

Reflections on Huang Yanpei's Education View in the New Era

Shang Wang*, Fei Peng, Bowen Chen

School of Automotive Engineering, Beijing Polytechnic, Beijing 100176, China

*Corresponding author: Shang Wang, wangshang@bpi.edu.cn

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Abstract: One hundred years ago, Huang Yanpei put forward important educational ideas such as “the use of hands and brains,” “the unity of doing and learning,” and “the power of both hands,” which have guided the development of vocational education in China. At present, China is in a critical period of economic transformation and technological upgrading, which results in higher requirements for vocational education. It is the mission of vocational education to cultivate excellent and skilled talents. This paper examines Huang Yanpei's views on vocational education and puts forward six targeted recommendations. The research results of this paper can provide references for the formulation of education policies.

Keywords: Vocational education; Huang Yanpei's ideology; Education

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1. Introduction

Technically skilled talents are the main support for national strategic development and the quantity and quality of talents are crucial for industrial transformation and upgrading ^[1]. With the announcement of the “Made in China 2025” action plan in May 2015, China has accelerated the transformation from “Made in China” to “Created in China” ^[2]. Needless to say, there are many challenges in the talent cultivation of vocational education in the new era. Huang Yanpei founded the first vocational school in China in 1915 in Shanghai. Huang regarded vocational education as an important measure to revitalize the industries and believed that “the first step to revitalizing the industries is vocational education.” He advocated: “The purpose of vocational education is to enable everyone to earn a living.” He also emphasized that vocational schools should prioritize the employment rate of students ^[3]. In his opinion, there is an essential difference between vocational education and general education, i.e., vocational education is theoretical and practical in nature. “Employment-oriented” and “providing skill training for workers so that they can earn their own living” are the basic outlines of Huang Yanpei's ideology of vocational education. Although it has been nearly a century since Huang proposed his ideas, many of his ideas are still worthy of deeper exploration ^[4].

2. Research status

Huang Yanpei's view has been a hot topic of research in vocational education academia, and scholars have conducted much research previously. Zhang ^[5] talked about the inspiration for today's vocational education from Huang Yanpei's theory of “Great Vocational Education.” He believes that vocational education should be oriented to the needs of society, take the initiative to liaise with the vocational sector, and give vocational education a fair status. Hong ^[6] studied the vocational guidance system in the context of Huang Yanpei's

concept of “great vocational education.” According to him, only by insisting on socialized, humanized, and comprehensive vocational guidance can we innovate the vocational guidance model. Wu ^[7] studied the current vocational education system based on Huang Yanpei’s ideology. He emphasized the need for vocational colleges to establish an education system with pragmatism as the core. Xia ^[8] elaborated on Huang Yanpei’s ideas of vocational education and talked about its relevance in contemporary times. By studying Huang Yanpei’s thoughts on vocational education, he emphasized the importance of vocational education to the development of the country through science and education. Chen ^[9] elaborated on Huang Yanpei’s thought on vocational education and discussed its inspiration for vocational educators. After analyzing Huang Yanpei’s thoughts on vocational education, he argued that vocational educators should pay attention to serving society. Based on Huang Yanpei’s vocational ideology, Jia ^[10] studied the revelation of vocational psychological education in higher education. Through an in-depth study of Huang Yanpei’s thoughts on vocational moral education, he put forward several suggestions for vocational psychological education in higher education. Gao ^[11] expounded the “four orientations” of Huang Yanpei’s vocational education ideology, namely, orientation to the world, to life, to employment, and to society. Only by seriously implementing the “four orientations” can vocational institutions solve the problem of education being out of touch with reality. Lv ^[12] analyzed the current talent training mode of vocational colleges based on Huang Yanpei’s thoughts on vocational education. He believes that Chinese vocational education is facing new opportunities and challenges, and the key to solve the problem is to cultivate high-quality technical talents. Wu ^[13] studied the relationship between Huang Yanpei’s idea of vocational education and craftsmanship. He pointed out that the vocational education concept of “the sanctity of labor” is the basis for cultivating craftsmanship, and the professional ethics of dedication and happiness is the core of craftsmanship. Yuan ^[14] analyzed the inspiration of Huang Yanpei’s vocational education thought to the supply-side reform of vocational education. He believes that Huang Yanpei’s ideas of vocational education such as “pragmatism” is highly applicable for the reform of vocational education today. Zhao ^[15] studied the influence of Huang Yanpei’s vocational education ideas on the professional development of teachers in vocational colleges. The lack of skilled personnel has led to the professional development of teachers becoming more important. Xu ^[16] analyzed the inspiration of Huang Yanpei’s vocational education thought on the development of contemporary vocational education. Huang Yanpei’s ideas on vocational education promote the development of vocational education reform in the new era and provide a direction for the cultivation of vocational skilled talents. Pan ^[17] analyzed Huang Yanpei’s ideology from the perspective of innovation and entrepreneurship education. He argued that vocational colleges should vigorously promote innovation and entrepreneurship education in order to cultivate more application-oriented and innovative talents. Jiang ^[18] integrated Huang Yanpei’s ideas into teaching practice. He found that vocational education is meaningful for improving practical teaching. Chen ^[19] studied vocational education in the new era based on Huang Yanpei’s thoughts on vocational education. He emphasized that vocational education should adhere to the concept of “hand and brain, combining doing and learning,” keep up with the times, and adhere to the concept of “great vocational education.” Li ^[20] analyzed the application of Huang Yanpei’s ideology in the new era. Huang Yanpei’s thoughts on vocational education made him realize that there is a shortage of high-quality talents with both moral and talent in the new era. Li ^[21] analyzed the relevance of Huang Yanpei’s thoughts on vocational education to contemporary education. By sorting out the three stages of Huang Yanpei’s vocational education, he believes that his ideas can solve many problems of today’s vocational education. Sun ^[22] studied the relevance of Huang Yanpei’s idea of “great vocational education” on the overall structure of vocational education. Through an in-depth study of Huang Yanpei’s “great vocational education,” he made several suggestions for whole education. Liu ^[23] analyzed Huang Yanpei’s ideas of pragmatism, vocational education, and great vocational education. Only by implementing the three stages can we accelerate the reform of higher vocational institutions and bringing vocational

education to a new level.

3. Targeted recommendations

More than 100 years have passed since Huang Yanpei proposed the idea of “specific vocational education.” Huang Yanpei’s original intention of advocating vocational education was to solve “the livelihood problem of commoners.” Vocational education in China has long been different from the background of industry and universal education in those days. Nowadays, the pace of economic globalization and industrial restructuring is accelerating, and the population and development needs are increasing. Industries and enterprises have put forward new requirements for the cultivation of talents in vocational education. Vocational education still has a long way to go before it can truly achieve the ultimate goal of “making people enjoy their jobs.” Several targeted suggestions are discussed in this paper.

3.1. Emphasizing on the cultivation of hands-on ability

The image of the emblem designed by Huang Yanpei for the China Vocational Education Association signifies that “both hands are powerful, and both hands and brains are used.” It indicates the philosophy and teaching principle of “using hands and brains.” “Both hands are powerful” emphasizes the cultivation of hands, i.e. the concept and ability of labor. Students in vocational colleges should have both professional scientific knowledge and professional skills. However, at present, the training of students’ hands-on ability in vocational colleges is lacking. Huang Yanpei once said: “Vocational schools should focus on the development of hands-on skills.” Only through hands-on experience can students truly appreciate the value and meaning of the labor process. The development of hands-on skills can stimulate their enthusiasm and motivation for learning about their career, and also lay a solid foundation for future employment. Vocational schools should organically combine vocational literacy, skills training, and hands-on skills development. On one hand, vocational institutions should focus on improving students’ professional and technical skills and comprehensive quality; on the other hand, they should also enable students to acquire practical skills and develop good professional ethics.

3.2. Encouraging students to participate in skills competitions

Huang Yanpei’s view emphasizes that vocational education should not only focus on knowledge, but also on the cultivation of overall ability. Skills competitions allow students to exercise their abilities. In the process of participating in skills competitions, students can discover their shortcomings and try to improve them. Some students have significantly better hands-on and thinking skills than others, which is a result from the experience of participating in competitions. It is through this kind of competition that students can find out what they are good at and what they are interested in by “doing” and “talking,” so that they can lay a solid foundation for their future work. Some students were not very confident in themselves before the competition. After the competition, their self-confidence was significantly improved. They discover many of their shortcomings during the preparation process, and they will analyze and improve on them. Invariably, their analysis and problem-solving skills are trained and cultivated.

3.3. Strengthening school-enterprise collaboration

Huang Yanpei elaborated how vocational education can be done well in “Great Vocational Education Proposal for Comrades’ Opinions.” He believes that vocational education cannot be run well by schools, education, and industry alone. To run vocational education well, we must integrate industry and education and attach importance to school-enterprise collaboration. Vocational colleges and universities should initiate collaboration with qualified enterprises according to their talent training needs. The content of school-enterprise collaboration should include staff training, technological innovation, social services,

skills competitions, and other aspects. Schools should provide the required curriculum, teachers, and other resources to the enterprises. Enterprises should in turn provide capital, technology, equipment, and management staff to collaborate with colleges and promote human resource development.

3.4. Emphasizing on the cultivation of craftsmanship

Huang Yanpei believed that vocational education should cultivate “sound and good individuals” who are patriotic, who love the profession, and are willing to serve others. He pointed out that “dedication and passion” is the basic quality of vocational education students, which is in line with the cultivation of craftsmanship emphasized in vocational colleges nowadays. Vocational colleges should cultivate craftsmanship in the process of moral education and cultivate qualities like spirit of continuous research, repeated exploration, and pursuit of excellence. It is necessary for students in vocational colleges to realize the importance of responsibility and to develop a hardworking attitude and interest in research. Vocational colleges and universities should carry out activities such as “Great Artisans on Campus,” “Model Workers on Campus” and “Excellent Vocational Students Sharing on Campus” to publicize and display the deeds and images of great artisans and high-quality workers. In addition, vocational colleges and universities should also focus on the promotion of the artisan spirit. Vocational colleges should also pay attention to multi-channel propaganda and use various media platforms to publicize the craftsmanship spirit and inspire students’ to become “craftsmen,” so that students can enjoy learning and research.

3.5. Increase capital investment in experimental equipment

Compared with traditional classrooms, students in vocational colleges prefer experimental courses, which is more interesting and helps enhance their learning. However, there is a very big gap between vocational colleges and undergraduate colleges in terms of capital investment in experimental equipment. Take the bending test as an example, most of the vocational colleges have only one equipment. During the experiment lessons, the teachers operate the equipment while the students observe the experimental process. Students do not have the opportunity to operate the equipment and design their own solutions. This inevitably demotivates the students and poor classroom teaching results. Vocational colleges and universities are designed to export skilled personnel to the society, and laboratory equipment is an important to improve students’ ability and skills. Governments at all levels should increase financial support for vocational education, especially for laboratories.

3.6. Prioritizing the construction of high-level practical training bases

High-level practical training bases play an important supporting role for the cultivation of skilled talents. Local governments should increase policy and financial support to encourage vocational colleges to build independently or schools and enterprises to build practical training bases together. Local governments should also support schools to build a number of industry-education integrated training bases with radiation leading role and vigorously promote school-enterprise cooperation according to regional industry characteristics. Vocational colleges and universities should actively attract enterprises and social forces to participate and improve the utilization rate of practical training bases. Vocational colleges and universities should learn from the advanced experience of Germany, Japan, Switzerland, and other countries, and explore the operation mode of practical training bases to provide stronger support for talent training.

4. Conclusions

A century ago, Huang Yanpei put forward such important educational ideas as “hands and brains,” “learning and doing at the same time,” “both hands are powerful,” which guided the development of China’s vocational education. At present, China is in a critical period of economic transformation and technological

upgrading, which puts forward higher requirements for talent training in vocational education. Cultivating high-level skilled talents is the mission of vocational education. Huang Yanpei's educational thought has important reference value for the development of vocational education in the new era and it is worthy of the attention and exploration.

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