

# *Development Pathways for Vocational Education and Training (VET) in China*

Ziyi Xu<sup>1,a,\*</sup>

<sup>1</sup>*Education Faculty of Social Science, University of Southampton, Southampton, Hampshire, United Kingdom*

*a. Zx18n22@soton.ac.uk*

*\*corresponding author*

**Abstract:** In recent years, although the state has increased support for vocational education from multiple aspects, China's vocational education development still faces some challenges. This research aims to explore the significance of VET and the development pathway for VET in an employment-oriented context. This paper argues that it is necessary to adhere to the development direction of "employment and entrepreneurship" and provide innovative development and operation mechanisms for vocational education products or services in the field of vocational education. Its essence is the deep integration of industry and education, school-enterprise cooperation, and an innovative measure to cultivate qualified technical and skilled talents to meet the talent needs of the labor market. This paper emphasizes that to better adapt to the pressures brought about by changes in the employment environment, it is necessary to accelerate the construction of a high-quality vocational education system, effectively improve the quality of vocational education and training, and ensure that vocational education closely aligns with the economic and social development needs and seamlessly meets the actual employment standards of industries and enterprises.

**Keywords:** VET, Labor Market, Employment Standards, Development Pathway

## **1. Introduction**

Globally, productivity levels and economic structures differ significantly, influencing the labor market's needs in various regions. As a result, vocational education and training (VET) programs are being tailored to meet the specific demands of different sectors. Leading international educational bodies like the United Nations Educational, Scientific and Cultural Organization (UNESCO) are actively seeking ways to reshape vocational education and training to facilitate smooth and fair transitions into the workforce. These efforts aim to connect educational outcomes more closely with labor market requirements, enhancing young individuals' chances for employment and equipping them with essential skills for job success and entrepreneurial endeavors. In its "The Future of Education" report, UNESCO addresses challenges such as the rise of digital technology, climate change, growing social divides, and the unpredictability of job markets [1]. It emphasizes the need for personal and collective initiatives, leadership, adaptability, innovation, and compassion to drive educational reforms and create a more just, inclusive, and sustainable future. Similarly, the Organisation for Economic Co-operation and Development (OECD) convened the 2022 Skills Summit, focusing on the design and policy implementation of vocational education programs to

bolster skills among marginalized populations and establish all-encompassing support measures. Vocational education is increasingly recognized by international entities as a crucial educational pathway, promoting the development of a new sustainable vocational education model [2].

To better adapt vocational education talent training to the pressures brought about by changes in the employment environment, it is essential to accelerate the construction of a high-quality vocational education system and genuinely enhance the quality of vocational education talent training. This way, vocational education can be closely aligned with the demands of economic and social development, and seamlessly integrated with the actual employment standards of industries and enterprises [3]. Only then can the employment rate and job quality of vocational education talents be effectively improved, ultimately enhancing the contribution of vocational education to the development of the economy and society. Therefore, the construction of a high-quality, employment-oriented vocational education system has strong contemporary relevance and urgent practical significance. This paper first explores the significance of vocational education development, then it will explore challenges in developing vocational education. Finally, the recommendations for improving vocational education based on employment orientation.

## **2. The Importance of Vocational Education Development**

The importance of vocational education lies in the fact that a country's economic prosperity is built on the education and technical experience of its population. Phirom et al. focused on technology and vocational education and training, pointing out that Germany, Austria, and Switzerland have world-renowned dual-system vocational education systems, and Canada's community college system is also highly regarded in the field of vocational education. Finland's education system is world-leading, with vocational education playing a significant role in it. Many countries around the world have made wise policy decisions in terms of cooperation between public education institutions and private enterprises in vocational education, such as Singapore, which, despite having no natural resources, has developed into a powerhouse in Southeast Asia [4].

Behind the topic of education and career, there's always a question that runs through the entire field of vocational education. It's an epistemological issue that involves the tension between vocational education in the context of learning subjects and social systems. This tension indicates that vocational education is both related to and distinct from general education. The relation is that vocational education is also a form of education, focusing on human development, i.e., valuing the internal formation abilities of individuals in intellectual, moral, and aesthetic aspects. However, it also has its uniqueness, as vocational education, focusing on human development, uses occupation as the medium, meaning "learning through occupation" and "learning for the sake of occupation". Therefore, vocational education has a clear dual nature: it has both educational and social attributes, with its social attributes being much more pronounced than in general education [5].

## **3. Challenges in Vocational Education and Training with an Employment Orientation**

### **3.1. Ignore Education Opportunities**

Since it is considered that vocational education and general education are divided into two different types of education, when discussing the coordination or streaming between vocational and general education, it is essential to note that while emphasizing not to determine an individual's educational opportunities based on family background, environment, and social status inequality, there has been an intentional or unintentional oversight in the equality of choosing educational opportunities based on different types of intelligence [6]. Because the fairest education is the most suitable education, and the most suitable education includes the fairness of vertical educational opportunities as well as the fairness of horizontal types of education. Otherwise, when educational theory is inevitably based on

the division of school types thus presetting students' growth paths, every student needs a necessary adaptation process; however, due to the aforementioned oversight, this process may become a reverse "alienation process" from the education being received, leading to unfair outcomes. From the perspective of educational theory, suitability or unsuitability, fairness or unfairness, there is no so-called linear deductive normative context, only a dialectical argumentative discourse background [7].

Therefore, the relationship between education and career, on one hand, pedagogy cannot ignore the fact that the action capabilities obtained by students must be connected to the performance expectations of the educational system environment, especially the functions of the employment system, which is the viewpoint of systems theory in pedagogy. On the other hand, critical-emancipatory vocational pedagogy believes that, under today's living and working conditions, the maturity required as part of student subject development is more indispensable than ever [8]. Because, under the conditions of increasingly individualized living conditions in the accelerated modernization of the work world and new social forms, individuals must not only be able to self-organize employment more or less but are also incorporated into the obligations of responsible acting subjects, accountable for the consequences of their actions.

### **3.2. Disconnection between Education and Market Demand**

Currently, China's vocational education faces issues such as a disconnect between educational content and industrial development and market demand, incomplete institutional standards, and imperfect supporting policies for the growth of technical and skilled talents. There is a need to accelerate the construction of a vocational education quality assessment system to ensure that vocational education becomes a significant force in promoting and supporting the economic and social development of China in the new era [9]. Therefore, to ensure that vocational students can adapt to the job (group) demands, the reform and optimization of vocational education teaching must effectively reflect its function in promoting the formation of students' comprehensive vocational qualities and capabilities. This means that after receiving systematic professional education, the vocational characteristics should be fully highlighted.

## **4. The Development Pathways for Vocational Education**

### **4.1. Curriculum Development and Industry Partnerships**

In terms of curriculum standard development, the influence of the uneven participation of enterprises and schools in China's distinctive apprenticeship system has led to the majority of curriculum standards being unilaterally formulated by schools. They are entirely based on market demand and enterprise needs, contrary to the goal of cultivating students' comprehensive development in morality, intelligence, physical fitness, aesthetics, and labor skills.

In the construction of the teaching staff, vocational colleges generally face the dilemma of insufficient numbers, low participation, and inadequate two-way flow of "dual-teacher" teaching staff. Regarding the evaluation of teaching quality, vocational colleges lack standards for selecting, assessing, and managing master craftsmen from enterprises, resulting in a lack of guarantee for the quality of apprentice training.

At the macro level, national policies should be effectively utilized. Provincial-level education administrative departments should coordinate and promote the deep integration of apprenticeship education resources in universities, innovative mechanism reforms, and in-depth integration of school-enterprise research.

At the meso level, efforts should be made to strengthen the construction of the teaching staff. This includes enhancing the construction of "dual-teacher" teaching teams in higher vocational colleges and industry enterprises, strictly controlling the entry threshold for enterprise master craftsmen,

continuously strengthening the professional quality training of full-time teachers, improving incentive mechanisms, and expanding channels for two-way exchange of teaching staff between schools and enterprises [10].

At the micro level, emphasis should be placed on strengthening the construction of curriculum resources. To adapt to the process of alternation between work and study in China's distinctive apprenticeship system, it is necessary to establish relatively independent and flexible exchangeable curriculum resources between school-based courses and enterprise courses, certificate courses, etc.

Third, based on the theory of multi-level governance, a multi-level and diversified governance system should be constructed for China's distinctive apprenticeship system. Some researchers have proposed improving the macro governance mechanism of the apprenticeship system, strengthening the design of meso governance systems, and cultivating market subjects, as well as deepening micro governance reforms of the apprenticeship system.

This means action involves integrating embodied experiential knowledge with disembodied declarative knowledge and transforming it into embodied procedural knowledge through disembodied procedural knowledge. The procedural knowledge of action is the solidification or universalization of the action processes of group experiences; whereas the procedural knowledge of processes is the activation or individualization of procedural knowledge by an individual. A procedure is a solidified process, and a process is an activated procedure. It emphasizes that as individuals, who are the main subjects of learning and employment, must learn to prove themselves in a constantly reconstructed process, which is an endless process in an open educational environment requiring creativity [11]. As teachers, it is crucial to grasp that vocational education, with "occupation" as the "medium," is closely related to both the individual learners and the vocational education system. Therefore, it is necessary during the teaching process to combine the student's "psychological system" with the societal education system professionally, dealing with and completing the educational and teaching tasks of "instruction," "supportive intervention," and career choice [12].

## 4.2. Enhancing Quality of Teaching and Learning

For vocational education, the development level of the teaching staff is an important guarantee for the quality of vocational education teaching activities. Firstly, it's essential to strengthen the cultivation of "dual-qualified" teachers. In recent years, the state has vigorously promoted the construction of vocational education teaching staff, especially the proportion of "dual-qualified" teachers in the composition of faculty in vocational colleges has significantly increased, and the quantity has met the relevant requirements. However, from the quality dimension, high-quality "dual-qualified" teachers are still generally in short supply [13]. Vocational colleges should develop high-quality "dual-qualified" teacher training plans, promote the transformation and upgrading of teaching staff to high-quality development through diversified forms such as training and certification, continuing education, and school-enterprise cooperation, further optimize and adjust the structure of the faculty, and accelerate the creation of a high-quality "dual-qualified" teacher team that is both ideologically sound and professionally proficient. Secondly, it is necessary to enhance teachers' professional teaching abilities. On one hand, vocational colleges should actively encourage and support teachers to participate in teaching ability competitions, professional skills competitions, etc., and target the deep cultivation and promotion of excellence. By using competitions to promote teaching, teachers are encouraged to reflect on the strengths and weaknesses of their teaching processes, identifying and addressing gaps, which helps to continuously improve and enhance the overall professional teaching ability level of teachers [14]. On the other hand, teachers need to accelerate the shift from purely theoretical teaching to practice-oriented teaching and apply diversified teaching methods. As the teaching objectives of vocational education focus on the mastery

of technical skills, teachers should cultivate students' practical skills by applying diverse teaching methods such as task-driven methods, work scenario methods, and job simulation methods, based on the explanation of theoretical knowledge.

### 4.3. Integration with the Labor Market

In the dual-training model, the public sector is moderately involved in vocational education. A close cooperative relationship is formed between the government and the private sector, with many public and private stakeholders (such as unions, national institutions, and NGOs involved in the design, development, implementation, and monitoring of training programs [11]. In this model, public-private partnership projects become an entity independent of the public and private sectors, managing vocational education qualifications and ensuring training stability during economic changes, which helps limit unilateral control of the training system by the state and market. However, its main drawback is the limited number of open apprenticeships and higher costs.

From the perspective of Germany's experience, the formation of the vocational education model is a process of multiple factors interacting with each other, influenced by complex factors such as politics, economy, culture, and education. Therefore, to construct a vocational education model with Chinese characteristics, it is necessary to base it on the political, economic, and cultural background of China and the requirements of building a socialist modernized country. It should also be combined with the practical development of vocational education reform, discovering and exploring "Chinese experiences" from practice.

Looking at the development process of vocational education reform and development in China, vocational education has continuously developed through learning, absorbing, internalizing, and practicing innovation. Characteristics such as the integration of production and education, school-enterprise cooperation, the combination of industry and education, and the integration of knowledge and practice are becoming increasingly prominent. The vocational education model is becoming clearer, showing a trend from unity to diversity and from dispersion to integration. For example, the pattern of vocational education institutions has shifted from single government management to government overall coordination, active hosting by industry enterprises, and deep involvement of social forces. The funding guarantee mechanism has shifted from being mainly funded by public finances under government leadership to government coordination, social participation, and diversified investment. The examination and enrollment methods have shifted from traditional unified examinations and batch admissions to classified examinations, comprehensive evaluations, and diversified admissions. The school-running forms have shifted from small-scale, scattered individual efforts to large-scale, intensive vocational education groups [14]. The positioning of talent training demands has shifted from a single focus on human needs to the integration of national, regional, social, and human diverse needs. The subject of education has shifted from a single school entity to the collaborative education of multiple subjects such as government, industry, enterprises, and schools. The construction of majors has shifted from the scattered construction of individual majors to the cluster development of professional groups. The types of students have shifted from solely fresh graduates to a combination of social sources and fresh graduates. The construction of the teaching staff has shifted from individual teachers working alone to the formation of a "collaborative combat" teaching team. Training bases have shifted from single-function to integrated functions such as production, teaching, research, innovation, and entrepreneurship. Quality governance has shifted from single government subjects to diversified co-governance by market subjects, industry self-discipline, social supervision, and government regulation. The path of integration of production and education has shifted from a single direction to a multidimensional approach focusing on cities as nodes, industries as pivots, and enterprises as key points [13].



The development trend of the vocational education model from dispersion to integration is closely related to China's social, political, and cultural factors. Politically, China implements a vocational education administrative system of "government macro-management, hierarchical schooling, and hierarchical management". With the deepening of the "delegation, regulation, and service" reform in the education field, a new pattern of education public governance has been formed, characterized by government management according to law, schools conducting autonomous schooling according to law, and various sectors of society participating in and supervising education according to law, laying a political foundation for the development trend of vocational education from dispersion to integration [14]. Economically, China implements the basic economic system of "the public sector as the mainstay, and the coexistence and common development of multiple ownership economies". In recent years, the phenomenon of industrial clusters and the integrated development of industrial chains have become increasingly prominent in the economic field, breaking the boundaries of single enterprises and single industries. The construction of professional clusters is an extension of the application of industrial cluster theory to vocational education. Culturally, "multiple integration" is a distinctive feature of Chinese culture and the Chinese nation, which has a silent and deeply rooted influence on the development of vocational education from dispersion to integration.

## 5. Conclusion

To conclude, this research aims to explore the current status, challenges, and proposed recommendations for vocational education in China. The relationship between education and career, on one hand, pedagogy cannot ignore the fact that the action capabilities acquired by students must be connected to the performance expectations of the educational system environment, especially the function of the employment system, which is the perspective of systems theory in education. On the other hand, critical-emancipatory vocational pedagogy believes that, under today's living and working conditions, the maturity required for the development of student subjects is more indispensable than ever. Because under the conditions of accelerated modernization of the work world and increasingly individualized living conditions under new social forms, individuals must not only be able to self-organize employment to some extent but are also incorporated into the obligations of responsible acting subjects, accountable for the consequences of their actions. Public-private partnerships in vocational education are an innovative operational mechanism where the public and private sectors, tied by agreements or contracts, collaboratively provide vocational education products or services. Essentially, it represents deep integration between education and industry, school-enterprise cooperation, and an innovative measure for cultivating qualified technical and skilled talents to meet the labor market's talent demands. However, the collaboration of the "dual subjects" inevitably results in differences in the intensity of participation among the collaborators.

## References

- [1] Keevy, J., Shiohira, K., Matlala, R., Molokwane, P. (2021). *TVET Delivery: Providing Innovative Solutions. New Qualifications and Competencies for Future-Oriented TVET. Volume 3. UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training.*
- [2] Othoo, H. A., Sika, J., Ojuok, J., Opiyo, F. (2022). *Access to Quality Technical Education Vocational and Training in the Context of the Post Covid-19 Pandemic in Kenya.*
- [3] Schneider, J. (2023). *Labor migration schemes, pilot partnerships, and skills mobility initiatives in Germany. Background Paper to the World Development Report, 17.*
- [4] Zeng, D., Wu, Y., Xiao, S., Pang, S., Chen, L., Chen, X., Xie, P. (2022). *Study on Optimizing the Modern Vocational Education System to Adapt to the High-Quality Economic Development of the Greater Bay Area. In 2022 8th International Conference on Humanities and Social Science Research (ICHSSR 2022), 1277-1285.*
- [5] Sharma, I., Sharma, I. (2021). *Integrating Skill-Based Education in Indian Higher Education Sector: Transitioning from Academia to Workplace. Towards Excellence, 13(2).*

- [6] Singh, S. K. (2022). *Use of Technical and Vocational Education and Training in Reintegration of Care Home Leavers*. Kathmandu University School of Education.
- [7] Xu, W., Stahl, G. (2023). *International Habitus, Incultation and Entrepreneurial Aspirations: International Students Learning in a Chinese VET College*. *Globalization, Societies, and Education*, 1-14.
- [8] Bazaz, R. Y., Akram, M. (2022). *Exploring Informal Vocational Training (IVT) and its Missing Accreditation Link with Formal Vocational, Technical and Professional Education and their Implications: A Sociological Study in a City of India*. *Journal of Education Culture and Society*, 13(2), 317-340.
- [9] Guo, Z. (2022). *The Challenges and Dilemmas of Vocational Education in China*. In *2022 International Conference on Science Education and Art Appreciation (SEAA 2022)*, 364-370.
- [10] Remington, T. F., Yang, P. (2020). *Public-Private Partnerships for Skill Development in the United States, Russia, and China*. *Post-Soviet Affairs*, 36(5-6), 495-514.
- [11] Esmond, B., Atkins, L. (2022). *Technical and Further Education after COVID: New Opportunities or New Inequalities? In Education, Skills and Social Justice in a Polarising World*. Taylor & Francis.
- [12] Hua, T., Yanjun, S. (2023). *A Study on the Effect Mechanism of Blended Learning Model on the Learning Effect of Diversified Students in Higher Vocational Education Enrollment Expansion*. *Journal of Namibian Studies: History Politics Culture*, 33, 3644-3666.
- [13] Patil, V. (2022). *Success Stories on TVET Initiatives and Good Practices in India*.
- [14] Phirom, L., Phyrom, E., Sothy, K. (2022). *Cambodian Post-Secondary Education and Training: Conceptual Scope, Historical Context, Present Realities, and New Discourses*. *Cambodian Post-Secondary Education and Training in the Global Knowledge Societies*, 1.