

# Original Research Article

## Explore the mechanism construction of collaborative education in colleges and universities under the guidance of innovation and entrepreneurship

### ABSTRACT

It is of great significance to introduce the concept of "collaborative education" into innovation and entrepreneurship education in colleges and universities and establish a relatively perfect system for the integration of all forces and the realization of complementary advantages. This article to university innovation entrepreneurship education collaborative education mechanism construction for the main line, further investigate the actual situation of the current innovation in colleges and universities, understand the effect of the implementation of the overall collaborative education mechanism, explore the fundamental problems existing in the process of education, based on the dilemma of the university innovation entrepreneurship education, deep exploration and innovation construction system unique innovation entrepreneurship education mode and collaborative education mechanism. Innovation and entrepreneurship education is the key to winning in the current international market struggle, and it is also the biggest driving force for the establishment of an innovation-oriented country and sustained economic growth. The introduction of innovation and entrepreneurship in the university stage can make students more fully understand what is innovation and entrepreneurship stimulate students' awareness of innovation, and reduce the unemployment rate of college students. At the same time, it is of positive significance to temper students' will and shape their good conduct.

**Keywords:** Collaborative education; Mechanism; Colleges and Universities; Innovation and entrepreneurship education

### 1. INTRODUCTION

At present, due to the late start of collaborative education, innovation and entrepreneurship practice education in China, the relevant research is not in-depth, and the development is not mature, so it still faces many challenges in the development of collaborative innovation.

Firstly, the concept of collaborative education is weak. Innovation and entrepreneurship education activities are uneven in various universities, some universities do not pay enough attention to relevant education and conduct less, relying on classroom teaching cannot give full play to the role of various channels. Secondly, the training mechanism for innovative and entrepreneurial talents is not perfect. Some students do not know much about the innovation and entrepreneurship training system of schools or colleges, and do not do enough in innovation and entrepreneurship education and publicity, and the training mechanism is not sound<sup>[1-3]</sup>. Thirdly, the lack of effective integration of the dispersed and closed campus resources<sup>[4]</sup>. Innovation and entrepreneurship related projects approval procedures and insufficient policies, there are problems in innovation and entrepreneurship education, unreasonable curriculum and disconnection from the market. Fourthly, the breadth and depth of the existing collaborative education practice are insufficient. In the training of innovation and entrepreneurship education for college students, universities lack of cooperation with the government and enterprises<sup>[5]</sup>, and students do not know much about some incentive and preferential policies of the government, The lack of technical and practical communication with enterprises leads to the timely and effective transformation of innovation and entrepreneurship achievements in colleges and universities.

**Comment [T1]:** Too long, it would be better, if it is shortened "Innovation and Entrepreneurship in Collaborative Education in Colleges and Universities"

**Comment [T2]:** It is important

**Comment [T3]:** This article aims to analyse university innovation entrepreneurship education collaborative education mechanism construction as main issue

**Comment [T4]:** To further investigate the actual situation of the current innovation in colleges and universities, to understand the effect of the implementation of the overall collaborative education mechanism, to explore the fundamental problems existing in the process of education, based on the dilemma of the university innovation entrepreneurship education, deep exploration and innovation construction system unique innovation entrepreneurship education mode and collaborative education mechanism.

**Comment [T5]:** Innovation and entrepreneurship education are the key to reach for success in the current international market struggling

**Comment [T6]:** How innovation and entrepreneurship stimulate students' awareness of innovation

**Comment [T7]:** it showed positive significance on temper students' will and the process in shaping their good conduct

**Comment [T8]:** Cannot fulfill the role of various channels. What do you mean by "channels"? You mean programs, perhaps?

**Comment [T9]:** and the training mechanism is still ineffective.

**Comment [T10]:** What do you mean?

**Comment [T11]:** In the training of innovation and entrepreneurship education for college students and universities, there is lack of cooperation with the government and enterprises

## 2. PROBLEMS AND CAUSES OF INNOVATION AND ENTREPRENEURSHIP EDUCATION

### 2.1 EXISTING PROBLEMS

#### 2.1.1 College students have a conservative attitude towards employment and entrepreneurship

There are few students who tend to start businesses, and most of them choose to take the postgraduate entrance examination or enter the system. They choose the conservative vocational and technical development direction. They are confused about future employment, and they hope to enter a stable working and learning environment.

#### 2.1.2 Lack of active innovation spirit and ability

At present, students rely on school education, and their self-education are poor. Schools, teachers and parents can play an enlightening and guiding role, but the most important thing is to let students realize the importance of innovative spirit and practical ability.

Comment [T12]: Can play the role in enlightening and guiding

#### 2.1.3 Innovation and entrepreneurship education is in disconnect from the teaching system

Many colleges and universities do not pay enough attention to the arrangement of innovation and entrepreneurship education courses<sup>[6]</sup>, with too few class hours, too few teaching resources, and only set them as elective courses or only provide relevant lectures.

Comment [T13]: Is separated from the teaching system

### 2.2 CAUSE ANALYSIS

#### 2.2.1. Restricted by family conditions

Most of the young entrepreneurs and college students in rural areas come from poor families, can adhere to innovation and entrepreneurship, bear hardships and very enthusiastic, eager to completely change the basic study and life of their families, and most of the families of college students from cities have relatively good economic production and living conditions, they have good sources of life, and tend to choose to participate in the examination of civil servants and public institutions or choose to graduate from state-owned and foreign-funded enterprises. Secondly, it is restricted by the parents' ideas. At present, most parents have insufficient awareness of innovation and entrepreneurship education, believing that students can only provide a stable economic income by continuing to attend graduate school or entering public institutions.

Comment [T14]: and are very enthusiastic

#### 2.2.2. Students' personal ability is the internal reason affecting innovation and entrepreneurship

As entrepreneurs, college students have insufficient understanding of their own advantages and disadvantages, as well as how to correctly manage and operate entrepreneurial projects. It is not clear how to implement the market research of the whole project and the overall planning of project-related affairs, the risk knowledge of all kinds of startups and their ability to manage and bear the risks of startups are limited. Then there is the lack of systematic social practice. Before the senior year, students' main social practice is limited to doing all kinds of part-time jobs and tutors, and they can rarely participate in an enterprise project. A systematic social practice can enable students to deeply understand what is the process of innovation and entrepreneurship, the spirit and ability of innovation and entrepreneurship. Let the students have a positive interest in exploring the unknown things and a systematic methodology.

Comment [T15]: unclear

#### 2.2.3. The construction of the platform for innovation and entrepreneurship in universities is not perfect

2.2.3.1 The curriculum construction level is not high, and it is difficult to meet the current educational needs

Comment [T16]: Quite low

Firstly, in terms of students' innovation and entrepreneurship and employment education, the main focus of college education is still in students' employment, which leads to students' lack of strong awareness of innovation and entrepreneurship. Secondly, in the existing innovation and entrepreneurship courses, the main teaching content focuses on policy publicity, detailed and complete innovation and entrepreneurship professional training and detailed guidance are insufficient, lack of perfect theoretical support and scientific planning. Thirdly, there is the problem of multi-teaching management in the teaching link, and the differentiation of reteaching and scientific research resources in the practical training link. Fourthly, the forms of innovation and entrepreneurship education in colleges and universities are scattered and old, the coverage of education content is narrow, mostly stay in the concept, lack of practical guidance and experience summary. Fifthly, the strength of innovation and

Comment [T17]: on

entrepreneurship teachers in colleges and universities is insufficient, the teachers are not professional, and the practical guidance significance is not great. Sixthly, colleges and universities lack systematic top-level planning in innovation and entrepreneurship, and lack of emphasis on student training at different stages.

#### 2.2.3.2 The integration of campus resources is poor, which is difficult to meet the needs of project transformation

The innovation and entrepreneurship achievements of colleges and universities need to be fully combined with social resources to promote their final transformation. However, at present, the internal resource integration ability of universities is weak, and the comprehensive integration of industry-university-research resources cannot be realized. The existing innovation and entrepreneurship platforms in universities have poor resource integration ability, and lack of accurate training and guidance for projects, often showing that the developed technical projects are disconnected from the social market demand and cannot be effectively transformed and applied.

#### 2.2.3.3 The existing supporting services are not enough to meet the needs of sustainable development

At present, in the aspects of establishment, operation and management, the internal incubation platforms in domestic universities are mostly led by the government and sponsored by universities, and rely on policy support and subsidies to maintain their daily operation and development. However, because it is sponsored by colleges and universities and students are the main participants, its management and operation system is mostly operated in accordance with the management system of colleges and universities. And university itself in the construction goal, institutional perfection, resource support, management system and short board, compared with social incubation, internal hatch rate is relatively low, enterprise legal consultation, business management and service aspects of supporting support, lack of professional personnel, the university innovation entrepreneurship effect.

Comment [T18]: are

Comment [T19]: Compared to

#### 2.2.3.4 The separation of internal and off-campus resources is difficult to meet the subsequent incubation needs

After the project is fully incubated in the school, it also needs to go to a more mature science park or base for further study and the next advanced incubation. However, there is the problem of separation of internal and external resources in the practice of innovation and entrepreneurship in universities. The cooperation between the school and the enterprise and the local school is not close, resulting in unimpeded financing channels and limited further incubation and growth of projects.

Comment [T20]: The next development involving bigger stage is required

### **2.2.4. There is no good social environment for entrepreneurship and poor policy guarantee**

Innovation and entrepreneurship education is not only about talent training, education reform, economic development and employment, but also closely related to tax, legal industry and market. If college students start their own business, the proportion of failure is higher than the proportion of success due to the lack of experience and supporting policies, and the government does not have corresponding policies to guide and subsidize, the enthusiasm of college students will be seriously discouraged.

## **3. EXPLORE THE COUNTERMEASURES TO IMPROVE THE EFFECT OF COLLABORATIVE EDUCATION IN COLLEGES AND UNIVERSITIES UNDER THE GUIDANCE OF INNOVATION AND ENTREPRENEURSHIP**

### **3.1 CHANGE PASSIVITY TO INITIATIVE, AND ACTIVELY BUILD A STUDENT-LED INNOVATION AND ENTREPRENEURSHIP PRACTICE MECHANISM**

#### **3.1.1 Strengthen independent learning, and constantly strengthen the innovative and entrepreneurial thinking**

At present, most students lack the enthusiasm and consciousness of technological innovation and entrepreneurship. Start from the learning subject of students, change the traditional management participation thinking into innovative and entrepreneurial thinking, change career planning into planning + creation, change passive employment into active entrepreneurship, and give full play to the role of our students through self-subject.

Comment [T21]: Starting from the learning subject of students, changing the traditional management participation thoughts into innovative and entrepreneurial thoughts, changing career planning into planning + creation, changing passive employment into active entrepreneurship, and playing the role fully in developing our students through self-subject.

#### **3.1.2 Improve students' personal quality and cultivation, and continuously develop and cultivate the spirit of technological innovation and entrepreneurship**

During the school period, Strengthen the education of students' personal quality and moral quality. Students should also constantly change the theoretical knowledge of management ideological education, pay attention to the current politics, combine the thought and action with the construction of the motherland, social and economic development, make contributions to the progress of the times, and realize the value of the enterprise itself.

### **3.1.3 Make full use of various platforms to continuously develop and improve students' practical ability of innovation and entrepreneurship**

Give full play to the leading role of college student associations, and absorb students who are interested in innovation and entrepreneurship to participate in group education<sup>[7]</sup>. Enrich the student club management activities. Strengthen the participation and guidance of innovation and entrepreneurship teachers, counselors and professional teachers. Secondly, students are encouraged to actively participate in innovation and entrepreneurship competitions and scientific research project competitions at all levels. In the competition, I will deepen the learning and understanding of my professional theoretical knowledge, and each team will conduct interdisciplinary integration, give full play to the technical advantages of each professional, and pool their wisdom to tackle key problems. In addition, students are also encouraged to carry out a number of comprehensive practice activities to exercise their ability to improve their comprehensive quality in practice.

**Comment [T22]:** Giving full play to the leading role of college student associations, and absorbing students who are interested in innovation and entrepreneurship to participate in group education<sup>[7]</sup>. Enriching the student club management activities. Strengthening the participation and guidance of innovation and entrepreneurship teachers, counselors and professional teachers

**Comment [T23]:** Play the great role in

## **3.2 FROM EXISTENCE TO OPTIMIZATION, ACTIVELY BUILD AN ON-CAMPUS COLLABORATIVE EDUCATION PLATFORM WITH UNIVERSITIES AS THE HOME FIELD**

### **3.2.1 Integrate innovation and entrepreneurship into the teaching system reform, and constantly strengthen the concept of collaborative education**

Firstly, update the concept of education and teaching design. Colleges and universities should incorporate innovation and entrepreneurship into the reform of the teaching system, and take innovation and entrepreneurship education as an important course to cultivate their quality<sup>[8]</sup>. The second is to optimize the classroom teaching research content. Innovation and entrepreneurship education is incorporated into the overall teaching resource planning, and the corresponding innovation and entrepreneurship course management system is set up in combination with the learning characteristics of our students. At the same time, they should pay attention to innovation entrepreneurship course and other courses, such as education courses, mental health, career planning education, in the students of professional technical courses and practice link, strive to increase the students' innovative spirit, entrepreneurial consciousness education, also can rely on professional knowledge competition, network culture courses, etc., break through time and space limit, multi-channel to guide students to attend. Secondly, should pay attention to finding the key point and entry point of the intersection and penetration of innovation and entrepreneurship education, formulating targeted teaching content, and integrating scientific and systematic innovative and entrepreneurial thinking, spirit, character, and quality into the curriculum teaching, so as to improve the overall effectiveness of innovation and entrepreneurship education.

**Comment [T24]:** combine innovation and entrepreneurship with the reformation of the teaching system

**Comment [T25]:** improve

**Comment [T26]:** are

**Comment [T27]:** Who?

Moreover, the teaching methods should be improved. The traditional teaching methods of colleges and universities only pay attention to the single transmission of knowledge and thought, which cannot stimulate students' interest, and even frustrate students' enthusiasm for innovation and entrepreneurship. Therefore, colleges and universities should grasp the law of students' development, physical and mental characteristics and thinking characteristics in the teaching process, and explore flexible and diverse teaching methods.

### **3.2.2 Integrate various innovation and entrepreneurship resources, and build a practice platform for collaborative education both inside and outside the school**

Colleges and universities should formulate different training programs according to their own conditions, specialty setting and students' characteristics. Through various channels, teachers are encouraged to actively participate in the guidance and research of enterprise innovation and entrepreneurship education. For example, teachers with practical entrepreneurial experience can be invited to participate in practical teaching, including experimental teachers, training teachers, counselors, etc., and experienced teachers or experts outside the school can be invited to participate in online teaching, so as to broaden education channels and make up for the shortage of teachers for innovation and entrepreneurship in universities. In addition, colleges and universities should take the initiative to connect with various resources inside and outside the university, strengthen communication and cooperation with local governments, enterprise development and some other universities, and strengthen the coordinated use and management of teaching resources of technological innovation and entrepreneurship education courses and other related courses. For example, combining specialized courses,

**Comment [T28]:** especially

**Comment [T29]:** programs

**Comment [T30]:** programs

ideological and political courses and innovation and entrepreneurship education, integrate existing training teams, establish practice bases, and broaden practice scope and channels, use various network information platforms to expand the innovation and entrepreneurship model, moreover, make full use of social resources, strengthen the cooperation with external enterprises in the incubation, invite professionals to assist in formulating intellectual property strategy, judge the value of the results, make suggestions, timely form intellectual property rights, and actively apply the results to the production of the enterprise.

Comment [T31]: programs

### **3.2.3 Constantly enrich the forms of innovative education, and actively create a cultural atmosphere for innovation and entrepreneurship**

Colleges and universities should combine innovation and entrepreneurship education with the construction of campus culture and integrate innovation and entrepreneurship culture into all aspects of campus culture<sup>[9]</sup>, so that students can be baptized in their thoughts, exercised in their ability and cultivated in their spirit. Make full use of the network platform to strengthen the publicity of successful cases of innovation and entrepreneurship among outstanding students, introduce relevant policies to support innovation and entrepreneurship, and create a public opinion atmosphere. In addition, actively expand innovative entrepreneurial base construction, in addition to the classroom, pioneer park, incubation center, can also in the college, the teaching and research section set up the small screening training base, encourage students to participate in the "Internet +", strengthen the policy incentives, guide students to participate in innovative entrepreneurship, technology competition can be included in personal examination and title evaluation, encourage professional teachers to strengthen academic research, actively promote project transformation.

Comment [T32]: Strongly influenced on

### **3.2.4 Constantly improve the assessment forms and assessment standards**

The university can establish the key innovation and entrepreneurship direction by to its own characteristics and the development direction of the university, it can also implement the credit system, the university with the same status as the degree certificate and the course credits, if the entrepreneurial result, the university can formulate relevant policies, such as obtaining certain awards through innovation, the credit standard can be lowered or the popularization of innovation and entrepreneurship knowledge can be postponed in the usual theoretical course.

## **3.3 FROM PARTICIPATION TO RESPONSIBILITY, CONSTANTLY PROMOTE THE AUXILIARY OFF-CAMPUS PRACTICE SITE**

### **3.3.1 Build a school-enterprise cooperation mechanism and establish a stable cooperative relationship**

Constantly develop and deepen school-enterprise cooperation, colleges and universities timely send professionals and students with innovation and entrepreneurship intentions to the corresponding enterprises, or through the establishment of long-term off-campus work practice cooperation, the corresponding enterprises will be designated as fixed and important places for students' off-campus practice and training. In various innovation and entrepreneurship competitions for college students, enterprise managers with practical working experience will be invited to provide education and guidance, and enterprises can also provide capital input or technical support for the project information that they are interested in or related to their company's business activities in the process. Schools and enterprises can also exchange professional teachers and senior technical personnel through exchanges and cooperation, and part-time training, so as to promote the integration and application of cutting-edge technologies and engineering technologies.

### **3.3.2 Constantly promote the integration of industry and education, and actively promote the transformation of achievement**

Universities and enterprises should continue to strengthen in-depth cooperation, give full play to their respective advantages, and make full use of complementary resources. Universities can establish extensive external contact network, enterprises can also be interested in themselves and have investment prospects, explore through information technology transfer, talent investment, applied to improve their social development operation, reduce the cost of research and development, employer, achieve multi-win-win situation.

Comment [T33]: Continue strengthening

Comment [T34]: What do you mean by this?

## **3.4 CONTINUE TO STRENGTHEN THE TOP-LEVEL POLICY SUPPORT FOR COLLEGE STUDENTS' INNOVATION AND ENTREPRENEURSHIP FROM ADVOCATING TO LEADING**

Comment [T35]: Continue strengthening

### **3.4.1 Improve laws and regulations, and standardize the collaborative education of innovation and entrepreneurship**

The government should **continue to strengthen** the top-level design of innovation, development and entrepreneurship for college students, bring innovation and entrepreneurship into the basic ideological quality improvement education, and actively guide and promote various economic socialist forces to join the ranks of scientific and technological innovation, entrepreneurship, culture, education and technology cooperation in colleges and universities. In terms of guiding students' thinking, organizing enterprise implementation, management orientation and achievement incentive mechanism, the Chinese government should give full play to the leading role of its policies, timely provide due financial and technical support to universities, and give full play to the guarantee role in the training and learning process of innovation and entrepreneurship education talents.

Comment [T36]: Continue strengthening

#### **3.4.2 Take multiple measures to form a joint force for innovation, entrepreneurship and education**

Take multiple measures to encourage various forces to participate in innovation and entrepreneurship education<sup>[10]</sup>, so as to form synergy in education. Such as positive development play a role of the Chinese government for public opinion guidance, propaganda enterprise innovation entrepreneurship preferential policies, inspire students' socialist public recognition and enthusiasm, in all walks of life to set up a typical innovative entrepreneurial model extensive publicity, let "public entrepreneurship, people's innovation" become a kind of mainstream cultural values. Strengthen the supervision of the competition mechanism, on the basis of encouragement, strengthen the assessment of innovation and entrepreneurship courses in colleges and universities, and constantly improve the educational effect. In addition, an overall coordination agency for innovation and entrepreneurship can be established to coordinate various social forces and solve problems in a timely manner.

### **3. CONCLUSION**

**It is of great significance** to implement innovation and entrepreneurship education. It is conducive to the reform of the national economic system, the transformation and development of colleges and universities<sup>[11]</sup>, and also plays a good role in promoting the ability of students, ultimately realizing their own value, and thus promoting social employment. Nowadays, in the field of innovation and entrepreneurship, colleges and universities play an important role in collaborative education, especially with the development and change of society, the improvement of talent demand is a problem that is worth studying recently. At present, due to the limited conditions of the project team, there are still some deficiencies in the research, the data collection is limited and the ability to analyze the data is limited, so the consideration is not perfect. The understanding and application of the theory is not in place, and the theory and research are not deeply integrated and carefully analyzed, which will continue to be improved in the future work and study.

Comment [T37]: It is important

### **CONSENT (WHERE EVER APPLICABLE)**

This article does not cover this aspect.

### **ETHICAL APPROVAL (WHERE EVER APPLICABLE)**

This article does not cover this aspect.

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Comment [T38]: These should be arranged alphabetically.

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