

# Construction of Innovation and Entrepreneurship Education System for Local Application-oriented University in China

Tao Chen<sup>1\*</sup>, Hui Zhao<sup>1</sup>, Yan Huo<sup>2</sup>, Guohai Zhang<sup>3</sup>

<sup>1</sup>School of Mathematics and Computer Science, Shaanxi University of Technology, Hanzhong, 723000, China

<sup>2</sup>School of Management, Shaanxi University of Technology, Hanzhong, 723000, China

<sup>3</sup>School of Mechanical Engineering, Shaanxi University of Technology, Hanzhong, 723000, China

\*Corresponding author e-mail: chentao@snut.edu.cn

**Abstract:** Innovation and entrepreneurship education is a new concept of education, which aims to cultivate applied talents with innovation spirit, innovation awareness, and innovation and entrepreneurial ability. By analyzing the characteristics of local application-oriented universities, this paper constructs a multi-level and stereoscopic innovation and entrepreneurship education system which consists of target system, course system, practice system, guarantee system and evaluation system, providing high-quality design and practical guidance for the reform of innovation and entrepreneurship education which we will comprehensively deepen.

**Keywords:** Innovation and entrepreneurship; Education; System; Model.

## 1. Introduction

In 2015, the General Office of the State Council issued the Opinions on the Implementation of Deepening the Reform of Innovation and Entrepreneurship Education in Colleges and Universities, and made definite requirements for deepening the reform of innovation and entrepreneurship education in colleges and universities, and the reform was considered as a breakthrough which could stimulate the comprehensive reform of higher education positively, promote the reform of innovation and entrepreneurship education, cultivate high-quality innovation talents, accelerate the comprehensive development of students and help them get access to high-quality employment and entrepreneurship [1-3].

Since then, the reform of innovation and entrepreneurship education got fully developed on the campuses which aroused the interests of many educators. Especially the research of innovation and entrepreneurship education system, which provides the high-quality design of deepening innovation and entrepreneurship education reform, has become the hot topic and got much attention. Wang Zhanren proposed the innovation and entrepreneurship education system of “common knowledge”, “embedded model”, “specialty” and “profession” [4]; Xu Litang et al have built the innovation and entrepreneurship education system consisting of goal, process, guarantee and evaluation[5]; Li Shizhen proposed the innovation and entrepreneurship education system of "one core, three platforms, nine modules"[6]; Li Xiaohua and other educators built an innovation and entrepreneurship education system from the perspectives of goals, curriculum and practice platforms, etc [7].

## 2. Construction of Innovation and Entrepreneurship Education System

Innovation and entrepreneurship education combines innovation education with entrepreneurship education, aiming to develop the students' innovative spirit, innovative awareness and entrepreneurial ability [7]. This paper will build a multi-level and stereoscopic innovation and entrepreneurship education system with target system, course system, practice system, guarantee system and evaluation system, actively push forward the further development of innovation and entrepreneurship education.

### 2.1 The target system of innovation and entrepreneurship education

The targets of innovation and entrepreneurship education are to cultivate talents with comprehensive quality to innovate and start business, focus on developing the college students' spirit, awareness, knowledge, abilities and character of entrepreneurship innovation, and form a “five-in-one” concept of innovation and entrepreneurship education [8].

(1) Inspire the students' awareness of innovation and entrepreneurship activities. Inspiring the college students' awareness of innovation and entrepreneurship is the starting of the innovation and entrepreneurship education, including the needs, motivation, interest and ideals of innovation and entrepreneurship activities.

(2) Cultivate the spirit of innovation and entrepreneurship. The spirit of innovation and entrepreneurship refers to the necessary spirit of innovation, the spirit of being brave enough to bear all kinds of uncertainties, the spirit of dedication, the spirit of cooperation and the strong sense of social responsibility in the process of entrepreneurship, among which the spirit of innovation is the core.

(3) Enrich the knowledge of innovation and entrepreneurship. It is the main task of innovation and entrepreneurship education, and mainly about professional or vocational knowledge, business management and other comprehensive knowledge. It plays a crucial role in innovation and entrepreneurship activities and always affects the innovation and entrepreneurship activities.

(4) Enhance the ability of innovation and starting business. It is mainly about the ability of innovation, planning, coordinating and organizing. It determines whether the innovative and entrepreneurial activities can be smoothly implemented and effectively completed.

(5) Develop the college students' qualities of innovation and entrepreneurship activities. It is the key task in innovation and entrepreneurship education, including the abilities to grasp entrepreneurial opportunities, hand over the entrepreneurial risks, bear the entrepreneurial responsibility, maintain the innovation and entrepreneurship passion, and adhere to the innovation and entrepreneurship. It is an important guarantee and support for the college students to achieve successful jobs in innovation and entrepreneurship activities.

### 2.2 The courses system of innovation and entrepreneurship education

The courses system is the way to achieve the education objectives, and is the key to ensure high-quality education and improve the education quality in the teaching activities, including theoretical knowledge, practical skills and culture and environment courses. Figure 1 shows the target system of innovation and entrepreneurship education

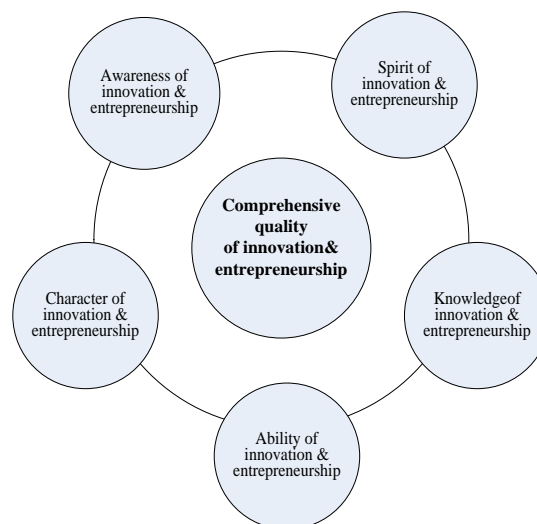


Figure 1: The target system of innovation and entrepreneurship education

#### 2.2.1 Theoretical knowledge courses

1) Set general education courses. First of all, for the freshman, we should set cultural, art and general science courses on economics, management, psychology, laws, philosophy, public relations,

aesthetics and history, to broaden the students' knowledge and arouse their innovate entrepreneurial interest and cultivate their awareness of innovation and entrepreneurship. Secondly, we should set creative general education curriculum, such as innovation foundation, innovative thinking introduction, innovative education, and technological innovation for freshmen and sophomores, cultivating their innovative and entrepreneurial awareness, making them get access to innovation and entrepreneurship, stimulating their creative potential, encouraging them to criticize and open up the thinking, and changing their rigid thinking patterns. Finally, for the junior and senior students, we should give them guiding about career planning, entrepreneurial foundation, entrepreneurship management, case analysis and entrepreneurial simulation and other entrepreneurial general courses, to meet their basic needs to start business, and rouse their interests of innovation, entrepreneurship and ideas.

2) Set professional courses for innovation. On one hand, for the training program, considering the characteristics of specialties, we should set the courses on professional innovation and entrepreneurship activities; on the other hand, we should explore and enrich the resources of various professional courses for innovation and entrepreneurship education, make the professional courses teach the knowledge, and combine the innovative entrepreneurial ideas and methods into the content and teaching of the courses, strengthening innovation and entrepreneurship education in the process of teaching professional knowledge [9].

### ***2.2.2 Practical skills courses***

1) Set professional practice courses. The courses of various professional cognition, basic experiments, comprehensive training, internships, graduation design and other courses would help develop the students' basic professional skills, core skills, skills for jobs and the abilities to make comprehensive designs to solve real problems, and the abilities to apply the knowledge, making them master the skillful skills in the practice activities, enhancing their basic skills, and their basic ability to practice and to apply the comprehensive knowledge.

2) Set practical courses in science and technology competition. It is mainly about innovation and entrepreneurship technology competitions and simulation practice activities. The former includes a various of competitions of innovation and entrepreneurship, training projects, creative contests and extracurricular works competition for college students, also the forums, lectures, presentations and experience sharing sessions about innovation and entrepreneurship activities. The later can be conducted by the simulations of computer software such as entrepreneurial star, ERP sand table, BIZSIM enterprise competition, etc. Besides, we can offer the students the internship in the science parks and have them plan for the small and micro enterprises or do management jobs the enterprises, so as to fully stimulate the college students' passion for innovation and entrepreneurship activities, help them explore their potential ability of innovation and start business, and improve their ability to innovate and start business in practice.

### ***2.2.3 Culture and environment courses***

This kind of courses is recessive, whose purposes are to build an friendly environment and atmosphere to the development of innovation and entrepreneurship activities, subtly developing the college students' innovation and entrepreneurial awareness, and improving their ability of innovation and to start business gradually. The campus culture should be the support of innovation and entrepreneurship education and make it fit for the school spirit, teaching style and academic atmosphere, creating a positive, interactive and harmonious innovation and entrepreneurial public atmosphere and psychological environment. In addition, the teamwork between teachers and students, the optimistic public opinion, the firm and correct faith can be the potential powers, educating and influencing the students and creating the friendly environment for innovation and entrepreneurial activities in a recessive way.

## ***2.3 The practice system of innovation and entrepreneurship education***

The practice system of innovation and entrepreneurship education means that the teaching and activity system for innovation and entrepreneurship education changes gradually, from a basic and simple system to a further and complex one. Through this system, we will integrate the professional teaching activities, social practice activities, practical training activities, scientific research activities, and entrepreneurial practice activities to create a step-by-step practical innovation and entrepreneurship education for practical activities. Aiming at the goal of innovation and entrepreneurship education, we will explore the way to combine the innovation and entrepreneurship practice activities with professional practice teaching, and construct the practice teaching system (platform) of innovation and

entrepreneurship education in four ways: the basic experimental teaching, the creative experimental teaching, the social practice teaching and the cooperative practical teaching [10]. Figure 2 shows the chart of practice system of innovation and entrepreneurship education.

**2.4 The guarantee system of innovation and entrepreneurship education**

The innovation and entrepreneurship education is “open”, so it is necessary to establish a collaborative “three-in-one” guarantee system, which involves the universities, the governments and the society, for innovation and entrepreneurship education, and promote the stable, rapid and efficient development of innovation and entrepreneurship education [11].

(1) System guarantee for innovation and entrepreneurship education. The innovation and entrepreneurship education should be established by the governments, the universities and the society, with the government playing the leading role, the universities as the main places and the society as the platform.

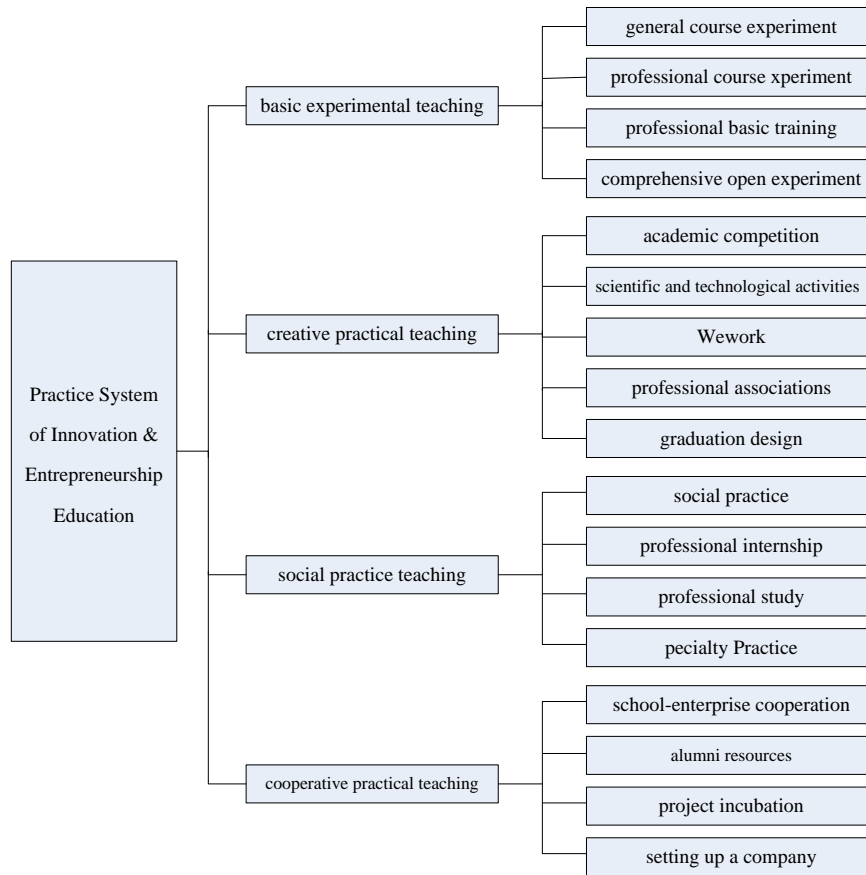


Figure 2. The structure of practice system of innovation & entrepreneurship education

(2) Teacher guarantee for innovation and entrepreneurship education. First of all, it is necessary to help the faculties to know more about the innovation and entrepreneurship education, and continuously improve the ability. Second, we should make big effort to train the teachers for providing better faculty f. Finally, we should establish a full-time faculty for the innovative entrepreneurship courses.

(3) Service guarantee for innovation and entrepreneurship education. First of all, we will establish the intermediary service institutions to provide guaranteed loans and consultation service on business, taxation and other aspects. Secondly, we should establish service platform and network information platform for collecting, organizing and summarizing the information related to the innovation and entrepreneurship activities, and providing timely information about the exploration markets and policies, etc. Finally, we should establish the technology guarantee to provide them with technology and intellectual resources, instruments and other hardware.

### 2.5 The evaluation system of innovation and entrepreneurship education

We improve continuously the quality and level of innovation and entrepreneurship education by scientific and reasonable evaluation.

(1) Establish a correct evaluation view. To make out the evaluation of innovation and entrepreneurship education developed, we must set correct value of evaluation, namely: the correct values, the accurate functional orientation, and the scientific quality standards. The correct value of evaluation determines the purposes, contents and methods of evaluation.

(2) Establish diversified evaluation subjects. The multi-level system of evaluation subjects of innovation and entrepreneurship education consist of the government, media, intermediaries, and scholars. The evaluation subjects of innovation and entrepreneurship education are diversified and complementary.

(3) Choose the right content and time to evaluate. The innovation and entrepreneurship education in universities is significantly delayed. So it is impossible to evaluate it at the beginning or in the first phrase. Therefore, it is extremely important to determine what to evaluate and when to do so.

(4) Establish the working mechanism of innovation and entrepreneurship education evaluation. First of all, we must set a complete evaluation indicator system. Second, we must constantly innovate the way of evaluation to ensure that the survey statistics are comprehensive and effective.

### 3. Summary

Innovation and entrepreneurship education is important for cultivating high-quality, innovative application-oriented talents, and it deepens and specifies the quality education. The colleges and universities should choose the suitable model of innovation and entrepreneurship education which fits their orientations and running conditions. We need to design the innovation and entrepreneurship education overall for cultivating talents, emphasize the combination of the first classroom and the second classroom, practice under the guide of theories, carry out the education models on and off campus, and establish the system of innovation and entrepreneurship education, promoting further innovation and entrepreneurship education.

### Acknowledgment

This work is supported by Research Project on Teaching Reform of Higher Education in Shaanxi (19BZ048, 19BY109).

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