
Case Study of Entrepreneurial Education Practice in Chinese Agricultural Universities Based on the PBL Theory

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Abstract:

In this paper, based on the problem-based learning theory it adopts literature review and comparative research methods to explore the domestic and foreign successful entrepreneurship education experience and implementation plan. Based on the significance and connotation of innovating entrepreneurship education, this paper discusses the innovating entrepreneurship education model of economic management in Chinese agricultural colleges and universities. Taking the author's university as an example, this paper analyzes and explains the application and practice experience in problem-oriented entrepreneurship education model, and hopes to facilitate the promotion and effectiveness of entrepreneurship management curriculum in agricultural colleges and universities in China.

Keywords: Entrepreneurship education model, Higher education, The PBL Theory.

I. INTRODUCTION

The problem-based learning method is applied in teaching practice has a long history. Many scholars have studied that theory indicate by problem solving to gain learning experience and knowledge, they can not only learn content, and can improve students' thinking strategies [1-3]. Problem-based learning is one of the most promising innovations in the school curriculum. The analysis of the experimental results can reflect the main difficulties and problems that teachers encounter in the organization of problem education. The implementation of the

recommendations will reflect the state of education of concern to educational institutions [4].

Entrepreneurship refers to the establishment of an organized and profitable enterprise, which can be smoothly operated. Therefore, there are comprehensive knowledge requirement for entrepreneurship, and the people involved in entrepreneurship must have different and unique cognition from the ordinary management team. Innovating entrepreneurship education is with integrated, practical and uncertain features. It needs teachers, funds and the collaboration between government policies and the external environment, hence to stimulate students' interest in entrepreneurship and innovation curriculum and improve their learning effectiveness[5]. Entrepreneurship education is to improve the basic quality of students' entrepreneurship education, but also to cultivate students' entrepreneurial spirit, entrepreneurial vision and adventure spirit to engage in certain education for enterprise operation and planning. The United Nations Educational, Scientific and Cultural Organization regards entrepreneurship as a third capacity beyond academic and professional competence. The practice of entrepreneurship is an important proposition of the innovation spirit [6].

Problem-oriented thinking is not a simple teaching method, but a practical problem that teachers may face in the dynamic process of building and developing enterprises. For instance, how to guide students to think and explore comprehensively and deeply, so as to cultivate entrepreneurial consciousness and spirit? How to conduct effective PR communication when starting a business? How to stimulate creativity? How to effectively utilize resources to provide support for specific issues such as enterprise financing and development. These problems are related to enterprises' follow-up development, entrepreneurs' social responsibility and enterprises' economic and management problems. It also concerns how to maintain environmental friendliness in development [7].

II. LITERATURE REVIEW

Entrepreneurship always has a theme of seeking opportunities. No matter how many resources an enterprise can utilize, as long as it can create value, focus to the future and repay the society, then it can be called entrepreneurship. UNESCO defines entrepreneurship education as: entrepreneurship education refers to cultivate individuals' pioneering spirit. Common business organizations and more enterprises attach huge importance to invention, innovation, risk-taking, entrepreneurship and independent working ability, as well as employees' skills. Entrepreneurship education is an educational activity which enables the educates to carry out behavioral innovation in the fields of social economy, culture and politics, to open up or expand

new development space, hence to provide opportunities for others and the society.

Entrepreneurship education is not only a professional skill, but also a life time education to continuously improve the competency. The United States also regards entrepreneurship education as one of the effective means to solve the social unemployment problems, hence entrepreneurship education has gradually become a new trend in the development of vocational education in the United States. Entrepreneurship education encourages students to combine their professional skills and interests, therefore entrepreneurship becomes their career choice, so as to achieve the value they desire. The researchers have pointed out that 37 % of U.S. universities offer entrepreneurship curriculum in undergraduate education, 23.7 % offer entrepreneurship curriculum in graduate education, and 38.7 % offer entrepreneurship curriculum in undergraduate and graduate education, including minor courses, major courses, and entrepreneurship management majors [8].

Entrepreneurship education focus entrepreneurship and philosophy, attaching importance to entrepreneurship indicators and comprehensive business curriculum, especially industry analysis, market analysis and marketing strategy, management ownership, financial planning and another entrepreneurial knowledge. The integration of marketing, management and accounting and other basic business curriculum is conducive to teaching the basic concepts of new enterprises [9]. Entrepreneurship education is a kind of lifelong learning, which includes creating abilities for individuals and organizations to create and enjoy higher levels of uncertainty and complexity in all walks of life. Entrepreneurship courses include how students identify and shape opportunities, evaluate business ideas, develop business plans, fund and start businesses, develop new businesses and case studies, which should be discussed in class to provide another place for students to learn entrepreneurial strategies and understand the success or failure of new businesses. On the one hand, entrepreneurship education is the study of entrepreneurship teaching methods and styles, involving different methods to stimulate students 'entrepreneurial thinking and knowledge ability [10]. The cultivation of these knowledge and abilities is related to the different modes of teaching and dissemination of education [11]. Therefore, Fig 1. summarizes the talent training of entrepreneurship education curriculum competency standards.

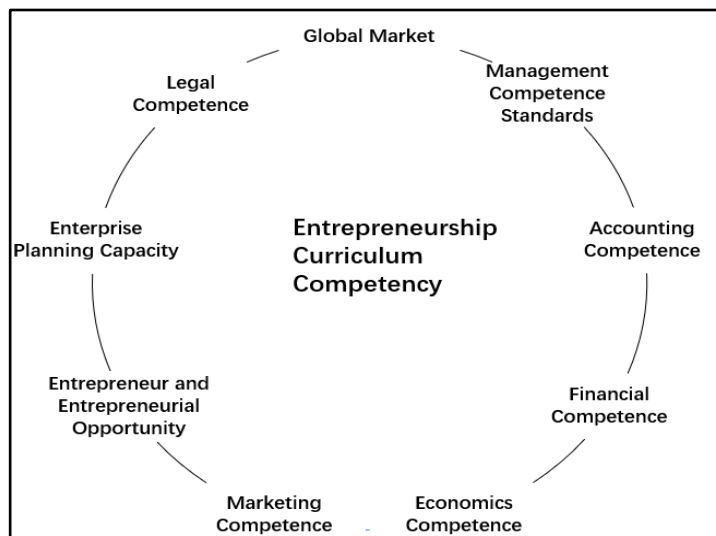


Fig 1: Framework for entrepreneurship curriculum competency standards

After decades of development, although the application of PBL is different, PBL has been recognized around the world, and has been adopted by many universities. PBL aims to cultivate lifelong skills to solve practical problems, not limited to theoretical knowledge. In order to achieve this goal, it is necessary to design and implement strict and reasonable procedures. Rigorous monitoring and timely feedback and evaluation are essential for continuous process improvement and improvement [12]. In fact, all trainers, mentors and educators in the field of entrepreneurship need to focus on the design and implementation of entrepreneurship teaching and lesson plans according to all aspects of the teaching model, and adopt them from the perspective of answering the "why" (the purpose of learning), for whom (audience, participants), and results (evaluation). Synthesize various innovative teaching methods and their impact on entrepreneurship education practice. The various methods identified include case studies, business plans, problem solving, simulations and games, team or small group discussions, guest speaker workshops, individual and group projects, role plays and lectures. It has been determined that none of these methods can be used alone and therefore need to be used together in specific situations [13].

III. METHODS AND PRACTICES

3.1 Problem-Oriented Entrepreneurship Education Model Application

In response to China's innovation development strategy and in the urgent need of promoting

transformation and upgrading economic growth, the author's university in 2013 revised the Business Administration Professional Talent Training Scheme, and the curriculum Entrepreneurship considered as a basic course to Business Administration major. Take the author's teaching institution as an example, during the second term of 2013-2014 school year it set up for the first time in our university. In 2015, the State Council on The Implementation opinions of deepening the reform of university innovating Entrepreneurship education, it requires to deepen reform of the university innovating entrepreneurship education, and set up the reasonable innovating entrepreneurship credits. For all the students, innovating entrepreneurship education compulsory courses and elective courses will be set up. In 2016, when Management school revised its talent training program, it regards Entrepreneurship as a basic course (the position of the curriculum is the same as Macro & Micro Economics, Management, etc.), which is opened up to all majors of the school. The purpose is to cultivate creative and innovative talents through entrepreneurship education. The talent training mode is changing from only training employed persons to training both employed persons and entrepreneurs. In order to effectively integrate teaching resources and assist students to achieve the most ideal learning mode of diversified entrepreneurship curriculum, the school has begun to implement subject-oriented teaching mode, which also through the excellent program system of national first-class universities it provides curriculum according to the industry's demand. Having fully integrated and flexibly applied, it aims to strengthen the depth and breadth of research development. In order to expand students' learning field, integrate the teaching resources, increase the multiple learning opportunities, strengthen the overall teaching quality, consolidate colleges alliance, and increase the co-operative training mechanism, so as to help student with internship through enterprise-school cooperative education. By using the existing system or program, it carries out workplace experience through entrepreneurship simulation practice, innovating entrepreneurial lecture hall, entrepreneurship competition, entrepreneurial elite class and so on, so as to put knowledge and training skills into practice. Fig 2 is a schematic diagram of the system of entrepreneurship curriculum talent training program.

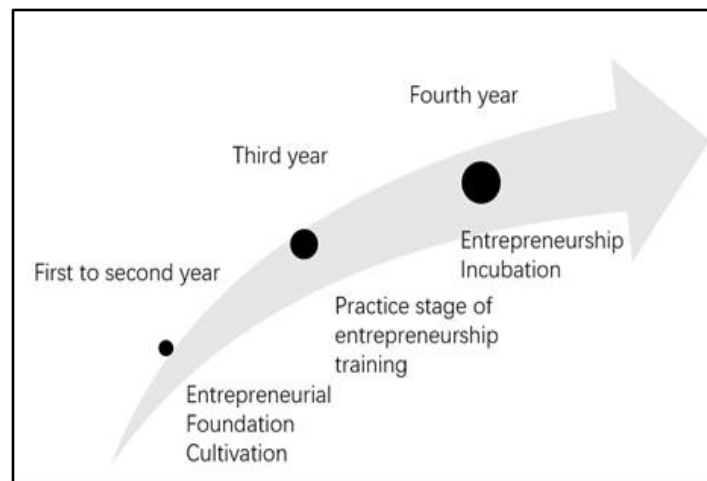


Fig 2: Training program of entrepreneurship course

TABLE I. Operational problems and possible solutions of entrepreneurship curriculum

Classification	Descriptions	Solutions
Student	Student intention: the willingness to start a business is not strong and there are too many class schedules.	Take the senior students as the main target, encourage them to continue to operate after finishing the course, in the form of elite class to cooperate with enterprises or the government, and cooperate with the school entrepreneurship competition or the government entrepreneurship and employment policy orientation.
	Student attitude: the main purpose of study is for the credit points.	It emphasizes the bottleneck of career development and the dilemma of salary level, and opens the entrepreneurship vision, and adopts case-based teaching in most curriculum and keep textbooks to be in a timely fashion.

	Operation team: lack of teamwork and coordinationexperience	It encourages to establish innovating entrepreneurshipselective courses and practical activities in the campus.
	Concept and operation model: business knowledge is limited, which is difficult to associate innovation model	Join business casesdiscussion, establish basic business logic thinking, and find out different innovation models and cases
	Professional competence: Lack of industry experience and relevant technical knowledge	Interdisciplinarycourses selection can strengthen the application of different knowledge and broaden horizons
Teacher	Teaching intention: too much time investment will affect scientific research and career promotion	The curriculum will be taught by senior professors, or by employing senior entrepreneurship mentors and enterprise professionals
	Teachers' professional ability lacks of multiple knowledge background and enterprise industry knowledge	Cooperate with professors from other colleges to open courses, through using quality MOOC resources and network resources, to share experience or offer part-time teaching
	Lack of business networks and contacts	Invite outstanding entrepreneurial alumni to participate and obtain relevant resources through school's teaching enterprises
School	The Semester curriculum design and submission time of school final grades are not flexible, which cannot better cooperate with the curriculum operation and affect the teaching effect	The extension of due date for handing in grades to the end of the next term, it makes the curriculum to be more flexible

	The teaching evaluation method is not flexible enough. The workload is only calculated by teachers' courses. If entrepreneurial practice guidance and competition plans were not awarded, workload will not be counted	Such curriculum should not be calculated as teachers' teaching effectiveness in terms of teaching methods and hours, and should be results-oriented but include teachers' workload in terms of practical projects
	not encourage or provide venue and regulations for students' for-profit business activities	Provide a venue, for example business incubation base, and encourage students to start their own business in school.
Government & Society	Students are not encouraged to start their own businesses, and only guided by academic education. They do not attach importance to academic & entrepreneurship education.	Strengthen the entrepreneurial atmosphere and entrepreneurial practice, respond to and implement national policies, change the concept, so that school can further strengthen this course
	Various entrepreneurial incentives are not valued and appreciated by undergraduates' students.	Coordinate with government resources, implement various entrepreneurial policies for college students, also interpret policies and effectively support college students

3.2 Practice and development

3.2.1 Teacher

Teachers must study hard by themselves or be in more contact with the industry, therefore to obtain necessary experience, information or interpersonal relationship, so as to provide specific suggestions and guidance for different entrepreneurial ideas and teams, which can also relieve students' concerns and increase their confidence. Students are encouraged to change their employment concept into an active entrepreneurial orientation and take entrepreneurship as their career choice. The researchers found that the stronger the students' learning motivation was, the better their learning effect was, while the stronger their entrepreneurial tendency was, the better their learning effect was. Hence, personal aspect is a major factor in entrepreneurial study. So, it is necessary to cultivate students' professional qualities in disciplines, personal management, teamwork and so on.

Teachers should think about whether students' knowledge and ability to satisfy the goal of innovation and entrepreneurship required by the society, and teach students to think actively and set innovation and entrepreneurship goals that meet the demand of the society. Based on advanced educational concepts and teaching methods, innovative practical teaching modes are adopted, such as online learning, online credit, flipped classroom teaching, and teacher-assisted teaching, so as to improve teaching quality and efficiency. It is needed to strengthen teaching staff construction for innovation and entrepreneurship curriculum, establish a centralized training platform for teacher training and communication, train young teachers through entrepreneurship tutor training, and build qualified teachers.

3.2Curriculum

Build a linkage mechanism between online learning and offline teaching so as to achieve a comprehensive and systematic curriculum system for innovation and entrepreneurship. Through top-level design, task assignment, process monitoring and result management, it is necessary to arrange full-time entrepreneurial teachers to be in charge of the construction and implementation of specific curriculum. Through the introduction of external quality curriculum and self-built quality school-based curriculum, covering both online and offline modes, a curriculum system that meets the needs of school-based entrepreneurship and innovation will be established [14].

It is suggested to divide entrepreneurship curriculum into on-site teaching and off-site teaching. In the on-site teaching, some skills can be learned by the touch, taste and so on. The off-site part is learning without having to be on site. Both of these scenarios can be aided by online learning to reduce learning costs.

According to the demand of cultivating entrepreneurial ability, entrepreneurship education curriculum should be set up, and entrepreneurship education should be integrated into teaching activities, and teaching materials and methods should be designed. From the perspective of discipline, entrepreneurship ability effectively be blended into curriculum, including specialist curriculum or general curriculum, such as extra-curricular activities, community service, school competition, skill identification, etc., In order to efficiently develop their ability, it can simulate the enterprise's practice environment, and integrate enterprise activities into the students learning and living experience. For example, class management and development can be promoted in the way of enterprise innovation proposal. The curriculum design takes business plan as the central teaching method, and teaching methods include case, literature, discussion, entrepreneur speech, role playing, group collaboration and other real operations.

To build a platform based on advanced Internet technology and MOOC concept, the basic idea is to build a high-quality curriculum system with an entrepreneurial attitude, and reform the current teaching method with an innovative spirit. It is necessary to combine entrepreneurship theory with entrepreneurship practice, and combine talent cultivation with project transformation [15,16].

The general education on entrepreneurship should be provided to all students, and training and education of entrepreneurship elites should be provided to students with entrepreneurial intention, so as to provide professional guidance and incubation support for entrepreneurship students [17].

3.3 School

The improvement of school administrative work process and flexibility of regulations will be of huge importance to the establishment and success of such curriculum. And with the help of this kind of course, in addition to the experience of students, it also can lead to the establishment of school characteristic curriculum, which will be one of the most effective tools for school survival [18]. The expert group should be consisted by the enterprise managers and employees, government and education circle representatives, who will give all specific list for general entrepreneurship projects and professional entrepreneurship projects, so as to design entrepreneurial ability index in line with the industry and the student professional development needs and the course to cultivate entrepreneurial ability.

Stimulate students' creativity, strengthen the practice of innovating entrepreneurship, encourage and support students to participate in the National College Students' Innovation and Entrepreneurship Competition, support the holding of scientific and technological innovation, creative design, business plans and other competitions, so as to cultivate the new strength of mass entrepreneurship and innovation.

Provide fertile soil for college students to innovate and start businesses, hence cultivate campus entrepreneurship culture. Support college students to set up innovation and entrepreneurship associations and entrepreneurship club, and carry out related theme activities on campus. It is necessary to set up an innovation and entrepreneurship lecture hall and invite domestic renowned innovation and entrepreneurship experts to hold innovation and entrepreneurship lecture forum on a regular basis.

IV. CONCLUSION

The construction and practice of entrepreneurship education in China have achieved certain favorable results on the whole, however there are still many problems. Professor Timmons once pointed out that utilitarianism is the drawback of entrepreneurship education. In the earlier times, it is regarded as speed-up educational program for entrepreneurs. Entrepreneurship education must integrate entrepreneurship awareness and spirit into students' ideology and personal qualities, otherwise it will lead to a small number of entrepreneurial companies, most of which are survivable companies with a short life span and low level. The relevant investigation shows that the success rate of Chinese universities students' entrepreneurship is only 2%-3%. Secondly, entrepreneurship education has been incorporated into education and teaching objectives in many universities in China, but the curriculum structure of entrepreneurship education is scattered, incomplete and unscientific, and the curriculum evaluation system has not yet been formed. Entrepreneurship is a complex system, yet school entrepreneurship support system is not mature.

The PBL entrepreneurial education model is more flexible. According to the actual situation of entrepreneurship education and the existing problems, and combined with experience from other countries, it can further clarify entrepreneurship education concept and target localization, hence to further carry out the implementation mode of innovating curriculum, build mature entrepreneurship education curriculum system and diversified professional teachers, establish a standardized entrepreneurship education evaluation system with favorable entrepreneurship education culture atmosphere, eventually to establish a comprehensive entrepreneurial education support system.

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