

# **A Comparative Study for Entrepreneurial Education in China-US Universities<sup>①</sup>**

**Liu Dezhi, Li Ling**

SHIJIAZHUANG UNIVERSITY OF ECONOMICS

**HONG WU**

ØSTFOLD UNIVERSITY COLLEGE/ SHIJIAZHUANG UNIVERSITY OF ECONOMICS

## *ABSTRACT*

Entrepreneurship education is not only an inevitable trend for China's higher education to face the world and the future, but also the need to improve China's social employment, the scientific and cultural development of China. But Chinese existing education system for students lacks the training for their spirit of innovation and entrepreneurship; the Popularization of entrepreneurship education in University is very low. Exploring and studying the entrepreneurial education model, which are suitable for Chinese national conditions has been forced in the eyebrow. In this paper, it has summarized the characteristics of university students and business education mode in China and the United States. It based on the comparative analysis of the results of Countermeasures and pointed the Chinese University System of entrepreneurship education.

Key words: China-US college students Entrepreneurship education mode

## *INTRODUCTION*

Students entrepreneurial education is the education that make the students cultivate the sense of entrepreneurship, entrepreneurship and entrepreneurial skills. It was directed by the ability rather than qualifications-oriented education, it is the deepening innovative of students' education, and it can improve the basic quality of college students in entrepreneurship and give them a culture of personality and entrepreneurial spirit of education. The Research shows that entrepreneurial activity is one of the fundamental driving forces of economic development and it has provided a considerable proportion of employment opportunities, and it played a role as an innovation engine in the in social development and promoted the technological innovation and the increase in productivity. For this reason, some U.S. educational institutions and scholars first began to explore entrepreneurial education and make an academic research on the significance of entrepreneurial activities.

Since the 1980s, entrepreneurship education in foreign countries is becoming increasingly popular and forms a strong upsurge. The GEM report by Babson College and London Business School shows that in 2001 the United States has provided entrepreneurship education for more than 1,500 four-year universities and colleges and it can be said that almost all the universities ranked in the United States have opened the entrepreneurship courses. Entrepreneurship Education has become an important part of the university education in U.S. And it even has extended to the secondary education, which format the

---

<sup>①</sup> The current study and writing of this paper is sponsored by the Chinese national research project entitled as "A study and analysis on higher education's financial sources for Chinese universities after a decentralization moving from central government budgeted to regional government self-financed, a process and impact" (Project no. DIA050125). 全国教育科学规划课题：“政府与高校新型关系下部委院校属地化管理后高校投入制度改革的调查与研究”（编号：DIA050125）

different levels of education from Middle school to college. And this entrepreneurial education system is still under continuous expansion and deepening.

China's entrepreneurial education started at the end of the 20<sup>th</sup> century, it has only a few years of history so far. In 1998, Tsinghua University set up the Chinese Venture Research Centre, started a venture in China to promote research and education work. At that time, Tsinghua University also organized the first student business plan contest. The students' entrepreneurship contest triggered an upsurge inspired the entrepreneurial educational needs, effectively promoted the development of entrepreneurial education in China. In 2002, the Ministry of Education established Tsinghua University, Beijing University of Aeronautics and Astronautics and other nine universities for China's business education institutions, give policies and funding to support our college students to explore the basic method and mode of development in entrepreneurial education.

Since 2003, in severe employment situation for college students, college students emerged in the entrepreneurial passion and many graduates decided to venture onto the road to independence has been a value orientation of college students and career of new trends. According to statistics, the National Venture autonomy of the university graduates has grown up to 13,500 people, also has an increase of 55.2% compare with the year 2004. Under this background, the voice to strengthen the students' entrepreneurship education is increasingly growing, many colleges and universities in China have set up entrepreneurial research or education center, started entrepreneurship education and research work, in the aspects of creation of entrepreneurship courses, and explore methods of teaching entrepreneurship and entrepreneurial management studies and so on have made some preliminary results. This article mainly studies following two questions: [10]

- Compares with the US, which disparities does the Chinese University have in the undertaking educational pattern aspect?
- In order to enhance the undertaking educational level of Chinese University, Which should the Chinese University make diligently?

### *COMPARATIVE STUDY OF ENTREPRENEURSHIP EDUCATION MODEL BETWEEN CHINESE AND US STUDENTS*

#### **Entrepreneurial education model of American students**

In the earliest developed entrepreneurship education model cases and the most comprehensive universities in the United States, Babson College, Harvard University, Stanford University have their own ways, represent a typical model of entrepreneurship education

( 1 ) Babson College---regard entrepreneurial awareness at the first place. Babson College in U.S. is the most famous for global business management education and research, has always been entrepreneurial leader in the field. Babson College and London College shared the annual "GEM" study, Since 1981 organizes the annual Babson - Kaufmann Fund Venture Research Conference. Babson College's entrepreneurship education mainly afforded by the Research Centre for Entrepreneurship Education, its purpose is to help students to develop entrepreneurial-type way of thinking, initiative, flexibility, creativity, adventure, aspirations, abstract thinking and the ability to change depending on market opportunities for capacity. Its model is to through innovative educational programs and outreach expansion plans and academic research to support entrepreneurship education, advocacy entrepreneurial spirit. For example, entrepreneurship education research center designed a well-known start-up course

syllabus for undergraduate students; consist of a series of compulsory and optional courses. Many courses have vary characteristics, such as the "new management experience", new classes are divided into several groups, under the guidance of teachers in each group developed a business plan, schools provide each team a maximum of three 000 U.S. dollars in seed capital and operating the new company set up, when companies in liquidation at the end of the school year, more than the original capital part is the profits that freshman develop the charitable funds. [5]

(2) Harvard University ---- based on the training of practical management experience. Harvard Business School, believes that the entrepreneurial spirit is implicit in an innovative action, but not a particular economic phenomena, or the characteristics of individual performance. They defined "pioneering spirit" as "beyond the pursuit of available resources under the control of the opportunity to act." By the end of 2001, the Harvard Business School has opened 15 business management courses in total. Harvard Business School for the advantages of entrepreneurial management and establishing complete information of cases, providing the researchers a good learning environment, is the only University for business management and entrepreneurship to education and research institutions issued Series. They are very focused on student's awareness of entrepreneurship, entrepreneurship and entrepreneurial skills of shaping and training, such as in the class of "open up new business" , focusing on the the skills needed and the knowledge of new business development when a new company is established . The students formed groups and launched by the creative concept to finish a completing plan of what establishment of a new company needed and put it into practice. Through this completing process of the study, students can learn the entrepreneurship theory, the special entrepreneurial skills, and also practice a specific action plan for the future. [10]

Table 1: Comparative Study for Entrepreneurial Education Model of American University

University name	Keystone of cultivating	Tenet of cultivating	Mode of cultivating
Babson College	Pays great attention to raise student's undertaking consciousness	Trains the student to start an undertaking the thought 、 the risk spirit, the flexibility	Support the undertaking education through the innovative plan of instruction and scholarly research
Harvard University	Pays great attention to raise student's actual managerial experience	Enhances the undertaking skill	In view of the undertaking management ,establishing complete material and the case storehouse in order to provide the good learning environment for the researcher
Stanford University	Pays great attention to raise the student system's undertaking knowledge	Causes the student to master the solid and systemic undertaking	Grasps various stages and various planes strategy in the undertaking process

		knowledge	
--	--	-----------	--

(3) Stanford University ---- giving priority to training systematical entrepreneurial knowledge. Stanford Graduate School of Business not only makes attention in the actual management experience, but also stressed the economic, financial, market operation, such as the theory of long-term research. They attached great importance to business strategies and entrepreneurial environment of the study, especially for entrepreneurs in all stages of the process, at all levels of strategy and operational issues, and the University-Industry Cooperation, industrial networks, and other environmental issues. The College opened a total of 17 business management courses. As a well-known Polytechnic University, Stanford Graduate School of Business places great emphasis on application-oriented and interdisciplinary strengths complement, entrepreneurship education is from entrepreneurs rather than from the perspective of investors to plan venture cases, students must learn to assess business opportunities and the ability of individuals, professional expertise, meanwhile, Faced with the external environment, and to take concrete entrepreneurial actions. For example, in curriculum design takes on the way of teaching team and teaching two-step approach, which is from the School of Business and the College of Engineering student's team, conducting market research and analysis, stimulating creativity and designing products, to make a further development in the laboratory and push its manufacturing products to the market. This entire process helps students to explore and deal with business involved in the process of all topics, and make a comprehensive understanding of how to make" ideas" into a complete enterprises, which greatly enhance students' practical knowledge and skills .[15]

### **The model of Chinese colleges and universities entrepreneurship education**

China's entrepreneurial education began at end of the 20th century, so far it only had a few years of history. In 1998, Tsinghua University set up the China Venture Research Centre, and started the work of venture education research and promote in China . At that time, Tsinghua University also organized the first contest of student business plan. The student entrepreneurship contest triggered an upsurge, which inspired the needs of entrepreneurial educational, and promoted the development of entrepreneurship education effectively in China. In 2002 ,the Ministry of Education established , Tsinghua University, Beijing University of Aeronautics and Astronautics, and other nine Universities of the Chinese as the institutions pilots of entrepreneurship education , providing the support of policy and funding , to explore the Chinese college students the basic method of entrepreneurship education and and the models of development . The Ministry of Education ordered the nine institutions pilot of entrepreneurship education include Tsinghua University, Beijing University of Aeronautics and Astronautics, the Chinese People's University, Shanghai Jiaotong University, Nanjing university of Economics, Wuhan University, Xi'an Jiaotong University, Northwestern University, Heilongjiang University.

#### **(1) The general practice of enterprise Education pilot:**

First, creating the courses of entrepreneurial education so that teach the students how to entrepreneurship. Second, conforming the request of entrepreneurship education and intensifying the reform efforts of the first classroom teaching. It stressed that the aim of the entrepreneurship education is to cultivate the student's awareness of entrepreneurship, build the knowledge structure which is necessary for the

business, and improve the overall quality of students. [1]

(2)China's business education has also formed three models:

The first mode, the representative is the Chinese People's University, it stressed that the aim of the entrepreneurship education is to train the students awareness of entrepreneurship, build the knowledge structure which is necessary for the business, improve the overall quality of students," combine the first class with the second class to develop the entrepreneurship education. And encourage the students to participate in the various social practice activities and social welfare activities in a creative way , through some kinds of seminars of entrepreneurship education and various competitions and activities, finally form a Practice groups of "entrepreneurship education "which use the professional as the basis, the project and associations as the organization form

The second mode, the representative is Beijing University of Aeronautics and Astronautics, the aim is to improve the student's business knowledge, focus on the entrepreneurial skills. Its characteristics are commercial operations, establish the university students Pioneering Park, teach the students how to carve out and provide financial support and advisory services for the student's entrepreneurship. Schools have set up a "institutes of business management training " which is responsible for the matters relating to students , the school also set up the venture capital of 3 millions , after the assessment of the students entrepreneurship plan book to begin the financing of period of seed .

The third mole, Shanghai Jiaotong University as the representative of the Integrated Enterprise Education. On the one hand, the innovative education as the foundation of entrepreneurship education, In the process of Expertise teaching, we should focus on the basic quality of the students. On the other hand, we should provide students with the necessary finance and the necessary technical advice. Our School has put in more than 8,000 millions to establish a number of experimental centers and innovation base, so that the students can train their practice ability. From the establishment of the graduate school students' entrepreneurship has been assigned to the "Hui Gu " technology start-ups base in Shanghai.

Table 2: Comparative Study for Entrepreneurial Education Model of Chinese University

University name	Aim of cultivating	Mode of cultivating
Renmin University of China	Trains the student to start an undertaking consciousness	Unify the first classroom and the second classroom
Beijing University of Aeronautics and Astronautics	Pays great attention to enhance student's undertaking knowledge and the undertaking skill	Commercialization operation
Shanghai Jiaotong University	Trains the student the Comprehensive undertaking quality comprehensively	Provides the fund and the technical advisory work for the undertaking

## **The comparative analysis of the entrepreneurial education model of students in China and USA**

(1) Compared courses

From the well-known universities' entrepreneurial education in China and USA, The entrepreneurship education curriculum can be broadly classified into categories: sense of entrepreneurship, knowledge of entrepreneurship, the quality of entrepreneurship and the practice of entrepreneurial. Although the school curriculum varied, but there is still the general rule. According to the Study of the institute of commerce in baisen , "a better course system" is usually first set up 4-5 door core courses (such as the creation of new enterprises ,the entrepreneurship skills and behavior management, the business finance and the growth type of management, etc.) The core curriculum content is easy and practical, and we should add some combination of characteristics of courses on the basis in accordance with every school, courses combination of knowledge should be broader that covering different types of courses, so students can avoid the deterioration of knowledge. Every business education programmers should be at least one course from the start, and we must put great effort to create a first course for a strong attractive, successful entrepreneurship courses. Usually this course should be "the creation of new enterprises" Or "the launch of a new enterprise"

(2) Thoughts of the enterprise education for which College give full play to their advantages in resources  
The Well-known colleges and universities in U.S have established business model of education based on their own advantages in resources (such as academic research, academic leaders, hardware, laboratory equipment, etc.) Although this education model which based on the professional advantages and development of different areas of design and entrepreneurship has raise the formation of the different characteristics of each school or style, but to the Entrepreneurship Education which need to cultivate people with all-round ability, this is not always the best training modle.Because famous universities those have high status in academic research, may not be able to develop the entrepreneurial talents or future entrepreneurs. If we can use a system optimize designed by the entrepreneurial education model as a framework for "references" to examine and "calibrated" the scientific and rationality of curriculum in individual institutions, will it be possible to play in the schools on the basis of comparative advantage, the tendency to deviate from discipline to minimize. This undoubtedly have an important significance of the enlightenment of entrepreneurial education curriculum system in China's colleges.

Table 3: Comparative Study for Entrepreneurial Education Model of China-US University

	Curriculum system	The degree of using own resources superiority	Education system info's development
American University	4-5 core curricula , Increasing combination curriculum	using own resources superiority adequately	System info lag in education system's development
Chinese University	1-2 core curricula , Non-combination curriculum	At the start stage	At the start stage

(3 ) The discussion of entrepreneurship education theoretical system and lagged behind frame construction

Although the entrepreneurship education in United States goes far ahead from China, there's no doubt that their entrepreneurship practice is also fruitful, but colleges in U.S. haven't form a entrepreneurship education system and theoretical framework that is sound so far, its development has surpassed the level

of theory can guide, and it is waiting for a more sound basis for entrepreneurship education theory to guide its further development. At the same time, U.S. Implements the model of entrepreneurship education and measures based on their country's national conditions, which has its own political system, socio-economic and cultural background. This situation has is an important reference to China: China's entrepreneurship education falls far more behind at present, students' entrepreneurial activities generally stay in an innovative practice level, which has no system of entrepreneurship education and teaching as a support system, entrepreneurship education in academic research is also almost empty, this situation of Chinese entrepreneurship education is an important constraints for fatherly and healthily development. At the same time, we should see that the development of China's entrepreneurship education has its strong intrinsic motivation and sustained growth of space, we should put actively develop the colorful entrepreneurship education practical activities and conscientiously study and draw lessons from the successful experience of the United States and theories in the same step, based on this, combine China's national conditions and make efforts to explore and create a venture entrepreneurship education system and theoretical framework with Chinese characteristics, strengthen the communication of entrepreneurship education, seminars and academic research, correctly guide the entrepreneurship education practice from a high theory degree.[10]

### *ENTREPRENEURSHIP EDUCATION MODEL IN CHINA – A CASE EXAMPLE*

#### **The current entrepreneurship education conditions of Shijiazhuang University of Economics**

Shijiazhuang University of Economics is an admission for the whole China, it's a general undergraduate college including economy、 management、 science、 art、 trade and law,etc.At the same time, the school is a master's degree authorized by the State Council, its authorized master's degree in professional cover economic, management, engineering disciplines and so on, and nine categories. Entrepreneurship education since created by Professor Liu Dezhi, have made significant achievements. Students in college have made great progress in every aspect in entrepreneurship.

#### (1) How to develop entrepreneurial spirit

Our college irregularly invited CEO from famous companies at home and abroad to give lectures on entrepreneurship, these well-known entrepreneurs' lectures give students abandon entrepreneurial ideas, enhance the students' awareness of entrepreneurship greatly, broaden their eyesight at the same time. From the number of people who take part in the annual Business Plan Competition can see that the students with business sense and entrepreneurial spirit continue to rise.

Table 4 The results of my school participating in the national business plan competition [2]

Order	Works	Competition stage	Result	Remark
1	Business plan about the highly effective nitrogenous fertilizer	Final	National silver prize	It's the best result in Hebei province
	Business plan about the rich selenium natural mineral feed additive	Intermediary heat	National copper prize	
2	Business plan about biological potassium complex fertilizer	Intermediary heat	National copper prize	

3	Business plan about nanometer ceramic powder body material	Intermediary heat	National opper prize	
	Business plan about SPLD liquid crystal material	Intermediary heat	National opper prize	
4	Business plan about Guangji chemical fiber thick liquid	Final	National silver prize	

(2)The section of business knowledge training To cultivate the entrepreneurial innovation of students, schools have launched "Knowledge Innovation methodology", "independent research" and so on among the undergraduate and graduate students .The Professor Wu Hong who comes From the University of Norway Oslo have combined the entrepreneurship education and practical experiences of Oslo university with the specific situation of the Shijiazhuang university of economics .every year develop the” technological innovation" for students regularly , the students capacities of entrepreneurial innovation were improved greatly.

(3)the results of entrepreneurship education the Shijiazhuang university of economics has participated Chinese college students Business Plan Competition for four times, cultivate and improve the quality of students innovation, has made gratifying achievements, and won the recognition of higher-level departments, Hebei TV, Hebei Daily, the Yanzhao Dushi newspaper , and other major Medias in Hebei had reported and had caused a national of the other universities and society ,which won the honor for the Shijiazhuang university of economics , and expanded the fame of it.

### *CREATING ENTREPRENEURSHIP EDUCATION SYSTEM FOR CHINESE COLLEGE STUDENTS*

Generally speaking, Chinese business education has got certain achievements, but the level of its development were still far behind their requests that China's current political, economic and social development, the main problem is that there is no systematic entrepreneurship education . Therefore, the key of china training University Students entrepreneurial capacities, developing entrepreneurial education is to improve entrepreneurship education system gradually, and carry out targeted entrepreneurial education vigorously.

First, we can create a training system, and increasing training session, reform the quality of entrepreneurship training in depth. Establishing a complete system of entrepreneurship training, increase universal entrepreneurship knowledge and cultivating a kind of compound talents who has the entrepreneurship responsibility, entrepreneurship capacities and entrepreneurial quality. The training of entrepreneurial quality have the traditional classroom instruction, besides we will also set up a scientific system open-venture investment programmers ,enhance the university students knowledge of entrepreneurial and overall quality comprehensively through systematic training . Rely on the Pioneering Park, high-tech development zones and enterprises to alumni; we can create more internship opportunities for students. So that students can learn more about entrepreneurship.

Second, we may develop the expand training. regard the expand training as a teaching aid, we can use the outdoor travel form , simulate the real situation of the management and training the college students in the section of psychological and management .

Third, we can organize the students take part in the entrepreneurial contest. to organize students entrepreneurship contest irregularly, it will plays an important role in the section of popularity



entrepreneurial knowledge, advocacy entrepreneurial culture, discovering and cultivating entrepreneurial talents, and putting the future projects into the market

Fourth, we can strengthen the links between entrepreneurs and alumni; increase the interaction links between alumni and entrepreneurs, use their experience to guide the students in school. We can guide the students' entrepreneurship by inviting more entrepreneurs to participate in school training, accreditation and other activities. At the same time, we can hold the Forum, Sharon and other activities to increase the interaction between school's students and alumni, so that we can make the experience more useful to guide the school students. China's entrepreneurs flashing the light of the entrepreneurial spirit, the students will more directly reference their own quality, experience and understanding.

Fifth, we may put the team tutorial system into practice; improve the selection of outstanding instructors. Organize the entrepreneurial team according to the advantages of students and strengthen the function of instructors, each team should hire. Teams can contact their teachers by themselves; the school will help the team liaison and recommend appropriate instructors in schools and outside, and make appointments for every trainer, so that we can select the best trainers and mentors in order to promote the enthusiasm of the outstanding instructors.

Sixth, we can organize the Students to take part in the social practice, build the practice base of colleges and universities. This is to implement the education and to services the socialist and it is an important policy of combining education and social practice, which can be called low-cost, high-yield initiatives by all schools. At present, many colleges have established a number of professional learning bases for colleges and universities, and we should make full use of these bases to enhance the practical ability of students.

Seventh, we may found the laboratory for university students' innovative undertaking. In order to achieve the goal of entrepreneurship education better, we should attempt to create a venture laboratory, and organize the students who interested in the entrepreneurship according to the form of "virtual company". The companies should have the "Board", a "virtual CEO" to organize and manage the operating of "virtual companies", the students in a virtual company will act different roles in the virtual companies. Students can experience the entire process of real start-up companies by the spirit of entrepreneurship, so that they can increase the capacity of solving all kinds of unexpected incidents.

Eighth, we can found the Science and Technology Parks of University. University Science Park is a enterprise incubator which more near the main technological innovation, easier for entrepreneurs to provide innovative support .It generally relies on universities, and make full use of the intelligence, technology, test equipment, and other knowledge resources of the university. It is an university-based institution. It should be the senior forms of the entrepreneurship education facilities and activities for college students.

## *CONCLUSION*

This article studies indicated: Compares with the American Universities, the Chinese Universities' undertaking education is very backward, regardless of undertaking curriculum or undertaking environment, In order to raise Chinese undertaking educational level, the Chinese Universities should make great efforts on the system's training system founding and the optimized undertaking environment aspect.

## REFERENCES

1. Zhubai Liu, Methodology of Knowledge innovation thought, Mechanical industry publishing co., March, 1999.
2. Dezhi Liu, Research of appraisal of university student innovation quality, Project of Hebei province planning office of philosophy and social science.
3. (US) Geoffrey · Timmons. Entrepreneurial study. Beijing: People's posts and telecommunications publishing house, 2005.
4. (US) Geoffrey · Timmons. Entrepreneurial study case. Beijing: People's posts and telecommunications publishing house, 2005.
5. Babson College, <http://mba.ce.cn/home/zdtj/2005/11/01/t2005110192530>. Shtmi, 2005-11-01.
6. John N. Hawkins. "Education exchange and transfer of Chinese higher education". Edited by Elinor Barber & Philip G. Altbach. University of Chicago Press. 1984.
7. Ruth Hayhoe. China's Universities and the Open Door. M .E. Sharpe. Inc. 1989.
8. Kent. Calin A. Entrepreneurship Education: Current Development, 1990.
9. Xu Juan. The university students' innovative undertaking education studies the [D]. Wuhan: The Wuhan University, 2005.
10. Zhangfan, Zhangwei. American University entrepreneurship education development and to China's enlightenment [J]. Chinese talent, 2003, (8).
11. Tengyingcai, Hu zeyao. The US starts an undertaking educates to our enlightenment [J]. Liaoning administration institute journal, 2003, (2).
12. Zhang Haiyan. The overseas university's undertaking educates the [J]. China vocational-technical education, 2006, (6).
13. World Commission on Environmental and Development. *Our Common Future*. Oxford: Oxford University Press (2001)
14. Wei wang , Research on the Model of Entrepreneur of the College Student, 2005
15. Zhuyao Zhang. US's Entrepreneurial education. Beijing University of Aeronautics and Astronautics (restricted data), 2003