

Research on the Construction of "Internet +" Innovation and Entrepreneurship Education Ecosystem in Higher Vocational Colleges based on CAS Theory

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Abstract. In the context of "Internet +", how to cultivate the force of science and technology transformation in higher vocational colleges is imminent. This article analyzes the problems of innovation and entrepreneurship education in higher vocational colleges, and constructs a perspective based on "Internet +" based on the characteristics of CAS theory. The innovation and entrepreneurship education ecosystem of higher vocational colleges, and the countermeasures and suggestions for accelerating the construction of the innovation and entrepreneurship education ecosystem of higher vocational colleges.

Keywords: CAS; Internet +; innovation and entrepreneurship education; ecosystem.

1. Introduction

At present, "Public Innovation, Entrepreneurship and Entrepreneurship" has quietly risen in the land of China, and college students have high enthusiasm and strong desire to engage in entrepreneurship. At the end of 1989, UNESCO proposed at the International Symposium on Education for the 21st Century: Entrepreneurship education refers to the process of developing and improving the basic qualities of students' entrepreneurship through various educational methods to cultivate students' entrepreneurial qualities and abilities. In May 2010, the "Opinions of the Ministry of Education on Vigorously Promoting Innovation and Entrepreneurship Education in Colleges and Universities and Independent Entrepreneurship Work for College Students" No. [2010] No. 3 also clearly stated that "vigorously promoting innovation and entrepreneurship education in colleges and universities, The scientific development of education, deepening the reform of education and teaching, and improving the quality of talent training have great practical significance and long-term strategic significance. " China issued the State Council issued [2015] No. 36 "The Implementation Opinions of the General Office of the State Council on Deepening the Reform of Innovation and Entrepreneurship Education in Colleges and Universities." The "Opinions" proposes that from 2015 onwards, the reform of innovation and entrepreneurship education in universities will be comprehensively deepened. Significant progress was made in 2017, forming a scientifically advanced, widely recognized, innovative and entrepreneurial education concept with Chinese characteristics, forming a batch of system results that can be replicated and promoted, popularizing innovative and entrepreneurial education, and realizing the expected goals of the new round of university entrepreneurship guidance programs. By 2020, we will establish and improve a college innovation and entrepreneurship education system that integrates classroom teaching, independent learning, combined with practice, guidance and assistance, and cultural guidance. The quality of talent training will be significantly improved, and the students' innovative spirit, entrepreneurial awareness and ability to innovate and entrepreneurship will be significantly enhanced. The number of students engaged in entrepreneurial practice has increased significantly. Promoting mass entrepreneurship and innovation is the source of the driving force for development. It is also a way to enrich the people, a fair measure, and a strategy to strengthen the country. Signed and approved by Premier Li Keqiang on March 2, 2016, the State Council printed and issued the "Implementation of the" People's Republic of China Law on Promoting the Transformation of Scientific and Technological Achievements "". The "Provisions" put forward more specific operational measures, emphasizing the need to open channels for the integration of science and technology, promote public entrepreneurship and innovation, and encourage research and development institutions,

institutions of higher learning, enterprises and other innovative subjects and scientific and technological personnel to transfer and transform scientific and technological achievements. Promote economic upgrading and efficiency upgrading.

The report of the 19th National Congress of the Communist Party of China stated that "the development of education is a priority. Building a strong nation in education is the basic project of the great rejuvenation of the Chinese nation. We must give priority to education, accelerate the modernization of education, and run a satisfactory education for the people. Improve the vocational education and training system. Deepen the integration of production and education and school-enterprise cooperation. Speed up the construction of first-class universities and first-class disciplines, and realize the connotative development of higher education. " Use modern information technology to build a comprehensive "Internet +" innovation and entrepreneurship education ecosystem, adapt to the development of the times, and promote social progress.

2. CAS Theory and Higher Vocational Education

The CAS theory of complex adaptive systems was officially proposed by Professor John Holland of the United States at the tenth anniversary of the establishment of the Santa Fe Institute in 1994. According to this theory, the driving force for the evolution of the system essentially comes from the inside of the system, and the interaction of micro-subjects generates macro-complexity phenomena. The core idea of the theory is to refer to the members of the system as adaptive subjects. The so-called adaptive is that it can interact with the environment and other subjects. In this continuous interaction process, the subject continuously "learns" and "accumulates experience", and changes its structure and behavior mode to adapt to the environment according to the learned experience. In this process of macro-system evolution or evolution, new levels of output, differentiation, and diversity continue to emerge, prompting the emergence of new aggregates of larger subjects and so on. The adaptive subject actively interacts with other subjects and its surroundings repeatedly, which is the basic motivation for system development and evolution. For higher vocational education, how to realize the integrated cultivation of innovation and entrepreneurship in the process of professional training of talents requires us to find an entry point in the course system development process and the course teaching implementation process, and form an ability for all parties to Accepted equilibrium. On top of this, take the practical road of school-enterprise cooperation, and schools and enterprises will jointly build a training environment that enhances students' innovation and entrepreneurship. Through the joint training of the school and the enterprise, the training object enters the enterprise to practice, places itself in the social entrepreneurial environment, and allows the system members to integrate into the system composed of different idiosyncratic objects to truly cultivate the ability of innovation and entrepreneurship.

3. Current Problems in Higher Vocational Innovation and Entrepreneurship Education

3.1 Unbalanced Development of Higher Vocational Innovation and Entrepreneurship Education

First, regional development is uneven. In recent years, domestic innovation and entrepreneurship education has developed rapidly, but there are serious regional development imbalances. The development of the eastern coastal areas is relatively fast, while the development of the western areas is relatively slow. At present, higher vocational innovation and entrepreneurship education courses are still elective or not open in some western universities. In fact, higher vocational innovation and entrepreneurship education is far more than simply offering innovation and entrepreneurship education courses. It is a complex ecosystem that requires the joint efforts of all parties to complete. Therefore, how to properly coordinate the balanced development of vocational innovation and entrepreneurship education in the eastern and western regions is a difficult problem facing us.

Second, the level of development is uneven. The levels of students involved in innovation and entrepreneurship education include doctoral, graduate, undergraduate, and vocational college students. The needs of each student level are different. However, because there are currently no different courses for innovation and entrepreneurship at different levels, the same content is basically offered at all levels. It is just that the teachers focus on the teaching content according to the employment needs of students at different levels in the specific teaching process. Setting up innovation and entrepreneurship education courses at different levels is also a problem before us.

Third, the level of development discomfort. "Mass entrepreneurship, innovation for all" is a major strategic plan put forward by the Party Central Committee and the State Council, but there is a "one size fits all" phenomenon in the specific implementation process, that is, no matter what region and situation, innovation and entrepreneurship are required. The author believes that for college students, "employment is the eternal theme, and entrepreneurship is a higher level of employment." We should develop innovative and entrepreneurial education for college students in line with the actual situation, and not "grasp the eyebrows and beards." Therefore, how to ensure that innovation and entrepreneurship education is compatible with reality is an issue that needs to be solved urgently.

3.2 Inadequate Knowledge of Innovation and Entrepreneurship Education in Higher Vocational Education

At present, there is still a phenomenon of "three insufficiency" in the vocational education of innovation and entrepreneurship, that is, the inadequate thinking, inadequate level of awareness, and inadequate thinking. Higher Vocational Innovation and Entrepreneurship Education is the key link to realize the strategic deployment of "mass entrepreneurship, innovation among all people", and is the basis for the emergence of innovative thinking, the improvement of innovation awareness, and the improvement of entrepreneurial ability. However, some people have not put it in the right place. Status and height.

3.3 Higher Vocational Education System for Innovation and Entrepreneurship

First, the teaching staff is incomplete. At present, due to the rapid development of innovation and entrepreneurship education, all universities have experienced a serious shortage of teachers. Existing teachers of innovation and entrepreneurship education generally come from teachers engaged in vocational employment and entrepreneurship guidance or full-time teachers in the School of Management and Economics. Few front-line teachers who specialize in vocational innovation and entrepreneurship education are engaged in vocational innovation and entrepreneurship education. Without systematic research and study, the innovative and entrepreneurial teachers of various colleges and universities "hurried on the horse" and appeared "stretched" when giving lectures.

Second, the resource platforms are not collaborative. Most colleges and universities' innovation and entrepreneurship education work is divided into different management departments, and different functional departments, such as the college youth league committee, student department, science and technology department, educational affairs department, and admissions and employment department, are respectively responsible for different tasks of innovation and entrepreneurship education, leading to "multiple leaders" phenomenon has greatly wasted the country's innovation and entrepreneurship resources.

4. Construction of "Internet +" Higher Vocational Innovation and Entrepreneurship Education Ecosystem based on CAS Theory

4.1 Target System

According to CAS theory, the entrepreneurship education system is a complex system. In the intricate and complex structural relationship, there must always be a main line to set a goal to

enhance the core competitiveness of students. Cultivate students' entrepreneurial quality, entrepreneurial knowledge and entrepreneurial ability in stages and levels.

4.2 Teaching System

Higher vocational colleges should pay attention to the cultivation of students' entrepreneurial ability. Starting from the students' basics, they must run through the entire learning stage, incorporate entrepreneurship education into the student training plan, formulate plans, form an outline, and carry out scientific and rational entrepreneurship education. Establish a systematic and complete entrepreneurship education curriculum system; create a good internal and external practice base, and based on the nonlinear development of the curriculum teaching system, interact with each other, promote each other, and adjust each other, so that they become one and look good; The establishment of an educational research system, through research activities, to create a better entrepreneurial environment, to summarize and exchange entrepreneurial education experiences, from the sublimation of theory to practice; to strengthen the improvement of students' psychological quality in entrepreneurship, to increase the integration of psychological courses, and to coordinate the capabilities of entrepreneurship to cultivate.

4.3 Management System

Without a good system, there will be no norms for successful behavior. Based on the characteristics of dynamics, openness, and uncertainty, we extract healthy behavioral norms and continuously adjust to the current state of entrepreneurship. According to China's national conditions, we have institute leaders. The team responsibilities of the heads of various administrative departments and secondary colleges, comprehensively carry out and coordinate entrepreneurship education, set up a secondary college for innovation and entrepreneurship, and carry out various activities of entrepreneurship education courses.

4.4 Higher Vocational Innovation and Entrepreneurship Education Ecosystem

The higher vocational innovation and entrepreneurship education ecosystem is an ecosystem that includes multiple subsystems such as enterprises, families, schools, students, and governments. Among them, schools, government and enterprises are the three most important aspects of the vocational education system for innovation and entrepreneurship. The higher vocational innovation and entrepreneurship education ecosystem system includes the innovation and entrepreneurship education curriculum system, teacher system, practice system, cultural system, and incubation system. The other subsystems of the higher vocational innovation and entrepreneurship education ecosystem coordinate with each other to realize the transformation of higher vocational innovation and entrepreneurship education from the traditional model to the ecological circle model.

5. Summary

This paper is to sort out the research results of many scholars in innovation and entrepreneurship education, analyze the current situation of the development of innovation and entrepreneurship education in Chinese universities and combine their years of education experience, and put forward the "Internet +" innovation of higher vocational colleges based on CAS theory. In the construction of the entrepreneurial education ecosystem, in the process of system construction, the identification of educational ecological factors is very important. It is not only the basis for understanding the innovation and entrepreneurship education, but also the key to the coordinated development of multiple subjects. The following conclusions are obtained through research:

First, innovation and entrepreneurship are a systematic project. We must use systems engineering thinking to conduct analysis and research, and use development thinking to identify various key factors in the system.

Second, we must recognize that in the education of innovation and entrepreneurship, schools are the base for educating people, and other factors are for educating people.

Third, in the process of school-enterprise cooperation, schools should flexibly use corporate education resources and equipment, and actively obtain government support in terms of policies. Establish collaborative education mechanisms with enterprises, learn from advanced management experience, integrate multi-party resources, and build a sound the educational ecological platform better balances the interests of all parties and truly achieves a win-win situation.

Acknowledgements

The authors gratefully acknowledge the financial support from Chongqing College of Electronic Engineering Research on the operation mechanism of the ecosystem of Higher Vocational entrepreneurship education based on CAS Theory (XJSK201910).

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