

# Macro Construction of Innovation and Entrepreneurship Education Curriculum in Colleges and Universities

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**Abstract:** There are some problems in the curriculum of innovation and entrepreneurship education in colleges and universities in China, such as the imbalance of construction and development, the uncertainty of system and goal, and the fuzziness of module and construction. The main reasons include the concept of innovation and entrepreneurship has not been fully established, the lack of top-level design in the construction of innovation and entrepreneurship curriculum, and the lack of capacity in the construction of innovation and entrepreneurship curriculum in colleges and universities. We should persist in facing the future and all students, take the cultivation of college students' innovative consciousness and the improvement of entrepreneurial ability as the fundamental goal, and take the improvement of college teachers' innovative and entrepreneurial education concept and ability as the starting point, build characteristic innovative and entrepreneurial curriculum modules, develop professional innovative and entrepreneurial curriculum, and establish multi-level curriculum modules including general courses, professional courses and practical experience courses, lay a scientific foundation for innovation and entrepreneurship education.

**Keywords:** Innovation and entrepreneurship, Entrepreneurial quality, Curriculum, construct

## INTRODUCTION

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Innovation and entrepreneurship education is the basis for promoting "mass entrepreneurship and innovation" and the key to improving the innovation and entrepreneurship ability of the whole people, including college students [Yi, *et. al.*, 2012]. On May 4, 2015, the general office of the State Council issued "The implementation opinions on deepening the reform of innovation and entrepreneurship education in colleges and universities", which clearly put forward nine reform tasks and measures, including improving the quality standard of talent training, innovative talent training mechanism, improving the curriculum system of innovation and entrepreneurship education, reforming teaching methods and assessment methods, strengthening innovation and entrepreneurship practice, reforming the teaching and student status management system, strengthening the construction of teachers' innovation and entrepreneurship education teaching ability, improving students' entrepreneurship education services, and improving the innovation and entrepreneurship fund support and policy guarantee system [Liu Bo, *et. al.*, 2017]. It points out the direction for improving the quality of innovation and entrepreneurship education and the level of talent training in colleges and universities [Mao, 2011]. At present, colleges and universities in China generally strengthen the innovation and entrepreneurship

education of college students, build a characteristic innovation and entrepreneurship education system suitable for different students' training levels from the aspects of innovation and entrepreneurship courses, teachers, teaching and assessment methods, and some demonstration colleges and universities have emerged. Generally speaking, China's colleges and universities have initially explored the construction of a multi-level innovation and entrepreneurship curriculum system, but also face many problems, which need to be further improved and solved.

## REFLECTION ON THE CURRENT SITUATION OF INNOVATION AND ENTREPRENEURSHIP EDUCATION CURRICULUM CONSTRUCTION IN CHINA

In recent years, China's colleges and universities generally attach importance to innovation and entrepreneurship education, take the innovation and entrepreneurship curriculum construction as the central link, and preliminarily establish the curriculum system through learning and reference. However, on the whole, there are some problems, such as uneven development among colleges and universities, unclear objectives of curriculum construction, fuzziness of curriculum module and construction, which restrict the development of innovation and entrepreneurship education in colleges and universities.

(1) Imbalance between curriculum construction and development

China's innovation and entrepreneurship education started not too late, but innovation education mainly depends on the traction of various competitions, while entrepreneurship education has been incorporated into

college students' employment guidance and has not been regarded as a relatively independent curriculum system or discipline branch. In recent years, except Tsinghua University, Zhejiang University, Central South University and other colleges and universities that paid early attention to and committed to the construction of "innovation and entrepreneurship education curriculum system", most colleges and universities have not yet established an innovation and entrepreneurship education curriculum system suitable for the training level and characteristics of their students, and even opened one or two courses [Cha, *et al.*, 2016]. Taking the 99 demonstration universities for deepening innovation and entrepreneurship education reform announced by the Ministry of Education in February 2017 as an example, few universities have established a more systematic curriculum system, and most of them are still in the exploration stage of macro problems such as ideas. Of course, certain curriculum design ideas have been formed, but generally speaking, on the one hand, the innovation and entrepreneurship curriculum system of these 99 demonstration universities is homogeneous. Moreover, the curriculum system of more mature colleges and universities is relatively comprehensive, and other colleges and universities are in the stage of "making up for their shortcomings"; On the other hand, according to the data released on the official website of the Ministry of Education, as of May 30, 2016, there were 2879 colleges and universities in China, including 2595 ordinary colleges and universities (including 266 independent colleges) and 284 adult colleges and universities. There was a large gap between the innovation and entrepreneurship education (including curriculum system) of most colleges and universities and these 99 demonstration colleges and universities. Therefore, innovation and entrepreneurship education is still in the stage of concept discussion and preliminary exploration, and the construction and development of the corresponding curriculum system are quite unbalanced.

#### (2) Ambiguity of curriculum system and objectives

In the primary stage of the development of innovation and entrepreneurship education, facing the conflict and integration of multiple needs and purposes, the government and colleges and universities cannot ignore the employment of college students, and the employment problem is an important research content of macroeconomics. The overall level of employment, the number of employees and unemployment rate, unemployment and inflation are important objects of the government's macro-control. Entrepreneurship is an important aspect of promoting employment. However, in the stage when the concept has not been completely changed and college students' entrepreneurship has not yet formed a more systematic regulation support and practical application, it still needs a long way to go to achieve the goal of innovation and entrepreneurship education put forward

by Timmons. This determines the consistency between the current goal or short-term goal of innovation and entrepreneurship education and the long-term goal, and then determines the fuzziness of the goal of curriculum construction: whether to provide skill support for diversified employment or improve the long-term entrepreneurial quality of college students? Theoretically speaking, there may not be a conflict between these two aspects, but for college students, "What is the purpose of learning a course", which is the main driving force of students to choose courses, and also related to which courses should be offered in colleges and universities and the construction of corresponding curriculum system to a certain extent. In addition to interests, most students may pay more attention to the "usefulness" of course learning, which mainly comes from the short-term and predictable judgment of college students. Unless a small number of students who have basically established the career planning of future entrepreneurship at the beginning and lower grades, most students have a hazy understanding. Courses that cannot arouse students' enthusiasm or with a small number of electives may not be necessary or impossible to set up. Therefore, the creation and system construction of college students' innovation and entrepreneurship courses are related to the current macro needs of college students and restricted by the objectives of innovation and entrepreneurship education.

#### (3) Fuzziness of curriculum module and construction

The problems directly faced by the construction of innovation and entrepreneurship education curriculum system are "What courses to set up", "How many curriculum modules to set up", "What time period the courses in each curriculum module is carried out", "How to start the courses", and so on, while the curriculum module is the most important one. What are the educational objectives of each curriculum module, which aspects of college students' abilities are aimed at improving, and what are the connections and differences between different curriculum modules? Such issues have not yet reached a consensus. "Diversity" and "characteristics" are valuable, but if these basic problems can not be solved, they may affect the construction of the innovation and entrepreneurship education curriculum system, and even take it as a "pocket". Under a certain module, the relevant courses will be included, which will eventually lead to "no characteristics" and "no new ideas", just "change in form but not in content". It weakens the basic characteristics of innovation and entrepreneurship education, and it is impossible to take it as an independent discipline [Yun, *et al.*, 2022]. For example, some colleges and universities have established curriculum modules such as general education, professional education, comprehensive quality education, preliminary scientific research thinking/cooperative education, innovation penetration

education and entrepreneurship/service education. However, professional education and innovation and entrepreneurship practice are set up by colleges, and there is still pluralistic and decentralized fuzziness in the integration of entrepreneurship courses (divided into general courses and practical courses) and professional courses, which restricts people's basic cognition of innovation and entrepreneurship education.

### **CAUSES OF PROBLEMS IN THE CONSTRUCTION OF INNOVATION AND ENTREPRENEURSHIP CURRICULUM IN COLLEGES AND UNIVERSITIES**

The fundamental reason for the above major problems faced by innovation and entrepreneurship education and curriculum construction in colleges and universities in China is that innovation and entrepreneurship education started late. Colleges and universities have a deep understanding of the concept of "innovation", but the research on "entrepreneurship", especially college students' entrepreneurship, is still relatively late. At present, most colleges and universities do not have sufficient innovation and entrepreneurship curriculum education ability. At the same time, subject to multiple factors, it is difficult to take entrepreneurship awareness and entrepreneurship ability as the fundamental goal of innovation and entrepreneurship curriculum education.

#### **The concept of innovation and entrepreneurship has not been fully established**

Relatively speaking, colleges and universities pay more attention to the innovative education of college students. Relying on various competition projects, functional departments of colleges and universities (such as graduate school, Ministry of learning and work, Youth League Committee, Academic Affairs Office, Scientific Research Office, etc.) and colleges and departments organize innovative competitions to encourage students to do innovative projects, publish papers and apply for patents. At present, in some qualified colleges and universities, teachers who apply for the project will also include students with training potential into the project group, take the initiative to lead students and cultivate students' innovative thinking and ability as soon as possible. This can be regarded as the "should be" extension of the traditional education model. For undergraduates, it is not only to learn the repeatedly verified and relatively stable knowledge, but also to cultivate their innovative spirit and application ability. Moreover, this can be completed in the school and the initial effect can be seen. It can not only increase a certain "capital" for college students' "job search" and employment, but also reserve for postgraduate entrance examination and further study. Therefore, in the transition period from "innovation" to "innovation and entrepreneurship", the

"innovative entrepreneurship model" is more common, which essentially adheres to the development route of "innovation and entrepreneurship". There is no mature view on what concept college students' innovation and entrepreneurship education should adhere to and how to coordinate the relationship between professional learning and entrepreneurship education. In other words, the use of professional knowledge for entrepreneurship to promote employment is the perfect combination of professional learning, innovation and entrepreneurship, but the identification and selection of entrepreneurial opportunities may not be consistent with the major, resulting in the "seamless connection" of professional education, innovation education and entrepreneurship education, and it is difficult to form a consensus on curriculum construction under the guidance of unified ideas.

#### **The construction of innovation and entrepreneurship curriculum lacks top-level design**

The goal of college students' entrepreneurship is to face the market, set up enterprises and other commercial entities, and realize commercial operation for the purpose of profit. At present, the university entrepreneurship incubation center pays more attention to providing a comprehensive guidance and service platform for college students interested in entrepreneurship, which has strong practicality and applicability. Innovation and entrepreneurship education, especially curriculum education, is still in the exploratory stage, and has not formed a systematic top-level design. As far as the construction of curriculum systematization is concerned, in addition to "The syllabus of 'entrepreneurship foundation' (Trial)" issued by the general office of the Ministry of Education, some colleges and universities have organized and compiled some teaching materials, such as "Entrepreneurship", "entrepreneurship skills", "Innovation and entrepreneurship thinking development and skill training", "starting a new enterprise", "Entrepreneurship opportunities", "Enterprise growth management", "Start-up enterprise investment", "Introduction to start-up enterprise equity", "Marketing of start-up enterprises", "Legal practice of college students' entrepreneurship", etc. However, there is no consensus on which courses should be built in innovation and entrepreneurship education and whether there are main courses. The degree graduate education of entrepreneurship education has been carried out in famous universities such as Harvard Business School, University of Chicago and Northwestern University in the United States. Universities try to cultivate professional education talents related to entrepreneurship by setting professional degrees for entrepreneurship. The Shenzhen Graduate School of Tsinghua University also plans to launch the master's degree program of entrepreneurship management. In this regard, we should take the lead in systematically designing the

innovation and entrepreneurship courses for college students to form a mature education and even discipline model.

Lack of innovation and entrepreneurship curriculum construction ability in colleges and universities

The construction of "integrated" and "embedded" innovation and entrepreneurship education curriculum system is the main direction of theoretical research. Innovation and entrepreneurship curriculum should be integrated with professional education and practical education. However, at present, the actual conditions such as teachers, teaching mode and curriculum design in most colleges and universities still can not meet this requirement. First of all, the vast majority of teachers have no entrepreneurial experience and lack of understanding of entrepreneurship. Even some teachers hold an opposition or exclusion attitude towards college students' entrepreneurship itself, believing that college students should cherish their time, learn their major well and lay a good foundation, rather than devote too much energy to "entrepreneurship" so as to "neglect their studies". Secondly, there is still a shortage of innovation and entrepreneurship education courses. Most colleges and universities classify curriculum education into the school of economics and management, and the courses they offer are not much different from the professional courses of the school, or in essence, they offer some management courses for students majoring in non economic management, but most of these courses are aimed at mature enterprises. College students' entrepreneurship focuses on "creation", which is a process from scratch. Such courses have not been comprehensively studied and compiled, and the courses that have been opened have not been widely used. Finally, the most fundamental thing is that college students' innovation and entrepreneurship education should be integrated with professional education, and the professional education of colleges and universities has the homogenization phenomenon of "large and complete" and "uniformity", which can not highlight the characteristic needs of the industry, and it is difficult to provide professional support for innovation and entrepreneurship education. Therefore, the goal of entrepreneurship education course learning in colleges and universities should be to enable college students to have a more comprehensive understanding of the enterprise business environment and internal operation mechanism, and initially have the basic ability to start a new enterprise and start a business when they graduate. Independent entrepreneurship should be a natural result.

#### **EXPLORATION ON THE CONSTRUCTION OF COLLEGE STUDENTS' INNOVATION AND ENTREPRENEURSHIP CURRICULUM**

After Premier Li Keqiang first put forward the concept of "mass entrepreneurship and innovation" at

the Summer Davos Forum in 2014, the Ministry of Education issued the newly revised "Regulations on the administration of students in ordinary colleges and universities" on February 4, 2017, which stipulates that freshmen can apply to retain their admission qualifications or apply for suspension after admission to innovate and start a business, and provide institutional support from the aspects of flexible school system, transfer of majors, conversion of credits, school innovation and entrepreneurship education, etc. This means that innovation and entrepreneurship in colleges and universities with curriculum construction as the core will usher in new opportunities. It is also urgent to put on a new agenda to further improve the quality and level of innovation and entrepreneurship education.

(1) Establish a clear concept of innovation and entrepreneurship curriculum construction

With the in-depth reform of the market economy, various forms of economies composed of individuals will become the most dynamic and active social "cells", and the expansion of independent entrepreneurship groups will become the general trend. The remarkable characteristics of "cross-border integration, innovation-driven, reshaping structure, respecting humanity, opening ecology and connecting everything" in the Internet era require that social services are no longer confined to "standard" programs, but "personalized services" based on "on-demand", which will provide a broad world for micro-economies, and college students will become the main force of micro-economies based on "innovation-driven" in the future. Therefore, as a kind of "education", the construction of innovation and entrepreneurship curriculum should focus on the future, aiming to stimulate college students' awareness of innovation and entrepreneurship and bury a seed of entrepreneurship in their hearts. Even college students can have the awareness and ability of independent entrepreneurship at a certain stage of career development through job hunting, rather than just taking the "education" as an applicable skill or means of livelihood. The cultivation of innovative and entrepreneurial talents can not be limited to the present, which is equivalent to college students' independent entrepreneurship after graduation, but an idea education and quality education for all college students, which is closely related to college students' life development and future career development.

(2) Improving the innovation and entrepreneurship education ability of college teachers

The quality of college students' innovation and entrepreneurship education largely depends on the ability and level of college teachers. Innovation and entrepreneurship education is a major event related to the training quality of college students and the common cause of all teachers. Whether professional teachers in colleges and universities can choose the projects with market prospects to research, guide and drive college

students to carry out entrepreneurial practice, and transform these scientific research achievements into economic and social benefits is not only a test of the comprehensive ability of college teachers, but also the key to promoting innovation and entrepreneurship education. College students' entrepreneurship should focus on "creativity", "innovation" and "creation", with ideas, innovations, characteristics and standards. This kind of thinking, consciousness and ability are formed through the subtle influence of university education. College teachers should take this as their mission, which is "preaching". As for the construction of innovation and entrepreneurship courses for college students, on the one hand, it is suggested to compile national planning textbooks, entrust or organize university expert teams to develop and establish a complete curriculum system, and carry out top-level design of innovation and entrepreneurship education courses; On the other hand, the key to the development of innovation and entrepreneurship education in colleges and universities lies in the strength of teachers in the university. For the current situation that college teachers generally lack entrepreneurial experience, we can appropriately increase the "Engineering" training of teachers, cooperate with well-known enterprises, expand two-way exchanges, and improve the entrepreneurial guidance ability of college teachers.

### (3) Constructing characteristic innovation and entrepreneurship curriculum module

Innovation and entrepreneurship curriculum module and system are the basis for the formation of innovation and entrepreneurship education. On the basis of unified planning and top-level design of innovation and entrepreneurship courses, colleges and universities can construct corresponding curriculum modules according to school running characteristics. There are both similarities and differences in the construction of innovation and entrepreneurship curriculum modules in colleges and universities at home and abroad. For example, Stanford attaches great importance to cultivating thinking ability and expanding discipline vision. The curriculum is characterized by "transcending discipline boundaries, expanding basic knowledge and optimizing knowledge results". The curriculum system mainly includes public compulsory courses, general compulsory courses, professional compulsory courses, professional elective courses and practical activities courses. Professional compulsory courses are offered by secondary colleges such as business school, humanities school and engineering school. The business school "opened 10 categories and 574 courses in 2015-2016 academic year." Generally speaking, American colleges and universities usually set up 4-5 core courses first, and then combine the courses according to the characteristics of each school. They can be roughly divided into four types: Entrepreneurial awareness, entrepreneurial knowledge, entrepreneurial ability and quality, and entrepreneurial practice. Domestic universities have established three

modules: basic courses, professional courses and practical courses. For example, Tsinghua University has set up general courses, skill courses and practical courses for undergraduates, postgraduates and MBA innovation and entrepreneurship respectively. Generally speaking, the innovation and entrepreneurship courses in colleges and universities in China can be divided into three modules: general courses, professional courses and practical experience courses. Among them, general courses are the "foundation" of innovation and entrepreneurship education, which specializes in teaching the basic knowledge of innovation and entrepreneurship, and the other two modules are specially opened according to the professional direction.

### (4) Develop specialized innovation and entrepreneurship courses

For college students, due to the differences of majors, especially disciplines, the innovation and entrepreneurship course integrated with their major should be the most concerned and attractive. On the basis of setting up general courses, colleges and universities should focus on professional courses, especially fully mobilize and organize professional teachers in each college, integrate innovation and entrepreneurship education with professional courses, and set up 2-3 courses specifically, which should be included in the syllabus of professional courses. The lecture notes can be prepared by the professional teachers themselves. When the conditions are ripe, they can publish teaching materials independently to create innovation and entrepreneurship courses consistent with the mainstream employment direction. College students can start their own businesses at any time after graduation. For the students with different majors, they can freely choose their favorite disciplines and professional directions, and take the innovation and entrepreneurship courses offered by this major. In addition, practical experience courses should also be integrated with professional education. The teaching and research offices of various majors can organize students to conduct practical research, internship, special lectures of enterprise tutors, etc., so as to understand the development status and Prospect of this major and the basic situation of enterprise operation.

## CONCLUSION

The innovation and entrepreneurship education in Colleges and universities in China started relatively late, and the curriculum construction is in the preliminary exploration stage, and a relatively mature curriculum module and system have not been formed. However, under the guidance of the concept of "mass entrepreneurship and innovation", colleges and universities have taken innovation and entrepreneurship education as an important part of improving the quality of college students, and the curriculum construction has been generally put on the agenda. Some colleges and universities have explored

a relatively stable curriculum module system. In general, the construction of innovation and entrepreneurship courses in colleges and universities in China should be based on the school running direction and characteristics of colleges and universities, adhere to the goal of entrepreneurship awareness training and ability improvement, integrate innovation and entrepreneurship with professional education, create a multi-module and multi-level innovation and entrepreneurship curriculum system with the characteristics of the university, stimulate college students' innovation and entrepreneurship awareness, teach basic knowledge, help them participate in entrepreneurship practice, and effectively improve their innovation and entrepreneurship ability.

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