

Practice on Curriculum Reform of Career Development and Employment Guidance for Diversified Students of Forestry and Water Conservancy Major in Higher Vocational Colleges Based on Big Data Analysis

Wei Wei^{1*}

¹Yellow River Conservancy Technical Institute, Kaifeng, Henan, China

*Corresponding Author.

Abstract:

With the advent of the era of big data, the current career planning education of forestry and water conservancy major in higher vocational colleges has also ushered in new changes and opportunities. Under the framework of the new era, how to realize the reform and development of education of forestry and water conservancy major has become a common concern of educators. This paper first introduces the main impact of big data era on social employment situation. Then it analyzes the specific problems in the teaching of career planning. Finally, combined with the above content, this paper puts forward the optimization strategy of career planning education in Higher Vocational Colleges Based on big data analysis. The experimental data show that the proposed method can better realize the application of big data analysis in career planning education in higher vocational colleges, and can improve the teaching level and create conditions.

Keywords: *Big data, forestry and water conservancy major, higher vocational colleges, career planning, education reform.*

I. INTRODUCTION

The development and popularization of vocational education is an important symbol to measure a country's modernization level and social civilization. It can be said that no developed

country does not attach importance to vocational education¹n [1-3]. However, China's vocational education has not formed a complete and systematic theory, and the guidance of career planning is almost blank. Compared with the theoretical results of career planning education in western countries, there is a great gap. The career planning education in China, which started at the beginning of the 21st century, is still in the stage of exploration and learning [4]. The 21st century is an era full of opportunities and challenges, an era of realizing the great rejuvenation of the Chinese nation, and an era of more fierce competition. College students and higher vocational students are valuable human resources of our country. Their employment and future development not only affect college students and their families, but also affect the development and improvement of higher education in our country [5]. To solve the future of College Students' career development in our country, it needs not only the efforts of the national government, but also the students themselves to establish a correct concept of career choice, scientific and reasonable self-awareness and planning. It can be said that career planning education is the starting point of their successful employment, career success and even life development.

II. THE CURRENT SITUATION OF CAREER PLANNING EDUCATION FOR HIGHER VOCATIONAL STUDENTS IN CHINA

2.1 Basic situation of questionnaire survey on career planning education of higher vocational students in China

This questionnaire designed 42 questions, and used or used the theory of schnein's career anchor, Holland vocational interest test and Mel breig type index, and comprehensively investigated the vocational career planning and education of vocational college students from five parts: career exploration, career experience, career belief, career plan and career planning education [6-7]. This questionnaire survey was carried out in many vocational colleges. 510 questionnaires were distributed on site and network, 500 were recovered and 500 valid questionnaires were collected. Among them, 227 girls, 273 boys, 301 freshmen, 110 sophomores and 89 students in junior high school, involve many major such as machinery, electronics, commerce, computer, environmental art, garden, animal husbandry, etc. [8-10].

(1)Career exploration

Career exploration is to choose work and career development in the future, and take the initiative to explore self and work, including understanding self and related information, making full use of interpersonal resources in learning and life, and using media resources in learning and life.

1

TABLE I. Self cognition

PROBLEM	YES	I'M NOT SURE	NO	NO CONSIDERATION
Do you know Baiji's personality	25%	70%	2.5%	2.5%
Do you know Bai Ji's interest	38%	54%	8%	0%
Do you know the advantages and disadvantages of Baiji	7%	52.50%	38%	2.5%

TABLE II. Professional aspect

PROBLEM	LIKE	I'M NOT SURE	DISLIKE	NO CONSIDERATION
Do you like Baiji's major	38%	36%	20%	6%
Do you know Baiji's major	37.5%	50%	12.50%	0

In addition, vocational college students are often affected by many factors when they choose their majors (as shown in Figure 1)

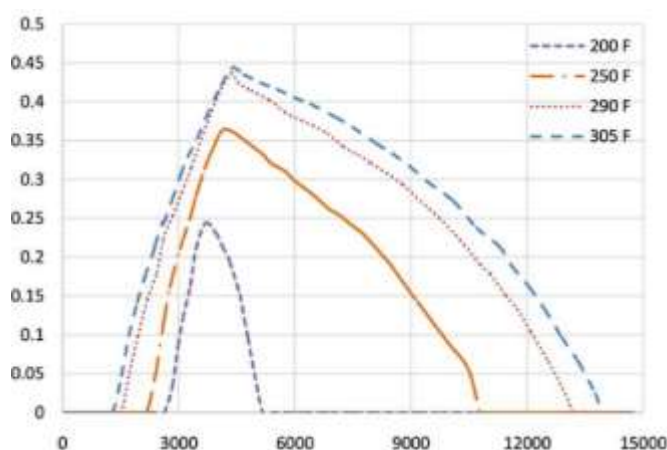


Fig 1: What decided to choose the current major

(2)Career beliefs

Career belief is the concept and idea of career development, including the influence of social prestige, career planning and belief of choice. On this issue, we focused on the survey of the expectation of higher vocational students for the future work, and the most important factors in choosing work. The results are shown in the figure (Fig. 2 and Fig. 3).

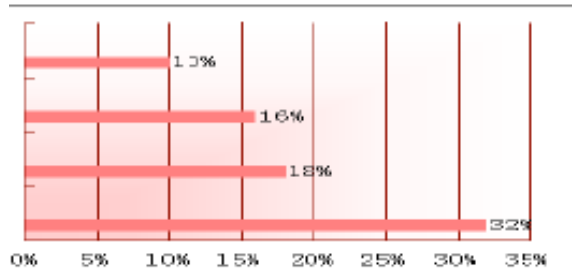


Fig 2: Which of the following is your ideal unit?

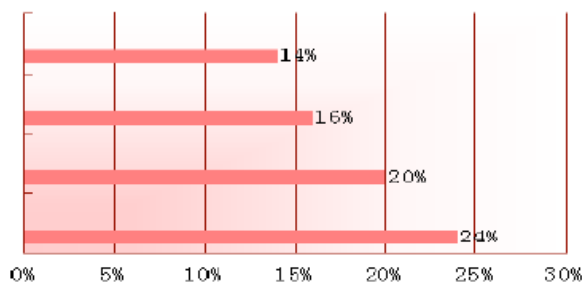


Fig 3: What factors do you value most in choosing your company and occupation (three at most), and the top four

2.2 Achievements of career planning education for higher vocational students in China

In recent years, the state and the Ministry of education attach great importance to the career planning education in Colleges and universities, and regard it as an important work to comprehensively promote quality education. In 2007, the state issued the notice [2007] No.26 document of the general office of the State Council on effectively doing a good job in the employment of college graduates in 2007. According to the teaching requirements of College Students' career development and employment guidance course, colleges and universities have formulated scientific and reasonable teaching syllabus, developed career planning and employment guidance courses with their own characteristics, and carried out relevant teaching activities. Since 2008, the Ministry of education has advocated the setting up of career development and employment guidance courses in Colleges and universities, which run through the whole process of students from enrollment to graduation as a public course.

There are regional differences in China's higher vocational education. The eastern coastal higher vocational education is far more developed than the central and western regions, which makes the higher vocational students' career planning education have obvious regional differences. Through questionnaire survey, teacher exchange and student interview, it is found that the concept of career planning education in Higher Vocational Colleges in Changsha, Chenzhou and other economically developed areas is updated, the teaching staff is more professional, the teaching curriculum system is more perfect, and the school attaches more importance to it. Students' demand for career planning education is more urgent, and their understanding of career planning is more comprehensive. The career planning education in developed areas is more advanced than that in inland Higher Vocational Colleges in terms of educational philosophy, educational means and curriculum system. Learning from the education experience in coastal developed areas and combining with their own development environment, we can realize the balanced development of career planning education for higher vocational students in China.

2.3 Problems in career planning education of higher vocational students in China

(1) Problems of higher vocational students themselves

Through investigation, interview and data review, it is found that vocational college students are seriously lack of self-awareness, and the prospect of career planning education is not optimistic. Career planning requires that vocational college students' self-awareness is the understanding of themselves and their relationship with the surrounding environment, including the understanding of their own existence, as well as the understanding of individual physical, psychological, social characteristics and other aspects. For example, in the questionnaire, students are asked to explore their own advantages and disadvantages, and the results are not satisfactory. When they point out their own advantages and disadvantages, only 7% of the students know that they can't answer. Other students can't find any words that can describe their own advantages and disadvantages. The students who answered think that most of their advantages are hard-working, optimistic and cheerful, good at interpersonal communication, communication, organization and coordination ability, while the disadvantages are poor basic knowledge, lack of social experience, lack of comprehensive ability, serious inferiority feelings and insufficient innovation consciousness. Vocational college students hardly know their hobbies.

In choosing a job, students should not only consider the significance of their career for their own survival, but also consider the role of realizing their own value, giving full play to their talents and undertaking social responsibility. However, in today's world of material desires, some higher vocational students' life value is distorted, and their understanding of life only

stays on the satisfaction of material desires. Some vocational college students openly admit that today when people's desires are publicized, interest is the driving force, "usefulness is the truth" and "future, money is the plan". Such values have a direct impact on Vocational College Students' career outlook and career outlook. They regard money as the only standard to measure the quality of their work and blindly pursue jobs with high social status and good income, while ignoring the realization and satisfaction of personal needs and improvement of living and working conditions in the process of realizing and creating social values.

(2)Problems in Higher Vocational Colleges

In order to obtain better teaching effect, the necessary funds and supporting facilities are essential. In order to help students better grasp the knowledge of career planning, it really plays a positive role in students' career and life. Colleges and universities need to provide the necessary funds and service facilities as a guarantee, such as the purchase of books and materials related to career planning, the configuration of multimedia teaching equipment, and advanced career evaluation system tools. However, with the continuous shortage of students, the struggling higher vocational colleges really do not have more funds to invest in career planning education, especially in some remote vocational colleges. Their students have never done any career evaluation in their three years in University due to resource constraints. What the school has done is nothing more than employment guidance before graduation.

In the 04 program of the Ministry of education, it is emphasized to strengthen the ideal and belief education of students, and promote the timeliness of Ideological and political education on the platform of psychological education and career planning education. At present, most of the Vocational Colleges in the career planning education stay in the employment guidance, do more is "how to deal with the job interview", "employment psychological preparation", "how to write a cover letter" and other coping skills. However, how to establish a correct world outlook, values, professional values, career outlook, cultivate students' ability of career planning, and improve the various qualities needed by the occupation are less involved. In the process of career planning education, to help students establish a correct view of career choice, so as to guide the correct establishment of "three views" is also a problem that career planning educators must think about.

III. THE CAUSES OF THE PROBLEMS IN CAREER PLANNING EDUCATION OF HIGHER VOCATIONAL STUDENTS IN CHINA

3.1 Career planning education has not formed a reasonable and perfect teaching system

(1) Lack of localization research results

Although the exploration of career planning education in China is not late, due to historical

reasons, the research and Exploration on career planning education has been completely stagnated until 1980s. At this time, compared with the development of career planning education abroad, we have been nearly a hundred years behind. In the subsequent exploration, we learn more from foreign achievements and experience, ignore the formation of systematic and localized career planning theory, and the development of career planning education has not achieved obvious and ideal results.

(2) Career planning education is from point to area, lack of personalized guidance

As defined by the definition of career planning, it includes self analysis, environment analysis, career choice, planning formulation, plan implementation, feedback and correction, etc. At present, vocational colleges generally regard career development and employment guidance as career planning. The contents involved are as follows: graduates explain employment policy, analyze employment situation, collect demand information and so on. Single teaching content can not meet the needs of students. Career planning education should have distinct characteristics of individuality. Each student's personality, interest, ability and hobby are different. It is particularly important to "teach students in accordance with their aptitude" in career planning education, highlighting the pertinence of education. But in the process of education implementation, our higher vocational colleges are basically universal education, lack of personalized counseling. For example, at present, vocational colleges adopt large classroom teaching in career planning course, regardless of specialty, category and preference, and will not do psychological counseling and personalized counseling combined with career confusion.

3.2 Insufficient understanding of the importance of career planning education

(1) Vocational colleges do not pay enough attention to career planning education

At the same time of developing higher vocational education in our country, the training goal of higher vocational education is defined as the specialized applied skilled talents with strong practical ability. Therefore, most higher vocational colleges put the cultivation of students on professional education, thus ignoring some non intellectual and non-technical factors, such as values, will and character, psychological sentiment, of course, including the career planning education we emphasize here. This kind of neglect is obvious in ideology, curriculum, teacher construction and supporting facilities. First of all, ideologically, although the Ministry of Education issued a notice in 2007 to encourage colleges and universities to set up career development and employment guidance courses from 2008, and put the course as a public course into the teaching plan. However, under the huge employment pressure and severe enrollment situation, higher vocational colleges tend to pay more attention to professional teaching. For this kind of course which is not even a public compulsory course, it is more out of coping mentality. Secondly, the lack of attention is directly reflected in the neglect of

professional teacher training and the perfunctory service of professional institutions, and in the curriculum setting, students' career planning is simply equivalent to employment guidance. In order to squeeze out more class hours for professional courses in most vocational colleges, career planning courses are often carried out in the form of reports and lectures, and most of them are just offering career development and employment guidance courses in their junior year.

(2) The lack of career planning education in family and society

Family and society are important factors that affect career planning. Especially under the influence of family environment, parents are children's first teachers, and their values, outlook on life, education methods and every word and deed will be transformed into children's value standards. Family economic conditions are also related to the training and improvement of children's vocational ability and learning ability. Parents' social status and social relations often affect their children's ways of employment. Parents' different expectations of their children's success also affect their children's different choices of career. As far as society is concerned, we all live in a certain social environment. Marx once said, "man is the sum of all social relations". Everyone's survival and development will be affected by society, and personal professional behavior is no exception. Since the beginning of the 21st century, the environment we are facing has undergone dramatic changes, which have impacted the prospects of personal career development. However, compared with the importance of career planning education in foreign social environment, Chinese society is far from enough, which makes vocational college students seldom contact with relevant concepts and lack of planning consciousness, which restricts the development of career planning education of Vocational College Students in China.

IV. COUNTERMEASURES OF CAREER PLANNING EDUCATION FOR HIGHER VOCATIONAL STUDENTS

4.1 Give full play to the role of combining socialist core value system in career planning education

(1) Combining with the socialist core value system, establishing correct professional values

Strengthen ideological and political education, guide vocational students to plan their career development reasonably, and establish correct professional values. Marxism is the guiding ideology of our party. When it came to China, it combined with China's reality to guide China's revolution and economic construction, showing great vitality and proving the scientific nature of its theory. Integrating Marxist ideological education into career planning education, we should seek truth from facts, emancipate the mind, keep pace with the times and be realistic, which will better guide higher vocational students to carry out reasonable and scientific career development planning. When doing career planning education for higher vocational students,

we should guide students to seek truth from facts, objectively analyze the market demand, employment situation, college development, professional development prospects and other objective factors, seek truth from facts, recognize their own conditions and abilities, scientifically evaluate their career development, and really help the employment and career development of higher vocational students. To guide students to emancipate their minds and break the shackles of traditional ideas, we should not only focus on the developed coastal areas, large state-owned enterprises and so-called "iron rice bowl" civil servants, but also let students understand that there is room for development in the vast central and western regions, large, medium and small enterprises and grass-roots units. In order to help vocational college students make rational choices in career planning education and find their own career path. To guide students to keep pace with the times, Marxist philosophy says that things are constantly changing and developing, there is no ever popular profession in the world, and some originally popular industries will enter the frozen period with the development of social market economy. With the change of national economic development mode, some unpopular industries have been paid more and more attention and become new industries with huge development prospects. With the excellent quality of keeping pace with the times, higher vocational students can guide them to grasp and evaluate the development direction of various industries in time and predict the future of the industry scientifically. At this time, Marxism has a practical guiding role in the career planning education of higher vocational students.

(2) Combining with the socialist core value system, cultivating the professional spirit needed by the times

We can improve the feasibility and effectiveness of Higher Vocational Students' career planning education by starting from the national spirit with the core of patriotism and the spirit of the times with the core of reform and innovation. First, inspire the enthusiasm of higher vocational students to dedicate their motherland with patriotism. Patriotism is the most sincere and profound emotion of human beings. No matter what occupation people are engaged in, no matter what kind of wealth they have, no matter what level of knowledge they have, deep feelings for their motherland are surging in their hearts. As a young vocational college student, this emotion will be more passionate. Second, reform and innovation as the core. The consciousness of reform and innovation is mainly realized through the cultivation of innovative talents, which includes innovative personality, innovative thinking and innovative skills. Cultivate the fighting spirit of daring to do. In the process of career development, it is not all plain sailing, the road ahead is facing many uncertainties, and even some risks. If there is no fighting spirit and belief to dare to do, personal career development will stagnate. Carry forward the style of hard work. Career education can help college students find their own development goals and paths, but the road to achieve the established goals is never smooth.

4.2 Strengthen the guarantee mechanism of career planning education

(1) Strengthen the leadership of the Party committee and the administrative department of the school to the career planning of Higher Vocational Students

Today in the 21st century, national competition is the competition of comprehensive national strength. Every country takes talent education as the main means of strengthening the country. China also puts forward the idea of rejuvenating the country by education and strengthening the country by talent. As an important talent export base in China, higher vocational colleges should take training specialized talents as their main task. Among them, strengthening the career planning education of higher vocational students can make students know their career development direction and become the talents that the country really needs. All higher vocational colleges should attach great importance to the development of career planning education, establish professional teaching staff, reasonable supporting service institutions, and give sufficient funds to vigorously carry out career education for higher vocational students. Only with the attention of college leaders and the active cooperation of various administrative departments, can we really achieve the development of career education in our school, and the so-called construction of professional teaching staff, the implementation of career planning education curriculum system and the construction of all staff service system can really be realized, otherwise everything is empty talk.

(2) Building professional career planning education teachers

Career planning education is different from other professional courses. It not only plays a guiding role in students' future career cognition, but also has an important impact on students' Moral Cultivation and even the whole life. Therefore, in order to truly achieve the goal of career planning education, we must have a professional teaching team. In view of the particularity of career planning education, it is required that such professional teachers should not only be "junior college students" and be able to take career courses, but also have knowledge of pedagogy, psychology, management, sociology and other aspects. How to train the teaching staff of career planning education with both professional knowledge and comprehensive theoretical knowledge is a problem that we must think about. We should not only strengthen the construction of career planning specialty in Colleges and universities, cultivate specialized talents, but also train teachers through various channels, not only visiting and investigating, exchanging with colleges and universities, and participating in training. If conditions permit, we should also actively communicate with foreign countries and go abroad for investigation and training. Only when the quality of teaching staff is improved, can we give full play to the role of career planning education for higher vocational students.

V. CONCLUSION

Sustainable development is the guarantee for the long-term development of human society. As the backbone of the future social construction, the quality of contemporary college students and whether they have the awareness and ability of sustainable development are of great significance to the development and progress of society. Career planning will help vocational college students choose jobs scientifically and reasonably, so as to promote vocational college students to make greater contributions to social development. However, due to the drawbacks of the traditional education system, higher vocational students ignore the planning of personal development, so there is blindness and unscientific in their career choice. They can not make a correct evaluation of personal ability, career choice and the relationship between them, and they are eager for quick success and instant benefit. Career planning education can make up for these deficiencies, improve the comprehensive quality and ability of higher vocational students, and realize the sustainable development of individuals. Therefore, vocational college students should have a correct understanding of themselves and society with the help of career planning, and lead their career planning into a good track.

ACKNOWLEDGEMENTS

This research was supported by A Study of Higher Education Pedagogical Reform and Practice in Henan Province in 2019 (Grant No. 2019SJGLX693).

REFERENCES

- [1] Long C, Li G, Hongxing Y. 3d Dynamic Object Reconstruction Technology Based on Light Field Rendering. *Journal of the University of Chinese Academy of Sciences*, 2009, 26 (6): 781-788
- [2] Yang Fan, Yuan Yan, Zhou Zhiliang. Study on Evaluation Method of Optical Field Camera Imaging Quality. *Modern Electronic Technology*, 2011, 191(1):146-156
- [3] Liu Yanlei, Yuan Libo. Multi Directional Fourier Contour Recognition Method for Steep Edge of Objects. 2013, 7:2(2):729-734.
- [4] Tang Yi, Liu Weining, Sun Dihua. Application of Improved Time Series Model in Expressway Short-term Traffic Flow Prediction. *Computer Application Research*, 2015, 32 (1): 146-149
- [5] Wan Ying, Han Yi, Lu Hanqing. Discussion on moving target detection algorithm. *Computer Simulation*, 2006, 023 (010): 221-226
- [6] Liu ya, AI Haizhou, Xu Guangyou. A moving target detection and tracking algorithm based on background model. *Information and Control*, 2002, 12: 14-19
- [7] Pan Quan, Cheng Yongmei, Du Yajuan. Discrete moment invariant algorithm and its application in target recognition. *Acta Sinica Sinica*, 2001, 23 (001): 30-36
- [8] Yin Xiaogen, Zhang Xiaofang, Zhang Weichao. Study on 3d Reconstruction Method Based on Optical Field Digital Focusing. *Photoelectron. Laser*, 2015 (26): 991

- [9] Xia Zhengde, Song Na, Liu Bin. Dense Light Field Reconstruction Algorithm Based on Dictionary Learning. *Acta Physica Sinica*, 2020, V.69 (06): 63-71
- [10] Wang Yizhi, Zhang Xudong, Xiong Wei. Optical Field Camera Vision Measurement Error Analysis. *Acta Photonica Sinica*, 2017, 046 (011): 113-124