

A Comparative Study of the "Double Creation" Education System in the "Double High" Construction between China and the United States

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Abstract: At present, the construction of "double high" is in full swing, and vocational education has more practical advantages. How to further improve the quality of innovation and entrepreneurship education has become the key. This paper makes a comparative analysis of China and the United States in terms of curriculum setting, motivation purpose, teacher source and participants in innovation and entrepreneurship education, and tries to provide corresponding theoretical basis for the development of innovation and entrepreneurship in the future.

1. Introduction

The "double creation" (innovation and entrepreneurship) curriculum of higher education provides an important intellectual support for China to vigorously promote "mass entrepreneurship and innovation". The curriculum system is the embodiment and support of the training program. Therefore, the scientific setting of the "double creation" curriculum system is the key problem urgently needed to be solved by colleges and universities at present. On the whole, the "double creation" education in China is still at the primary stage. Therefore, it is a feasible way to introduce mature practices from foreign universities and critically use them in the light of China's national conditions.

In China university innovation and entrepreneurship are mainly driven by the university, and the theme form is mainly the industry-university-research base. Taking Nanjing University as an example, it has established an office for innovation, entrepreneurship and achievement transformation. In order to realize the transformation of scientific and technological achievements of Nanjing University, Nanjing University is market-oriented, and has gathered outstanding dual-creation talent resources and innovative resources of various industry-university-research institutions, with a view to achieving breakthroughs in industrial frontiers and key areas, developing scientific and technological innovation achievements into products with market competitiveness, and cultivating a number of highly competitive and innovative enterprises.

Western countries, led by the United States, take Stanford University as an example. For a long

time, they have integrated innovation and entrepreneurship education with various disciplines, closely combined scientific research with social needs, and formed a three-dimensional integrated "double creation" education ecosystem by building "mass entrepreneurship and innovation" curriculum, creating "mass entrepreneurship and innovation" education research platform, establishing "double creation" education service industry and developing social industry ecology[1-3].

2. The comparison of innovation and entrepreneurship curriculum

In terms of curriculum setting, the innovation and entrepreneurship courses in developed countries represented by the United States involve opportunity identification, resource integration, business plan, practical analysis and other aspects. The whole system is perfect and has strong applicability. In China, in the course content setting, it also develops from the introduction of entrepreneurial knowledge to the direction of practical application, and the course focuses on cultivating entrepreneurial awareness.

In the form of courses, there are special innovation and entrepreneurship courses at home and abroad. This kind of course can achieve great results in the cultivation of innovation and entrepreneurship awareness, but the results in practice can not achieve obvious results. The United States, as the representative, its perfect curriculum system construction also includes the following points.

2.1. General education curriculum system incorporated into the course of innovation and entrepreneurship

Taking Stanford University as an example, its general education includes oral communication of effective thinking, thinking and behavior methods. From its general education curriculum can be seen in its focus on "emphasis on capacity", pay more attention to cultivating students' thinking ability and expression ability.

2.2. The curriculum of entrepreneurship education emphasizes the integration of basic courses and specialized courses

The Stanford Technology Venture Program (STVP) has built "industry-university-research" entrepreneurship education courses. STVP integrates interdisciplinary courses into technology entrepreneurship education and designs different entrepreneurship courses for undergraduate and graduate students.

2.3. The course assessment is mainly based on the writing of business plan and entrepreneurial case

Taking the United States as an example, in the assessment of entrepreneurship courses, the main assessment is the writing and business plan of entrepreneurship cases, from which the students' ability to integrate theory with practice is assessed, while in China, the purpose of "mass entrepreneurship and innovation" education seems to be to alleviate the employment pressure. There is a lack of guidance on entrepreneurial ability. In a series of Chinese college students "innovation and entrepreneurship competitions such as "Challenge Cup" and "Three Innovation Competition", there are fewer projects with scientific and technological content, and most of them are marketing and service-oriented projects, resulting in a low success rate of entrepreneurship[4-5].

3. The comparison of connotation level of innovation and entrepreneurship

At present, a variety of "double creation" competition emerge in endlessly, the school actively guide students to participate in the "challenger cup", "Internet +" and other important events, while most schools to establish innovation and entrepreneurship campus incubation center. In the construction of teaching staff, and actively strengthen the construction of "double innovation" teachers, each "double innovation" instructor can through interdisciplinary, and enterprise research institutes cooperation and other ways, play the advantages of various disciplines, learn from each other, and constantly improve the "double innovation" guidance ability. In terms of creating an atmosphere of innovation and entrepreneurship, in addition to campus networks and TV broadcasts to promote outstanding innovation and entrepreneurship cases, vocational colleges often invite well-known entrepreneurs and outstanding alumni to come to the school to tell about innovation and entrepreneurship experiences, so that college students can understand entrepreneurship experiences, learn excellent innovation and entrepreneurship concepts, and enhance their awareness of self-employment. These measures undoubtedly have a great improvement in the awareness of innovation and entrepreneurship, and the current "double high" vocational education colleges have the advantage of being closer to the actual production environment. Therefore, improving the awareness of innovation and entrepreneurship will inevitably encourage more college students to participate in innovation and entrepreneurship[6-7].

From primary school, middle school to university, they do not close their mouths is innovation and entrepreneurship, but "double creation" courses are everywhere. For example, American primary schools have scientific invention practice courses, and even courses are based on project-based learning. Middle school admission to university is not only a lifelong examination, but also a variety of extracurricular practice activities. The "innovation and entrepreneurship" courses in the United States not only stay on paper and pay more attention to cultivating students' practical ability, but also have special capital support for excellent entrepreneurial projects. It is funded by institutions such as the Small Business Administrator and the Kauffman Center for Entrepreneurial.

4. The incubation of innovation and entrepreneurship achievements

The higher level of innovation and entrepreneurship is to serve the society and obtain social and economic benefits. The realization of results requires the government, universities, enterprises and college students to solve them together, so as to promote the good development of entrepreneurial projects. Now in China 's colleges and universities double innovation competition emerge in endlessly, many students in order to research bonus points, upgraded to participate in the competition, and did not seriously participate in it, for college students double innovation has brought a strong power color.

In China, the leading role of entrepreneurship and innovation is mainly the government and schools, while enterprises closest to the market are rarely involved. Most schools have set up entrepreneurship and innovation courses and established entrepreneurship and innovation incubation bases, which provide a good development environment for the early days of entrepreneurship and innovation. However, it is difficult for entrepreneurship and innovation projects to become bigger and stronger. On the one hand, the project itself is out of the market demand, and on the other hand, good projects are out of the support of capital, and it is difficult to stand out in a fiercely competitive market environment. Some powerful universities have set up special office for the transformation of entrepreneurship and innovation achievements to help the successful implementation of entrepreneurship and innovation projects. For example, Nanjing University has set up an office for innovation, entrepreneurship and achievement transformation, which has full-time entrepreneurship and innovation service institutions to help teachers transform their achievements, provide technology transfer services, build entrepreneurship incubation platforms, build industry-university-research

innovation platforms, provide services for students' entrepreneurship, and train innovative and entrepreneurial talents. From innovation and entrepreneurship training, business plan counseling, business venue incubation, capital investment services and other one-stop service.

The high-tech entrepreneurship center represented by Silicon Valley, the main body of implementing innovation and entrepreneurship activities is the enterprise, which plays a leading role in the whole process from technological innovation to commercial landing. In addition, in addition to the active participation of government schools in mass entrepreneurship and innovation, the connection between enterprises and universities is very frequent. The original innovation projects of colleges and universities, through commercial cooperation with enterprises, carry out market-oriented transformation of innovation projects, effectively promote the industrialization of scientific research results, and firmly link science and technology with economy, innovation and commerce. Through cooperation with investors, to promote innovation activities as soon as possible, significantly shorten the entrepreneurial success cycle[8-9].

5. Implementing the reform of "double creation" curriculum system with Chinese characteristics

Due to China's special national conditions, we cannot completely copy the foreign curriculum system of "double creation", but the excellent foreign measures are worth learning from.

5.1. Creating an environment that advocates innovation and cultivating the awareness of innovation and entrepreneurship

Universities need to actively promote the spirit of innovation and entrepreneurship, build an innovation and entrepreneurship culture with campus characteristics, and promote the concept of respecting innovation and talents. The government needs to establish a market mechanism to support entrepreneurship in the system, and form a new cultural trend to encourage innovation and entrepreneurship in publicity.

5.2. Innovation of talent training mechanism

Further promote the reform of "double creation" education, integrate innovative thinking and innovative culture into basic education, and comprehensively improve the quality of general education. Implement the strategy of "internal training and external introduction" in the construction of the "mass entrepreneurship and innovation" faculty. In the construction of the "mass entrepreneurship and innovation" talent project, we also need to pay attention to the training of "craftsman" talents and young teachers. We will introduce overseas talents in an "unlimited" way and innovate the way of overseas talents.

Strengthen vocational education, form a talent training mode of "industry-university-research", and establish diversified "double creation" courses. The professional courses are organically combined with the "mass entrepreneurship and innovation" courses. Under the guidance of teachers, the professional courses derive the classic theories from books into products and services. To form a participation mechanism that encourages professional teachers to participate in college students' "mass entrepreneurship and innovation" projects.

5.3. Making enterprises the main body of college students' innovation and entrepreneurship

Mass entrepreneurship and innovation have become a very important platform and channel for the investment orientation of private capital. Whether the "double creation" project is valuable or not is

a big factor for enterprises. The investment of real gold and silver makes the truly valuable projects stand out, while promoting the "double creation" project to be closer to reality. Therefore, it is necessary to encourage and guide enterprises to effectively and orderly integrate into the tide of "double creation" through system and mechanism innovation, which is of great positive significance to promote the implementation of "mass entrepreneurship and innovation" projects[10].

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References

- [1] Lei Li, Nan He. *A comparative study on the curriculum system of innovation and entrepreneurship education in Chinese and foreign universities* [J]. *Modern Commerce and Trade Industry*. 2018, 39(09): 160-164.
- [2] https://www.sohu.com/a/211508555_507651
- [3] *Inspiration of American Innovation Ecosystem: How World class Enterprises Are Generated - Internet Document Resources* (<http://www.360doc.co>) - 2018.
- [4] Rubing Han. *Practical research on the combination of innovation and entrepreneurship education and professional course system* [J]. *Higher education research: Southwest University of Science and Technology*. 2017: 73-75.
- [5] Fuping Tian, et al. *Comparison of teaching effect evaluation forms between Chinese and foreign universities* [J]. *Higher Education in Chemical Industry*, 2008 (03): 6-9+78.
- [6] Minjun Wang, Jin Wang. *An Effective Path for the Construction of Teachers in Higher Vocational Colleges* [J]. *Western Quality Education*, 2022, 8(14): 111-113.
- [7] Chumping Jia. *Research on the development model of entrepreneurial universities* [D]. Southeast University, 2019.
- [8] Xuemei Yang. *Huanghe University of Science and Technology: Cultivating High Quality "Mass Entrepreneurship" Talents to Create a Brand of Innovation, Entrepreneurship and Education* [J]. *Henan Education (Higher Education)*, 2017 (09): 44-45.
- [9] Chenzhong Li. *An Analysis of the Training Mode of "Double qualified" Teachers* [J]. *Modern Vocational Education*, 2019(33): 16-17.
- [10] Kaicheng Gai. *Guide private capital into innovation and entrepreneurship* [J]. *Financial Science*, 2015, (12): 5-7.