# Educational Reform and Exploration on Cultivating Innovation and Entrepreneurship Talents in Universities

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**Abstract:** Innovation and entrepreneurship education reform in colleges and universities is the need of cultivating high-quality applied talents. Starting from the important role and significance of innovation and entrepreneurship education in the process of personnel training, the paper analyses the common problems existing in innovation and entrepreneurship education in colleges and universities at present. This paper puts forward reforms and explorations from the following aspects: adopting the mode of school-enterprise cooperation in cultivating talents, perfecting the course system construction, building a high-level and double-qualified teaching staff in cooperation between schools and enterprises, and building practice bases both inside and outside universities. It emphasizes the combination between universities and enterprises, and explores the mode of cultivating talents for cooperative education.

#### 1. Introduction

With the increasing number of college graduates year by year, the pressure of employment is increasing. The rapid development of social economy makes applied innovation and entrepreneurial talents more and more valued and welcomed by the society. How to cultivate applied innovation and entrepreneurial talents has become a hot issue in the current social and higher education circles. Under the background of vigorously advocating 'mass entrepreneurship, innovation among all', innovation and entrepreneurship-oriented education in colleges and universities is particularly important.

The first task of Chinese educational reform is to reform talent cultivation system. The core of it is to reform the mode of talent cultivation, with the aim of improving the level of talent cultivation. In order to improve the ability of employment and entrepreneurship of graduates and better serve the local economic development, educational reform on innovation and entrepreneurial talents training must be carried out. Colleges must abandon those traditional educational concepts, which include emphasizing theory over practice, emphasizing knowledge over ability and inculcating teaching mode, and get rid of the idea of examination-oriented education, which regards examination results as a measure of students' quality. Colleges should cultivate students' critical

spirit in study and research, teamwork spirit, practical ability and innovative entrepreneurship talents needed by enterprises.

# 2. The Meaning of Innovation and Entrepreneurship Education and Significance in Talent Cultivation

Innovation education refers to the education system and educational activities that aim to cultivate talents with innovative consciousness, thinking, courage and ability. This innovation education concept is different from traditional cramming and indoctrination teaching methods. It is a series of new educational methods to equip the recipients with different abilities[1]. The United States was the first country to implement innovation and entrepreneurship education. It proposed to integrate the teaching and training of scientific basic knowledge with scientific values and scientific exploration spirit. It also proposed to reform the content of the curriculum, break the boundaries of disciplines, and make the various disciplines integrated. The focus of innovative education is to cultivate students' creativity, weaken the educational methods that used to focus on knowledge memory and dissemination. It does not recommend picking on the concepts and details of books and eliminating rote learning. Students are called on to devote their main energy to the cultivation of scientific thinking and skills, to emphasize the ability to practice. It clearly and emphatically emphasizes the educational concept of cultivating scientific and cultural creativity[2].

Entrepreneurship education is to cultivate people with pioneering and exploratory spirit, so that they have the skills and abilities needed in the process of entrepreneurship. Specifically, it can be understood that the trainees should have the comprehensive ability to engage in practical activities such as business planning, organization and management, and startup enterprises [3]. Entrepreneurship education can provide opportunities for students to transform their professional knowledge into entrepreneurial achievements, enhance their sense of responsibility, deepen their understanding of survival and development and their desire to realize their own value of life. On the contrary, it can also promote students to learn professional knowledge more independently and consciously, so as to obtain the motive force of self-development.

With the rapid development of China's economy, all industries and fields are in urgent need of high-quality professionals. Innovation and entrepreneurship education in colleges and universities can break the closed cultivation model of traditional education, it will pay more attention to the cultivation of talent quality, and closely link theory and practice, knowledge and creation, learning and entrepreneurship, and directly contribute to the development of social economy. Through a series of colorful innovation entrepreneurship education activities, college students' ability to integrate knowledge resources, academic resources and environmental resources has been exercised and improved. They will plan their future career more scientifically and more targeted, thus giving greater play to the value of talents. Therefore, the reform of innovation and entrepreneurship education in Colleges and universities is the social need for the growth of high-quality talents, it is imperative and urgent.

### 3. Problems Existing in Innovation and Entrepreneurship Education in Universities

The curriculum system is unreasonable. It does not take into account the comprehensiveness of basic knowledge. Innovation and entrepreneurship education is separated from professional education. In order to have the ability of innovation and entrepreneurship, college students must have extensive knowledge accumulation. They should master not only professional knowledge, but also psychology, creativity, thinking science, cultural and artistic knowledge, so as to be conductive to the cultivation of innovation and entrepreneurial thinking [4]. At present, most colleges and universities lack comprehensive consideration of basic knowledge accumulation, comprehensive

knowledge structure and talent growth rules in curriculum design. They only add several innovative entrepreneurship courses to the complete professional curriculum system and fail to effectively link innovation entrepreneurship education with the professional curriculum system. Therefore it can not effectively meet the needs of society.

Teachers are backward in concept and lack of practical experience. As the leader of teaching, teachers should guide students to participate in the teaching process to the greatest extent. In the process of teaching design and curriculum organization, teachers should take students as the main role and fully mobilize their learning enthusiasm. However, in the current university classroom, the dominant position of teachers still can not be shaken. Students can only learn what teachers teach, they have no opportunity to express themselves and develop their abilities. Traditional teaching concepts and methods hinder the pace of cultivation of innovation and entrepreneurial talents, and also hinder the stimulation of innovation and entrepreneurship consciousness[5]. In addition, many university teachers who guide students to start their own businesses have not learned entrepreneurial knowledge systematically before. Some teachers only participated in the training organized by relevant departments and passed the qualification examination, but they lack practical experience. When guiding students to start their own businesses, they are limited to theoretical knowledge and lack practical value.

The practice platforms of innovation and entrepreneurship education are imperfect. The form of students' practical activities is single, there are fewer off-campus practice bases, and students are disconnected from society. Therefore, theoretical knowledge can not be applied to social practice. Enterprises are usually reluctant to accept students for internships for fear of affecting normal production. In this case, internship often becomes a mere formality. Although all colleges and universities have included the goal of improving students' practical ability in personnel training programs, they still attach more importance to theory than practice. In terms of building practice platforms, more is said and less is done. So, there is no decent platform for innovation and entrepreneurship, and students have fewer opportunities to practice.

There is no innovation in talent training model. At present, most college students are still enrolled and cultivated according to their majors, and most colleges still follow the traditional education idea[6]. The main thing that students learn is pure theoretical knowledge. The practice time is short, and the quality of learning is evaluated according to the results of their theoretical examination. The practical ability of students is poor, there is no innovation and entrepreneurship at all. In addition, taking colleges and universities as the sole subject of cultivating innovation and entrepreneurship talents is totally inconsistent with the law of talent cultivation and can not cultivate qualified innovation and entrepreneurship talents.

## 4. Exploration of Innovation and Entrepreneurial Talents Training Reform in Universities

Based on the above analysis of the problems in the cultivation of innovation talents in colleges and universities in China, we can find out the key to it. In the future, we should explore the strategies of cultivating innovation and entrepreneurial talents from the above mentioned courses, concepts, platforms and management. In addition, it not only depends on universities, but also needs the active participation of industry enterprises. It needs the cooperation of schools, governments and society.

First, the mode of school-enterprise cooperation should be adopted to educate students and improve the construction of curriculum system. On the one hand, colleges and universities especially engineering colleges, should cooperate and exchange closely with enterprises. They should absorb the experience and frontier knowledge of enterprises constantly and adjust or optimize the curriculum system, so as to make professional courses more in line with actual needs.

In the course design, more practice links should be included to enhance the practical ability of students. By holding challenging and practical subject competitions and other activities, colleges may greatly stimulate students' learning enthusiasm and make teaching more interesting and interactive. Enterprises should use industry experience and thinking to support the enrichment and improvement of courses in colleges and universities, they should also participate in the curriculum design and put forward tasks that meet the needs of reality, and promote teachers and students carry out targeted scientific research and practice. On the other hand, the courses of humanities helps to broaden horizons and form the integrity of thinking. It is also helpful to cultivate comprehensive thinking which is broad, accessible and complementary, especially for cultivating people's imagination. Therefore, students of science and engineering should also learn some human knowledge.

Second, it is necessary to build a high level double-qualified team of teachers who are both teachers and engineers. Teaching staff construction should not only pay attention to the improvement of teachers' academic theory level, but also to the enhancement of teachers' practical ability. Teachers should have the ability to transform professional knowledge into industrial action. The training of "double-qualified" teachers can be started from many aspects. Firstly, young and middle-aged teachers are selected to visit foreign universities, scientific research institutions or enterprises for study and training, or to do projects with enterprise engineers, so as to cultivate teachers who have not only advanced knowledge but also engineering experience. Secondly, we should encourage college teachers to form entrepreneurial teams with enterprises and college students to carry out entrepreneurial practice. Colleges should strengthen the transformation of teachers' scientific research achievements, and give priority to students who have entrepreneurial intention. In the process of entrepreneurship, teachers and students work together to improve and promote the scientific research achievements. Teachers in colleges and universities are encouraged to lead students into enterprises to pay attention to the needs of enterprises and society, so as to carry out targeted research and development, and transform research and development achievements into entrepreneurship projects. Through the above practice activities, colleges could promote the combination of production, teaching and research, and effectively improve the entrepreneurial practice ability of university teachers. Thirdly, colleges should introduce entrepreneurial talents with practical experience and absorb overseas professors or enterprise engineers to enrich the teaching staff. Entrepreneurship is a highly practical work, guiding students to start a business requires rich practical experience. Colleges should introduce talents with relevant entrepreneurial experience, especially strong management ability, to guide students to start their own businesses. They can also adopt cooperative methods, such as inviting relevant talents from enterprises to serve as business counselors, to form relatively stable cooperative relations, and give guidance to students throughout the process from the establishment of business ideas to the creation of business teams. In this process, entrepreneurship guidance talents will interact with university teachers to improve their entrepreneurship guidance ability.

Finally, colleges and enterprises work together to build practice bases both inside and outside schools. One of the bottlenecks restricting the construction of applied talents training system is the conditions of experiment and training. Colleges and universities could cooperate with enterprises in depth by declaring construction projects of school-enterprise cooperative education laboratory of the Ministry of Education or applying for enterprise donation equipment, and establish and improve the practice and training bases inside or outside schools to ensure the implementation of various professional practice teaching contents. Enterprises should assign experienced engineers and technicians to guide practical training for students, they act as tutors and work with students together on design, development and research, so as to enhance students' team consciousness, improve students' innovative ability and practical ability. Or students can be taken to observe the

daily work of engineers in off-campus practice bases and record in detail so that they can understand the nature of engineers work and the knowledge they need, so as to stimulate their learning motivation and enhance the pertinence and effectiveness of learning. In this process, on the one hand, students' practical ability has been improved. Through cooperation with enterprises, colleges have also obtained a steady stream of projects and abundant funds for scientific research activities. On the other hand, it saves time and cost for enterprises to train qualified engineers and technicians, and achieved a win-win situation.

#### 5. Conclusions

Innovation and entrepreneurship education is an important way to improve employ ability and entrepreneurship ability of graduates, and it is also an important measure to serve the local economic development. The cultivation of innovation entrepreneurial talents is a comprehensive training process that requires the leading of universities and the participation of enterprises and society. It is necessary to establish a new demand-driven model. Through cooperation between colleges and enterprises, colleges need to improve the curriculum architecture, establish a high-level teachers team, create a platform for innovation and entrepreneurship practice, and improve the talent training mechanism so that college talents can meet the needs of industrial development. Teachers should be encouraged to take their students to enterprises and markets to choose research projects and technical transformation projects, and to turn scientific research results into products to contribute to social and economic development.

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