

Research on the Times Value and Logical Thinking of Cultivating Craftsman Spirit of Applied Talents

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Abstract: *Craftsman spirit is the professional attitude and quality of practitioners. Cultivating craftsman spirit is the objective requirement of promoting economic transformation and industrial structure upgrading, the inevitable choice for application-oriented universities to achieve connotative development and highlight the characteristics of educating people, and the realistic demand for application-oriented talents to enhance their employment competitiveness and realize their personal development. The theory of internal and external laws of education and the theory of ability-based education have important guiding significance for cultivating the craftsman spirit of applied talents. Application-oriented universities should improve the mechanism of integrating production with education, organically integrate teaching with production practice, and integrate the cultivation of craftsman spirit into the innovation of personnel training mode.*

Keywords: *Applied talents, Craftsman spirit, Train of thought*

1. Introduction

It is of great value to carry forward the craftsman spirit, which has attracted more and more attention from all walks of life. Up to now, scholars at home and abroad have explained the connotation and dimension of the craftsman spirit from different angles, and the meaning of the craftsman spirit has become increasingly rich with the requirements of the times. After analysis, the craftsman spirit has important times value in promoting the upgrading of industrial structure, highlighting the characteristics of educating people in colleges and universities, and improving the competitiveness of talents. It is an important measure to cultivate craftsman's spirit in application-oriented universities to improve the mechanism of integrating production with education and promote the combination of teaching and production practice.

2. The definition of craftsman spirit

Generally speaking, the definition of craftsman's spirit in the existing research starts from four dimensions, and scholars at home and abroad have explained the meaning of craftsman's spirit from four dimensions. First, at the level of willingness, the craftsman spirit is defined as the willingness to work, and it is considered to be pure and personal subjective desire to do things well (Mills, 2002; Sennett, 2009). The second is the spiritual level, which holds that the craftsman spirit is a kind of labor spirit (Liu Jianjun, 2016), which includes the spiritual pursuit of the intrinsic value of work, the attitude of striving for perfection, the good way of thinking, and the practical spirit of combining knowledge with practice (Huang Yingying, 2016), the dedication of loving one's job and dedication, and the innovative spirit of tackling difficulties (Zhuang Xizhen, Zhuang Xizhen. Gao yuan et al., 2021). The third is the skill and behavior level. Gong Qun (2021) thinks that the essence of craftsman spirit is the combination of Taoism and skill and the pursuit of Excellence. Fourth, at the level of values, it is considered that craftsman spirit is a kind of value that reflects the quality that people value in their work and the goals they pursue (Paanakker 2019; Gao Zhonghua, 2020). Based on the existing research results, artisan spirit is the working attitude of striving for perfection, which is characterized by loving one's post and dedication, rigorous focus, innovation and change, and reflects the professional attitude and professional quality of practitioners. The connotation of craftsman spirit includes not only skill and behavior, but also will, spirit and values, which are rich and multidimensional.

3. The value of the times of the craftsman spirit of applied talents

Application-oriented universities are not only the objective needs of changing the mode of economic development in China, but also the objective needs of deepening the reform of higher education, building a modern vocational education system and satisfying people's lifelong learning. From the historical mission of the development of applied universities, cultivating craftsman spirit is the inevitable requirement of serving regional economic development and promoting industrial transformation and upgrading, and the inherent requirement of promoting connotation development and enhancing talent competitiveness.

3.1. Is to promote economic transformation and development and industrial structure upgrading of the objective requirements

Application-oriented universities cultivate students' craftsman spirit, which is in line with the demand of talents for China's industrial structure adjustment and transformation and upgrading. In the period when China's economic development mode turns intensive, the industrial structure moves towards the middle and high end, and the growth power shifts to innovation drive, the cultivation of applied talents with craftsman spirit is an urgent task. Relying on the cultivation of craftsman spirit and strengthening the training quality of applied talents can effectively promote the refined production and management of enterprises, promote the upgrading of technology and quality, and promote the transformation of economic development power to innovation drive, thus realizing the optimization of social industrial structure and the promotion of comprehensive competitiveness.

3.2. Is an inevitable choice for application-oriented universities to achieve connotative development and highlight the characteristics of educating people

The cultivation of craftsman's spirit is an inevitable choice for applied universities to change from large-scale expansion to connotative development. Digging deep into the connotation of craftsman spirit, such as dedication, rigorous concentration, excellence, innovation and change, and integrating craftsman spirit in the process of personnel training, will help application-oriented universities to strengthen connotation construction and realize connotative development. Strengthening the cultivation of craftsman spirit is also the inevitable embodiment of highlighting the characteristics of educating people in application-oriented universities. Paying attention to the cultivation of craftsman spirit in the process of personnel training can make application-oriented universities highlight their "application-oriented" orientation, form their own characteristics, and give full play to their advantages in training applied talents to serve regional economic and social development. Application-oriented universities have direct correspondence with local economic and social development, and talent training in application-oriented universities must meet the industrial needs of regional industries, which undoubtedly lays a good foundation for cultivating the craftsman spirit of application-oriented talents. From this perspective, having craftsman spirit is also an important characteristic of high-quality application-oriented talents.

3.3. Is the practical needs of applied talents to enhance their employment competitiveness and realize their personal development

The cultivation of craftsmen's spirit is the practical need for students in applied universities to enhance their employment competitiveness and even realize their personal development. The total number of college graduates in 2021 is 9.09 million, an increase of 350,000 year-on-year. Analyzing the enrollment scale of higher education in recent years, we can see that the fierce competition for employment of college students will still exist at this stage and even in the future. However, the essence of this competition is structural imbalance rather than the real surplus of talents. On the one hand, it is difficult for college students to find jobs; on the other hand, it is difficult for enterprises to meet the demand for high-quality talents. In addition, China is in a critical period of moving from a big manufacturing country to a powerful manufacturing country, and is in an important period of industrial structure transformation and upgrading. The deep-seated reason is that the quality of personnel training needs to be improved and the quality of workers needs to be improved. Therefore, paying attention to the cultivation of craftsman spirit in application-oriented universities is helpful to enhance the competitiveness of application-oriented talents. From the perspective of the long-term personal development of applied college students, the process of cultivating craftsman spirit can stimulate the innovative ability of applied talents, make them become excellent talents with professional spirit and quality, and promote their better pursuit and self-worth in future life.

4. The theoretical basis of cultivating the craftsman spirit of applied talents

By explaining the internal and external laws of education and the ability-based education theory, it lays a theoretical foundation for cultivating the craftsman spirit of applied talents.

4.1. The theory of internal and external laws of education

The law of education is the basic law that education, teaching and personnel training must follow. In the 1980s, Professor Pan Maoyuan, the founder of higher education in China, put forward the theory of external laws of educational content through painstaking research and summarization. The core point of this theory is that education must adapt to social development, that is, education is restricted by social politics, economy and culture on the one hand, and colleges and universities should adjust educational objectives, specialty settings and curriculum construction accordingly. On the one hand, education must serve it, reflecting the attribute of talent cultivation. With the development of the times, Mr. Pan Maoyuan further deepened and developed this theory, and proposed that productivity and the development of science and technology are the key factors restricting the development of education. The theory of internal and external laws of education reveals the interactive relationship of mutual restriction and promotion between universities and social environment, which requires education to dynamically adjust professional structure, optimize education mode, and innovate curriculum content and teaching methods according to the needs of social and economic development on the basis of following the basic laws of students' development, so as to cultivate talents meeting the needs of social and economic development. Applying the internal and external laws of education to study and analyze the cultivation of craftsman spirit of applied talents under the background of industrial structure transformation and upgrading plays an important guiding role in deepening the reform of applied talents cultivation and promoting the establishment of benign interaction between talents cultivation and regional economic development.

4.2. The ability-based education theory

Benjamins.Bloom, an American psychologist, put forward the theory of competencybased education (CBE) in 1960s. This theory focuses on the close cooperation between schools and industrial enterprises to improve the quality of training applied talents. The cooperation between schools and industrial enterprises covers subdividing professional roles, strengthening post professional abilities and cultivating comprehensive qualities. Competency-based education theory reveals the importance of school-enterprise cooperation and practical teaching. Colleges and universities should cooperate closely with industrial enterprises to educate people together. In the practical teaching, students can get more opportunities to enter enterprises and participate in the production process, learn in real work scenes, and improve their professional ability. On the other hand, it helps students find problems in the actual operation process. After careful thinking and solving problems independently, it trains students' ability to find problems, analyze problems and solve problems in real work scenes, and enhances students' post competence and the generation of craftsman spirit.

5. The logical thinking of cultivating the craftsman spirit of applied talents

5.1. To build a management mechanism for the integration of production and education

The integration of production and education mainly refers to the integrated development of production and education, which is reflected in the close combination of theory and practice; Organic combination of education and production, etc. First, to realize the integration of production and education, the key point should be to build a dynamic mechanism for the integration of production and education. That is, to continuously improve the consistency of internal interests and development direction between universities and enterprises, universities to improve the quality of personnel training, enterprises to produce high-quality products, improve their respective competitiveness, and promote all parties to play their own initiative, complement each other's advantages, and realize their respective goal pursuit and development needs. Second, strengthen the management system of cooperative education. Education through integration of production and education consists of different subjects. Therefore, it is particularly important to coordinate the interests of all parties through corresponding systems, including the establishment of leading institutions, the limitation and regulation of responsibilities and rights in teaching, scientific research, achievement transformation, production and marketing, etc., clarifying the interests and risks of each subject, safeguarding the rights and interests of each subject, ensuring the real

integration of production and education, and cultivating craftsman spirit.

5.2. To improve the mode of integration of production and education

In order to improve the education mode of integration of production and education, application-oriented universities must strengthen close cooperation with enterprises, deepen flexible and diverse personnel training modes such as order training and directional multi-post training, and comprehensively improve the quality of application-oriented personnel training. First of all, according to the demand of industrial enterprises for talent skill specifications and quantity, application-oriented universities cooperate with enterprises to formulate training programs, compile teaching materials, conduct classroom teaching, practice and training guidance, and then cooperate to establish student assessment standards, so as to enhance the connection between application-oriented talent training and professional posts, and promote students to cultivate craftsman spirit in actual working scenes. Secondly, the application-oriented universities and several cooperative enterprises jointly formulate the talent training mode, training specifications and standards, so that the trained talents can adapt to the work of several positions similar to their majors, which is helpful to improve the practical and comprehensive abilities of the application-oriented talents and improve the efficiency of cultivating the craftsman spirit of the application-oriented talents.

6. Conclusions

School and enterprise are the two main bodies of cultivating craftsman spirit, and their cooperation is particularly important in personnel training. Under the background of industrial transformation and upgrading, application-oriented universities must, according to the requirements of enterprises' jobs for talents, improve the mechanism of integrating production with education, organically integrate teaching with production practice, and integrate the cultivation of craftsman spirit into the innovation of personnel training mode, so as to promote the cultivation of craftsman spirit and improve the quality of personnel training.

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