

Research and Practice of Innovative and Entrepreneurial Talent Training System Based on Quartet Linkage

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Abstract: Cultivation of innovative and entrepreneurial talents is an important training method to improve the ability of talents. By reasonably applying professional knowledge and skills to knowledge points, it can effectively improve the innovative and entrepreneurial ability of college students and increase the motivation for building an innovative country. Considering that there are problems such as the weak awareness of innovation and entrepreneurship collaborative training, the separation of professional courses and innovation and entrepreneurship education, and the inconsistency in the achievement of innovation and entrepreneurship ability in the cultivation of top-notch talents for innovation and entrepreneurship in colleges and universities, a plan for the training system of innovative and entrepreneurial talents based on four-way linkage is proposed. From building a four-way collaborative education system based on “teaching, research, competition, and innovation”, building a multi-layer progressive “integration of innovation and integration” curriculum system based on four-way linkage, and building an incentive-based “multi-level” curriculum system based on innovative and entrepreneurial content Starting from the aspects of “dimension teaching” and evaluation methods, establish an innovative and entrepreneurial talent training system to improve the quality of talent training.

Keywords: Innovation and entrepreneurship; Four-way linkage; Innovation and integration; Multi-dimensional teaching

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1. Research background

Innovation is the fundamental driving force for national development, and the implementation of innovation and entrepreneurship education is the need for students' own development. To explore and establish an effective mechanism for the cultivation of top-notch innovative and entrepreneurial talents, and to promote top-notch innovative and entrepreneurial talents to stand out, is the historical requirement for building an innovative country and realizing the Chinese dream. It is also an urgent requirement for education reform at present. In order to conform to the background of the country's innovative economic development, the Ministry of Education issued the “Opinions on Vigorously Promoting Innovation and Entrepreneurship Education in Colleges and Universities and College Students' Independent Entrepreneurship Work” in 2010, formally putting forward the guiding ideology of innovation and entrepreneurship education. Subsequently, the General Office of the State Council successively issued the “Implementation Opinions on Deepening the Reform of Innovation and Entrepreneurship Education in Colleges and Universities”, “Guiding Opinions on Developing Maker Spaces to Promote Mass Innovation and Entrepreneurship”, “On Promoting the High-quality Development of Innovation and Entrepreneurship to Create an Upgrade of “Double Entrepreneurship” The “Opinions on the Version” and other documents, comprehensively deploy and deepen the reform of innovation and entrepreneurship in colleges and universities, and further enhance the height of innovation and entrepreneurship, and determine “leading entrepreneurship with innovation and driving employment with entrepreneurship” as an important content of talent training in colleges and universities in the new era.^[1]

Talent training is the fundamental task and important mission of colleges and universities, and it is the common responsibility of domestic colleges and universities to explore an active and effective training model for top-notch innovative talents. Electronic information major is a traditional major in science and technology colleges and universities. With the in-depth development of my country's modernization construction, electronic technology is playing an increasingly important role in various fields and departments of society. At present, the electronic information industry has become a national strategic emerging industry, and it is also a key high-tech industry and an important economic support industry in Chongqing. Technical skills require high typical characteristics. Stimulating professional students' interest in innovation and entrepreneurship, and establishing an effective model for the cultivation of innovative and entrepreneurial technical and technical talents suitable for high-end industries such as electronic information majors, are of great significance for cultivating innovative and entrepreneurial technical talents urgently needed by the electronic information industry and promoting the development of national informatization.^[2-5]

2. Problems and solutions

At present, there are the following problems in the cultivation of top-notch talents in innovation and entrepreneurship in colleges and universities: (1) The awareness of collaborative cultivation of innovation and entrepreneurship is weak, and there is a lack of a

complete top-down collaborative education system. (2) The professional courses and innovation and entrepreneurship education are separated, and there is a lack of systematic innovation and entrepreneurship education. Talent training curriculum system (3) The achievement of innovation and entrepreneurship ability is not obvious, and there is a lack of a comprehensive teaching effect training evaluation system.^[6-8]

In order to form a complete set of innovative and entrepreneurial talent training system that focuses on cultivating students' innovative thinking and practical ability, it is necessary to start from the following goals and innovate the talent training model: (1) To build a "teaching, research and development" for innovative and entrepreneurial talent training in the electronic information industry. , Competition, Creation" four-party linkage and collaborative training model. The purpose is to effectively improve students' innovation and entrepreneurship ability by establishing and cultivating the superstructure, so as to establish a high-quality compound innovative talent training model based on this major and facing the long-term development of the future; (2) To build a multi-layer progressive innovative integration course The system can more effectively carry out innovation and entrepreneurship education in scientific research projects, innovation and entrepreneurship competitions, and entrepreneurial incubation, so as to improve students' innovation and entrepreneurship ability and increase their future competitiveness in response to social needs.

3. The realization path of innovative and entrepreneurial talents training based on the four-way linkage

Through the construction of a four-way collaborative education system based on "teaching, research, competition, and innovation", a multi-layer progressive, specialized and integrated curriculum system based on four-way linkage is designed, and an incentive-based multi-dimensional teaching evaluation based on the teaching form of innovative and entrepreneurial content is constructed. The method can effectively improve students' innovation and entrepreneurship ability. The specific realization path is as follows.^[9]

3.1 The four parties will coordinate and promote the cultivation of top-notch talents in innovation and entrepreneurship, and establish a collaborative education system of "teaching, research, competition, and innovation"

By uniting people from all over the world to cooperate and help each other, build a top-down collaborative education system, optimize and reconstruct the teaching content under the content sharing, innovate the hybrid interactive teaching method under the concept of collaborative education, improve the collaborative education mechanism, and then realize the university Comprehensive improvement of students' professional skills and comprehensive literacy.

First, the professional teacher department should strengthen the relationship with innovation and entrepreneurship teachers and competition instructors, and the functional departments of educational affairs, academics, courses and other functional departments should coordinate the relationship between responsible teachers, clarify the division of responsibilities, and form a work pattern of linkage between the upper and lower levels. Provide a guarantee system for the implementation of "Linkage" top-notch talent training.^[10-13]

Second, teachers should strengthen the learning of innovation and entrepreneurship knowledge concepts, professional teachers should understand the basic situation of the industry and industry, innovation and entrepreneurship teachers should strengthen the guidance of innovation and entrepreneurship concepts as the main body of educators in innovation and entrepreneurship courses, and competition instructors should actively participate in various Competition training to improve the comprehensive ability of innovation and entrepreneurship

Third, it is necessary to explore the establishment of a scientific and objective and effective evaluation system, test the implementation effect of innovation and entrepreneurship education from the sense of acquisition of students, strengthen the orientation and systematization of policies, and promote the implementation of innovation and entrepreneurship education to give full play to its effectiveness.^[14]

3.2 Guided by multiple needs, design a multi-layer progressive, specialized and integrated curriculum system based on four-way linkage

Incorporate innovative education into professional standards, curriculum standards, classroom teaching and practical teaching, promote organic integration, implement heuristic, discussion, case and research teaching modes, and convert competition resources into teaching resources.

First, according to the guiding ideology of innovation and entrepreneurship top-notch talent training, determine the composition of the electronic information major curriculum system, the specific goals, level positioning, overall structure and management mechanism of the curriculum construction;

Second, combined with the four-party linkage education model, gradually improve the teaching plan system, through the integration and optimization of courses, so that students' learning ability, practical application ability and innovation ability can be systematically cultivated;

Thirdly, according to the difference of curriculum system structure, the teaching system construction methods of professional theory courses and professional practice courses are designed respectively.^[15-17]

3.3 Taking students' innovative thinking and advanced practical ability as the goal orientation, establish an incentive multi-dimensional teaching evaluation method based on the content teaching form

To evaluate the achievement of innovation and entrepreneurship ability, it is necessary to understand the situation of each teaching content from multiple aspects, so as to judge its quality and level, effectiveness and defects.

First, the qualitative evaluation method is based on the content teaching form. For example, the whole course is aimed at the mastery of theoretical knowledge and the improvement of innovation and entrepreneurship ability, and the evaluation of theoretical

knowledge and experimental skills can be established.

Second, refine the evaluation content model and quantitative indicators. The content mode is refined according to different evaluation methods. For example, when student evaluation is used, intra-group evaluation and inter-group evaluation can be adopted for group discussions. Then, the group discussion content, number of group discussions, and intra-group evaluation and The proportion of scores in the between-group evaluation needs to be designed in detail according to the arrangement of the course content.^[18-21]

Third, design the evaluation time stage and evaluation method. According to the development process of the teaching content, design reasonable evaluation entry methods and entry time points, such as pre-class thinking ability evaluation, in-class learning ability evaluation, and after-class drill evaluation, and make the evaluation method innovative and dynamic, so as to meet the needs of better students. Innovation and entrepreneurship model presentation and better goal achievement.

4. Conclusion

In view of the current problems faced by colleges and universities in the process of cultivating innovative and entrepreneurial talents, the article proposes a four-way talent training model of “teaching, research, competition, and innovation” for the cultivation of innovative application technology talents in the electronic information industry. System, with courses, creative competitions, or maker products as the carrier, establish an incentive multi-dimensional teaching evaluation method based on the content-based teaching form, and form teaching resources including corporate tutors, project tutors, teaching tutors and other multi-tutors and multi-teaching resources, Form a curriculum teaching system that includes “integration of specialization and innovation”, and establish application cases for teaching evaluation, so as to better deal with the decentralization of teaching resources in the process of innovation and entrepreneurship and the inappropriate teaching forms and evaluation methods in the teaching process.

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