

Exploration and Practice of Integrating Innovation and Entrepreneurship Education into the Whole Process of Talent Cultivation

—Taking Dalian Neusoft University of Information as an Example

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Abstract: Firstly, the status quo of the development of innovation and entrepreneurship education in China's universities is reviewed. Then, taking Dalian Neusoft University of Information as an example, the research is conducted by starting from clarifying its goal of cultivating "practical, international and personalized" IT professionals for the society and exploring how the innovation and entrepreneurship education there is integrated into the whole process of talent cultivation. Through the overall analysis of the development of innovation and entrepreneurship education at home and abroad, it is proposed to change the current domestic curriculum which is lack of systematic design, the content of the course is disconnected with practice and to build a innovation and entrepreneurship education curriculum system with Neusoft characteristics. That is to construct an ability index system of talent cultivation based on TOPCARES-CDIO and OBE, build a SOVO innovation practice platform, and finally form Neusoft's unique innovative talent training system and education model.

1. Introduction

The goal of innovative entrepreneurship education is to develop people with basic entrepreneurial knowledge and skills and innovative consciousness. In the process of education, teachers should focus on discovering and stimulating students' innovative consciousness, innovative thinking and entrepreneurial enthusiasm, cultivating their basic skills for future entrepreneurship.

In order to implement the "National Medium and Long-Term Education Reform and Development Plan (2010-2020)" and the "Ministry of Education's Opinions on Comprehensively Improving the Quality of Higher Education" (Teacher [2012] No. 4), the basic requirements for the teaching of entrepreneurship education in ordinary undergraduate schools (for trial) was formulated and issued. As can be seen from the above documents, the national level has realized the importance of implementing innovation and entrepreneurship education in colleges and universities for future economic development and personnel training, and has formulated relevant supporting papers in education and teaching. On March 5, 2015, Premier Li Keqiang proposed to promote innovation and entrepreneurship in the whole society in the Report on the Work of the Government.^[1] However, the development of innovation and entrepreneurship education in China's colleges and universities still faces three problems to be solved: first, to build a rational and innovative entrepreneurial education curriculum system; second, to realize the integration of innovation and entrepreneurship education and professional talent training; third, it is necessary to cultivate a team of entrepreneurial mentors with working experiences both in school and enterprise to provide intellectual support and practical guidance for the cultivation of innovative and entrepreneurial education talents.

In contrast, in the United States, Professor Myles Mace of Harvard Business School opened an entrepreneurship course in 1947, which was the founder of entrepreneurship education in American universities^[6]. At present, entrepreneurship education in the United States is self-contained and has distinctive features. Nearly 40% of colleges and universities have opened a variety of innovative

entrepreneurship courses [3]. In his book *Innovation and Entrepreneurship*, Drucker argues that the success of entrepreneurship depends in essence on whether entrepreneurs and the organizations they create have the ability to innovate. The development of a country's national economy depends to a large extent on the level of technological innovation [4].

This paper starts with the discussion of the innovation and entrepreneurship education mode of domestic universities, and takes Dalian Neusoft University of Information as an example to try to find and construct a new education mode that integrates innovation and entrepreneurship education into the cultivation of professional talents. Practice fully tests the feasibility of this model. It is finally proved that the educational model of innovation and entrepreneurship education and professional talents training constructed by Dalian Neusoft University of Information can help solve some problems existing in the implementation of innovation and entrepreneurship education in China's universities.

2. The problems in the development of innovation and entrepreneurship education in China's universities

In order to understand the status quo of innovation and entrepreneurship education in China's universities, the research investigates the development of innovation and entrepreneurship education in some domestic pilot universities. It is found that there are problems in the aspects of overall design, teaching mode, faculty and practice in these universities.

2.1 The curriculum system lacks systematic design and the coverage is limited

Under the impetus of national policies, universities have started the construction of innovative and entrepreneurial education courses and opened innovative and entrepreneurial courses, but the courses are not systematic and have not yet formed a scientific system and characteristics. The so-called innovation and entrepreneurship education curriculum system refers to the integration of universal knowledge, management knowledge of startups and entrepreneurial practices and project practice, which runs through the whole process of talent cultivation [2]. Most of China's current innovation and entrepreneurship courses are at the primary stage of development, and there are no innovation and entrepreneurship courses for all majors. Most of them are mainly lectures and lack practical teaching. It is only open to a limited number of students, and the class hours are insufficient to ensure the quality and effectiveness of the teaching. In addition, in some schools, innovative entrepreneurship courses are only offered in a certain department, and the coverage is too narrow to achieve the goal of cultivating all students' innovative consciousness.

2.2 Innovation and entrepreneurship education is not fully integrated into the professional talent training process

The essence of innovation and entrepreneurship education is quality education, which aims to cultivate high-quality and innovative talents with innovative entrepreneurial consciousness and ability. At present, China's innovation and entrepreneurship education only pays attention to the transfer of theoretical knowledge, does not pay attention to capacity training; only pays attention to the number of enterprises created by students, does not pay attention to quality, tracking and guidance. Due to the lack of students' own ability and lack of effective and continuous entrepreneurial guidance, some entrepreneurial projects in colleges and universities cannot be smoothly promoted. Under the guidance of this utilitarian thinking, the innovation and entrepreneurship education of Chinese universities is seriously out of line with the process of training professional talents.

2.3 The content of the course is not closely integrated with practice

The principle that domestic colleges and universities generally follow in the teaching of innovation and entrepreneurship education is "taking lectures in the classroom and supplementing with extracurricular activities". Its shortcoming is that it is limited by textbooks. It is easy to turn the classroom into a place for knowledge transfer. At the same time, there are problems with teachers. It

is embodied in the fact that most of the instructors themselves have insufficient understanding of innovation and entrepreneurship education, lack of practical experience, and are unable to deeply discuss and analyze cases with students in the classroom, and it is even more impossible to give targeted guidance to students.

3. The exploration and practice of the integration of innovation and entrepreneurship education and professional talents training

As a subsystem of the talent cultivation system, innovation and entrepreneurship education should be integrated into the whole process of talent cultivation, so that students can have the genes of innovation and entrepreneurship during their studies, and they will achieve success in employment or entrepreneurship in the future. Therefore, Dalian Neusoft University of Information has conducted useful exploration and practice.

First of all, closely related to the establishment of an application-oriented university, based on the CDIO engineering education concept, an innovative entrepreneurship education curriculum system with Neusoft characteristics is constructed.

In fact, Dalian Neusoft University of Information began to build an innovation and entrepreneurship education system as early as 2002. At that time, the school established the university student entrepreneurship center SOVO (Student Office & Venture Office) according to the real IT enterprise environment. The center is a bridge between students' theory learning and practice. Under the guidance of the instructor, the students organize and manage the operations of the team in accordance with the operation of the "company" and complete the given development tasks. Its purpose is to stimulate students' courage and self-confidence, to train students' practical ability, to feel and integrate into the corporate culture in advance, to achieve seamless integration with the needs of enterprise talents as early as possible, to enhance their competitiveness and ultimately achieve autonomy and start a business. After more than sixteen years of continuous exploration, SOVO has gradually developed into a first-class entrepreneurial incubator hardware infrastructure (6,800 square meters), a perfect entrepreneurial service platform and an industrial support platform, providing excellent entrepreneurial support for college entrepreneurs. It has established long-term cooperative relationships with financial institutions such as law, finance, consulting agencies and venture capital institutions and an international and diversified mentor team covering capital, technology, market, management, investment and financing. At present, the number of entrepreneurial tutors has reached 84. Since the establishment of SOVO, 190 virtual companies and 63 registered entities have been established. The successful incubation rate is 30%.

At the same time, Dalian Neusoft University of Information has established a "Three-in-One" innovation and entrepreneurship education curriculum system and an online resource platform. In the first year, the school of innovation and entrepreneurship launched a universal innovation education, focusing on cultivating students' sense of innovation, spirit and methods. In the sophomore year, it launched a major-oriented innovation and entrepreneurship education, which closely integrated innovation and entrepreneurship education with major courses; the junior and senior will learn product innovation and business management and participate in the practical activities to get them equipped with entrepreneurial spirit and quality.

Secondly, build a gradual training and spiral rising SOVO practice platform of "Innovative Entrepreneurship and Universal Education + Innovation and Entrepreneurship Project Practice + Virtual Company Operation + Entrepreneurship Incubation + Resource Policy Support".

Dalian Neusoft University of Information has established a SOVO innovation and entrepreneurship education practice platform of more than 4,000 square meters, integrating professional clusters with industrial needs, introducing innovative entrepreneurial services according to the incubator model, and setting up entrepreneurial clinics. From technology, management, intellectual property, and market development, investment and financing, "one-on-one" management consulting services are provided. A team of tutors integrating school and enterprise is built to guide students in the transformation of practical results. It has formed a management and operation mechanism for the integration of schools and enterprises and the linkage of school

internal affairs, and comprehensively guaranteed the smooth development of innovation and entrepreneurship education.

4. The effect of the integration of innovation and entrepreneurship education into the whole process of talent training

On June 28, 2017, Premier Li Keqiang inspected Dalian Neusoft University of Information and hoped that the school should insist on its goal of education and highlight its distinctive characteristics.

Since 2015, Dalian Neusoft University of Information has been approved the first 99 “National Demonstration Universities of Deepening Innovation and Entrepreneurship Education Reform” by the Ministry of Education, the first 50 “Typical Experience Universities of National Innovation and Entrepreneurship” by the Ministry of Education, and the “National Public Innovation Space” the National Torch Center of the Ministry of Science and Technology, the first college students’ entrepreneurial project results breeding base in Liaoning Province. According to the third-party survey and statistics of MyCOS, the proportion of self-employment of the 2016 graduates of the school is 4.6%, which is 2.3 percent higher than that of the “non-211” undergraduate schools.

5. Conclusion

This paper systematically expounds and analyzes the status quo of university innovation and entrepreneurship education in our country, and through the description of the innovation and entrepreneurship education curriculum system of Dalian Neusoft University of Information and its achievements, it shows that innovation and entrepreneurship education in colleges and universities must be integrated into the whole process of professional talent cultivation. To build an efficient and innovative entrepreneurship education curriculum system, we must start from the following aspects: First, we must build a systematic, scientific “three in one” innovation and entrepreneurship education curriculum system; second, we must build a gradual and spiral innovation and entrepreneurship practice platform for students and establish a collaborative education mechanism combining school and enterprises; third, it is necessary to establish an innovation and entrepreneurship cultural activity system and plan, and actively create an innovative and entrepreneurial culture at school.

References:

- [1] Li Keqiang. 2015 Report on the Work of the Government (full text record) [N/OL]. (2015-03-05)[2018-07-09]. People’s Daily, <http://lianghui.people.com.cn/2015npc/n/2015/0305/c394298-26642056-3.html>.
- [2] Ma Yongbin, Bai Wei. Research on Paths to Build Curriculum Ecosystem of Innovation and Entrepreneurship Education[J]. *Research in Higher Education of Engineering*, 2016(5): 137-140+150.
- [3] Shen Donghua. On the Curriculum of Entrepreneurship Education in American University and Its Enlightenment[J]. *China Higher Education Research*, 2014(11): 69-72.
- [4] Wang Wenzhao. *Entrepreneurship and Venture Capital*[M]. Hefei: University of Science and Technology of China Press, 2010.
- [5] Xu Xiaozhou. System and Policy Choice of Entrepreneurship Education for Colleges and Universities in China[J]. *Research in Educational Development*, 2010(11): 12-18.
- [6] KINTSCH B A. *Working Memory*[M]. New York: Oxford University Press, 1986: 74-77.