

Research on the Development Strategy of Vocational Undergraduate Education in the Context of Digital China Construction

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Abstract: In the context of the construction of digital China, vocational undergraduate education has gradually become a key channel for high-quality, market-demanding professionals. In order to promote the innovation of the management mode of vocational undergraduate education, a research on the development strategy of vocational undergraduate education in the context of the construction of digital China is proposed. Firstly, the two core concepts of vocational undergraduate colleges and talent cultivation mode are defined, and then the value orientation of the current development of vocational undergraduate education is analyzed from the three aspects of social development needs, student development needs and path creation needs. Finally, the development path of vocational undergraduate education is combined with specific realization strategies, including clarifying the talent cultivation goals, reforming the professional curriculum and expanding the main body of talent cultivation. The aim is to create an innovative educational model for vocational undergraduate universities and to promote a more balanced development of vocational education.

Keywords: digital construction; vocational undergraduate education; development strategy; talent training

1. Introduction

With reference to the latest National Education Development Statistics Bulletin, it can be seen that the number of institutions, enrollment and students in higher vocational education in China are all on the rise, which not only promotes the popularization of higher education in China, but also cultivates a large number of application-oriented talents for social development^[1]. According to the analysis of relevant manpower supply and demand information statistics, it can be seen that China's human resource market has the outstanding feature that the market demand for labor is greater than the labor supply, and the market has a greater demand for laborers with technical grades and professional and technical titles, especially the increase in the demand for employing senior technicians, technologists, and senior skilled personnel is obvious. At present, China's vocational undergraduate colleges and universities are in the primary stage of the pilot program, and there are still many problems or puzzles in talent cultivation. Academic researchers are also extremely concerned about it, and the relevant research has shown rapid growth in recent years^[2]. Relevant research is mainly at the macro level, and the research on the micro level is limited, which is difficult to provide effective theoretical guidance for the problems encountered by higher vocational colleges and universities in the implementation of the training program. Vocational undergraduate colleges essentially represent the construction of a new talent cultivation model, whether this model can take on the responsibility of high-level technical and skilled personnel training, how to improve the level of training of high-quality personnel, and how to highlight the Chinese characteristics of vocational undergraduate education has become the focus of attention of the academic community of the proposition of the times^[3].

2. Core concepts defined

2.1 Vocational undergraduate institutions

Vocational undergraduate colleges and universities are oriented towards production, service development and employment promotion, and have their own characteristics, attributes and positioning

of vocational education, as well as characteristics such as "higher education" and "regionality"^[4]. Different from the higher vocational colleges and universities, it cultivates high-level technical and skilled talents with strong technical and theoretical knowledge, practical working ability and high vocational quality, which are compound, innovative and high-quality applied talents. China's vocational undergraduate colleges and universities are the product of the continuous integration of the social economy and higher education, but also the implementation of undergraduate level education in the school units of the most important and the most important form of schooling^[5]. The object of this study is to explore the more than thirty vocational undergraduate pilot colleges and universities approved by the Ministry of Education since 2019, which were formed in three ways, namely, upgrading from higher vocational colleges and universities, transferring from independent colleges and universities and independent colleges merging to form.

2.2 Talent Training Model

In our country, there are numerous references in the academic circles about the connotation of talent cultivation mode, mainly involving the following types of views. The system structure theory suggests that talent training mode is a system composed of various elements in school talent training activities, including school philosophy, training objectives and training programs^[6]. Organizational activity theory suggests that talent cultivation mode needs to be built on the basis of a stable and mature organizational structure, which is the sum of various activities carried out to achieve the cultivation goals. According to the program theory, talent cultivation mode is the implementation plan of talent cultivation based on certain concepts to achieve the cultivation goals. Connotative development theory suggests that talent training mode is a whole composed of design, construction and management of the training process. The way theory suggests that the talent training mode is a training method that centers on the training objectives and specifications under the guidance of certain educational ideas and theories^[7].

On the basis of the above viewpoints, this study proposes that talent cultivation mode is the sum of the system organization and operation mode composed of various constituent elements of talent cultivation in order to achieve certain talent cultivation goals by the cultivation subject, under the guidance of specific educational ideas and theories, and in accordance with the corresponding needs of socio-economic development and the laws of growth of talents^[8]. Talent cultivation mode is one of the components of the talent cultivation system, and is also the most central element. Different modes reflect obvious differences in educational thinking and outlook, directly affecting the characteristics of the school's training of talents, but there is no universally applicable model of talent training.

3. Value orientation of the development of vocational undergraduate education

3.1 The need for social development

Vocational undergraduate education should pay more attention to the cultivation of practical ability. At present, the industrial structure of different fields is in the stage of transformation, and the social demand for talents has shifted from pure theoretical knowledge to the combination of practical ability and innovation ability^[9]. Therefore, vocational undergraduate education needs to pay more attention to the curriculum of practical courses to improve students' hands-on ability and ability to solve practical problems. For example, in the field of information technology, vocational undergraduate education can offer practical training courses through cooperation with enterprises, so that students can master the latest technology and application in practice. In today's society, knowledge in many fields is intersecting and interpenetrating. Vocational undergraduate education needs to break the traditional disciplinary barriers and organically integrate knowledge from different fields to cultivate students' comprehensive quality and innovation ability. For example, in the field of medicine, vocational undergraduate education can integrate multidisciplinary knowledge such as biology, chemistry, physics, etc., to cultivate medical talents with interdisciplinary backgrounds to cope with increasingly complex medical problems. Finally, vocational undergraduate education needs to pay more attention to the cultivation of social responsibility. As future professionals, students not only need to have professional skills, but also need to have a high sense of social responsibility and professional ethics. Vocational undergraduate education needs to integrate the cultivation of social responsibility into the education process, so that students can pay attention to social issues in learning and practice, actively participate in social welfare activities and make contributions to society^[10].

3.2 Needs of student development

The value of education should be judged not only in terms of its impact on social development, but also in terms of its effect on the development of students^[11]. In constructing a structure for the training of high-quality human resources, it is important to follow the value orientation of "individualism", which holds that the value of the individual is higher than that of society, and that the individual is at the center of the process. Education should recognize the value of students' creativity and learning instincts, respect their individuality and uniqueness while promoting individuality and lifelong development. High-level technical and skilled personnel is one of the most scarce types of talents in China's social development, which has an important cultivation value, and it is sufficient to reflect the value orientation of "individual-oriented" by taking high quality as an entry point to explore the talent cultivation mode of vocational undergraduate colleges^[12]. Vocational undergraduate colleges and universities need to put the value of cultivating ability in the first place, and must be clear about the goal of talent cultivation, so as to meet the needs of students to become technicians, engineers and builders and other occupations.

3.3 The need for path creation

As a new thing in China's education reform, the talent cultivation model of vocational undergraduate colleges should unlock the path of the talent cultivation model of higher vocational colleges and independent colleges, make up for the shortcomings of the two due to path dependence, and ultimately create new paths suitable for themselves^[13]. Path dependence and path creation theory both recognize the influence of history, the historical accumulation of knowledge to form the content of talent training, and will produce new knowledge to continue to pass on, the process of the formation of culture, tradition and system. The part that does not shift with the subjective will of people forms the informal system, and talent cultivation in our schools is also influenced by the informal system of historical and social values, ethics and morals. The influence of the traditional cultural idea of "emphasizing knowledge over skills" on education is particularly obvious, as reflected in the fact that general education is sought after because it cultivates knowledge-based talents, while vocational education is despised because it cultivates skill-based talents, and vocational education is far inferior to general education in terms of social status and treatment of graduates.

4. Development Strategies of Vocational Undergraduate Education in the Context of Digital China Construction

Vocational undergraduate education is an important product of the development of China's higher education, and in its development and construction, it is necessary to clarify "how to cultivate people" so as to solve the problem of its development path. The path and channel of industry-teaching integration and collaborative education are constructed between schools and enterprises, so as to make it clear that vocational undergraduate education should cultivate the technical talents needed by enterprises. The development path of vocational undergraduate education is shown in Figure 1.

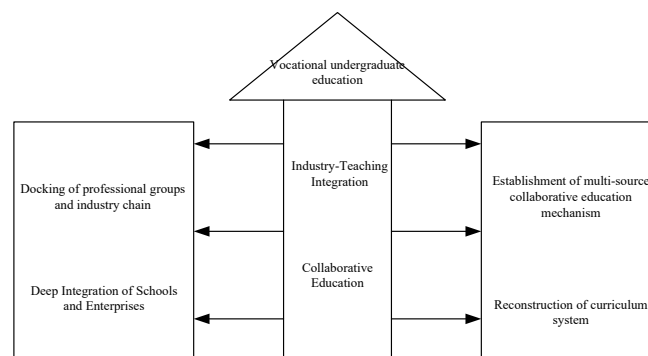


Figure 1: Vocational Undergraduate Education Development Pathway

4.1 Implementation of a tiered management model

Vocational undergraduate university education management is diverse and complex, and the school for different majors, different grades of students to take different training methods, so the management

mode adopted can not be too patterned, but should be combined with the actual situation of hierarchical management^[14]. For vocational undergraduate universities, the traditional education management model is often monolithic and cannot meet the diverse needs of different students. The tiered management model allows the university to provide personalized education according to the characteristics and needs of students. This model divides students into different levels and provides appropriate educational content and support according to their learning levels, interests and career directions. For example, for students with practical needs, the university can provide more practical skills training; for students with theoretical inclinations, the university can provide more in-depth subject knowledge education. This tiered management model helps to ensure that each student receives the most appropriate education, thereby increasing their learning satisfaction and success. When a vocational undergraduate university implements a tiered management model, a high-level management team plays an important role in improving the quality of teaching and learning and promoting the healthy operation of the university. As members of the management team, they need to have rich experience in education management and practice, be able to effectively organize and coordinate education activities, and at the same time always pay attention to education innovation and development trends to ensure that the school can maintain lasting competitiveness. The management team needs to be able to attract and retain high quality educators, develop effective educational policies and management processes, and maintain close ties with the industry and the community^[15].

4.2 Reform of specialized curriculum

Specialty settings not only need to be closely linked to the current industrial development and market demand, but should also have a certain degree of forward-looking. In the context of the current knowledge-based economy, the speed of updating occupational positions is accelerated, and schools must pay attention to avoid falling into the plight of high-tech industrial restructuring and resulting in graduates falling into unemployment. Carry out the professional setting of the staff should have a keen observation, in line with industrial development and market demand changes, timely adjustment of the direction of services, optimize the opening of the professional structure. In particular, they should pay attention to the timely withdrawal of old and outdated majors and the establishment of new and emerging majors that are urgently needed by the society, so that the new and old majors can alternate to meet the demand for personnel training. Vocational undergraduate colleges also need to pay attention to a reasonable number of professional settings, not only to avoid the number of professional openings too much to lead to the school talent cultivation power dispersion, poor quality and pressure and other issues, but also to prevent the opening of too few professional impact on the overall development of the school and economic benefits.

4.3 Expanding the main body of talent training

Talent cultivation in vocational undergraduate colleges involves a large number of stakeholders, and the school should expand these stakeholders to become the main body of talent cultivation, so as to ensure the realization of high-quality talent cultivation mode construction. Talent cultivation is a systematic project, but the main body of cultivation in the process of cultivation may be difficult to accurately carry out the positioning of the responsibilities of the problem, the need to clearly position the role of stakeholders, expand the number of main body of talent cultivation. Among them, the most important is to fully mobilize the power of the three core stakeholders: government, industry enterprises and schools. Stakeholders such as alumni, donors, communities, media, financial institutions, and the public also have a greater or lesser degree of influence on the school's talent development, and can also change their identity to participate in talent development when conditions are suitable.

As the maker and supervisor of laws and regulations, the government is also the core stakeholder in the training of vocational undergraduate colleges and universities, and should play the roles of policy guidance, financial guarantee and coordination in the process of talent training. The prerequisite for the development of vocational undergraduate colleges lies in the support of policies, and it is also indispensable for the government to invest in education. The government should revise and optimize the relevant bills on vocational undergraduate education according to the actual development of local economy, so as to improve the development environment of vocational undergraduate education and rationally adjust and optimize the layout of vocational education. The government bears the responsibility and obligation of organizing vocational undergraduate education, and should include its funds in the financial budget and increase the investment of public finance, so as to provide financial

guarantee for the expenses of cultivating talents in schools. The government can also clarify the role of other talent cultivation subjects and mobilize their enthusiasm through management mechanism and policy inclination, guiding vocational undergraduate schools to develop in the direction of systematization according to the actual running of schools. By prioritizing the establishment of research projects for school-enterprise cooperation, tax exemptions and loan preferences for cooperating enterprises, the government can also actively guide enterprises to become participants and beneficiaries of talent training.

5. Conclusion

In the wave of the construction of digital China, the development strategy of vocational undergraduate education is particularly important. Through the in-depth application of current digital technology and precise grasp of future trends, we can clearly see that vocational undergraduate education is facing unprecedented development opportunities. In this context, the formulation of implementable development programs has a more positive role in promoting the quality of vocational undergraduate education and transforming the mode of education management.

References

- [1] Cui Kuiyong, Du Lin, Cai Yun, et al. *The Problems and Paths of the Development of Vocational Undergraduate Schools in the Perspective of the New Standards* [J]. *Chinese Higher Education Research*, 2023 (3): 91-96.
- [2] Thomas T A, Maree D. *Student factors affecting academic success among undergraduate students at two South African higher education institutions*: [J]. *South African Journal of Psychology*, 2022, 52(1): 99-111.
- [3] Yuxiang H J W. *The Senior Phenomena: a Study of Fourth Year Curriculum from the Perspective of Undergraduate Transcripts* [J]. *Research*, 2022, 38(05):34-40.
- [4] Lichter J, Carmel J H. *Designing a Hybrid Project-Based Laboratory Curriculum for an Undergraduate Quantitative Analysis Course* [J]. *Chemical Education*, 2023, 100(5):1965-1972.
- [5] Chiyao S, Ji'An L, Yanru X. *Undergraduate Data Science Education System of American World-Class Universities: the Construction Path, System Characteristics and Development Trend* [J]. *Library and Information Service*, 2022, 66(8):134-143.
- [6] Kanters S, Rana R, Marie-Pier Caron. *Nurse mentored, student research in undergraduate nursing education to support evidence-based practice: a pilot study* [J]. *Nursing Forum*, 2022, 57(2):225-233.
- [7] Le M J M T C. *A Study on Implementation of Sustainable Development Goals in General Education Courses: A Textual Analysis of Undergraduate General Education Courses in 20 "Double First-Class" Construction Universities* [J]. *China Higher Education Research*, 2023, 39(01):101-108.
- [8] Nagendra P, Thanasekaran L. *812 Competency Based Goals for Sleep Medicine Curriculum in Undergraduate Medical Education in India: a Survey* [J]. *Sleep*, 2021, 44(Supplement_2):A317-A317.
- [9] Sartinaha E P, Andajanib S J, Ashar M N, et al. *The accessible IT for the courses on the special education undergraduate program* [J]. *Educational Technology Current Issues*, 2021, 13(1):96-105.
- [10] Windle S, Berger S, Kim J. *Teaching Guided Imagery and Relaxation Techniques in Undergraduate Nursing Education*. [J]. *Journal of holistic nursing*. official journal of the American Holistic Nurses' Association, 2021, 39(2):199-206.
- [11] Wu Lei, Zhou Lei, Ma Yinqi. *The Realistic Dimension and Action Path of the High-Quality Vocational Undergraduate Talent Training Model: A Text Analysis Based on the Education Quality Reports of 21 Vocational and Technical Universities* [J]. *China Higher Education Research*, 2023 (5): 101-108.
- [12] Maulana H A. *Psychological Impact of Online Learning during the COVID-19 Pandemic: A Case Study on Vocational Higher Education* [J]. *Indonesian Journal of Learning Education and Counseling*, 2021, 3(2):130-139.
- [13] Black A M. *Vocational and Mature Student Success in Higher Education Foundation Programmes* [J]. *The Journal of Continuing Higher Education*, 2021(3):1-17.
- [14] Yinqi W L Z L M. *The Realistic Dimension and Action Path of the High-Quality Vocational Undergraduate Talent Training Model: A Text Analysis Based on the Education Quality Reports of 21 Vocational and Technical Universities* [J]. *China Higher Education Research*, 2023, 39(05):101-108.
- [15] Violato C, Cullen M J, Englander R, et al. *Validity Evidence for Assessing Entrustable Professional Activities During Undergraduate Medical Education* [J]. *Academic Medicine*, 2021, 96(7S): S70-S75.