

Research on the Mode and Path of innovation Entrepreneurship Education in Local Universities under the background of New Engineering Disciplines

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Abstract

Under the new background of "new engineering disciplines construction plan", the cultivation of innovative engineering talents has become the source power to promote the development of new economy, optimize the human capital structure and drive the close combination of production and education. With the acceleration of the new round of scientific and technological revolution and industrial transformation, the reconstruction of innovation and entrepreneurship education mode matching the cultivation of new engineering disciplines talents has become an important guarantee to improve the quality of higher engineering education. This paper systematically analyzes the key factors affecting the innovation and entrepreneurship education mode of local colleges and universities under the background of "new engineering disciplines disciplines", explores the realization path of innovation and entrepreneurship education to meet the needs of stakeholders of "new engineering disciplines construction plan", and puts forward safeguard measures and policy Suggestions.

Keywords

New engineering disciplines disciplines; Innovation and entrepreneurship; Education mode.

1. Introduction

Under such important strategies as innovation-driven development, "Made in China 2025" and "Internet Plus", the new economy, characterized by new technologies, new forms of business, new industries and new models, is developing rapidly, and the vigorous development of the new economy puts forward new requirements for the training of engineering science and technology talents. In April 2017, the Ministry of Education promulgated the new engineering disciplines construction course of action, from the top design pattern to the construction of higher engineering education in China has carried on the value guidance and policy support, explicitly asked local and colleges to set up advanced innovation entrepreneurship education concept, intensify engineering talents of science and technology innovation ability training support [1]. In the context of new engineering disciplines, cultivating the innovative and entrepreneurial spirit and willingness of college students requires the joint efforts of multiple subjects including colleges and universities, governments, enterprises, individual college students, society and families, among which colleges and universities are the main body. By local administrative part of allocated funds of our country ordinary institutions of higher learning (hereinafter referred to as "local colleges and universities") is the main part of the institutions of higher learning in our country, the local colleges and universities to explore the cultivation for the local economic development needs and possess the innovation ability of talented person, not only is an important way to expand the students' employment way, but also reform talents training mode, diversification and innovative talents, the higher engineering education and social economy coordinated development of urgent need. However, the

imbalance of resource allocation in local colleges and universities makes the innovation and entrepreneurship education model of college students present many problems, such as the lack of innovation and entrepreneurship culture atmosphere, the imperfect training model, and the single training path, which further affects the training quality of engineering innovation and entrepreneurship talents.

2. The Necessity of Studying the Mode and Path of Innovation and Entrepreneurship Education in Local Universities under the Background of "New Engineering Disciplines"

Under the "Internet plus" era of knowledge economy and sharing economy, China's higher education reform is facing new challenges and opportunities. As a country with the largest engineering education scale in the world, engineering students account for one third of the total number of higher education students, so the quality of engineering education determines the overall quality of higher education in China to a large extent. Since 2014, the Chinese economy into the "new normal", economic growth has slowed, the optimization and upgrading of industrial structure, growth driving force to drive innovation, with the national medium and long-term education reform and development plan outline (2010-2020) "the implementation of the deep, requirements engineering science and technology talents with higher innovation entrepreneurship and cross-border integration ability, speed up the new engineering disciplines construction, so as to boost the economic transformation and upgrading. From the perspective of the world, the new round of scientific and technological revolution and industrial transformation is getting more and more fierce. The competition of comprehensive national strength among countries requires the integration and mutual support of engineering education and industrial development, and meanwhile puts forward new requirements for talent training: adapting to the needs of new technological innovation and new industrial development. In this context, the research on the mode and path of innovation and entrepreneurship education in local colleges and universities is conducive to the exploration and cultivation of talents with innovation and entrepreneurship abilities suitable for the development of the new economy in local colleges and universities, so as to promote the coordinated development of higher engineering education and social economy [2].

3. Research on Innovation and Entrepreneurship Education Mode in Local Universities under the Background of "New Engineering Disciplines "

The proposal of "new engineering disciplines construction plan" indicates a new development direction for the relatively perfect innovation and entrepreneurship education system. Under the background of new engineering disciplines, it is of great significance to realize the integration of new engineering disciplines education and innovation and entrepreneurship education to cultivate high-quality engineering science and technology talents. By analyzing the influencing factors of innovation and entrepreneurship education mode in local colleges and universities, this paper clarifies the relationship between subject and object, and puts forward an innovation and entrepreneurship education mode that meets the needs of the industry and serves the local economy in combination with the research on the mechanism of action of subject, so as to adapt to the development characteristics of China's current new economy.

3.1. Key Factors of Innovation and Entrepreneurship Education in Local Universities under the Background of "New Engineering Disciplines "

Under the background of new engineering disciplines, innovation and entrepreneurship education needs to integrate resources from universities, governments, enterprises, individuals, families and other aspects. As the main place for the development of innovation

and entrepreneurship education, local colleges and universities should first pay attention to and understand the essence and internal law of development of innovation and entrepreneurship education, and invest commensurate human, material and financial resources [3]. Secondly, it is necessary to strengthen the construction of organizational structure and build independent and distinctive disciplines on the basis of building innovation and entrepreneurship college. Through the introduction of excellent teachers to consolidate the foundation of innovation and entrepreneurship related disciplines. As the policy maker and implementer, the government should actively respond to the call of the state, encourage colleges and universities to carry out all-round innovation and entrepreneurship education, and provide policy support for the development of innovation and entrepreneurship education in local colleges and universities. The purpose of innovation and entrepreneurship education is to cultivate application-oriented talents suitable for enterprises, the market and the social needs. As the absorbing party of talents, enterprises, through school-enterprise cooperation, on the one hand, make the objectives and needs of enterprises in the selection of talents more clear. On the other hand, it plays a good exemplary role for innovation and entrepreneurship education. As the final destination of innovation and entrepreneurship education, individual students are the direct manifestation of the implementation effect of innovation and entrepreneurship education. Only when students accept the concept of innovation and entrepreneurship and put it into practice, can they get better feedback results. And students' family background is a strong guarantee for students to practice innovation and entrepreneurship. The roles and functions of universities, governments, enterprises, individuals and families in innovation and entrepreneurship education in local colleges and universities jointly promote the development of innovation and entrepreneurship education.

3.2. The Main Function Mechanism of Innovation and Entrepreneurship Education in Local Universities under the Background of "New Engineering Disciplines "

Under the background of "new engineering disciplines" the cultivation of the innovative entrepreneurial education emphasizes, the comprehensive talents, in the face of the existence of a variety of subject and object, considering the influence of new technology revolution and industrial revolution of the new situation, to clarify the relationship between subject and object of the relationship and mechanism of action, and effective development of entrepreneurship education mode is conducive to innovation.

3.2.1. The Logical Starting Point of Innovation and Entrepreneurship Education: People-Oriented

Innovation and entrepreneurship education is the foundation and core of promoting social and economic development, and bears the link role of promoting the transformation of theoretical knowledge and scientific and technological achievements into productive forces. The current national competition is mainly the competition of scientific and technological strength and economic strength, and the foundation is the competition of innovative talents. Under the background of "new engineering disciplines", local colleges and universities carry out innovation and entrepreneurship education in order to cultivate students' awareness of innovation and entrepreneurship, improve students' ability of innovation and entrepreneurship, and cultivate the innovation and entrepreneurship spirit of the whole society, so as to adapt to the scientific and technological revolution and industrial transformation and upgrading. The main body of innovation and entrepreneurship education is students. Local colleges and universities should actively respond to the demand of the era of "new engineering disciplines", face the trend of current and future social and industrial development, integrate new engineering disciplines concepts into the training mode of innovation and entrepreneurship talents, and explore a new paradigm to promote the

fundamental transformation of human capital. At the same time, promoting students' innovation and entrepreneurship quality and adapting to social needs should be regarded as the fundamental standard to measure the quality of innovation and entrepreneurship education.

3.2.2. The Supporting Point of Innovation and Entrepreneurship Education: Talent Training Mechanism

The mechanism of talent cultivation is to explore the internal organization and operation change rules, follow the corresponding rules and take some measures to achieve the goal of talent cultivation. Innovative entrepreneurial talent training mechanism is: to improve the quality of local university creative education as the goal, in order to strengthen the management of innovation in the process of entrepreneurial talent training system, promote the construction of double gen education quality assurance mechanism, the rational allocation of education resources, innovative undertaking motivate schools, teachers, students' subjective initiative, more effectively cultivate students' innovation ability, to adapt to the development of science and technology revolution and the new economy times to talented person's demand. With the support of the talent training mechanism, the quality of innovation and entrepreneurship education will be constantly improved, and students' innovation and entrepreneurship ability will be guaranteed. Under the background of new engineering disciplines, we should explore the talent training mechanism integrating innovation and entrepreneurship education with new engineering disciplines education, and constantly improve the innovation and entrepreneurship education system, which, on the one hand, promotes the continuous development of new engineering disciplines education, and on the other hand, guides the development of innovation and entrepreneurship education in a new direction.

3.2.3. The Ultimate Goal of Innovation and Entrepreneurship Education: Development

As China has entered the new economic era, a new round of scientific and technological revolution and industrial upgrading and transformation has accelerated the pace of knowledge updating and technological innovation. Therefore, it is urgent to comprehensively improve the level of innovation, stimulate development potential through innovation, and cultivate new core competitiveness. First as the first productive force and science and technology talent resources in local colleges important juncture, ought to undertake the mission of the era have entrusted to, at the request of the new era of engineering was deepened innovation entrepreneurship education with the integration of engineering education reform, the pioneering consciousness education with innovative ability training the innovation unified to innovation-driven development strategy, continuous upgrading of the ability and level of support innovation driven development.

3.3. Construction of Innovation and Entrepreneurship Education Mode in Local Universities under the Background of "New Engineering Disciplines "

Under the background of "new engineering disciplines", the innovation and entrepreneurship education mode of local colleges and universities should be constructed with universal and integrated capability system, knowledge support system and practice system. The main contents include: the ability system focuses on the ability elements, the knowledge support system integrates the "action, thinking, knowledge and learning" thinking in constructivism, and the practice system builds the practice system of innovation and entrepreneurship education module.

3.3.1. Construction of Innovation and Entrepreneurship Capability System under the Background of "New Engineering Disciplines"

In the context of new engineering disciplines, the most important factor for improving students' ability of innovation and entrepreneurship through innovation and entrepreneurship

education is to clarify the core competence of new engineering disciplines students. By constructing the core competence of new engineering disciplines students, the transformation of higher engineering education teaching mode can be promoted, so as to cultivate students' innovative thinking of acting, thinking, knowing and learning.[4] The core competence elements of new engineering disciplines students mainly include basic general ability (learning ability, workplace ability, personal efficacy), industrial technical ability (specific professional technology, overall industrial technical skills), and career development ability (management ability, specific professional knowledge and skills, and social ability). With the continuous development of society and enterprises, the requirement of talent ability is constantly improved. In the new engineering disciplines era, core ability of students is measured mainly from three aspects, namely cognition, introspection and interpersonal relationship, so as to build a system model of innovation and entrepreneurship ability under the new engineering disciplines background, so as to achieve more targeted cultivation of innovation and entrepreneurship talent ability.

3.3.2. Knowledge Support System of Innovation and Entrepreneurship Education under the Background of "New Engineering Disciplines "

New engineering involved in science, humanities, engineering and other professional, emerging engineering students integrated ability, innovation ability, with global vision, leadership, practice, so in constructing a new technical innovation entrepreneurship education knowledge system, shall, according to the demand of talents cultivation, build emerging disciplines and the combination of traditional disciplines knowledge structure of "new system". In order to break the boundaries of disciplines and realize the cross integration between disciplines, the demand for talents in the era of new scientific and technological revolution is increasingly high. Under the background of new engineering disciplines, the knowledge system of innovation and entrepreneurship education mainly includes general knowledge, applied knowledge and information knowledge. General knowledge mainly refers to: the foundation of knowledge system, namely a large number of knowledge points, to master a large number of basic knowledge through interdisciplinary learning. Applied knowledge is a way of giving light and heat to basic knowledge and building ordered structures. All of our knowledge, in essence, exists for a certain purpose. Applied knowledge is to apply this knowledge to solve a problem in order to achieve the desired effect. Information knowledge, we should understand that the knowledge system is not static, but needs to be constantly iterative and perfect. Information knowledge is the update of general knowledge and applied knowledge, which forms an update package.

3.3.3. Construction of Innovation and Entrepreneurship Education Practice System under the Background of "New Engineering Disciplines"

The essence of new engineering is to realize the intersection and integration of various disciplines. The purpose is to cultivate innovative and entrepreneurial talents while constructing new engineering, change the identity of enterprises as participants, let enterprises as the position provider and schools as the talent supply side, cooperate to realize innovative and entrepreneurial education, and promote the integration of industry and education. The cultivation of innovative and entrepreneurial talents not only stays at the level of knowledge, but also cannot stay at the level of simple actions in the cultivation of skills. What is more important is to cultivate talents with innovative and creative skills. School when innovation entrepreneurship practice teaching should pay attention to the cultivation of the student beginning ability, perfect the experimental design, continuous development to adapt to the era of the development of the experimental project, to promote online "both" the curriculum design and practice of management, promote the transformation of scientific and technological achievements, innovation entrepreneurship education throughout the whole process of

creative talents training. Secondly, as the other party of cooperation subject, enterprises should actively promote cooperation and education with the university, provide practice bases for local colleges and universities, integrate platform resources, strive to create advantageous characteristic innovation and entrepreneurship projects, and constantly improve the innovation and entrepreneurship education practice system.

4. The Realization Path of Innovation and Entrepreneurship Education in Local Universities under the Background of "New Engineering Disciplines"

Under the background of "new engineering disciplines", the realization path of innovation and entrepreneurship education in local colleges and universities is mainly to improve the guarantee system of innovation and entrepreneurship education by constructing a multi-faceted and multi-level guarantee system composed of society, government, universities and other subjects.[5] This section is mainly to explore the realization path of innovation and entrepreneurship education in local universities from the perspective of new engineering, to study the institutional guarantee system, capital guarantee system and quality guarantee system to promote innovation and entrepreneurship education, and to provide long-term service and incentive mechanism.

4.1. Institutional Guarantee System

New engineering construction needs the strong support of government departments, which is mainly reflected in the policy system support mechanism of the government. It mainly includes the establishment of innovation and entrepreneurship practice platform for college students, providing students with innovation and entrepreneurship site, technology research and development, transformation of scientific and technological achievements, financing, certification, training, exhibition and other supporting services; Establish an innovation and entrepreneurship information platform, collect, publish and integrate relevant information of innovation and entrepreneurship education in a timely manner, and realize online cultivation, professional service, achievement transformation and management decision-making functions of innovation and entrepreneurship projects. For students who are about to start a business, I will give them guidance on offline entrepreneurship projects, follow up and help them, and carry out "one-to-one" entrepreneurship guidance and consultation, so as to enhance the pertinence and effectiveness of entrepreneurship services. An effective flexible school system guarantee mechanism should be established, and a school roll reservation mechanism should be implemented for students who suspend their schooling and start their own businesses to ensure their academic progress.

4.2. Financial Security System

The development of innovation and entrepreneurship education in local colleges and universities involves the construction of curriculum system and practice base. In order to ensure the quality of innovation and entrepreneurship education and the actual implementation of entrepreneurship projects, more funds are needed. The sources of funds come from the support of local governments on the one hand, and from the multi-channel fund raising of colleges and universities on the other hand. Through the establishment of undergraduate entrepreneurship support funds, "angel Fund" and other funding projects, actively promote the transformation of scientific and technological achievements of teachers and students, and establish a sound venture investment mechanism, help teachers and students to attract social investment to realize the start-up of scientific research projects.

4.3. Quality Assurance System

The implementation of innovation and entrepreneurship education in local colleges and universities is a new teaching concept and mode to adapt to the economic society and the national strategy of "innovation-driven development". Under the background of "new engineering", vigorously promoting innovation and entrepreneurship education can promote the scientific development of higher engineering education and deepen the reform of higher engineering education teaching. Entrepreneurship and innovation is the main body of education, the student is on the basis of professional education, to update the education concept as the guide, through the reform of talent training mode and curriculum system, improve the students' creative consciousness, ability and spirit, guarantee the quality of each stage, so as to continuously improve the quality of the cultivation of the innovative entrepreneurial talent.

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