

# Construction and Practice of Road and Bridge Comprehensive Training System for “532” Talent Training Model under the Integration of Industry and Education

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**ABSTRACT.** This paper mainly introduces the construction and practice path of the 532 talent training model Road-bridge comprehensive training system, including in-depth cooperation between schools and enterprises, the establishment of a professional teaching environment, and the realization of teaching reforms. It aims to provide effective references for talent training.

**KEYWORDS:** Talent training, Road-bridge, Comprehensive training

## 1. Introduction

The 532 talent training model meets the current student training requirements in vocational education. It can provide students with sufficient practical opportunities and training platforms. Therefore, higher vocational colleges should establish a comprehensive training system in a scientific way based on the current development practice of students and the technical requirements of enterprises.

## 2. 532 Talent Training Model Road-Bridge Comprehensive Training System and Practical Research Ideas

Vocational education is mainly oriented to work practice and employment-oriented education. The Road and Bridge College of Chongqing Vocational College of Transportation has initially implemented a 532 talent training model, including training goals and job docking, professional literacy and corporate culture docking, teaching process and production process docking, curriculum standards and job requirements docking, curriculum system and job content docking; sharing and co-construction of training projects and production projects, sharing of learning occasions and office occasions, sharing of training platforms and production platforms; corporate operators and campus teachers. There are five types of docking, three types of sharing and two-level identity integration of production and education, and a school-enterprise cooperation training model, referred to as the 532 talent training model [1].

In the training of talents, we should actively create corresponding training venues and training systems. The reform of the curriculum system is a key content of talent training. Based on the 532 talent training model, we create training bases and training systems, and the basis for school-enterprise cooperation. We will jointly build a new type of training base, and both schools and enterprises can jointly design the corresponding teaching content and teaching plan, build a training platform and multiple curriculum modules, promote the effective transformation of teachers' traditional concepts and consciousness, form a scientific evaluation system. The advantages of cooperative teaching have been brought into full play, combined with the advantages of the flexibility of private school mechanisms, and the establishment of school-run enterprises with the support of majors to form a suitable talent training mechanism.

## 3. 532 Talent Training Model Road-Bridge Comprehensive Training System Construction and Practice Path

### 3.1 Accelerating the Reform of Teaching Forms and Methods

Changing teaching ideas, learning and adopting new teaching methods and teaching methods, the purpose is to enable students to fundamentally change their learning attitude and methods, from the past “let me know what” to the future “how I should better complete the task “, and to cultivate students strong sense of innovation and entrepreneurship and ability.[2]

### ***3.1.1 Carrying out New Teaching Methods and Diversifying Teaching Forms***

With the teaching concept of "taking students as the main body and teachers as the leading part", it focuses on highlighting the main role of students, and uses flexible and diverse teaching methods to change the preaching phenomenon of full-house irrigation. We can actively carry out participatory experiential, heuristic, group discussion, inquiry teaching and teaching together with teachers and students to communicate and practice in addition to the conventional teaching methods of classroom teaching theory in the past. To arrange the teaching process, to improve the visualization and interest of the teaching, to enhance the students participation in the teaching process, and to cultivate the students innovative entrepreneurship and practical ability.

### ***3.1.2 Speed Up the Construction of Practical Teaching System and Enhance Students Ability to Innovate and Start a Business***

In order to make the diversified teaching methods effective, it is necessary to establish a matching practical platform. First of all, for the development of the school, outside the various professional training and practice. Secondly, we should carry out and participate in multi-level innovative entrepreneurial training projects. According to the local characteristics, it's necessary to make clear the advantages of the school, and even the advantages of the major, to carry out and participate in the national, provincial, municipal and school level of four levels of innovative entrepreneurial projects for college students.

## ***3.2 In-Depth Cooperation between Schools and Enterprises***

Schools and enterprises should conduct in-depth cooperation to provide sufficient talent training curriculum resources for professional construction. Schools should actively connect with enterprises, clarify talent training specifications, and conduct in-depth analysis and research on the requirements for post competence in road and bridge inspection. For example, Chongqing Vocational College of Transportation of Road and Bridge Engineering of the traffic vocational school has established Chongqing Vocational College of Transportation and Swiss Testing Company, CCCC Ruitong Testing Company, Chongqing Jinpeng Quality Testing Company.Bim Technology Co., Ltd. The advantages of school-run enterprises and the talent training specifications in the society are fully integrated, and according to the requirements of competence and conditions of road and bridge inspection posts and core construction posts, active training programs are developed based on job requirements.

In the school-enterprise cooperation, we should adhere to the social enterprise as the supplement, the school-run enterprise as the core, develop training programs, formulate corresponding training plans, and use this as a reference to prepare training guidance documents and training outlines, and hire enterprise employees as Train teachers to lay a good foundation for students' practical training. Form a school-enterprise cooperation teaching team and scientific research team, scientifically revise talent training programs, and guide school-run enterprises to actively participate. In the course teaching, corporate personnel serve as part of the teaching guidance, and Perform related teaching tasks in school-run enterprises.

It is necessary to establish a training base to provide students with a real training environment, and to practice the basic concepts of doing school and learning. To this end, full consideration must be given to the needs of work in socially relevant companies, student characteristics, student interests, future development directions. Work and rest time, reasonable arrangements for practical training, and students can also focus on one of the skills and knowledge in a targeted and selective manner, and the specific situation should be reasonably arranged after full consultation between the school and the enterprise. For example, Chongqing Vocational College of Communications The school plans to cooperate with the Chongqing Jiaotong Academy and Rui Testing Technology Co., Ltd. from the on-site testing of asphalt pavements and materials, and jointly develop a training platform. The company can provide excellent corporate teachers and training venues. Students and students will be widely Welcome, especially third-party testing units. At present, the relevant talent market in the industry is very lacking in this kind of test operation talent. Under the condition of China's sustainable economic development, road maintenance testing and the popularity of asphalt pavement have further expanded the demand for related professionals. [3]

## ***3.3 Building a Professional Teaching Environment***

In the course teaching, the course situation should be changed into the actual work situation, and the traditional teacher-led classroom teaching mode should be turned into a student-oriented teaching mode. Professional core courses should use various training venues as core locations for teaching. The corresponding training site is divided into a practice area and a teaching area. Among them, technical documents, blackboards, multimedia projectors and other equipment need to be arranged in the teaching area, and various materials, specifications, drawings, desks should be set in the practice area. In practice, it is necessary to maintain the same operating procedures as the actual project, try to

build a teaching situation close to the actual working environment at the actual site, and promote the full integration of corporate culture, campus culture, working environment and school. [4] The main content is work. Learning in real work scenarios can further highlight the characteristics of vocational courses.

### **3.4 Promote the Goal of Teaching Reform Based on Practical Training System**

Break through the traditional discipline-based curriculum system, and restructure the curriculum system based on the actual work system, and optimize the design of the curriculum structure in combination with actual work tasks. Break through the limitations of traditional discipline-based curriculum, get rid of the main line of subject logic and focus on the teaching of professional theoretical knowledge Contents. Work practice needs should be linked, adherence to professional activities as the core, the development of students professional ability as the main task, redesigning and formulating teaching content, and getting rid of the teaching model based on students' passive acceptance and knowledge infusion under the subject-based curriculum model, leading to theory Disconnected from practice.[5] To this end, it is necessary to form a teaching mode that focuses on task implementation, students actively construct, and integrate teaching as a whole. It completely breaks through the single classroom environment and teaching mode, and tries to create a teaching environment that is close to work practice, and promotes corporate culture and campus culture. National integration with work culture. [6]

Comprehensively reform the five core courses of road construction materials, bridge and culvert construction, pavement construction, subgrade construction, and tunnel construction. After the reform, the relevant courses will be constructed as the key content of open courses online education to enrich the curriculum. Resource library. Combining modern concepts to optimize course design, based on a course, comprehensively optimize the course teaching mode, teaching methods, methods, and content. [7] For the core courses, the typical tasks should be designed according to highway engineering experts, and the scope of experts' merged actions Experts demonstrate road work, development and learning areas, and curriculum system demonstration in the five links of the working mechanism for curriculum construction, school and enterprise experts are all involved in the curriculum system design. Combining work merger law, to promote the effective conversion of typical work tasks into action areas, and Use work process analysis to promote effective transformation of action areas into learning areas.

## **4. Conclusion**

In summary, by developing the 532 talent training model, it is possible to effectively transform the traditional teaching model, create a training management system and training model that simulates the enterprise, and transform the on-campus training teaching into pre-post internships for schools and enterprises. These bridges form a connecting bridge, further reducing the adaptation period in the work of student companies.

## **References**

- [1] Wang Yin.The four-in-one engineering cost major of “post certificate”-a research on talent training mode. Health, no. 02, pp.178-179, 2020.
- [2] Liu Jisheng.Analysis on the innovation and practice of the training model of applied talents in the construction and civil engineering specialty. Building Materials and Decoration, Health, no. 1, pp.152-153, 2020.
- [3] Zhu Xiangping, Yuan Rongjing. Research on innovative Entrepreneurship Education Model of Financial Management Major. Health, no. 4, pp.112-113, 2018.
- [4] Wu Mingtao, Zhang Yanming, Wang Yucui, Fu Huixia.Research on the training mode of innovative entrepreneurial talents in financial management specialty. Health, no. 22, pp.52-54, 2013.
- [5] Chen Lingfang.Discussion on the Construction of Financial Management Professional Teachers under the guidance of innovative Entrepreneurship Education. Health, no. 10, pp.122-123, 2017.
- [6] Yanli Zhao.An effective way to implement innovative entrepreneurship education in accounting majors in higher vocational colleges. Health, no. 10, pp.120-121, 2012.
- [7] Wang Bin.Practice and thinking on optimizing the training scheme for financial management professionals. Health, no. 3, pp.172-175, 2011.