

An Analysis of Teachers' Training in Vocational and Technical Education and the Cultivation of Advanced Talents

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Abstract: In the era of knowledge economy, with the development of China's new industrialization road, the construction of new socialist countryside and innovative countries, the demand for highly-skilled personnel has been continuously improved, and a large number of highly-skilled talents with a combination of innovative awareness and practical ability have become the requirements. Higher vocational education is obliged to play its due role. The concept of multi-professional integration model fostered by compound high-tech personnel is mainly reflected in the integration and penetration of professional knowledge and the integration and expansion of the quality of talents. The multi-professional integration model for the cultivation of compound high-skilled personnel should make efforts in the orientation of training objectives, the construction of curriculum systems, the integration of practice links, the compounding of teaching energy, and the matching of teaching mechanisms.

1. The Constituent Elements of the Teacher Training Model in Vocational Education

1.1 The guiding ideology

The guiding ideology generally refers to a comprehensive understanding of some of the fundamental issues involved in the construction of models. It has a dominant or programmatic role in the implementation of models. The guiding ideology is different, the model practice will be different, and the people trained will be different. Adhere to the principle of coordinated development and comprehensive improvement of knowledge, ability and quality, strengthen the overall quality of students, and strengthen the cultivation of students' abilities to acquire knowledge, ask questions, analyze problems, and solve problems on the basis of emphasizing knowledge transfer. [1]

1.2 Implementation procedures

The implementation process refers to the sequence of training activities designed to accomplish the established training objectives. Any training mode has its own implementation process to explain in detail the logical steps of the cultivation process and the tasks that should be completed in each step. The implementation procedure for the training of higher vocational education teachers is:

(1) The establishment of training objectives: The training objectives are specific requirements for training institutions for training organizations based on the purpose of education and the nature of training institutions.

(2) Development of training plan: Training plan is a blueprint for the overall design and implementation of the entire process of training talents. It is based on the requirements of the training objectives and makes reasonable arrangements for the various aspects of education and teaching in personnel training.

(3) Implementation of training program: The following basic issues should be noted when formulating training procedures: first, the sequence of training should be in line with the student's mental activity sequence; second, training activities should help students to actively and initiatively play. All aspects of training will help students develop knowledge, quality, and ability. [2]

1.3 Implementation strategy

The implementation strategy refers to the specific strategy formulated to ensure the smooth development of the training model. It includes not only the things that should be noted in the application training model, but also the methods that should be used to implement the procedures. Specifically, it should include teaching systems, curriculum plans, curriculum standards, teaching content, teaching methods, teaching materials, quality standards, and so on. The implementation strategy is an important guarantee for achieving the training objectives. It should not only provide teachers with macro guidance, but also provide them with specific reference opinions.

1.4 Mode evaluation

Model evaluation refers to a way to make an objective measurement and scientific judgment on the training process and the quality and benefits of the trained personnel according to certain standards. After the implementation of the model, it is necessary to continuously adjust, modify, and improve, and scientific evaluation is also needed. The evaluation of the model should mainly be examined and evaluated [2]:

- (1) Conformity with national education policies and policies;
- (2) Corresponding situation with the training orientation of the school;
- (3) The achievement of professional training standards;
- (4) Talent cultivation characteristics;
- (5) The level of knowledge, ability and quality actually achieved by talents;
- (6) Information feedback from students, society and employers.

We must attach importance to the function of self-evaluation and achieve self-improvement by self-analysis and self-recognition of students, as well as constant dialogues between teachers and students, correcting each other's viewpoints and making the evaluation conclusions as consistent as possible. At the same time, we must attach importance to social assessment. The quality of teacher training in higher vocational education must, on the one hand, meet the needs of school education and teaching activities, and on the other hand, it must meet the social evaluation of the quality of teachers.

2. The difference between the teacher training model and the teacher training model in vocational education

As a teacher of higher vocational education in the teaching staff of higher education, on the one hand, it has the common characteristics of university teachers, such as a high level of policy theory and good morality, rich teaching experience and teaching methods, generous theoretical foundation and extensive knowledge. On the other hand, the characteristics of higher vocational education on the goal of talent training in higher vocational education determine its specificity and reflect the unique characteristics of higher vocational education teacher training [3].

2.1 Different culture goals

Higher vocational education fosters high-level applied, skilled and practical talents required for production, construction, management, and service, rather than theoretical research talents. It is necessary not only to understand the basic theory and basic knowledge of a certain specialty, but more importantly, to have the production operations and organizational capabilities required by a group of posts, to be good at translating technical intent or engineering drawings into physical entities, and to convert science and technology into productivity. , And have the ability to conduct technical guidance, business coordination, and organization and management in the first line to solve practical problems in the field[3].

2.2 Different professional settings

The rapid change of the higher vocational education major is a very important feature of it. This is determined by the market's change in the demand for first-line technology-oriented talents. It is

not based on the will of the people, and it is accelerated. Higher vocational education must keep up with the market. It must be linked to the adjustment of the local economic structure and economic development strategy. It must be consistent with the needs of local economic and social development for talents, and be adjusted in time according to the needs of local economic and social development.

The professional teaching content of higher vocational education is mature technology and management norms, not the theoretical system of a certain discipline. The teaching plan and curriculum setting are not arranged according to the discipline requirements, but are determined according to the occupational ability requirements of the occupational position group.

2.3 Different focus of teaching

Higher vocational education emphasizes a greater proportion of training in practical teaching, practical training and practical skills; basic courses are organized around the needs of professional learning, and they are necessary and sufficient, and do not emphasize the completeness of subject theory.

2.4 Different teaching methods

The teaching of higher vocational education adheres to the combination of theory and practice. It not only teaches the knowledge of books, but also teaches practical skills. Students will complete practical training before they start work during their studies, and they will be able to work after graduation. Therefore, in the teaching method, we must pay attention to highlighting professional characteristics and pay more attention to practicality and application [3].

2.5 Different assessment methods for students

Higher vocational education not only assesses the basic knowledge of students, but also pays attention to the assessment of the students' professional skills. It requires that students graduate not only to obtain academic certificates, but also to reflect their vocational skills and qualifications.

3. The Present Situation of Talents Training Mode in Vocational Education in China

With the emphasis on vocational education, great achievements have been made in the development of vocational education in China, and the personnel training model is constantly updated. However, there are certain problems in the development of higher vocational education in China, which are embodied in the following aspects [4].

(1) It does not attach importance to the innovation of talent training mode.

With the opening of the country's policy on higher vocational colleges, the number of higher vocational colleges is constantly rising. Although the number of higher vocational colleges has gone up, the quality of schooling needs further improvement. Some higher vocational colleges need to further strengthen the personnel training model. They cannot follow the traditional general higher education teaching model. There are differences between the two, and they must be treated differently. Otherwise, they will not be able to meet the needs of the society for talents.

(2) Understanding of the training mode of compound talents is not fully implemented, and it is completely transplanted to the compound personnel training model of undergraduate colleges, which is not conducive to the cultivation of compound talents in higher vocational education. At present, with the continuous development and changes of the world economy, in order to adapt to the development of the world economic situation, the demand for compound talents in various countries is constantly expanding. [4] To cultivate qualified composite talents, we must first understand the meaning of compound talents. The so-called compound talent refers to people with two or more specialties and abilities. Under normal circumstances, compound one refers to the compounding of two or more majors between social sciences and natural sciences. Second, it refers to the intersection and combination of intellectual and non-intellectual factors. We must clearly understand that there is a difference between general undergraduate education and higher vocational education. The undergraduate composite talent training model is usually a compound talent training

model that is not suitable for vocational education. Higher vocational education needs to explore the model of compound talents suitable for the development of its own education and teaching. Only in this way can the role of higher vocational education be brought into full play.

(3) The current vocational education fails to correctly distinguish the difference between “discipline” and “professional”. Ordinary higher education focuses on "subject" education, while vocational education focuses on "professional" education. "Disciplines" and "professionals" are two different concepts, and their requirements for personnel training are also different. Therefore, the relationship between "disciplinary" and "professional" must be properly handled. The so-called “discipline” emphasizes knowledge education. Through the education of the whole subject system, students have mastered what knowledge, what knowledge and skills they have, and more emphasis is placed on theoretical education; while “professional” emphasizes hands-on practical ability through professional education. Learning, what professional skills and professional skills students have, which professional assistance will be provided for future work.

4. Compound High-skilled Personnel Training Model

The cultivation of innovative research talents is the only way for the development of vocational education. However, students trained in vocational education should aim to meet the needs of society. The society needs talented people with abundant knowledge, certain creative ability and thinking ability, skillful hands-on ability, good social communication ability and noble morality. Therefore, the cultivation of compound talents has become the only way for the reform and development of vocational education. However, how to cultivate composite high-skilled personnel in vocational education is an urgent issue to be studied. The practice of transplanting undergraduate colleges is undoubtedly an unrealistic approach [4].

(1) Adhere to the basic principle of multi-professional infiltration.

Combining the characteristics of vocational education, in the cultivation of compound talents, we should adhere to the basic principle of multi-disciplinary infiltration, and consider the penetration of knowledge and skills among majors. This kind of road is more suitable for the cultivation of composite talents in higher vocational education. Under normal circumstances, undergraduate multi-disciplinary multidisciplinary talent training model requires higher, and if you do not grasp well, it is easy to train students into "generalists." Higher vocational colleges in the professional education of students at the same time, in accordance with the basic principles of multi-professional infiltration, students can master the core professional knowledge and skills related to other professional. The second is the principle of purpose. Adhere to employment-oriented, the ultimate goal of multi-professional infiltration is to serve the future of employment. The third is the principle of practicality and sufficient use. In the process of multi-professional infiltration, we must pay attention to a certain degree, and conduct professional infiltration in a reasonable manner so as to facilitate students' mastery and absorption. [4] The fourth principle is based on the resources of our school. The multi-professional infiltration of professional high-skilled talents in vocational colleges must give priority to the school's resources, based on the resources of the school, and infiltrating and combining professionalism.

(2) Adhere to the principle of four-complex-type talent cultivation. The so-called four-energy refers to the four most basic capabilities of talented people in today's society, namely the requirements of “knowledge ability, innovation ability, communication ability, and practical hands-on ability”. [5] Our vocational education must adhere to the "ability-based" and focus on cultivating the students' "four capabilities" to cultivate more qualified and qualified high-quality talents for the country. Based on the full understanding of the differences between higher vocational colleges and undergraduate colleges, it is practically feasible to cultivate professional high-skilled personnel in vocational education through multi-professional infiltration methods according to the teaching resources, teachers, students and employment needs of higher vocational colleges. The research on multi-professional vocational education combined mode of high-skilled personnel training is still in its infancy. There are not many results that can be used for reference. Expect more experts and scholars to pay more attention to this field. It is believed that as long as we uphold the

principle of pragmatism and pioneering, we will certainly achieve new results in the field of professional high-skilled personnel training.

5. The Training of Teachers in Vocational Education Promotes the Development of Compound Technicians

5.1 Teaching methodologies for teacher training in vocational education

(1) The theoretical teaching method of vocational education teacher training adapts to the requirements of theoretical teaching, focuses on the transfer and mastery of knowledge and skills, and emphasizes theoretical cultivation and knowledge innovation. In teaching, the basic theory teaching is applied for the purpose of the necessary, enough for the degree; special class teaching should be more targeted and practical, emphasizing the integration of the curriculum, and strive to achieve the integration of professional basic courses and professional courses, professional theory and professional practice [5].

(2) The practical teaching methods for the cultivation of professional education teachers should reflect the concept of the cultivation of technical application-oriented talents. Emphasizing the cultivation of practical abilities requires learning and training in real or virtual practice, and transfer theoretical knowledge into practice. Practical teaching mainly includes verification experiments, cognitive experiments, on-board training, graduation practice, design, and on-site visits. Through these methods, theoretical teaching, technical training, and internship operations are organically combined to promote students to convert theoretical knowledge into practical skills, and even learning the knowledge that is not available in the book, not only realize the joy of creation, but also cultivate your own hands-on skills.

5.2 Exploring the way of “production-study cooperation”

The cooperation between industry and education is a kind of teaching mode in which the school-industry combination and the enterprise fully participate in talent cultivation. Industrial-academic cooperation is an effective way to cultivate advanced professional and technical personnel, and it is conducive to schools and enterprises to achieve resource sharing and complementary advantages. The training goal of vocational education is to apply technology-oriented talents for production, service, and management, and pay attention to the cultivation of students' hands-on ability. Its teaching content should highlight the practice teaching, and the professional education teachers must have the ability to achieve this training goal in the teaching process. It utilizes the respective advantages of companies and schools to achieve a combination of theory and practice [5]. On the one hand, schools provide technical support for enterprises, and on the other hand, companies provide practical places for schools so that students can apply the knowledge learned to production and engineering through cooperation with companies. Therefore, the cooperation model of industry-academia education is consistent with the training objectives of higher vocational education teachers in the ways and methods of cultivating talents, and is an effective way to achieve talent cultivation goals in higher vocational education.

(1) Establishing training centers in schools to create a combination of production and education. Schools can establish practical training rooms that are close to or even exceed the industry level through computer-assisted teaching methods and funding. These simulation systems can not only perform skills training, but also design training projects according to industry requirements, allowing students to experience and understand modern process flow and production links.

(2) According to the needs of economic development, self-run teaching schools rely on specialized industries to establish industries that rely on professional advantages, talents, and intelligence to establish school-run factories, and integrate production-study cooperation into the same management system to form a production system. On the one hand, teachers can conduct teaching around the products produced by the factory, so that students can directly participate in the design, development, and production of the products; on the other hand, they bring economic income to schools, increase teaching equipment, and reduce the contradiction in the shortage of

funds for running schools.

(3) Establishing an off-campus training base. This is one of the most important ways for industry-academia cooperation, and it is also the most important way to cultivate and improve students' skills in application. It mainly selects professional counterparts, advanced technology and equipment, strong technical force, positive factory style, high management level, and adequate production and production tasks as the off-campus training base to ensure the quality of training [5].

(4) Cooperation between schools and enterprises, joint implementation of schools. School-enterprise cooperation, joint education is an important trend to achieve the development of higher vocational education, which is also an inevitable result of the increasing function of higher vocational education. Joint education is the cooperation between the school and industry departments in organizing the leadership of the school, funding, school construction, management and operation. It is the extension and improvement of the higher vocational education teacher training model.

6. Conclusion

Vocational education, as an important component of China's education system, has played a significant role in the delivery of high-quality skilled personnel for China. With the continuous advancement of vocational education reform, the innovative talent cultivation model has become the focus of vocational education reform. In many professional education personnel training models, the compound high-skilled personnel training model is more suitable for the current society's demand for personnel training. With the development of society, the demand for "complex" talents in society is constantly rising.

References

- [1] Yu Jingbo. Research on the Model of Teacher Training in Higher Vocational Education in China[D]. Northeast Normal University, 2006.
- [2] Shi Ningzhong, Liu Haimin. The Choice of Teacher Education Development Model in China[J]. Chinese Higher Education, 2004(19):30-31.
- [3] Zheng Hailan. Exploration of Talent Cultivation in Higher Vocational Education[J]. Journal of Chongqing University (Social Sciences Edition), 2001(05):89-90.
- [4] Ren Yimei, Liu Chunfen. A Study on Teacher Training Model of Vocational Education[J]. Education and Occupation, 2005(35):43-44.
- [5] Jiang Ling. A comparative study on the training paradigm for compound high-skilled personnel in higher vocational education in China and foreign countries[J]. Educational Exploration, 2009(06):149-151.