

Research on the Innovation of the Training Mode of Intelligent Talents in Vocational Education

Ziqi Xu

Hainan Vocational University of Science and Technology, Haikou, Hainan 571126

Abstract: This paper aims to explore the innovation and development of the intelligent talent training mode of vocational education. By analyzing the challenges and problems faced by the current vocational education, it puts forward the innovation path of the intelligent talent training mode based on advanced information technology. Through the construction of smart learning environment such as smart classroom, smart training room and open learning center, combined with comprehensive measures such as industry-university cooperation mode, curriculum system reform, and teaching staff construction, in order to promote the improvement of the quality of vocational education talent training and meet the needs of economic and social development.

Keywords: Vocational education; Talent training; Innovation mode

Introduction

As an important part of the national education system, vocational education undertakes the important task of cultivating high-quality and skilled talents for the society. With the advent of economic globalization, information society and knowledge economy, the traditional vocational education model has been difficult to meet the markets demand for high-quality and multi-level skilled talents. Therefore, the innovation of talent training mode in vocational education has become an urgent problem to be solved now. This paper will discuss the innovation path and practice strategy of the cultivation mode of intelligent talents.

1. The current situation and problems of vocational education talent training mode

1.1 Overview of the current situation

In recent years, Chinas vocational education, especially higher vocational education, has developed rapidly and made remarkable achievements. Vocational colleges have made great achievements in personnel training, social services and scientific research. With the scale expansion and structure optimization, the number of vocational education colleges continues to increase, and the enrollment scale continues to expand, providing opportunities for more students to receive vocational education. The vocational education system has been gradually improved, covering all levels from primary vocational education to higher vocational education, and forming a diversified educational structure.

1.2 Main problems

Educational ideas deviate from the actual needs, and vocational education should adhere to the purpose of service and employment orientation. However, the current vocational education still has the thinking set and mode influence of general education, and fails to completely break through the shackles of “discipline center” and “academic orientation”. The goal of vocational education should be market-oriented and cultivate applied talents rather than academic talents.

Vocational colleges are not firm in the orientation of talent training objectives, and the trained talents are often difficult to adapt to the actual needs of enterprises, resulting in the decline of the employment rate. Some vocational colleges fail to fully consider the market demand in terms of major setting and curriculum setting, and blindly follow the trend of setting up popular majors, resulting in a waste of educational resources.

The shortage of teachers and the shortage of “double-qualified” teachers are the common problems in the current vocational education. Teachers attach more importance to theory than practice, and the teaching content is disconnected from the reality of the enterprise, which leads to poor practical teaching effect and students weak practical ability. Practical teaching is weak, and there are many problems of backward facilities and aging equipment in practical teaching, which is difficult to meet the needs of practical teaching. In addition, the lack of internship base construction and the limited internship opportunities for students also restrict the improvement of practical teaching quality.

2. Innovation path of intelligent talent training mode

2.1 Build an intelligent learning environment

Based on advanced information technology, the intelligent classroom is built, and the characteristics of learners are identified through data analysis and mining, and the best suitable learning tasks and activities are generated. Smart classroom can integrate various learning resources, realize the intelligent push of personalized resources and convenient interactive tools, and improve the teaching effect. By introducing advanced technologies such as virtual reality (VR) and augmented reality (AR), the intelligent training room simulates the real working environment, so that students can conduct skills training in the virtual environment and improve their practical operation ability. At the same time, the intelligent training room can also carry out intelligent tracking feedback and intelligent multiple evaluation on the practical training process, providing a basis for personalized guidance.

An open learning center will be established to provide rich learning resources and flexible learning space to meet the needs of students for independent learning and lifelong learning. By combining learning online and offline, the open learning center breaks the limitations of time and space and provides students with convenient learning services.

2.2 Innovation of industry-university cooperation mode

Vocational colleges should establish extensive cooperative relations with enterprises, and realize resource sharing and complementary advantages through the school-enterprise co-construction platform. The school-enterprise co-construction platform can provide internship and training opportunities for students, and provide technical support and talent reserve for enterprises. Vocational colleges should strengthen the cooperation with scientific research institutions, industry associations and other units to promote the close integration of industry, education and research. Through industry-university-research cooperation, vocational colleges can timely understand the industry trends and technological development trends, adjust the professional Settings and curriculum setting, and ensure that talent training meets the social needs.

2.3 Reform of curriculum system and teaching content

Promote the modular curriculum reform, the professional courses are divided into several relatively independent teaching modules, each module revolves around specific skills or knowledge points. Modular curriculum reform can enhance the flexibility and pertinacity of the curriculum and meet the learning needs of different students. Update the course content in time to ensure that the teaching content is connected with the actual needs of enterprises. Vocational colleges should regularly invite enterprise experts to participate in the revision and updating of the course content to ensure that the knowledge and skills learned by students are practical and forward-looking.

3. Case analysis —— Chongqing Vocational College of Industry and Commerce

Based in Chongqing, Chongqing Vocational College of Industry and Commerce serves the construction of shuangcheng economic circle in Chengdu-Chongqing region, and trains new craftsmen of intelligent lighting. By building a school-enterprise co-construction platform, the school has formed a long-term education mechanism that makes professional teachers organically integrate classroom teaching and extracurricular activities, and mutually promote campus education and social services.

Curriculum setting and teaching content, the intelligent lighting design major has set up a series of core courses, aiming to build a solid professional foundation for students. These courses include, but are not limited to: engineering optics, principles and technology of Optical Radiation, principle and application of electric light source, electrical lighting technology, intelligent Lighting and art Lighting System Engineering. In order to enhance students practical ability, the major also offers several experimental courses, such as Professional Experiment 1, Professional Experiment 2 and Professional Experiment 3, which are corresponding to the core courses and direction courses respectively. Through these experimental courses, students can have a deep understanding of the principle and application of lighting technology, and master the experimental operation skills. According to the training objectives of “light source engineer” and “lighting designer”, the major also sets up training courses such as LED packaging training, lighting design and control training, lighting system optical design and other training. Through the practical training course, students can train their skills under the condition of simulating the real working environment to improve their ability to solve practical problems. The major of Intelligent Lighting Design has an excellent teacher team composed of experts and professors in the field of intelligent lighting, national technical experts, doctoral and master students, and the founders and design directors of famous and excellent enterprises. They not only have profound professional foundation and rich teaching experience, but also can integrate cutting-edge technology and market dynamics into teaching to provide high-quality education services for students. The school is equipped with advanced teaching equipment and facilities for this major, such as intelligent lighting laboratory, lighting design and control training room, etc. In addition, the school also actively cooperates with enterprises to build a school-enterprise co-construction platform, to provide students with more practical opportunities and employment channels. This major pays attention to the setting and implementation of practical teaching links. Through school-enterprise cooperation, integration of industry and education, students can participate in lighting de-

sign, research and development, production, installation, commissioning and maintenance in actual projects to accumulate valuable practical experience. At the same time, the school also encourages students to participate in various skills competitions and innovative activities to enhance their awareness of innovation and practical ability. In recent years, the teachers and students of this major have made a number of innovative achievements in the field of intelligent lighting. They participated in the night view lighting planning of Chongqing two rivers and four banks. The lighting design and landing work of Dragon TVs “Dream Transformation Home” and other projects show excellent professional ability and innovative spirit. With the continuous development of intelligent lighting technology and the continuous expansion of the application fields, the employment prospect of intelligent lighting design major is very broad. Graduates can be engaged in design, research and development, production, installation, debugging and maintenance in lighting design enterprises, lighting manufacturing enterprises, smart home enterprises and other fields. At the same time, they can start their own businesses or study for a masters degree in related fields. The university provides comprehensive employment support services for the graduates of this major. By holding job fairs, providing employment guidance, establishing employment information platform, help students achieve employment goals. In addition, the school also actively cooperates with enterprises to carry out order training and other projects, to provide students with more job opportunities and job choices. In recent years, the school has trained more than 1000 intelligent lighting talents, and has made active tribute to the city lighting industry.

4. Conclusion

The innovation of intelligent talent training mode in vocational education is the key way to improve the quality of vocational education talent training and meet the needs of economic and social development. Through the comprehensive measures of constructing the intelligent learning environment, the innovation of industry-university cooperation mode, the reform of curriculum system and teaching content, and the strengthening of the construction of teachers, the comprehensive measures of the innovation and development of vocational education talent training mode can be effectively promoted.

In the future, with the continuous progress of information technology and the deepening of vocational education reform, the intelligent talent training mode will be more widely applied and promoted in vocational education. Vocational colleges should keep up with the pace of The Times, constantly innovate the talent training mode, train more high-quality skilled talents for the society, and make greater contributions to the economic and social development.

References

- [1] Tan Xingguo, Sheng Wei, Xu Ruiling, et al. Exploration of the training mode of applying innovative talents in vocational education [J]. China Electric Power Education, 2021, (02):77-78.DOI:10.19429/j.cnki.cn11-3776/g4.2021.02.031.
- [2] Chen Jie. Innovation and practice of talent training mode of vocational education under the intelligent learning environment [J]. Science and Technology Innovation Guide, 2020, 17(05):209-212+214.DOI:10.16660/j.cnki.1674-098X. 2020.05. 209.
- [3] Zhao Wenping, Wang Xiaojun, elegant qin. Analysis on the curriculum system design of the integrated talent training in vocational Education [J]. Education and occupation, 2024, (14):5-12.DOI:10.13615/j.cnki.1004-3985.2024.14.010.