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Comparative Advantages between China and Britain in the Construction of Higher Educational Security System

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ABSTRACT

It is a common sense in the field of world educational theory that the development of higher education is promoted and the participation of talents into practice of training for technical education is encouraged. All countries have taken active measures to encourage and promote the development of higher education in their own countries. With deepening of reform and opening up, talent shortage has become the bottleneck of social and economic development in China's higher education. In order to meet the needs of professional and technical talents in economic development, China's vocational higher education has established the goal of training talents to meet the needs of social and economic development. In educational practice, talent training is related to job gap in social technology. Under the guidance of this goal, the batch of market-oriented training model for qualified personnel has become the mainstream. As a result, China's higher educational system can alleviate the "thirst for talent" in the market and provide a strong support for sustained and healthy development of economy. The mode of Chinese higher educational system and "dual system" of British educational model constitute a different form of personnel training. The UK higher education pays more attention to ability training, which has significant tendency. It is beneficial to individual development, while Chinese higher educational system supported by university system will not only offer the talents systematic knowledge, but also timely adjust the teaching content according to the change of market demand and enhance the social applicability of higher education. In the reform of optimizing Chinese higher educational system, we should actively refer to experiences of higher education in Britain to build higher educational system with Chinese characteristics: strengthening basic construction of law system and top-level construction of vocational education; carrying out quality certification and encouraging enterprises to participate in practice of vocational education system; regulating the connotative construction of contents and model in higher education to improve the quality of vocational education.

Keywords: university module of educational system; dual system; higher education; social adaptability

INTRODUCTION

Dual system is a vocational training model originated from the United Kingdom. Dual refers to vocational training, requiring that the personnel who take part in vocational training must go through trainings from two places (Alas, Aarna, 2015). As a vocational school, the main function of unitary system is to teach professional knowledge related to occupation; unitary system is the training venues outside enterprise or public institutions, whose major function

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Contribution of this paper to the literature

- Analysis of the comparative model for developing higher educational security system in China and Britain and specification of the content of data research;
- Around Chinese and British higher education, obtaining innovated educational mode by virtue of logic analysis and comparative integration;
- Laying the foundation for future research through deep analysis of educational characteristics of China and Britain.

is to allow students to receive professional training in enterprises. Higher education means the school focusing on higher skill training and promotion of employment level of labor force, which is the product of the school's running model with Chinese characteristics. Through technical training at university, students can have strong competitiveness in job market and if they pass the skill assessment, they will obtain vocational qualifications and certificates recognized by the country (Gao, Ma, 2016). At present, the university system is the most important educational form in China's higher education system. Most of the vocational and technical personnel in China have the educational experience at universities. The university system supports the development of higher education in China (Hou, Ince, Tsai, et al., 2015).

Under the higher educational system of "cooperation between schools and enterprises and cooperation in running schools" in Britain, most of enterprises accepting students will cover expenses of higher education (Li, 2017). British higher educational model of "dual system" has made enterprises the major social organizations to provide subsidies for students. Internship units arrange special funds to equip with qualified training instructors for students, provide professional skills training facilities and training venues as well as provide the corresponding apprentice wages for students who participate in the occupation training (Ma, Wang, Shen, et al. 2016).

From the current educational practice, through financial subsidies and tuition remission for students, China promotes the development of higher education. (Maassen, Potman, 2017). Through the number of enrollments in technical schools and enrollment scale, China's government issues the financial subsidies. The government's subsidies are directly applied to improve students' learning environment and students can also get scholarships and grants during the study period, which greatly enhance the enthusiasm of students to participate in study in vocational schools (Liang, and Yu, 2017).

REVIEW OF RESEARCH STATUS

Under dual system of vocational education, the development mode of British higher education has obvious practical characteristics. The school's basic education for theory and knowledge and practical education in enterprises, institutions and other places together constitute the process of education for learners'. The dual system of "learning theory at school and improving skill in training places" enables learners to practice and verify the theoretical knowledge that they have learned in training places (Price, 2015; Shen; 2016.; Sun, 2015). The campus basic theory study complements site training, which forms the educational model of talent theoretic knowledge resources and cultivation of practical ability.

Foreign scholars pointed out that comparing with Chinese higher educational system, Britain's "dual system" pays more attention to the improvement of students' practical ability. In training place, students are completely in authentic industrial environment. What they see, hear and learn are all from front-line production practices, having high practical value. In training places, the role of students is not only learners, but also direct participants (Serrano, Llamazares, Otamendi, 2015). In the authentic working environment, the operational skills formed by students can be applied directly to production practice. Therefore, higher education in Britain has a strong practical orientation, and the trained talents are quite outstanding in their practical ability and personal skills.

The study at home shows that the cultivation of technical personnel training in China has obvious advantages: first, the whole process of personnel training is carried out in full-time schools, where professional teachers and excellent technical staff can cultivate batch of standard talents by compiling textbooks and arranging teaching contents (Wang, Fu, Yi, 2015). The school can adjust the direction of talent training according to the change of market personnel demand. Second, during learning at systematic and disciplinary school, students can systematically and comprehensively recognize business theory. Perfect subject construction and standardized teaching content will help students construct relatively perfect and comprehensive industrial cognition and technological development in the course of study. Comprehensive and systematic knowledge is helpful for technical personnel to realize self improvement and self perfection. Through training at university, one can clearly understand the development of the industry and the basic situation of the whole industry (Yeap, Ramayah, Soto-Acosta, 2016). It has important practical significance in deep ploughing industry and pursuit of cutting edge of technology.

Domestic scholars have pointed out that through years of development, the higher educational security system in China and Britain has its own unique mode of higher education. Talents cultivated by Chinese universities have significant advantages with comprehensive theoretical knowledge and systematic knowledge structure; while talents cultivated by British universities have general professional spirit and high professional quality because of active participation in first-line enterprises under the British higher education (Zhang, Zhang, Cui, et. al. 2015). In the practice of deepening the reform of China’s higher educational system, we should refer to useful experience of the British higher educational model and bring it into the higher educational system of China.

METHODS

Under the concept of higher education, higher education in Britain has a strong professional spirit and the technical personnel have superior technical ability and excellent occupational spirit, so that the British skilled workers win the title of “craftsman spirit”. Higher education in China always emphasizes the market applicability of talent training and social applicability of talent quality. The demand for human resource market determines the development of higher education in China (Zhang, 2015, Zhan, 2016). The practice of higher education in China has always centered on human resource market, and has adjusted its educational activities according to the change of market demands.

Comparative Modeling Analysis of Dominant Factors in the Development of Higher Educational Security System in China and Britain

For the comparison of dominant factors in the development of higher educational security system in China and Britain, a fuzzy evaluation method based on fuzzy set theory is adopted. First, this paper constructs the fuzzy factors unit $U = \{u_1, u_2, \dots, u_n\}$, influencing the development of the advantages of higher educational security system, among which, evaluation set is $S = \{s_1, s_2, \dots, s_n\}$, weight set is $W = \{w_1, w_2, \dots, w_n\}$. It meets $\sum_{i=1}^n w_i = 1$, where w_i is weight corresponding to factor i .

Take λ_{ij} as fuzzy membership that is used to judge whether it affects advantages of higher educational security system in China and Britain, ie. the degree that effect factor u_i is subordinate to evaluation unit s_j , ($i = 1,2,3, \dots, n$). Therefore, the membership matrix λ can be expressed as:

$$\lambda = \begin{pmatrix} \lambda_{11} & \lambda_{12} & \dots & \lambda_{1m} \\ \lambda_{21} & \lambda_{22} & \dots & \lambda_{2m} \\ \dots & \dots & \dots & \dots \\ \lambda_{n1} & \lambda_{n2} & \dots & \lambda_{nm} \end{pmatrix} \tag{1}$$

If matrix B is fuzzy comprehensive comparison corresponding to specific advantage, matrix $B = \{b_1, b_2, \dots, b_n\}$ can be expressed as:

$$B = W \cdot \lambda \tag{2}$$

Then, total comparison value η can be expressed as:

$$\eta = B^* \cdot C^T \quad (3)$$

Comparative model of advantageous factors qualitatively analyzes the development of Chinese and British higher educational security system and then quantifies each factor after qualitative analysis and obtains the total comparison value of each factor in Chinese and British higher educational security system.

Advantageous Comparison of Higher Educational Security System between China and Britain

The difference between educational model and educational system makes the development of higher educational system in China and Britain different from each other. The main motive of developing British higher education is "dual system", and enterprises undertake the function of teaching and cultivating talents. In Britain, enterprises participating in the practice of higher education need to obtain quality certification and approval of relevant education authorities. Enterprises will arrange special funds and personnel to normally manage students who participate in training. British enterprises are keen on participating in the practice of training for higher education: for one thing, enterprises carry on social responsibility of making corresponding contribution to social development; for another thing, enterprises can discover excellent technical staff with development potential through professional training to enrich the technical backbone of the team. For the enterprise itself, it is also a considerable return.

The motive of developing Chinese higher education, to some extent, comes from the support of government. In the environment of socialist market economy, the government can guide the development of social economy through powerful macro-control measures. In view of change in talent demand, the government can also lead the development of higher education, and then realize the adjustment of talent supply. The government greatly supports the development of higher education with financial subsidy, policy encouragement and financial appropriation. In recent years, the rapid development of higher education in China has benefited from the government's strong support.

RESULTS

The training model, development achievements, problems and countermeasures of British "dual system" have an important reference value in promoting the reform and development of vocational education in China. At present, the personnel training of vocational education in China faces such problems as nonstandard training mode, unbalanced supply and demand vocational personnel, low quality of graduates' employment, inadequate supervision and unsmooth operation mechanism. In order to improve the quality of Chinese higher education and strengthen the system construction of higher education, we should actively learn from British experiences to strengthen the top-level design of higher educational system. To advance the top-level design of our higher education and to strengthen the legal process of higher education system in China: first, actively learn from legislation of British higher education and bring higher educational system into the construction of legal system. The legislature of National People's Congress and education authorities should actively promote the legislation of higher education to allow the higher education in China to follow. Second, strengthening scientificity of policy-making by educational authorities on higher education to form a good system of experts managing higher education. Experts are allowed to carry out the formulation and top-level design of education.

Teaching contents of higher education should be standardized and professional construction should be strengthened. First, we should organize professional personnel to strengthen the investigation of industrial technological development to promote full-time teachers understanding and grasping the latest and cutting-edge developments in technology. Ensure that students learn the latest and most advanced technologies. Second, it is necessary to strengthen the professionalism and practical awareness of learners, and establish the concept of talents with practical ability as king. The theoretical knowledge studied by learners can be effectively applied to practice. It is the only way to promote the healthy development of higher education by promoting the connotation of higher education and strengthening the quality of higher education.

DISCUSSION

In the view of professionalism, there are two important features in talent cultivation of British higher education: firstly, when choosing occupation, the learners participating in the practice of higher education are chosen who have professional dream of technical personnel. They choose to engage in higher education training for their own interests and hobbies, so that they can concentrate on industrial technical learning. Second, the inheritance of excellent spirit and culture for “made in Britain” regards “spirit of craftsman” as the goal of higher education. Influenced by the refined and dedicated British “spirit of craftsman”, students involved in higher education develop professionalism and excellence in their technical and professional spirit.

Edified by British professionalism, higher education realizes self-improved and self-promoted transition from technology transfer to the technical staff. From the perspective of professionalism, British higher education cultivates modern career men with freedom and responsibility, breed and propagate green industrial culture and explore the theory of practical logic connecting with technology. The development of higher education deepens the cognition of technological philosophy and plays a profound and lasting role in construction of talents’ professionalism.

CONCLUSION

It is the important way to promote the reform of higher education by learning from the experiences of British higher education, improving the level and quality of China’s higher vocational education and actively building China’s higher vocational education brand. Advantages of higher education should be maintained and at the same time, China should actively make reference to advantages of British higher education mode, attracting active participation of the majority of enterprises to strengthen the connection of Chinese higher education with social practice, enhance students’ practical skills and lay a strong foundation for the students’ career development.

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