

Research on the Training Mode of Engineering Master Degree in Private Colleges and Universities Based on Innovation and Entrepreneurship

-Taking Xijing University as an example

Jingfeng He

School of science

Xijing University

Shaanxi, Xi'an, china, 710123

573825625@qq.com

Abstract—Under the background of "mass innovation, people's business", national Colleges and universities have carried out innovation and Entrepreneurship Education. Cultivation of Engineering Postgraduates in private colleges, this is an important measure of graduate education reform in china. How to improve the ability of innovation and entrepreneurship in the private university, to promote the healthy development of the cultivation of graduate students in private colleges and Universities. In this paper, some new ideas about the training mode of Engineering Master's degree in private colleges and Universities Based on innovation and entrepreneurship are discussed from the aspects of teaching concept, training objectives, teaching methods and so on.

Keywords—*innovation entrepreneurship; private university; engineering master; training mode*

I. INTRODUCTION

The decision made by the CPC Central Committee and the State Council to build an innovative country, it is a major strategic decision related to the overall situation of socialist modernization. Colleges and universities are the base of cultivating innovative talents, the main task of higher education is to cultivate the talents who can adapt to the development of economy and society, and lead the development of economy and society, innovation and entrepreneurship is the leading role of the main performance. With the continuous development of economy and society, the relationship between higher education and economic society is more and more close, schools should meet the needs of economic and social development, on the one hand, through the dissemination of knowledge, dissemination of science and technology, dissemination of culture, training talents to meet the needs of economic and social development, on the other hand, schools need to create knowledge and technology, with their own base and sensitivity, and strive to stand in the forefront of science and technology, continuously conveying new knowledge and new achievements to society, at the same time, we can cultivate the innovative and entrepreneurial talents who can lead the economic society.

Both innovation and entrepreneurship is the need for self-development. Development needs is the highest level of needs, it is the desire and the pursuit of the full realization of one's own intelligence and wisdom and the realization of self-value, and it includes labor, learning, creativity and so on. At present, the international and domestic situation is undergoing profound changes, engineering graduate students are facing unprecedented opportunities and challenges, as a successor to the motherland, they are eager to develop themselves and improve themselves, therefore, the development of the main characteristics of innovation and entrepreneurship as the main needs of engineering graduate students.

II. THE CHANGE OF TEACHING IDEA

A. Change the education idea, realize the integration of innovation and Entrepreneurship Education

Innovation and entrepreneurship is a dialectical unity [1]. Innovation is a process from the emergence of new ideas to the discovery, invention and design of new knowledge, new technology, new products or services. Entrepreneurship is a process of discovering and capturing opportunities and thus creating new products or services and realizing their potential value. Innovation pays attention to the value discovery, the enterprise pays attention to the value realization. There is an inevitable link between entrepreneurship and innovation, innovation is the premise and basis of entrepreneurial activities, it is the most essential factor and the most essential characteristic of entrepreneurial activities, is the soul of entrepreneurship and the key, but also to ensure the sustainability of entrepreneurship. But innovation does not necessarily lead to entrepreneurial activity, entrepreneurship is not equal to innovation. There are many kinds of innovation activities, not all of them are suitable for entrepreneurial activities, not all suitable for entrepreneurial innovation will be transformed into entrepreneurial activities, entrepreneurship requires high potential innovation. Entrepreneurial activities are also diverse, including innovative entrepreneurship, imitation of entrepreneurship, copying entrepreneurial. Any innovation is not based on

entrepreneurship, are not in the true sense of entrepreneurship. Therefore, entrepreneurship based on innovation, entrepreneurship and innovation. Engineering master education should strive to foster innovation and entrepreneurship as one of the innovative entrepreneurial talent.

B. Optimize the training mode, establish the mechanism of innovation and entrepreneurial talents training

The mode of talent training is to achieve the goal and the standard of the training process and the way of the goal and the specification by the relatively stable teaching content and curriculum system, and the scientific teaching method which matches with it. Innovative talents need extensive knowledge, good knowledge structure, and solid knowledge foundation. There is a need for a variety of ways to stimulate interest in learning according to personal interests, close or zero distance contact with social life.

First, according to the needs of the development of market economy, in particular, the local economic and social development on the diversification, multi-level talent needs, as well as the difference of students' personality and the different needs of education, actively explore a variety of personnel training model.

The second is to strengthen the students' autonomous learning mechanism and self-development mechanism. Respect students' choices, interests and hobbies, expand students' learning autonomy, cultivating students' autonomous learning awareness and autonomous learning ability, plan your study plan, further improve the flexible educational system, shunt training, hierarchical teaching, stratified teaching, expanding the students to choose their own professional, independent selection of instructors, self-selected courses in the space [2].

III. ORIENTATION OF TRAINING OBJECTIVES

A. Optimize the training objectives, clear the goal of innovative entrepreneurial talent

Goals have a great guiding effect on the growth of students, career planning is the starting point for students' growth, success and success. By determining the main content and implementation of student career planning, in the process of personnel training, to guide students' value orientation, behavior standards, ideology, learning norms and learning motivation, help students to establish the ideal and career development goals, learn to choose and plan, to guide students to realize their career ideals step by step.

The objective characteristics of innovative entrepreneurial talents are based on the general characteristics of innovative entrepreneurial talents. innovative and entrepreneurial talents should have a solid foundation of knowledge and a more complete knowledge structure, have a good ability to learn and learn independently, with a strong sense of innovation and entrepreneurial spirit, will, with keen insight and unique way of thinking, good judgment and grasp opportunities, excellent ability of innovation, practice, implementation and development, good team spirit, cooperation ability and social competitiveness.

B. Construction of the application oriented training system, including curriculum teaching system and practice teaching system

At present, there is a certain degree of professional characteristics in the construction of the curriculum system of Engineering Master's degree graduate programs, Lack of practice, academic curriculum, strong theoretical teaching content, the difference between the course and the graduate course is not obvious, without its own characteristics. It is necessary to further construct the training system of engineering postgraduates with the characteristics of private colleges and universities, including curriculum teaching system and practice teaching system, focus on training their practical ability and innovation ability.

On the management of off campus tutor, establish and improve the external tutors, part-time teacher introduction mechanism, Establishment of the master of engineering information library, to standardize the training and management of tutors and part-time teachers. At the same time, the establishment of school teachers to enterprises, units of engineering practice training cycle rolling training mechanism, encourage school teachers to go deep into the enterprise, according to the unit, enterprise testing exercise mode, improve the ability and quality of the engineering practice of private school teachers, efforts to build a private college and university graduate education to adapt to the combination of part-time work with innovative entrepreneurial ability of the high level of double qualified teachers.

IV. REFORM OF TEACHING METHODS

A. Innovative teaching methods, to improve the teacher led, student oriented education and teaching model

Teaching method is the main factor restricting the development of students' innovative ability [3]. Innovation and entrepreneurial talents can not do without reform and innovation, the innovation of educational idea, promote the teaching content, teaching methods and teaching technology innovation. Teaching methods must be realized from the traditional teacher centered imparting knowledge and innovation to knowledge, combined with the practice of interaction between teachers and students, Teaching benefits teachers as well as students, and to mobilize students' autonomous learning, stimulate students' curiosity and creativity as the main goal of teaching methods.

Emphasize the advance of teaching content, novelty. Cultivating students' creative ability, must constantly update teaching content, let the students master the latest knowledge, learn about the latest developments in the world, So that the level of knowledge and structure of students and the world's advanced level of development tend to synchronize, in this way, students can be achieved on the basis of the existing level of innovation and breakthroughs. This requires increasing scientific research to promote teaching efforts, the more scientific research results into the teaching content, teaching practice.

B. Strengthen the practice education, and set up the practice teaching mode which integrates the internal and external practice

Practice education is not only a teaching method, but also a teaching link. Vocational skills training as the main content, taking the cultivation of practical innovation ability as the goal, the main teaching method is to use the guidance of teachers and students' active participation, it is an important channel for students to transform knowledge into ability and apply theory to practice. Therefore, strengthening the practice of education is an important part of cultivating students' ability of innovation and Entrepreneurship [4].

On the basis of inheriting the traditional content, through the integration of the original practice, to realize the whole optimization of practice teaching content system, establish the curriculum practice, the investigation practice, the thesis design and the extracurricular practice four aspects as the key point, take the public practice, the discipline practice, the specialized practice, the comprehensive practice four layer by layer progressive ladder as the level, adhere to the practice of teaching four years line, the practice teaching runs through the practice teaching system of the whole learning process. This system has two basic characteristics: one is to carry out systematic practice teaching, two is the practice teaching into the overall training program, and accounted for a larger share of learning [5].

C. Strengthen the second classroom, the establishment of innovative entrepreneurial personal training second channels

The "second classroom" highlights its advantages with the flexibility of teaching organization, the openness of management, the universality of resource integration and the autonomy of resource allocation, it is an effective way and carrier of innovation and Entrepreneurship Education. The second class is limited by time and space, pay more attention to the practice and Application. Students in practice, the training process of team composition and ability is interdisciplinary, cross disciplinary, cross knowledge and complementary, have comprehensive [6]. In the process of operation, there is division of labor, cooperation, learn from each other. Complementary ability, highlight the team spirit. And the society is more closely linked to help students to improve the degree of socialization. For students to provide free thinking space, to create a special cultural environment to achieve the function of "environmental education", achieve the purpose and effect of "the first class". The purpose and effect of this kind of education will influence students imperceptibly, and gradually internalized into the quality of students, enhance students' desire for knowledge, stimulate students' consciousness of innovation and entrepreneurship, improve students' ability of innovation and Entrepreneurship.

D. Optimize the structure of teachers, through the external culture create a "special, special combination of" innovation and entrepreneurship teachers

The basis of cultivating innovative talents is in education. The key is to have a team of teachers with the characteristics of innovation and Entrepreneurship. Innovation and

entrepreneurship instructors should have a higher career ideal and a sound personality characteristics, innovation and entrepreneurship education, a complete knowledge structure and professional skills, higher teaching monitoring ability and strong management art. To absorb the latest educational science information, to discover and put forward the problems existing in practical teaching, plan, organize and implement educational activities, new ideas and new methods of education and teaching, be able to use educational research achievements, be good at teaching and scientific research of the empirical research, can use modern information technology to improve teaching efficiency.

First, the implementation of personnel training projects to enhance the quality of the stock of teachers, and make some of the mentor successful transformation. Increase the training of young and middle-aged teachers, further optimize the structure of teachers, gradually form a high degree, high professional title, high level, low age, "three high and one low" group advantage, improve mentor learning, visiting schools, public schools and other related systems, to visit universities at home and abroad, study, laying a solid foundation of knowledge and complete knowledge structure, and track the frontier of science and economic and social development, to establish an innovative and innovative teaching and research team. Give full play to the inheritance of excellent teachers, help, with the role of teaching, multi-channel, multi way to improve young teachers' teaching skills and business level. At the same time, actively carry out entrepreneurship education teacher training, hire experts to set up entrepreneurship education entrepreneurship teaching course, teaching entrepreneurship theory, knowledge, skills and entrepreneurship education. Encourage the tutor to the authorities, enterprises and institutions to carry out social practice or exercise attachment, especially for some practical courses. From the actual work, the research and development of simulation system for teaching requirements. For qualified tutors, allow them to work part-time or social entrepreneurship.

The second is to further increase the intensity of the introduction of talent, and gradually realize the diversity of teaching staff. The introduction of special policies to the introduction of the domestic well-known high-level professional and academic leaders and discipline building leading talent, actively introduce professional leaders with international education background, efforts to form an academic team in line with the needs of school orientation and discipline construction, improve the overall scientific and technological innovation capacity. Increase the introduction of practical talents, in order to improve the quality of teaching and the professional level of Teachers. Gradually establish the practice system of new tutors, the new tutors are required to have several years of experience in social practice, and as a prerequisite for the application of Teachers. Strengthen cooperation with entrepreneurs, full absorption, the use of social entrepreneurship resources, private colleges and universities, Should hire successful entrepreneurs, entrepreneurs, experts as part-time professors, Or periodically to school lectures, lectures, the "double" teachers team diversification [7].

E. Promoting Double Tutorial System

At present, a lot of master's degree programs in public colleges and universities are mostly one to one mentoring model, that is, single tutorial system. The master of Engineering in private colleges and universities needs to carry out a series of guiding modes, such as the double tutorial system and the tutorial system [8]. The opinions of the Ministry of education on the training of full time master degree graduates, Full time master degree postgraduate training to implement the Double Tutorial system, Guided by the school tutor, outside the mentor to participate in the practice process, project research, courses and papers and other links. Double tutorial system can make graduate students master the theoretical knowledge at the same time, better practice in professional practice, improve the ability of practice and innovation, to better adapt to the requirements of the future work committee. Private University Master degree graduate students pay attention to training application, ability to develop research and design. The opinions of the Ministry of education on the training of full time master degree graduates, the topic of the thesis is derived from the applied subject or practical problem, must have a clear professional background and application value, private colleges and universities should strengthen the cooperation between schools and enterprises, build a platform for the implementation of the Double Tutorial System. The tutor is strong in theory research, out of school tutors have advantages in practical experience, developmental research and design capabilities. Through the tutor in the school, the tutor group, give full play to their strengths and advantages, in accordance with the requirements of enterprises or employers to develop innovative entrepreneurial ability of Engineering Master's degree graduate students

V. SUMMARY

Environment is the sum of all kinds of conditions for innovative talents to carry out innovation activities, it plays an important role in the process of the cultivation of Postgraduates in innovation and Entrepreneurship. The training mode of master of Engineering Based on the cooperation between enterprises and colleges emphasizes the role of the knowledge creation environment and the

technological innovation environment of the University. The environment of knowledge creation in Colleges and universities has an influence on the cultivation of Engineering postgraduates, the technological innovation environment of the enterprise can make the Engineering Master graduate student in the enterprise technical innovation work, Through the "learning by doing" to obtain the explicit knowledge and tacit knowledge, through the integration of knowledge, further improve the knowledge structure, then through the sublimation of knowledge, explicit wisdom, optimization and integration of various capabilities, improve innovation ability, become independent innovation talents.

REFERENCES

- [1] Yue Na Zhao. Professional ability training of full-time engineering master: Innovation and Entrepreneurship Education [J].Journal of Nanchang Institute of Technology, 2016, (05):106-109.
- [2] Li Yong, Cui Yiwen, Chenyanhui. The experience and measures of innovating the training mode of professional degree postgraduates—A case study of master of Engineering in Jilin Agricultural University [J]. Heilongjiang animal science and veterinary medicine, 2016, (11):262-265.
- [3] Feng Tao, Huang Xiang, the South Sea. A study on the training mode of Engineering Master with the cultivation of innovative ability [J]. Graduate education research, 2016, (03):76-80.
- [4] Cai xiaozan. Research on the problems and Countermeasures of innovation and entrepreneurship education in private colleges and Universities [D]. Guangxi Normal University, 2015.
- [5] Ye Youlin, Yu Yang, Ke Ning da. The construction of innovative training mode of full-time engineering master degree postgraduates [J]. Contemporary educational practice and teaching research, 2015, (04):176-177.
- [6] Qin Qin, Bai Wei. Training mode of special service occupation Oriented Innovation of professional degree of master of engineering graduate students—Practice and exploration of "2461" postgraduate training mode in Chongqing University of Science and Technology [J]. Degree and graduate education, 2014, (08):14-18.
- [7] Yao Weiming, Lu FA Zhou. A study on the training mode of full-time engineering postgraduates based on Cooperative Education [J]. Degree and graduate education, 2011, (10):12-16.
- [8] Hu yanfang. Countermeasures to improve the level of innovation and Entrepreneurship of College Students [J]. Journal of Nanchang Teachers College, 2010, (01):76-77.