into other aspects of professional quality. This leads to low satisfaction behind the high employment rate. This will not only impede the improvement of students' personal qualities but will also be detrimental to the long-term development of the company. This study is based on the needs of higher vocational colleges serving local industrial development. It provides higher vocational graduates employability standards and talent cultivation concepts that meet the needs of local industrial development and caters to the needs of enterprises for higher vocational graduates including professional basic skills, social adaptation, and professional development capabilities. It also provides human resources protection for enterprise development.

Through case study and taking Ningxia Polytechnic as an example, this research summarizes the current situation of employability of higher vocational graduates from the perspective of enterprises' demand for talents, and comprehensively analyzes the problems of employability of graduates from higher vocational colleges in Ningxia. At the same time, it also finds the gap between the ability required by the company and the corresponding countermeasures to improve the employability and strives to use this





countermeasure to improve the employability of graduates from higher vocational colleges. Strengthen the training of the employability of governments, enterprises, higher vocational colleges and graduates. Improve the quality of employment and the labor market. The study of the status quo of vocational students' employability in Ningxia and the ways to cultivate them can provide directional references for higher vocational colleges to cultivate students who are able to “work for employment” and to “get ready for employment”; and can prompt higher vocational colleges to shift from the single emphasis on students' skill diathesis to the emphasis on cultivating the overall quality of students. It can ultimately improve the working ability of Ningxia higher vocational graduates and contribute to the development of the western economy.



Three primary limitations were present in this research study: the sample size, the researcher's experience with non-parametric tests, and the research data sources. Further, it is essential to examine potential sources for bias in any research. Each of these potential limitations is discussed herein. Larger sample sizes are desired to permit stronger statistical analysis and more generalizability (Siddiqui, 2013). Because the employability of individuals is difficult to measure accurately, this study still has the following limitations :

First, this research takes the students of Ningxia Polytechnic as the survey object, but in general the sampling range is not large enough, the representative is not strong enough, cannot fully reflect the employability level of higher vocational students.





Therefore, follow-up research can expand the sample capacity, select more schools as the survey object, make the survey scope more comprehensive, and the research conclusions are more convincing.

Secondly, based on the previous research, this research divides the employability into five dimensions, and the survey scale also passes the reliability and validity test, but the employability is a complex problem. The research on the employability structure is still Lack of rigor and limitations. Therefore, the follow-up study can further refine the composition of employability and conduct an in-depth examination and examination of the scale.

Third, the study of employability is a dynamic issue, and it will be affected by other factors. It is a relatively difficult problem to accurately measure the employability of vocational students. Therefore, in the follow-up study, more time and resources should be invested, and long-term follow-up surveys should be conducted on the respondents, and the research conclusions should be continuously improved and supplemented.

In summary, there are still some shortcomings in the research on the employment ability of vocational college students, which need to be supplemented and improved by future researchers. However, the author still hopes that this research can make a modest contribution to the research on the improvement of employability. Subsequent research provides lessons to be learned.



## **1.10 Operational Definition**

### **1.10.1 Employability**

According to the definition of Wikipedia, Employability refers to the attributes of a person that make that person able to gain and maintain employment. This study defines the employability of higher vocational students as follows: higher vocational and technical colleges are aiming for employment while students are in school. Through knowledge learning, professional practice, and social practice, graduates have the comprehensive ability to acquire a variety of knowledge, skills, personality qualities, and attitudes that can make them successful in career, occupation, and professional development.

### **1.10.2 The Ningxia Polytechnic**

The Ningxia Polytechnic is under the people's government of Ningxia Hui Autonomous Region. This is a multi-disciplinary, multi-disciplinary comprehensive public full-time college. It is also the first national model higher vocational and technical colleges of Ningxia. The college currently offers 43 majors, which are close to the frontier needs of economic development in Ningxia and train urgently needed applied talents for all walks of life in society. The school currently has 9244 full-time students (including 6184 vocational students and 3,060 secondary vocational students).



### 1.10.3 Structure of Employability

The U.S. Training and Development Association divides the employability into five categories, a total of 16 skills: basic competence, communication ability, adaptive ability, group effect, and impact ability (Wang Ying, 2006). This research defines the employment ability structure of higher vocational students as the following five components: professional ability, individual ability, vocational ability, social ability, and innovation and entrepreneurship, which constitute the theoretical model of the employability structure of the vocational college students.

### 1.11 Summary of Chapter



Chapter 1 introduced and described the problem facing the employability of higher vocational students. It specified the nature of the study, stated the background, present the research question, explore the objectives of the study. This chapter introduces operational definitions of key terms and defined this study's limitations and delimitations. Finally, this chapter argued for the significance of the study.

