



Building an Innovative Entrepreneurship Education Ecosystem Based on an Employment Perspective

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Abstract: Innovation and entrepreneurship education is to cultivate future-oriented and high-quality talents, which can effectively improve the high-end ability indicators in the human resource value assessment function of college students and promote high-quality employment of college students. This paper mainly discusses the construction principle, construction elements and construction path of innovation and entrepreneurship education ecosystem based on employment perspective, which provides new ideas and perspectives for innovation and entrepreneurship education.

Keywords: Innovation and Entrepreneurship Education; Ecosystem Construction; Principles; Elements; Paths

1. Introduction

The central government and the State Council have repeatedly mentioned in their documents the need to implement the policy of giving priority to employment, strengthen the coordination of the policies of various departments, target key groups such as college graduates, focus on stimulating the vitality of micro-entities, especially private enterprises, cultivate more new industries and new business models, drive employment through “double creation”, and achieve simultaneous improvement in employment quantity and employment quality. The aim is to promote employment through “dual innovation” and achieve simultaneous improvement in the quantity and quality of employment. Innovation and entrepreneurship education are to cultivate future-oriented and high-quality talents, which can effectively improve the high-end ability indicators in the human resource value assessment function of university students and promote high-quality employment of university students. Therefore, it is of great theoretical and practical significance to study the construction of an education ecosystem based on the employment perspective of “dual-innovation”.

2. Principles of constructing an innovation and entrepreneurship education ecosystem based on the perspective of employment

The construction of the innovation and entrepreneurship education ecosystem based on the perspective of employment should follow the following principles: 1. The principle of consistent objectives. Analyzed from the perspective of the main body, the main bodies of the innovation and entrepreneurship education ecosystem in colleges and universities include the government, colleges and universities, enterprises and students. All the elements of the innovation and entrepreneurship education ecosystem have the same goal, and their goal is to obtain benefits at a certain level to meet the needs of society. The university should provide a platform and environment for the system to effectively play the functions of each main element, and give full play to its own advantages of encompassing knowledge and gathering talents, and rely on its social status to coordinate with other positions, such as government agencies and

enterprises. Universities need policy support from the government and financial investment from enterprises, so as to integrate resources from outside, expand the platform for innovation and entrepreneurship education, and give full play to the core competencies of the main elements to match the needs of society, so as to deliver talents cultivated by professional systems to society, so as to promote the development of society, realize economic income and achieve the purpose of innovation and entrepreneurship education; 3. The principle of knowledge relevance. The explicit and implicit knowledge in each subsystem of the innovation and entrepreneurship education ecosystem includes theoretical knowledge, management knowledge and technical knowledge, which can only be maximized in value if they are interrelated and work together.

3. Building elements of the innovation and entrepreneurship education ecosystem based on the perspective of employment

A system is composed of several closely related and interacting elements, and a single subset is unable to form a system. In other words, there are several related subsets within the system, which, from a biological perspective, means that the elements are interconnected through the nutrition delivered by the food web, thus ensuring a balanced nutrition within the system. In this paper, we discuss the components of the innovation and entrepreneurship education ecosystem from the perspective of biology.

3.1 Producers: Universities

From the perspective of the ecosystem, a producer is a party that converts inorganic matter into organic matter through photosynthesis, and in the process converts solar and chemical energy, in order to provide other organisms with the material energy they need for life while ensuring their own growth.

If we take the ecosystem as an analogy, the university plays the role of a “seed breeder” and a producer. The “seed breeder” sows the seeds and fertilizes them carefully to produce quality plants, so the “seed breeder” can, to a certain extent, determine the quality of the seeds. The same applies to universities, where students are the seeds and universities are the seed breeders. At the beginning of the cultivation process, all universities have to do is to formulate their own cultivation goals and plans, and then choose appropriate cultivation methods and methods according to the cultivation goals, and carry out manual cultivation in a scientific and reasonable manner. In this process, the “seed breeder” will be able to produce the best results, i.e. the best talents. In this process, the growth of “seeds” is also affected by the environment and weather. Therefore, when nurturing students, universities should pay attention to and rely on the policy environment constructed by the government, and deliver the necessary nutrients to “seeds” according to the changes of the environment, i.e. the resources and conditions required by the main students. In this regard, universities should pay attention to and rely on the policy environment constructed by the government to provide the seeds with the necessary nutrients, i.e. the resources and conditions required by the students.

The main factors affecting the promotion of innovation and entrepreneurship education in universities are the following: institutional factors, inheritance factors and educational factors. Universities need to be self-sufficient on the one hand, and supply energy to consumers and decomposers on the other, in order to ensure the balance of the ecosystem, in four specific ways.

1. Clearly define the goals of cultivation and separate individual goals from common goals. Universities should implement differentiated curriculum structure settings, earnestly implement the unified design of the Ministry of Education’s innovation and entrepreneurship education programme according to the requirements of innovation and entrepreneurship education objectives, and realise common goals of cultivation; at the same time, refine innovation and entrepreneurship education-related courses according to students’ actual situation and learning interests, and set up different categories of innovation and entrepreneurship education courses; 2. Introduce and cultivate “academic entrepreneurs” and improve teachers’ cultivation skills. Teachers of innovation and entrepreneurship education are different from traditional academic research teachers, who not only have professional knowledge, but also have to

participate in innovative entrepreneurial business activities of enterprises beyond academic research, so it can be said that teachers of entrepreneurship education are “academic entrepreneurs”. To this end, universities should adopt an incentive system to encourage teachers to go out and allow university teachers to set up enterprises in addition to their academic research; 3. Increase the construction of infrastructure such as business incubation bases and business guidance agencies to enrich the means of cultivation

The business incubation base is a training ground for students to practice entrepreneurship. Only after systematic business coaching and rehearsal can students become successful entrepreneurs; 4. Adopt the education method of “guide, learn and do” to change the traditional education mode. When teaching innovation and entrepreneurship education, teachers in higher education should firstly “guide”, secondly “learn” and thirdly “do”.

3.2 Consumer: the student

From the perspective of the ecosystem, consumers can only obtain their own needs by consuming energy directly or indirectly from other organisms in order to ensure their growth.

In the ecosystem of innovation and entrepreneurship education, students play the role of consumers and “seeds”, and for the “seeds” to germinate and grow into huge trees, they cannot do so without the careful cultivation and energy supply of “seed trainers”. On the other hand, they need to rely on their own perseverance to adapt to changes in the environment and learn to find their own resources to help them grow. As a new teaching concept and model, innovation and entrepreneurship education should optimize its teaching methods and content, transfer knowledge and skills in a scientific way, and include innovation knowledge and skills courses in talent training programmes, so as to be “teachable”, “installable” and “trainable”. The programme is designed to ensure that students’ innovative and entrepreneurial abilities are enhanced through a “teachable”, “inculcable” and “cultivable” talent training programme.

From the students’ perspective, the main influencing factors of innovation and entrepreneurship education include innovation and entrepreneurial spirit, innovation and entrepreneurial quality, innovation and entrepreneurial thinking, and innovation and entrepreneurial ability. In the innovation and entrepreneurship education ecosystem, students, as consumers, are not only expected to optimise their own reserves by acquiring resources, but also to feed back the information they collect and the problems they encounter to the producers, thus enabling teaching and learning to grow. Students need to have the following two characteristics in order to ensure that their needs are aligned with the requirements of the producers: 1. active learning, optimistic and positive; 2. courageous and unafraid of difficulties.

3.3Decomposers: the carriers

The “decomposers” in an ecosystem decompose the debris excreted by plants and animals, and also decompose and release material from the remains of plants and animals, while the decomposed and released material is used again by the producers, thus making the energy cycle in the ecosystem repeat and achieving a balance of energy in the system. In the innovation and entrepreneurship education ecosystem, decomposers mainly refer to education carriers such as engineering training centres, laboratories and crowdsourcing spaces. Through these carriers, educators can test students’ mastery of professional basic knowledge in the process of practice, and whether they can transform this knowledge into competence and apply it skillfully. In fact, the educational vectors are essentially platforms for the conversion of energy and the interchange of information between producers and consumers, where the teacher’s competence in teaching and the students’ solid learning can be reflected.

The role of the decomposer for producers and consumers is not a one-off one, but needs to be brought into play through different methods in different stages and levels. As a communication bridge, the decomposer should integrate the resources to provide the following support for the development of innovation and entrepreneurship education:1. Provide practical bases for college students’ entrepreneurship; 2. Provide financial support for college students’ entrepreneurship.

3.4Influencer: Environment

In the process of growth, “seeds” are easily affected by environmental factors such as soil texture, temperature and climate, and natural phenomena. In order to ensure that the “seeds” grow smoothly into quality plants, producers need to effectively integrate the resources in the environment for the “seeds” to draw on.

In the innovation and entrepreneurship education ecosystem, the environment, as an influencer, can either facilitate or hinder the whole innovation and entrepreneurship education ecosystem. Therefore, universities should firmly grasp the environmental factors and strive to turn various environmental factors, such as national policy environment, economic environment, education and research environment, into elements that can facilitate the effective operation of the system.

4.The construction path of innovation and entrepreneurship education ecosystem based on the perspective of employment

4.1Optimize the top-level design and formulate the reform and development plan of innovation and entrepreneurship education

In order to ensure the smooth development of innovation and entrepreneurship education and the cultivation of innovative talents in each university, local governments should formulate relevant supporting policies according to the actual situation of local universities. Based on the innovation and entrepreneurship bases of college students, an innovation and entrepreneurship base management group headed by the government and school leaders should be formed to form a collaborative pattern of hierarchical linkage and joint management. The university can also issue the implementation opinions of the innovation and entrepreneurship work of students according to its own situation, with the aim of encouraging students who wish to start their own business to do so by means of various incentives. The aim is to encourage students who wish to start their own business to do so through various incentives.

4.2Innovative talent cultivation mode to promote the steady development of dual-innovation education

4.2.1 Synergize local industries with innovation and entrepreneurship

Regional industries often present the phenomenon of industrial clusters, which together form a social network relationship with shared resources and information, shared technology and complementary advantages. In order to develop regional innovative enterprises, we need to take industrial transformation as the core, rely on the community as a platform to create special industries, improve the integration and matching degree of innovation and entrepreneurship with regional industries, and use the development mode of regional industries to provide reference and guidance for the teaching of innovation and entrepreneurship practice in universities, so as to achieve the prosperous development of regional industries through innovation and entrepreneurship education.

4.2.2 Cultivate application-oriented talents to meet market demand

The innovation and entrepreneurship talent cultivation mode fully integrates several new talent cultivation programs that meet the development needs of the industry, emphasizes the cultivation of quality capabilities, promotes the implementation of multiple channels of school-enterprise cooperation, provides project internship mode and prospective employee internship mode for college students, and realizes reform and innovation of talent cultivation mode with the application of innovation and entrepreneurship education as the orientation.

4.2.3”Five-dimensional” education model to promote the cultivation of talents

Universities can promote the cultivation of innovative and entrepreneurial talents by offering “five-dimensional” professional courses and practical courses on innovation and entrepreneurship for students with entrepreneurial intentions. The so-called “five dimensions” refers to entrepreneurial awareness, entrepreneurial knowledge, entrepreneurial ability, entrepreneurial culture and entrepreneurial rules.

4.3 Carry out entrepreneurial training to enhance the innovative and entrepreneurial abilities of university students

4.3.1 Building a training system

In recent years, with the promulgation of relevant national talent cultivation policies, most universities have positioned the logical starting point of their education and teaching reforms on the cultivation of students' vocational qualities and abilities, and built an overall talent cultivation system of "application-driven, career-led and collaborative training", which also puts forward requirements for the development of innovation and entrepreneurship education in different majors. In other words, it is necessary to develop innovative entrepreneurship education linked to professional backgrounds in accordance with the characteristics of one's major, and to provide students with customized training services according to their specialties, so as to expand their employment channels.

4.3.2 Combining professional teaching practice with innovation and entrepreneurship practice

By combining innovation and entrepreneurship practice with their own professional practice, students can better utilize their own strengths and make full use of their professional knowledge to develop innovation and entrepreneurship. This places a demand on the innovation and entrepreneurship education platform, which requires schools to build a wide range of practical training bases and to realise the mutual use and sharing of teaching and experimental resources.

4.4 Strengthen value orientation and form correct values of innovation and entrepreneurship

Universities should focus on skills cultivation and should encourage and advocate socialist core values among the student body; in addition, they should be urged to look at entrepreneurship rationally and have the courage to face the various hardships and failures they may encounter in the process of starting a business. Universities can help students put their entrepreneurial enthusiasm into action through practical education activities, so that students are driven by entrepreneurial motivation to participate in entrepreneurial activities. At the same time, universities should learn to make use of the Internet platform to jointly carry out theoretical propaganda on innovation and entrepreneurship and education on innovation and entrepreneurial values online and offline. At present, institutions of higher education are actively exploring innovative and entrepreneurial education methods that are in line with the development of the times.

4.5. Improve the quality of the curriculum

Universities should continue to innovate classroom teaching methods, such as inspiration by example, case study, group competition and social investigation, and focus on the guidance of practical entrepreneurial activities and the cultivation of talents who are good at innovation and brave at innovation. In addition, the curriculum of innovation and entrepreneurship education should be divided into three categories: basic entrepreneurship courses, entrepreneurship promotion courses and entrepreneurship practice courses, and provide corresponding compulsory and elective courses according to different needs and grades, and incorporate them into credit management, so as to enhance students' autonomy and selectivity in learning, and stimulate and guide students' awareness of innovation and entrepreneurship.

4.6. Promote "effectiveness" and build a diversified practice platform

First of all, we should fully integrate the resources within the university, rely on the construction of majors, realize the common construction of experimental teaching resources, and open up mature laboratories for entrepreneurial students; establish campus practice bases, such as undergraduate entrepreneurship park, undergraduate entrepreneurship association and undergraduate science and technology park, to provide students with space, financial and professional knowledge support, and encourage students to be innovative and entrepreneurial. Secondly, the organization of social practice should be strengthened to help students find opportunities for entrepreneurship through practical activities such as social investigation of the three rural issues in summer, construction of rural cultural halls, job training, summer camps and volunteer services. Finally, students who are interested in entrepreneurship should be encouraged to do

internships in alumni companies while studying, so that they can engage in valuable entrepreneurial practice.

5. Optimise “teachers” and build a strong teaching staff

Firstly, we should make full use of the school’s existing curriculum and teacher resources, and train teachers who are interested in innovation and entrepreneurship in teaching methods, including centralised training, outbound mentoring and on-the-job training.

Second, establish a team of part-time innovation and entrepreneurship teachers. The “part-time team” can be composed of entrepreneurs, entrepreneurial alumni and experts and scholars. They can share their experience in the form of lectures and training; or they can directly participate in the front-line education and teaching of talent training in the university, forming a good situation of cooperation and training inside and outside the university.

Once again, we should develop a multi-channel career development direction for innovation and entrepreneurship, improve the career development path for innovation and entrepreneurship, and clarify the criteria and specific requirements for recruitment to professional and technical positions, so as to ensure the sustainable development of innovative and entrepreneurial teachers.

Finally, give full play to the management power of counsellors. Counsellors are the people who have the most frequent contact with students and are most likely to become the direct promoters of innovation and entrepreneurship education. Schools should organize counsellors to learn about innovation and entrepreneurship in a systematic way, so that they can become the ‘frontline staff’ of innovation and entrepreneurship education.

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