GLOBAL TRENDS IN THE REFORM OF VOCATIONAL EDUCATION IN FOREIGN COUNTRIES

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Vocational education is the shortest way to life well-being

The article deals with the global trends in the reform of vocational education in different foreign countries. The models of young people professional training are under consideration.

Introduction. Vocational education is a key component in increasing labour productivity and achieving efficient allocation of labour resources. Its history began around the 14th century in different countries. But the rapid development of vocational education occurred in the sixties – seventies of the 20th century. During that period a variety of types of higher vocational educational institutions not only were established, but also won widespread recognition and popularity in the society as their characteristics became one of the indispensable components of a higher educational structure in each country. The deep study of the foreign global trends of vocational educational reforms will contribute to further development of Chinese theory and practice.

Main part. Changes in labour supply and demand in major global markets have increased the importance of vocational education. Throughout the world, the overall size of the vocational education market is on the rise, with different countries and regions promoting it according to their own macro policies, while the level of economic development, changes in labour supply and demand and the degree of informatization also present different volumes and growth dynamics.

As defined by UNESCO, vocational education and training (VET) refers to the range of work-related learning experiences and includes not only vocational schooling at all levels and apprenticeship training through joint school-enterprise training, but also vocational skills and qualifications training and knowledge development within enterprises. This paper will follow the UNESCO definition and discuss the broad scope of vocational education, which includes both vocational schooling and vocational training.

Vocational education in different countries has its own characteristics. It is reasonable to take the historical overview of some of them

It was only in 1960 when the American community colleges altered their orientation and grew rapidly by focusing on vocational and technical education and training as their main function, while taking into account other educational functions that suited them. It became the major channel for the increase in the number of students in higher education in the 60s and 70s in the USA. In 1980 in response to international economic competition and the need for industrial restructuring the USA government increased its efforts to reform vocational education, focusing on the development of post-secondary vocational education. In order to rationalize the allocation of educational resources, the coordination and articulation of high school and post-secondary vocational education was strengthened, i.e. two years of vocational education in high school were used as a preparatory stage for post-secondary vocational education and two years were articulated with each other [1, p. 164–166]. In view of the characteristics of community colleges, the United States focused on implementing the "2+2" model, thus strengthening the position of community colleges in the implementation of higher vocational education.

Over the decades, community colleges have developed into cultural and educational centers for their communities, giving priority to vocational education and training, as well as to adult and continuing education. Thousands of community colleges not only form the basis of the "pyramid" of higher education in the United States but are widely regarded for their exceptional nature.

The beginning of vocational education in Germany started in the 60s too. During that period in order to meet the tremendous demand for higher vocational personnel in the midst of the economic take-off, the federal government developed a new type of higher education institution parallel to the traditional universities – the higher vocational colleges – by switching the legal status of the original vocational education institutions. In modern times most of these institutions are former German engineering schools and other secondary vocational schools, that have been upgraded from secondary vocational education. The specialization is based on applied technology, with emphasis on practical teaching and the training of all types of technical personnel. At present, there are 125 higher education institutions in Germany, whose students account for about one fifth of the total student population. According to the recommendations of the Standing Conference of Presidents of German State Universities, by the end of the century the size of the universities will be further expanded and the number of students will continue to increase so that more people can attend them.

The main providers of higher vocational education in the UK are the multidisciplinary technical colleges, that have come into being after the Robbins report and whose characteristics can be summarized by their flexibility and diversity. Firstly, there is the flexibility and diversity of courses, with full-time courses, alternate work-study courses, evening courses, off-the-job short courses and a variety of other types of part-time courses [2, p. 34–37]. Secondly, there is the flexibility and diversity of certificates. The College does not only offer a wide range of degree courses, but students are also encouraged to take a variety of certificates – students can graduate with a National Certificate, a Higher National Certificate and a College Certificate. The flexibility of courses and certificates provides extremely convenient conditions for the delivery of higher vocational education and it is these features that make the UK's comprehensive technical colleges so viable.

The 60s were the period of the most rapid development of vocational education in Japan, especially post-secondary vocational education. On the one hand, junior colleges were officially recognized and given the legal status they deserved; on the other hand, new types of higher education institutions were gradually established and in 1961 the "Standards for the Establishment of Vocational Schools in Japan" were drawn up, that "deformed" the original academic system, making the first three years as a high school level and the last two years a higher educational level. Although junior colleges and technical colleges were established in different contexts, with different specialization and forms of teaching, their basic function was to provide vocational education. Junior colleges have been the product of Japan's post-World War II vocational education reform and are similar to community colleges in the United States. The flexibility and vocational relevance of Japanese junior colleges have resulted in a high employment rate for their graduates, providing a large number of application-oriented personnel for Japan's economic development. However, junior colleges in Japan are mainly for women and focus on applied arts.

In 1972 UNESCO's International Commission on the Development of Education published "Learning to Live": "Education that prepares young people for work and practical life should aim more at preparing them for a variety of jobs and developing their abilities to keep up with constantly improving production methods and working conditions, rather than training for a particular trade or professional practice. It should pay attention to specialized training in a particular trade or professional practice" [3, p. 239]. In 1995, UNESCO adopted Langeland's recommendations for lifelong education, and the concept of lifelong vocational education became the dominant concept in the reform and development of vocational education worldwide and a guiding principle in the formulation of vocational education policies in many countries.

As we enter the 21st century, vocational education has undergone fresh changes in all kinds of countries

around the world. At present, the major vocational education models in the world are the CBE model in the United States, the dual system model in Germany, the "TAFE" model in Australia, the "dual teacher system" in Singapore, the "industry-academia-government" model in Japan and the European Education Area.

The USA model is based on the document (Competency Based Education) and is widely used in vocational education not only in the USA but also in Canada and other North American countries. Vocational education in the USA creates people who are "broadly specialized and versatile" in line with their social characteristics. The primary training model of the CBE model attaches importance to multiple careers, to the future development of students, to learning more, to broader basic knowledge and to being able to adapt to multiple careers.

In practice a school employs the professional committee of representative experts from industry to determine the competencies required for the occupation and clarify the training objectives by decomposing them at different levels according to the needs of the job. The school then organizes the relevant teaching staff to summarize the same and similar competencies in accordance with the laws of teaching, form teaching modules, develops the syllabus and trains accordingly.

As for Germany, it has a dual-system education model. The so-called "dual system vocational education" means that the entire training process takes place in the factory and at the national vocational school. This model of education is based on training in enterprises, where practice in enterprises and theoretical teaching in vocational schools are closely integrated and teaching alternates between enterprises and vocational schools respectively, with approximately 60 to 70 per cent of the time spent in enterprises and 40 to 30 per cent in schools. The theoretical courses cover all the theory required for the profession, with a wide range of knowledge, appropriate depth and comprehensive content, which is conducive to developing the students' ability to analyze and solve problems in a comprehensive manner.

The Australian TAFE model is a new type of modern apprenticeship. At the heart of the system is 'vocational competency based'. TAFE is a college where students spend 80% of their time in the workplace and only 20% of their time in school. Being relevant and practical is a distinctive feature of TAFE. For this reason, full-time teachers are required to maintain close links with industry and are required to spend one day a week, a few days a month and a period of time each year away from school to practice in a professional position in industry or business. The courses offered by TAFE also require a high rank of relevance and practicality. These courses can be long or short, ranging from 12 weeks to two years [4, p. 91]. The TAFE model places great emphasis on improving learning conditions in colleges, with significant investment in the construction of laboratories, practical workshops and the provision of state-of-the-art equipment. The Australian TAFE model is not separate from general education, but can be articulated. It uses a vocational qualifications framework to combine the two and has a credit system, awarding certificates of completion, qualifications or diplomas depending on the number of credits. However, TAFE does not usually lead to a degree and further study at a college of higher education or a comprehensive university is required to obtain a degree.

Singapore's vocational education and training system was developed from the traditional British education system and was optimized on the basis of the German "dual system" based on Western philosophy of individual teaching and learning and as a result produced an elite workforce. Vocational education in Singapore has managed to overcome the problem of being less prestigious than academic education, and in the process has created a unique brand of vocational education (the Institute of Technical Education), that has become one of the largest vocational education institutions in Southeast Asia and in the world. It is famous for its "teaching factory" model. Most of the teachers at the vocational colleges are former managers or business leaders. Students get more than just theory. They find teachers' candidates from companies, lead the teaching process at school and solve problems at the company, having a dual role, known as "dual teachers" [5, p. 58].

In addition, vocational education in Singapore has introduced an innovative "borderless" management model where the disciplines are involved in research, collaborative development and joint projects, where the teachers are not only the part of a fixed department, but are also coordinated by the school management through participation in projects.

The "industry-university-government" model in Japan is the model in which the school education is in the centre, the industry invests in vocational education institutions, schools and enterprises exchange personnel and enterprises' commission university carries out research projects, etc. to train human resources [6, p. 46]. This well-established industry-university-government cooperation model is one of the main ways of training talents for vocational education in Japan, as it can coordinate and integrate the resources of government, schools and enterprises, and combine theoretical learning in schools with practical training at enterprises.

It is worth mentioning that the Copenhagen Process is a major reform in the field of vocational education in Europe, that is aimed at promoting the exchange of vocational education between European countries, creating a European vocational education area and improving the European vocational education system at an international level [7, p. 22]. The Commission plans to support the establishment

of 50 vocational centers of excellence with funds from the Erasmus program. The vocational centers of excellence will serve as reference points for the initial training of young people and for the further improvement and retraining of adults.

The Commission will work to develop a European micro-credential approach to expand learning opportunities and to strengthen the role of higher education and vocational education by offering more flexible and modular learning opportunities. Increasingly the adults with or without a higher education degree need to re-master and to improve skills through more flexible options than a full degree to overcome the gap between the learning outcomes of their initial formal qualification and the emerging skills' needs of the labour market [8].

The development of vocational education models is inseparable from the evolution and guidance of educational thinking.

After the Second World War two major trends and research schools emerged in the development of vocational education: school-based vocational education and diversified vocational education. In 1995, UNESCO adopted Paul Lengrand's proposal on lifelong education, and the idea of lifelong education became the dominant concept in the reform and development of vocational education worldwide, as well as a guiding principle for vocational education policy-making in many countries. In 1999 UNESCO's Second International Congress on Technical and Vocational Education established the concept of vocational education in a broad sense, including vocational education, technical education and training, emphasizing that "technical and vocational education should be integrated into lifelong education and must be more effectively integrated with secondary, higher and adult education".

The countries around the world have increased their support and investment in vocational education, have promoted digital technologies, developed international cooperation and have reformed vocational certification systems. Global vocational education has been further developed. The current trends in global vocational education can be summarized as the following.

1. Establishing an open, flexible and diversified VET system. In this system, vocational education is no longer a single, formal academic education, but an education that revolves around human resource development, where formal education and non-formal education co-exist, where academic and non-academic education is given to equal importance, and where pre-vocational and post-vocational education are combined. It is necessary to accelerate the integration of vocational education into the lifelong education system, to promote communication, penetration and integration between general education and vocational education, and to bridge the gap between the academic education, vocational and technical education and among all the levels of vocational education. It is worth noting that countries' reform efforts to establish a diversified vocational education system have not abandoned the leading role of governments, but have increased investments in vocational education to ensure that all citizens have equal opportunities to study. The so-called "industrialization of vocational education" has specific objectives, such as the admission of overseas students to TAFE colleges in Australia. The German state of Baden-Württemberg has established the Baden-Württemberg Dual University on the basis of the integration of the state's vocational colleges, that for the first time awards internationally recognized bachelor's degrees to graduates of the dual system. This unique educational pathway responds to the trend towards higher qualifications and partially addresses the need for highly qualified personnel with practical experience. According to a survey conducted by the German Institute for Job Market and Vocational Studies in 2015, more than 70 per cent of students on dual study programs entered into verbal or contractual agreements with their partner companies for employment after graduation. A new form of "triple university study" has also emerged in Germany, whereby students can complete vocational education, a bachelor's degree and master's training at the same time [9; 10].

2. Focusing on digital education inputs the vocational education market is the ecological whole in which multiple parties cooperate. In this complex ecosystem, a closed loop of vocational education enrolment or training can be completed by a number of different actors, which means that the paths of information transfer in the ecosystem are diverse. With the development of the vocational education market and the accumulation of information, the digital platform for vocational education is becoming increasingly important, through which the multifarious players in the ecosystem can be connected, linking information across the ecosystem and enabling the entire ecosystem to coexist in harmony and run smoothly. In 2016, Germany enacted Education in a Digital World. The objectives and tasks, necessary measures and basic requirements for the modernization of vocational education were specified in six action areas, including teaching planning, implementation and curriculum development, teacher training, further education and further training, infrastructure and equipment, educational media and content, government, school management procedures, educational administration and campus management systems. legal and functional framework conditions, which provide strategic guidance for the promotion of digitalization in education [10, p. 20–28].

3. The development of curriculum reforms compatible with the development of integrated vocational competencies

Germany. Australia the UK, the USA have introduced the concept of key competencies: using resources wisely, managing interpersonal

relationships, accessing and using information, analyzing and synthesizing systems and using multiple technologies. These competencies include the three qualities of skills, thinking and character. They both emphasize the need for vocational education to focus on the development of integrated competencies, and have developed modular vocational education curricula based on the corresponding occupational competency standards.

4. It is required to develop bilateral and multilateral cooperation in vocational education, focusing on international, regional and special vocational education issues, and to establish international vocational education cooperation networks and operational mechanisms.

The United Nations Vocational Education Information Network (UNVIN), established with the support of Germany, has connected 192 VET implementation centers in 128 countries; UNESCO has done a lot of fruitful work in promoting the reform and development of vocational education in the world, such as convening two international conferences on vocational education development, transmitting the latest information on vocational education development and indicating the direction for the reform and development of vocational education in various countries. China and Germany have implemented a comprehensive vocational education project targeting human resources development in western China in conjunction with the Chinese government's strategy for the development of western China. An updated vocational education and training policy works in synergy with the European Research Area to harness knowledge as a basis for European recovery and prosperity, based on the common principles of inclusion, mobility and innovation.

5. Free flow of teachers and learners in both directions. The aim is to promote the dual free movement of learners and teachers and the free interconnection of institutions in developed and developing countries and elsewhere around the globe. Mobility of learning and cross-border cooperation are powerful drivers for improving the quality of education and training institutions. The overarching principle of the European Pillar of Social Rights is the right to quality and inclusive education, training and lifelong learning. Vocational education in Singapore has also introduced an innovative "borderless" management model, where disciplines can work together on research, collaborative development and joint projects. TAFE colleges in Australia are primarily geared towards the recruitment and training of overseas students.

Conclusion. In the 21st century vocational education has been influenced from top to bottom by governments and international organizations. The main trends in the reform of vocational education abroad are as follows: vocational and technical education has moved from being a specific stage of formal schooling to becoming an important component of lifelong education; vocational and technical education is being transformed into a continuous process in which pre-employment training and on-the-job training are closely integrated; vocational and technical education is no longer a narrow education that focuses only on vocational and technical training, but has shifted into a comprehensive education that takes the sustainable development of a nation, a society and an individual as its fundamental starting point; the education that organically combines professional skills development with acquisition of educational habits and learning abilities and that organically unites the care of national and social development with the concern for environmental protection. The appeal to the world experience of vocational training reforms will help to overcome the shortcomings in the Chinese theory and practice of vocational education.

Literature

1. Yao Ruiji. Ten principles for the articulation of secondary and higher education [J]. Guangxi Education, 2013(35): 164–166.

2. Li Yan. Modern apprenticeship system in Britain and its inspiration to the curriculum reform of vocational education in China [D]. Hebei Normal University, 2008: 34–37.

3. Faure Edgar. Learning to be human: the world of education today and tomorrow [M]. UNESCO, 1972: 239.

4. Sha Qifu. The successful experience of vocational education in Australia and its inspiration – based on the TAFE college model [J]. Adult Education, 2020, 40(06): 91.

5. Gao Yanlin. Historical changes and development characteristics of vocational education in Singapore [J]. Journal of Shenzhen Vocational and Technical College, 2016, 15(05): 58.

6. Wu Xiaoli, He Xuan. The transformation and upgrading ways of industry-university-government cooperation model in Japanese vocational education and its inspiration [J]. China University Science and Technology, 2022(05): 46.

7. Liang Meihong. A study on the reform of vocational education in the UK in the Copenhagen process [D]. Hunan Normal University, 2014: 22.

8. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions / On the realization of the European Education Area by 2025 [Electronic resource]. – Access mode: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52020DC0625&rid=4. – Date of access: 10/11/2022.

9. Wu Huiping. Current dimensions of vocational education reform and its development in Germany [J]. Domestic Higher Education Teaching Research Update, 2022(3): 10.

10. Liu Lixin. Strategies and actions to promote the construction of "Vocational Education 4.0" in Germany [J]. Vocational and technical education in China, 2018(13): 20–28.