

GUIDELINE FOR THE DEVELOPMENT OF OPERATION  
MECHANISM OF ENTREPRENEURSHIP EDUCATION  
IN GUIYANG UNIVERSITY

DU HAI

A thesis submitted in partial fulfillment of the requirements for  
the Degree of Doctor of Philosophy Program in Educational Administration  
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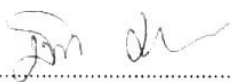
  
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# Chapter 1

## Introduction

### Rationale

The rapid development of higher education not only cultivates a large number of talents in China, but also achieves significant independent innovation and scientific research results, providing strong knowledge support and talent foundation for building an innovative country. At present, China is in a critical period of economic restructuring, with a large team of college students who are important resources and pillars for achieving the transformation of economic development mode and building an innovative country. Therefore, promoting entrepreneurship and innovation has become the driving force behind economic development and the only way to achieve policies that enrich the people and strengthen the country.

In today's world, talent has become the focus of competition. The cultivation of talents requires the support of education, and high-quality talents are crucial for enhancing the core competitiveness of the country. With the development and application of the new generation of information technology, human production, life, and thinking have been greatly affected, and global education has also been deeply influenced by informatization. In this era of rapid development of knowledge economy and technology, countries need to attach great importance to the transformation of talents and technological achievements, and higher education plays an important role in this process. As an important component of the national innovation system, higher education undertakes the mission of teaching, educating, and innovating in scientific research, and becomes the ultimate hub for cultivating talents to enter society. Facing the rapid development of new technologies, industries, and models, it is imperative to vigorously develop innovation and entrepreneurship education. In order to achieve this goal, higher education managers need to change their thinking, keep up with the times, abandon traditional exam oriented education models, research innovative and entrepreneurial education

management models, and cultivate more talents who adapt to the times and have innovative spirit.

In 1989, UNESCO held the "21st Century Education International Seminar" in Beijing and proposed the concept of "enterprise education", which later became known as "entrepreneurship education". Entrepreneurship education includes two aspects: on the one hand, it is about education about enterprises, their activities, and processes; On the other hand, it is education to cultivate psychological qualities such as entrepreneurial spirit, enterprising spirit, exploratory spirit, and adventurous spirit. The definition of entrepreneurship education by UNESCO refers to, in a broad sense, it is an educational method for cultivating entrepreneurial individuals. For the working class, entrepreneurship education is equally important because, in addition to achieving success in their career, employers or individuals are increasingly emphasizing employees' initiative, adventurous spirit, entrepreneurial and independent work abilities, as well as the social and management skills of technical personnel.

In 1995, UNESCO proposed the concept of entrepreneurship education in the "Policy Document on Higher Education Reform and Development" and defined it as two aspects: job seeking and entrepreneurship. Subsequently, the "Higher Education in the 21st Century: World Vision and Action Declaration" adopted at the 1998 World Conference on Higher Education further clarified that higher education should cultivate students' entrepreneurial skills and initiative. Graduates are no longer just job seekers, but should become job creators. In addition, at the Second International Conference on Vocational Education in 1999, UNESCO further emphasized the importance of entrepreneurship education and pointed out that innovation education and training processes need to include entrepreneurship, which is equally important for both working class and self-employed individuals to cope with the new challenges and changes of the 21st century.

In 1999, the Chinese education community officially established the concept of entrepreneurship education. The 21st Century Education Revitalization Plan clearly proposes to strengthen entrepreneurship education for teachers and students, and encourages them to independently establish high-tech enterprises. To promote the development of entrepreneurship education, the Central Committee of the Communist Youth League led the organization of the first National College Student Entrepreneurship Plan Competition "Challenge Cup", which was gradually promoted

nationwide. In 2000, the Ministry of Education issued regulations allowing college and graduate students to establish high-tech enterprises and retain their academic status while on leave. In early 2002, the Higher Education Department of the Ministry of Education conducted pilot work on entrepreneurship education in 9 universities. These measures reflect the global attention and recognition of entrepreneurship education, while domestic and foreign scholars have also proposed many representative viewpoints.

The Kaufman Foundation has proposed a more specific and practical definition of entrepreneurship education. They believe that entrepreneurship education is a process aimed at cultivating learners to identify opportunities overlooked by others and take action when opportunities arise. The content of entrepreneurship education includes identifying opportunities in risk, establishing a business, and introducing business management processes such as business planning and marketing. This definition emphasizes the practicality of entrepreneurship education, aiming to cultivate students' insight and confidence, and equip them with the ability to succeed in the business world.

Zhou Qiujiang believes that entrepreneurship education aims to cultivate individuals with entrepreneurial qualities and abilities in a broad sense, and to enhance students' comprehensive literacy by providing relevant courses, including initiative, adventurous spirit, entrepreneurial ability, independent work ability, as well as technical, social, and management skills. In a narrow sense, university entrepreneurship education focuses on cultivating the entrepreneurial ability of college students, enabling them to successfully start businesses.

Hou Dingkai defines entrepreneurship education as an education that can help students learn to independently acquire and create new knowledge, and transform this knowledge into true personal and social value. He believes that the core goal of entrepreneurship education is not only to cultivate students to become entrepreneurs, but more importantly, to help them fully apply and utilize their knowledge, and create more personal and social value.

Zhang Chuang believes that the target audience of entrepreneurship education should be young college students who possess certain scientific and cultural knowledge and professional skills. The goal of entrepreneurship education is to cultivate and improve the entrepreneurial awareness, innovative spirit, entrepreneurial psychological

quality, and entrepreneurial skills of these students, so that they can start their own businesses, create employment opportunities, and social wealth. Ultimately, the purpose of entrepreneurship education is to cultivate talents with innovative and entrepreneurial abilities, making positive contributions to society.

After comprehensive analysis, the definition of entrepreneurship education in universities can be summarized as cultivating and improving the basic entrepreneurial qualities of college students, with the goal of cultivating high-quality socialist modernization builders with innovative spirit and entrepreneurial ability. Entrepreneurship education plays a unique role in the field of higher education, and its functions and systems have significant characteristics. Its main purpose is to enhance students' innovative spirit and creativity, cultivate their entrepreneurial awareness and ability, and enable them to master the basic skills required for entrepreneurship.

Under the new normal economic model, China's economic development is gradually shifting from traditional factor-driven and investment-driven to innovation-driven, which will stimulate the infinite vitality of China's economy. As an important cradle for cultivating social talents, universities still have some problems in entrepreneurship education. These problems include inaccurate positioning of entrepreneurship education, insufficient emphasis on entrepreneurship education, the disconnect between theoretical teaching and practice, and the lack of corresponding teachers and talents. In order to solve these problems, this article takes Guiyang University as the research object, analyzes the problems existing in the entrepreneurship education operation mechanism of Guiyang University through questionnaire surveys and expert interviews, and strives to provide new ideas and methods for the entrepreneurship education operation mechanism of Guiyang University.

### **Research Question**

1. What is the current situation of the operation mechanism of entrepreneurship education in Guiyang University?
2. What is the development guide for the operation mechanism of entrepreneurship education in Guiyang University?
3. Are the development guide for promoting the operation mechanism of entrepreneurship education in Guiyang University adaptable and feasible?

## Objectives

1. To study the current situation of the operation mechanism of entrepreneurship education in Guiyang University.
2. To Propose a development guide for the operation mechanism of entrepreneurship education in Guiyang University.
3. To evaluate the adaptability and feasibility of the development guidelines for the operation mechanism of entrepreneurship education in Guiyang University.

## Scope of the Research

### Population and the Sample Group

#### Population

The total population of this study is 717 full-time teachers from Guiyang University.

#### The Sample Group

According to Yamane's sampling formula, the sample group for this study is 260 in-service professional teachers from Guiyang University. Selected from Guiyang University through systematic random sampling.

The subjects of this study are 13 entrepreneurship education management teachers from Guiyang University. The qualifications of the interviewees are as follows: 1) Have at least 2 years of work experience as a university entrepreneurship education management personnel; 2) Having rich experience in entrepreneurship education; 3) Master's degree or above.

The experts evaluating the adaptability and feasibility of the development guidelines for the operation mechanism of entrepreneurship education are 5 entrepreneurship education experts from Guiyang University. The expert qualifications are as follows: 1) Experts with at least 10 years of experience in entrepreneurship education management; 2) Having rich experience in entrepreneurship education management; 3) Senior or higher professional title.

### The Variable

In this study, we will examine the relevant variables of the operation mechanism and policy recommendations of entrepreneurship education in Guiyang University, which are:

1. School support factors
2. Mentor and Teacher Factors
3. Entrepreneurship education curriculum and activity factors
4. Support factors for entrepreneurial resources
5. Institutional and policy factors
6. Student factors

### **Advantages**

Schools provide necessary foundations and environments for entrepreneurship education, such as funding, facilities, and administrative support. This support can promote the establishment of an entrepreneurial atmosphere and motivate students and teachers to participate in entrepreneurial activities.

The professional knowledge, experience, and guidance of teachers and mentors are crucial for students' entrepreneurial learning. They not only impart knowledge, but also provide practical guidance to help students develop entrepreneurial thinking and skills.

Carefully designed courses and activities can provide practical learning opportunities, enhance students' entrepreneurial skills and practical experience. These activities typically include entrepreneurship competitions, seminars, and internship projects, which help students integrate theory with practice.

The availability of entrepreneurial resources (such as funds, technology, consulting services, etc.) is crucial for the success of student entrepreneurship projects. The support of resources can reduce obstacles in the early stages of entrepreneurship and increase the likelihood of student entrepreneurship success.

Clear and supportive systems and policies can provide a legal and administrative environment conducive to entrepreneurship. These policies can include tax incentives, simplified entrepreneurship permits, etc., aimed at reducing the threshold for entrepreneurship and encouraging more students to participate in entrepreneurial activities.

## Definition of Terms

**1. School support factors** refer to a series of strategies adopted by schools in terms of organization and management, aimed at building an environment conducive to the prosperity and development of entrepreneurship education. Specific measures include developing innovative education policies, allocating resources reasonably to support entrepreneurship education projects, and cultivating a positive school culture to encourage students and faculty to actively participate in entrepreneurial activities. Through these efforts, the goal of school support factors is to provide students with a comprehensive entrepreneurial education experience, enabling them to achieve success in the field of entrepreneurship.

**2. Mentor and teacher factors** are key elements in entrepreneurship education. This includes mentors and teachers providing academic guidance and playing an important role in cultivating students' entrepreneurial spirit and skills. Through close interaction, mentors and teachers stimulate students' innovative thinking, impart practical entrepreneurial experiences, and lay a solid foundation for their entrepreneurial journey.

**3. Entrepreneurship education courses and activity factors** are the commitment of schools to provide students with training in entrepreneurial thinking and skills. The school aims to cultivate students' entrepreneurial abilities in multiple fields by providing a variety of entrepreneurship courses, workshops, and practical projects. In addition to emphasizing the transmission of theoretical knowledge, these courses and activities focus more on cultivating students' practical experience in practical entrepreneurial environments, laying a solid foundation for their future career.

**4. Support factors for entrepreneurial resources** are various types of support provided by schools to meet the diverse needs of students in the entrepreneurial process. Specific support includes funding injection, professional consulting services from mentors, and the provision of incubators and other resources. These supports are not only aimed at solving the problems in student entrepreneurship projects, but also at building a good entrepreneurial ecosystem for them, encouraging them to actively explore innovation, meet challenges, and thus realize their entrepreneurial dreams.



**5. Institutional and policy factors** refer to the formulation and implementation of regulations, policies, and organizational structures for entrepreneurship education within and outside schools. These factors have a profound impact on the promotion and development of entrepreneurship education. The internal systems and policy decisions of schools, as well as cooperation with external institutions, play a crucial role in influencing the cultivation of students' entrepreneurial abilities and the formation of entrepreneurial culture.

**6. Student factors** encompass individual characteristics, interests, abilities, and attitudes towards entrepreneurship education. These factors may have an impact on the participation and performance of students in the field of entrepreneurship. Schools need to pay attention to and deeply understand the diversity of students in order to develop personalized entrepreneurship education programs, meet the needs of different students, stimulate their innovative potential, and cultivate them to become future leaders with entrepreneurial spirit.

**7. Operation Mechanism of Entrepreneurship Education** refers to the various interrelated components and operating methods in the entrepreneurship education system, covering the arrangements and planning of systems, policies, resource allocation, teaching methods, evaluation systems, and other aspects both inside and outside the school. This mechanism aims to effectively promote the implementation of entrepreneurship education, enabling students to receive comprehensive and orderly training in the fields of innovation and entrepreneurship, thereby cultivating a group of students with entrepreneurial literacy and practical application abilities. The design and effective implementation of the operational mechanism of entrepreneurship education have a significant impact on the quality and effectiveness of school entrepreneurship education, providing strong support for cultivating future professionals in the field of entrepreneurship.

## Research Framework

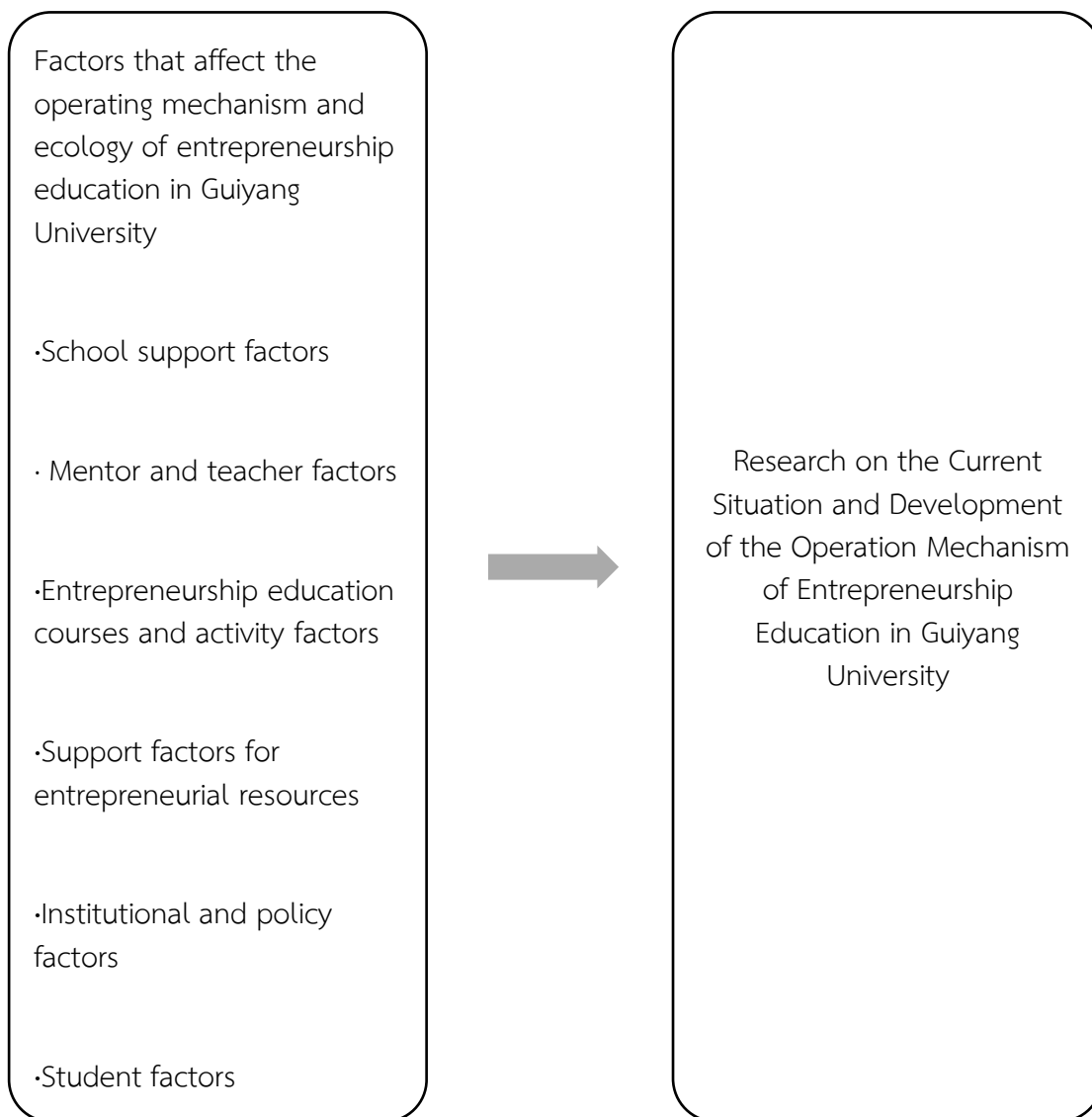


Figure 1.1 Research Framework

## Chapter 2

### Literature Review

This study focuses on sorting out and analyzing the related concepts and documents of the constituent elements and operation mechanism of entrepreneurship education mechanism. Through the comprehensive analysis of these documents, combined with the specific situation of local colleges and universities, this study draws a series of conclusion analysis. These analyses not only reveal the current situation and challenges of entrepreneurship education in local colleges and universities, but also provide theoretical basis and practical guidance for further optimizing their entrepreneurship education strategies.

1. Concept and Theory of Education Administration
2. Concepts and Theories Related to Entrepreneurship
3. Concept and Theory of Entrepreneurship Education
4. Concept and Theory of Entrepreneurship Education Operating Mechanism
5. Related Research

#### Concept and Theory of Education Administration

##### Definition of Education Administration

Education management, as a key activity to improve the quality and efficiency of education, covers multiple aspects of education planning, organization, leadership, coordination, and control. Through in-depth analysis of the definitions of educational management by multiple scholars, we can gain a more comprehensive understanding of the multidimensional functions of educational management and its importance in the field of education.

Bai, Y.X. (2015). Emphasized the importance of optimizing educational resource allocation and clarifying educational goals through scientific management methods. This viewpoint points out that effective education management not only focuses on the rational allocation of resources, but also strives to improve the overall quality of education through precise goal setting and achievement.

Cao, C.G. (2002). Education management is defined from a broader perspective as a comprehensive activity that includes planning, organization,

leadership, and control. This definition emphasizes the comprehensiveness of educational management activities, aiming to achieve educational goals and tasks through a series of effective management activities.

Chu, H.Q. (2013). Focusing on educational management as a process, its purpose is to enhance the effectiveness and efficiency of education. This viewpoint highlights the role of educational management in achieving high-quality educational outcomes, as well as the importance of achieving this through activities such as planning, organizing, leading, and coordinating.

Ding, H.F. (1987). focused their research on the core of educational management-clarifying educational goals. They believe that the success of educational management largely depends on the ability to clarify and achieve educational goals through organized management activities.

Fan, G.R. (2011). Emphasized the characteristics of educational management as a dynamic process, including scientific management and optimization of educational resources. This perspective points out that educational management needs to adapt to changes in the educational environment, achieve educational goals through continuous adjustment and optimization, and improve the overall quality of education.

Overall, educational management is a complex and multidimensional field that involves clarifying educational goals, optimizing resource allocation, and improving educational effectiveness and efficiency through activities such as planning, organizing, leading, and coordinating. The research of scholars not only provides us with a multidimensional definition of educational management, but also emphasizes the importance of achieving high-quality education. Therefore, educational managers need to adopt scientific and systematic management methods, constantly adapt to changes in the educational environment, optimize educational resources, achieve educational goals, and continuously improve the quality and efficiency of education.

#### **The basic characteristics of educational administration**

Education management, as a diverse and complex field, its basic characteristics reflect multiple key elements in the management process. These characteristics include scientificity, practicality, purposefulness, dynamism, and collectivism, each of which has a profound impact on the effectiveness and efficiency of educational management.

Fang, B.L. (1975) .Emphasizing the scientificity of educational management means that educational management activities should be organized and implemented based on the principles and methods of educational science. This scientificity requires educational managers not only to master theoretical knowledge in fields such as education and psychology, but also to apply this knowledge to solve problems in educational practice, in order to improve the effectiveness and rationality of management.

Gao, J. (2008). The practicality of educational management emphasizes that it should be closely integrated with practical educational practices to meet the specific needs of educational development. This practicality requires education managers to have the ability to flexibly apply theory to practice, adjust management strategies and methods according to actual situations, in order to promote the achievement of educational goals.

Huang, Z.X. (2019). The emphasis on goal oriented means that all educational management activities should revolve around clear educational objectives. This goal-directed approach ensures the directionality and orderliness of educational management activities, helps educational institutions effectively plan resource allocation, optimize teaching and learning processes, and achieve maximum educational outcomes.

Jia, S.H. (2015). The mentioned dynamism reflects the need for educational management to adapt to social changes and the continuous evolution of educational needs. This dynamism requires education managers to continuously pay attention to changes in the educational environment, as well as changes in the needs of students and society, in order to continuously adjust and optimize educational management strategies, and ensure the timeliness and relevance of educational activities.

Li, C.M. (1989). The group nature of analysis indicates that the object of educational management is a group with complex relationships and diverse needs. This includes multiple stakeholders such as students, teachers, administrators, and parents. Group oriented education requires educational managers to consider the needs and expectations of different groups, as well as their interactions, when making decisions and implementing management activities.

Overall, the scientific, practical, goal oriented, dynamic, and group oriented nature of educational management constitute its basic characteristics, which together affect the quality and effectiveness of educational management. Education managers need to fully understand and apply these characteristics to improve the effectiveness of educational management, promote the achievement of educational goals, meet the needs of educational development, and adapt to changes in the educational environment to meet the needs of different groups. This requires education managers not only to have rich knowledge of educational theory, but also to have flexible practical abilities, forward-looking goal planning abilities, keen environmental adaptability, and the ability to coordinate the interests of all parties.

### **Educational Management Theory**

#### **1. Administrative Management Theory**

The application of administrative management theory in the field of education management is multifaceted, involving key areas such as resource allocation and organizational structure design, management process optimization, clear education goals, and the formulation and implementation of education policies. Through the research of different scholars, we can gain a deeper understanding of the specific application and significant impact of administrative management theory in educational management practice.

Bai, Y.X. (2015). It is crucial to point out that administrative management theory is crucial for the effective allocation of educational resources and the rational design of organizational structure, which directly affects the efficient operation of educational institutions and whether they can provide high-quality educational services for students and teachers.

Cao, C.G. (2002). By analyzing the application of administrative management theory in optimizing school management processes, the possibility of improving the operational efficiency of educational institutions through scientific management is demonstrated. This not only improves the quality of education, but also creates a more harmonious and efficient working environment for internal members of educational institutions.

Chu, H.Q. (2013). Emphasized the important role of administrative management theory in clarifying educational goals and improving educational quality. Through clear goal setting and quality improvement strategies, educational institutions can more effectively guide educational practices and evaluate educational outcomes.

Ding, H.F. (1987). Explored the application of administrative management principles in the field of education, particularly in the importance of school management and leadership practices. Their research indicates that effective administrative management can not only promote smooth internal management in schools, but also strengthen the interaction and responsiveness between schools and the external environment.

Fan, G.R. (2011). From the perspective of policy formulation and implementation, the application of administrative management theory was studied, and the importance of strategic planning in education reform and development was pointed out. A sound policy formulation and implementation mechanism is a key factor in promoting the improvement of the education system and adapting to social changes.

Overall, administrative management theory provides a complete set of methodologies and practical guidance for educational management, covering various aspects of educational institutions. The application of administrative management theory not only enhances the management efficiency and effectiveness of educational institutions, but also promotes the continuous improvement of educational quality, from resource allocation, organizational structure design, optimization of management processes, to the formulation and implementation of clear educational goals and policies. These studies demonstrate the profound influence of administrative management theory in the field of education, providing valuable experience and inspiration for future educational management practices and theoretical research.

## 2. Interpersonal Relationship Theory

The theory of interpersonal relationships plays an important role in the field of educational management, improving the environment and effectiveness of educational organizations by emphasizing the importance of interpersonal communication. The research of scholars has demonstrated from different perspectives the application of interpersonal relationship theory in educational management practice and its positive impact.

Fang, B.L. (1975). Highlighting the important role of interpersonal relationship theory in promoting good relationships between teachers and students. By establishing positive interpersonal relationships, a more supportive and encouraging

learning environment can be created, thereby improving student motivation and learning outcomes.

Gao, J. (2008). By analyzing the improvement strategies of interpersonal relationships within the school, it is pointed out how to enhance job satisfaction and educational effectiveness by enhancing mutual understanding and respect between teachers, students, and colleagues. This improvement not only helps to build a harmonious work environment, but also enhances the quality of education.

Huang, Z.X. (2019). Explored the application of interpersonal relationship theory in team building and conflict resolution. Effective interpersonal relationship management strategies not only help establish a spirit of teamwork, but also effectively resolve potential conflicts within educational organizations, thereby maintaining the stability and development of the organization.

Jia, S.H. (2015). The importance of establishing effective interpersonal relationships in creating a supportive educational environment was discussed. By promoting mutual respect and understanding among educators, a more open and inclusive educational environment can be created, which is conducive to educational innovation and improvement.

Li, C.M. (1989). Focusing on how to use interpersonal relationship theory to help managers understand and respond to interpersonal dynamics in educational organizations. By gaining a deeper understanding of the needs and expectations of organizational members, managers can take more effective management measures to promote harmony and progress within the organization.

Overall, the theory of interpersonal relationships provides an important perspective for educational management, emphasizing the importance of interpersonal communication in the educational process. By improving the relationship between teachers, students, and colleagues, not only can education effectiveness and job satisfaction be enhanced, but also teamwork and effective conflict resolution can be promoted, laying the foundation for creating a more supportive and inclusive educational environment. These studies indicate that interpersonal relationship management is an indispensable part of educational management, which is of great significance for improving the quality of education and promoting the healthy development of educational organizations.



### 3. Behavioral Science Theory

The application of behavioral science theory in the field of educational management provides an important way to deeply understand and improve educational practices, especially in motivational incentives, educational leadership, decision-making processes, educational reform and innovation, as well as educational equity and inclusiveness.

Li, S.C. (2004). From the perspective of behavioral science theory, this study provides an in-depth analysis of motivational motivation in educational management. He proposed a series of new methods to motivate teachers and students, based on an understanding of basic human needs and motivations, aimed at improving educational effectiveness and engagement by meeting these needs.

Lin, J.H. (2007). Explored the application of behavioral science theory in educational leadership, with a particular focus on the influence of leadership style and organizational behavior. His research shows that the behavior and style of leaders have a direct impact on the atmosphere and effectiveness of educational organizations, and adopting appropriate leadership styles can promote the development and progress of educational institutions.

Lin, W.L. (2013). Studied how behavioral science theories influence the educational decision-making process, including decision-making and problem-solving. He pointed out that understanding the behavior and psychological mechanisms of educational managers and teachers when facing decisions can help develop more effective decision-making strategies, thereby improving the quality of educational management.

Lu, F. (2017). Analyzed the contribution of behavioral science theory in promoting educational reform and innovation, with a particular emphasis on the importance of change management. His research shows that understanding the behavior and attitudes of members of educational organizations can more effectively guide and manage the process of educational reform, promoting educational innovation.

Complete Works of Marx and Engels (1995). From the perspective of behavioral science, the issues of educational equity and inclusivity were discussed, and a series of strategies to promote educational equity were proposed. These strategies emphasize understanding and improving behavioral motivations and social structures in education to promote equal participation and success for all students.

Overall, behavioral science theory provides a powerful set of tools and perspectives for educational management, helping managers understand and improve educational practices from both behavioral and psychological perspectives. Whether in motivational motivation, leadership style, decision-making, educational reform, or in promoting educational equity and inclusiveness, behavioral science theory has demonstrated its profound influence and application value. Through these studies, education managers can gain new insights to more effectively address the challenges and opportunities faced in the field of education.

#### 4. System theory

System theory provides a comprehensive framework for understanding and improving educational practices in the field of educational management, emphasizing the interdependence and interaction of various components within the educational system, as well as the dynamic relationship between these systems and the external environment. By applying system theory, education managers can more effectively identify, analyze, and solve complex problems in the education process, thereby improving the quality and efficiency of education.

Ma, X.H. (2015). System theory can help education managers examine and improve education quality and school effectiveness from a holistic and comprehensive perspective. By considering the interaction of all relevant factors within the education system, managers can develop more effective and coordinated improvement strategies.

Pan, M.Y. (2001). An in-depth analysis was conducted on the functions and interrelationships of various components within the education system, emphasizing the important application of system theory in optimizing the structure and enhancing its functions of the education system. This method helps to improve the overall efficiency of the education system and its ability to respond to external changes.

Peng, G. (1995). Explored the impact of system theory on the design of educational management information systems, particularly how information technology enhances the functionality of educational systems by improving management efficiency and promoting educational innovation. This technology driven approach brings new opportunities and challenges to educational management practices.

Ren, K., & Bai, Y. (1992). The importance of establishing and maintaining an effective education quality assurance system was explored from the perspective of system theory. They emphasized the crucial role of evaluation and feedback mechanisms in continuously improving the quality of education, providing strategies to ensure the quality and consistency of educational outcomes.

Shang, Y.C. (2003). We analyzed the openness and complexity issues faced by educational organizations using system theory, and proposed a series of strategies to adapt to external environmental changes and promote educational innovation. These strategies aim to enhance the adaptability and flexibility of the education system to respond to rapidly changing educational needs and challenges.

Overall, system theory provides a powerful analytical and improvement tool for educational management, emphasizing the interactions and dependencies between various elements within the system and between the system and the external environment. By applying system theory, educational managers can understand and solve complex problems in education in a more comprehensive and integrated way, thereby promoting the continuous improvement of educational quality and the realization of educational innovation. This theory not only helps to optimize the structure and function of the education system, but also enhances the ability of educational organizations to adapt to external changes, providing important guidance for educational management practice and research.

##### 5. Decision theory

Decision theory occupies a core position in educational management, providing a framework to help educational managers make reasonable and effective decisions in complex educational environments. By introducing a systematic decision-making process, educational institutions can allocate resources more wisely, formulate policies, and address ethical issues in management.

Sun, H.M. (2016). Decision theory is crucial for the allocation of educational resources and the formulation of policies. By applying decision theory, educational managers can evaluate the potential impact of different options, ensuring that resources and efforts are effectively utilized to achieve educational goals.

Wang, Z.R. (2012). Emphasized the role of data and evidence in improving the quality of educational decision-making. In today's data-driven era, data-driven decision-making processes can help educational managers reduce uncertainty, improve transparency and reliability of decision-making.

Wang, D.J. (2016). Explored the application of decision theory in addressing moral and ethical issues in educational management. By adopting moral principles and ethical frameworks to guide decision-making, educational institutions can ensure that their actions comply with social values and legal provisions.

Wu, D.Fu., & Zhu, W.W. (1990). Proposed the design and application of a multi criteria decision support system. This system combines multiple data sources and evaluation criteria to help managers consider various factors and make more comprehensive and balanced decisions when facing complex problems.

Wu, L.F. (2009). Studied how to use decision theory to optimize the selection of educational projects and activities, in order to improve the efficiency of educational investment. Through a systematic evaluation and selection process, educational institutions can ensure that their investments are focused on projects that are most likely to bring positive outcomes.

Overall, decision theory provides a scientific and systematic approach to education management, helping managers make wise, effective, and ethical decisions when facing challenges in resource allocation, policy formulation, ethical decision-making, project selection, and other aspects. By relying on data and evidence, adopting multi criteria evaluation, and adhering to ethical principles, educational managers can improve the quality of decision-making processes, thereby promoting the sustainable development of educational institutions and the continuous improvement of educational quality.

## 6. Leadership Theory

Leadership theory plays a crucial role in the field of educational management, as it not only affects the culture and atmosphere of educational organizations, but also directly affects the effectiveness of educational improvement, innovation, and policy implementation. Through the exploration of different researchers, we can gain a deeper understanding of the diverse applications and significant effects of leadership theory in educational management practices.

Xi, S.Y. (2008). Revealed the importance of change leadership and service leadership in promoting educational improvement. Change leadership emphasizes the vision and innovative ability of leaders to promote the reform and development of the education system; Service leadership focuses on serving the needs of employees and students, and improving the overall performance of the organization through empowerment and support.

Xie, W.W. (2007). Explored how different leadership styles affect the culture and atmosphere of educational organizations, and pointed out that effective leadership can significantly enhance the participation and satisfaction of teachers and students. This indicates that the selection and application of leadership styles are crucial for creating a positive and open educational environment.

Xu, X.Z. (2014). Analyzed the key role of leadership theory in stimulating educational innovation and entrepreneurship education. By encouraging innovative thinking and supporting entrepreneurial activities, leaders can promote the creation and dissemination of knowledge, thereby promoting the long-term development and competitiveness of educational institutions.

Yu, M.C. (2000). Discussed effective strategies for educational leadership in resolving conflicts and establishing team collaboration. By applying conflict resolution techniques and promoting team collaboration, leaders can maintain organizational harmony, improve team cohesion and efficiency.

Zhang, H.M. (2012). It emphasizes the influence of leadership theory on the implementation of educational policies and the improvement of school management, and points out that cultivating effective educational leaders is the key to improving educational quality and achieving educational goals. By providing leadership training and development opportunities, educational institutions can ensure that their leadership teams possess the abilities and knowledge necessary to drive educational innovation and reform.

Overall, leadership theory provides a key perspective for educational management, emphasizing the important role of leadership style and behavior in shaping educational organizational culture, promoting educational improvement, inspiring innovative spirit, resolving conflicts, and implementing educational policies. By cultivating and developing effective leadership, educational institutions can better respond to challenges, promote the continuous improvement of educational quality, and create greater value for students and society.

#### 7. Knowledge management theory

The application of knowledge management theory in the field of education is increasingly valued, focusing on how to effectively manage and utilize knowledge resources to promote the quality and efficiency of education.

Pan, M.Y. (1995). Revealed the importance of knowledge management in promoting knowledge creation, sharing, and utilization. Knowledge management in the field of education can stimulate the innovative potential of teachers and students, promote the flow and application of knowledge, and thereby improve the quality of education and learning outcomes.

Peng, G. (1995). Emphasized the core role of knowledge management in enhancing the learning and innovation capabilities of educational institutions. By establishing a systematic knowledge management system, educational institutions can more effectively capture, store, and apply knowledge, thereby maintaining competitiveness and innovation in a rapidly changing educational environment.

Ren, K., & B, Y. (1992). Through its research, it explores how knowledge management theory can help build effective teacher professional development and lifelong learning systems. This system can support the sustained growth and development of teachers, providing them with necessary knowledge and skills to meet the challenges and needs in the field of education.

Shang, Y.C. (2003). Discussed the application of knowledge management in promoting the optimal allocation of educational resources and the construction of educational informatization. By systematically managing knowledge resources, educational institutions can more efficiently utilize existing resources, improve education quality, and promote the widespread dissemination and utilization of knowledge through educational informatization.

Sun, H.M. (2016). Explored the application of knowledge management theory in higher education research, with a particular emphasis on the importance of establishing an open knowledge sharing platform. Such a platform can promote academic exchange and collaborative research, accelerate knowledge innovation and dissemination, and enhance the quality and impact of research.

Overall, knowledge management theory provides an effective tool and strategy for educational management, greatly enhancing the learning and innovation capabilities of educational institutions by promoting knowledge creation, sharing, utilization, and optimization. Implementing knowledge management can not only improve the quality of education, but also promote educational equity and inclusiveness, bringing profound changes and development to the field of education. Therefore, building and implementing effective knowledge management strategies is

crucial for modern educational institutions to achieve continuous improvement and optimization.

## Concepts and Theories Related to Entrepreneurship

### The meaning of entrepreneurship

In traditional Chinese culture, "entrepreneurship" is usually opposite to "conservatism", involving a wide range of aspects from daily life to national governance. Mencius once mentioned that "Sun QiaoZi's creation was in line with tradition", while Zhuge Liang said in "The Preceptor of the Imperial Academy" that "the late emperor's entrepreneurship was not yet complete and the middle path collapsed", referring to the great cause of establishing a country. In contemporary times, "entrepreneurship" has multiple definitions, and although different scholars have different expressions, the core ideas reflect the hardships and complexity of the entrepreneurial process. The English vocabulary corresponding to "entrepreneurship" includes Enterprise and Entrepreneurship. Among them, "Enterprise" broadly refers to engaging in commercial activities and individual ambition, while "Entrepreneurship" focuses more on the spirit of founding a new enterprise. The definition of "entrepreneurship" in "Cihai" emphasizes exploration and innovation, but less involves the specific process elements of entrepreneurship. These elements can be roughly divided into three categories, reflecting a multidimensional interpretation of the concept of "entrepreneurship".

1) It is an entrepreneurial concept that emphasizes risk and wealth return. A. Cole (1965) the entrepreneurial definition of "creating, maintaining and developing enterprises to obtain business value and benefits", and C. Robert (1984) described the "process of creating new wealth". These views jointly emphasize the connotation of entrepreneurship in business opportunity development and material wealth creation, and show the importance of entrepreneurship in social economy. However, these definitions also reveal the neglect of the role of entrepreneurship in politics, culture and other fields.

Wang.S. (2003). emphasized the importance of risk and return in his entrepreneurial view. He believes that entrepreneurship is not only a dynamic process of wealth creation, but also involves taking various risks. In this process, entrepreneurs need to invest time and effort, face potential risks and challenges, and

expect to obtain economic and personal returns. This view highlights the indivisibility of risk and return in entrepreneurial activities, and emphasizes that entrepreneurship is not only an economic activity, but also a way of personal growth and satisfaction.

2) It is an entrepreneurial view that emphasizes the grasp and management of entrepreneurial opportunities. Shane & Venkataraman (2000) believes that entrepreneurship is a series of processes around the identification, development and utilization of opportunities. Professor Timmons of Harvard Business School further defined the concept of "opportunity" in entrepreneurship. He stressed that entrepreneurship is a dynamic process of pursuing opportunities under the constraints of current resource conditions, using and developing opportunities by integrating different resources, so as to create value. Ge.B.S. et al. (2013) further supported this view, emphasizing the importance of resource integration and the core goal of value creation in the process of entrepreneurship.

Yang, Y.P. (2004). made a broader definition of entrepreneurship in her research and regarded it as a process of creating new businesses in various fields and having a significant impact. Her definition is not limited to the establishment of enterprises, but also includes the achievement of innovation in other fields (such as culture, education, science and technology, etc.). This definition emphasizes the diversity and influence of entrepreneurship, and believes that entrepreneurship is a comprehensive behavior that spans different fields and has a broad impact.

ZhangYuli, YuYihong, LiZhineng and other scholars jointly believe that entrepreneurship is an activity based on the discovery and utilization of opportunities, aimed at creating new products, services or values. They stressed that even in an environment with limited resources, entrepreneurship is a comprehensive behavior involving multiple management skills. This idea highlights the innovation and opportunity orientation of entrepreneurship, and emphasizes that even in the context of limited resources, entrepreneurs still need to realize innovation and value creation through comprehensive management skills.

3) It is an entrepreneurial concept that emphasizes innovation and value creation. M.Morris. (1998). systematically reviewed and analyzed foreign entrepreneurship research literature. He found that in addition to the terms related to the narrow concept of entrepreneurship, such as seizing business opportunities and creating new organizations, foreign scholars often refer to the keywords related



to the broad concept of entrepreneurship, including innovation, risk-taking, innovative undertaking and creating new value. This reflects that entrepreneurship is not only a process of creating new enterprises, but also involves a wider range of activities, such as innovation and value creation.

Jurgen Koka (2017) stressed that entrepreneurship not only helps social mobility, but also is a catalyst for innovation. He quoted the theory of Schumpeter, an Austrian economist, to explain how entrepreneurship drives innovation. Schumpeter believes that innovation is not limited to the improvement of products and processes, but also includes the innovative application of raw materials, the development of new markets, and the reform of systems. Koka's analysis reveals how entrepreneurship plays an important role in promoting social and economic structure, especially in promoting technology and market innovation.

Peter Drucker (1985) defined entrepreneurship as a systematic activity requiring organizational management, emphasizing that only those activities that can bring novelty and uniqueness and create value on this basis can be called entrepreneurship. Drucker's idea highlights the innovation of entrepreneurship and the importance of value creation, and points out that entrepreneurship is not only a business behavior, but also a systematic organizational activity. It requires entrepreneurs to pay attention to their value contribution to society and economy while creating new things.

Gartner (1988) proposed a unique perspective on entrepreneurship. He believed that entrepreneurship mainly refers to the establishment process of new enterprises. In this definition, the entrepreneur is regarded as the founder of a new enterprise, and once the enterprise is established, the entrepreneurial process is regarded as the end. Although this view has limitations to some extent, it emphasizes the difference between the founder and the pure owner or manager. According to this definition, only the owner or manager of the enterprise cannot be directly equivalent to the entrepreneur.

From the perspective of entrepreneurial outcome factors, Morris et al. (1994) proposed that the essence of entrepreneurship can be observed from its outcome factors, which include wealth creation, enterprise creation and innovation, strategy adjustment to adapt to environmental changes, employment opportunities and value creation, as well as the growth of sales, income, assets, and employment

opportunities. Although these elements are difficult to distinguish clearly, their diversity provides a deeper perspective on understanding the significance of entrepreneurship education. The entrepreneurial process not only focuses on financial growth, but also encompasses multiple factors of adaptability, innovation, and social value, demonstrating its rich and dynamic characteristics.

Zhang, W. (2011). pointed out in her research in the field of entrepreneurship education that the definition of entrepreneurship has a broader meaning in the educational environment. She pointed out that entrepreneurship education is difficult to clearly distinguish between the creation of new enterprises and the maintenance education of existing enterprises, and often can only focus on one aspect. Early research on entrepreneurship mainly focused on "what is the essence of entrepreneurship" and "the characteristics of entrepreneurs". Due to the differences in the research focus and academic background of scholars, there are various definitions of entrepreneurship, so there is still no universally accepted unified definition.

The concept of entrepreneur/entrepreneur discussed in this paper is closely related to the research of economists Alfred Marshall and Schumpeter. Marshall regards entrepreneurs as independent factors of production for the first time, and believes that the particularity of entrepreneurs lies in their ability to take risks and take risks. Schumpeter went further in his book economic development theory, defining entrepreneurs as innovators and promoters of economic development. They lead the economy forward by innovatively destroying market equilibrium. This entrepreneurial concept based on innovation is widely recognized in research universities, emphasizing the importance of technological innovation in the process of entrepreneurship.

Although there are different definitions of entrepreneurship, the general consensus is that entrepreneurship is a continuous process of value creation. This process lasts from the early stage of start-ups to the various stages of maturity and development of enterprises. In this process, the unique quality and ability of entrepreneurs can be revealed and play a role. More importantly, these qualities and abilities are gradually formed and optimized in the actual operation of entrepreneurship, and are improved and improved through continuous practice and learning.

Based on the research of scholars at home and abroad and considering the current situation of China, this paper believes that entrepreneurship is a process of creatively developing new undertakings in various fields, which depends on the innovation of products, technology, resource allocation mode, organization form and so on. This definition highlights several key points: first, the core of entrepreneurship is innovation, that is, the practical application of various innovative achievements in economic and social development; Secondly, entrepreneurship is not limited to the economic field, but covers innovation activities in all fields of society; Finally, the value of entrepreneurship is reflected in opening up new space for social development, emphasizing the important mission of entrepreneurship in undertaking social responsibility.

#### **Type of entrepreneurship**

Based on the research of scholars at home and abroad and considering the current national conditions of China, this paper believes that entrepreneurship is a process that depends on innovation in products, technology, resource allocation mode, organization form and other aspects, and creatively develops new undertakings in various fields. This definition highlights several key points: first, the core of entrepreneurship is innovation, that is, the practical application of various innovative achievements in economic and social development; Secondly, entrepreneurship is not limited to the economic field, but covers innovation activities in all fields of society; Finally, the value of entrepreneurship is reflected in opening up new space for social development, emphasizing the important mission of entrepreneurship in undertaking social responsibility.

Tan, Y.F. (2010). pointed out that in terms of economic growth and employment creation, opportunity based entrepreneurship has a more significant contribution compared to survival based entrepreneurship. This discovery emphasizes the importance of increasing the rate of opportunity based entrepreneurship and suggests reducing the rate of survival based entrepreneurship. Observing the history of entrepreneurship in China, it can be observed that entrepreneurial activities are gradually shifting from survival oriented to opportunity oriented. Especially for research-oriented universities, the core goal of entrepreneurship education is to promote innovation based opportunity based entrepreneurship. This type of education not only focuses on the practical nature of

entrepreneurship, but also emphasizes innovation driven, thus its educational needs are significantly different from those of ordinary entrepreneurs.

## Concept and Theory of Entrepreneurship Education

### The connotation of entrepreneurship education

Collin Bor. (1989) put forward the concept of "the third education passport", giving it the same importance as traditional academic education and vocational education. UNESCO further defines the concept of entrepreneurship education and emphasizes its role in cultivating individuals with innovative spirit and independent work ability, especially for those who seek to achieve success in their career. This kind of education not only attaches importance to the cultivation of technology and social skills, but also emphasizes the improvement of risk-taking spirit and entrepreneurial ability, so as to play a key role in the modern job market.

Hu, X.F. (1995) proposed that the essence of entrepreneurship education is to cultivate individuals with entrepreneurship as their life goal. This kind of education is not only about the teaching of skills and knowledge, but also at a deeper level, involving the construction of a reasonable outlook on life and the improvement of the quality of life.

Hou, D.K. (2000) proposed that the focus of (enterprise) education is to cultivate an entrepreneurial spirit and personality, and this education does not need to involve the actual process of establishing an enterprise. In contrast, (Entrepreneurship Education) focuses more on cultivating the practical skills and knowledge required for entrepreneurship, emphasizing the ability of self employment and enterprise creation. (enterprise) education emphasizes the transformation of ideas, focuses on the cultivation of professionalism and innovation ability, pays attention to the development of personality and quality, and tends to shape an entrepreneurial culture. And entrepreneurship education focuses more on seizing practical opportunities, emphasizing the transformation of ideas into concrete actions.

Li, Z. (2010) proposed that entrepreneurship education goes beyond the simple enterprise creation skills education, which is defined as a new educational concept and model. The main goal of this education method is to cultivate talents with innovative ability and entrepreneurial spirit, which covers the cultivation of entrepreneurship, the education of entrepreneurial awareness and the learning of

entrepreneurial skills. The core of entrepreneurship education is to develop students' innovation and entrepreneurship ability in multiple dimensions, which not only focuses on the teaching of skills, but also emphasizes the shaping of personality and spiritual cultivation.

Zhang,H.M.(2012) proposed that the functional orientation of entrepreneurship education has been put forward new thinking. They believe that entrepreneurship education should not be limited to the role of cultivating entrepreneurs. On the contrary, entrepreneurship education should pay more attention to cultivate students who are suitable for entrepreneurship, encourage them to participate in entrepreneurial activities, and support students who are not suitable for entrepreneurship to engage in professional or technical work. Such an education model helps to achieve the optimal allocation of resources in society. Entrepreneurship education is different from vocational education, general education or humanistic education. It is a comprehensive form of education. As the main body of entrepreneurship education, colleges and universities should use social and enterprise resources, combined with theoretical knowledge learning and entrepreneurship skills training, to cultivate students' ability to independently develop jobs and create self-worth.

Tong,X.L.(2012) proposed that entrepreneurship education, originated in the United States, aims to comprehensively support and promote the development of entrepreneurial culture through the introduction of specialized entrepreneurship courses at the secondary school and university levels, accompanied by various preferential policies launched by the government. This education mode emphasizes practice and innovation, and provides a platform for students to explore entrepreneurial opportunities and develop entrepreneurial skills.

Li,Y.G.(2015) proposed that entrepreneurship education is a process centered on curriculum teaching and practical activities, which aims to cultivate students' necessary entrepreneurial awareness, knowledge and ability. This form of education focuses on integrating these elements into students' entrepreneurial quality to prepare for future entrepreneurial activities.

Based on the analysis and reference of the existing literature, this study defines entrepreneurship education as a comprehensive education. This kind of education focuses on the individual factors of college students and the school

environment, and is jointly supported by the government, society, enterprises and families. It covers basic education, higher education and continuing education, and aims to cultivate students' comprehensive knowledge system, skills and spiritual quality. In addition, entrepreneurship education also emphasizes the cultivation of independent career planning ability, and encourages students to start their own businesses at an appropriate time to provide employment opportunities for the society, so as to promote the national economic development.

### **Classification of entrepreneurship education**

This paper first classifies entrepreneurship education from the perspective of the educated, and divides it into two schools: Elite Theory and mass theory. Although entrepreneurship education has become a new trend in the reform and development of global higher education, many studies show that Entrepreneurial still Areas that are generally considered to be highly difficult and not universally accessible. In this view, entrepreneurship is considered to be the patent of a few people, and this "elite theory" occupies the mainstream position in the academic and entrepreneurial circles. However, the current national policy and some scholars have begun to advocate different views. They believe that entrepreneurship should be a popular and daily activity. Everyone has the potential of entrepreneurship, so colleges and universities should provide entrepreneurship education for all students.

Liu,D.N.(2000) proposed the concepts of "pioneering" and "revolutionary" entrepreneurship education, which is actually a clear distinction between the target groups of entrepreneurship education. Pioneering entrepreneurship education mainly targets social groups and provides entrepreneurship training; Innovation and entrepreneurship education, on the other hand, strengthens the content of enterprise education on the basis of existing school education. In contrast, China's practice in innovation and entrepreneurship education appears to be relatively lacking. Liu's viewpoint is important in that it reveals the shortcomings of the current school education system in cultivating students' entrepreneurial abilities, and points out the problems of the current education system in suppressing student subjectivity and replacing personalization with socialization.

This paper further classifies entrepreneurship education from the perspective of educational objectives and contents, and discusses the differences between its broad and narrow senses. Zhaoshuming of Nanjing University put forward that, in a

broad sense, entrepreneurship education aims to cultivate high-quality talents who adapt to the trend of the times. These talents have innovation consciousness and innovation ability, and can improve the innovation level of the whole nation, so as to promote economic and social development and progress. In a narrow sense, entrepreneurship education focuses on cultivating students' innovative spirit, thinking and ability, as well as entrepreneurial personality through teaching activities, which is a more specific educational theory and method (Zhang,Y.L., Li,Z.,2006). Peng,G.(1995) believes that entrepreneurship education in the broad sense is to cultivate innovative individuals, while entrepreneurship education in the narrow sense is more combined with employment training to provide the educated with the necessary skills, skills and resources to achieve self-sufficiency.

The core problem of this classification is that it fails to clearly distinguish the links between innovation and other educational goals in a broad sense, and may over limit the content of entrepreneurship education in a narrow sense. Therefore, when understanding and applying this classification, we need to pay attention to the balance between the broad connotation and practical purpose of entrepreneurship education.

Whether in a broad or narrow sense, the concept of entrepreneurship education should be unique and irreplaceable. At present, the goal of entrepreneurship education in many universities is not only to help students set up companies, but also to cultivate talents with innovative spirit and creative ability, which covers the cultivation of spirit, consciousness, ability and other aspects. This goal does not deviate from the basic concept of traditional university education.

Yang,X.H.(2015) positioned entrepreneurship education as the cultivation of innovative talents, which is persuasive in theory, but it also faces a challenge, that is, it fails to clarify the difference between entrepreneurship education and general professional education in the cultivation of innovative talents, which may lead to the generalization of the concept of "innovation".

The real value of entrepreneurship education is to stimulate students' intrinsic interest in learning and creative desire. From this perspective, the goal of entrepreneurship education is far beyond the simple employment supplement or replacement, which represents the profound reform and development of talent training mode. At a deeper level, the potential value of entrepreneurship education

lies in bridging the gap between education and Practice for a long time through innovation driven and entrepreneurship guidance.

### **Concept and Theory of Entrepreneurship Education Operating Mechanism**

In the field of entrepreneurship education in universities, its operating mechanism refers to the interconnection and interaction between various components of the university entrepreneurship education system (including the elements of the education system itself and related socio-economic factors). Although many scholars have attempted to "seek a universally applicable guidance model" through the "entrepreneurship education model" or "system" in existing research, the viewpoint presented in this study is that a universal education model is difficult to exist. In fact, each university should have its own characteristics when carrying out entrepreneurship education, and the key is to establish a reasonable operating mechanism based on important elements.

Many scholars have conducted research on the organizational model or system composition of entrepreneurship education in universities (Qu,D.B. and Xu,W.X,2009; Rui,G.X,2014; Song,Z.H,2014). However, these studies are not sufficient in distinguishing concepts such as "system", "mode", and "operating mechanism", leading to doubts about the existence of unique entrepreneurial education models in various universities. At the international level, the concept of school wide entrepreneurship education has been proposed, which includes classifications such as magnet mode and radiation mode. On the contrary, it is the focusing mode (Streeter et al., 2002). The proposal of these models provides a new perspective for understanding and practicing entrepreneurship education in universities.

Yuan,A.(2012) conducted a detailed analysis of the entrepreneurship education model in Chinese universities. He pointed out that the entrepreneurship education model of Chinese universities mainly refers to foreign focused models, whole school models, and hybrid models. His research further distinguished different types of universities - research universities, regular undergraduate colleges, and higher vocational and technical colleges - and conducted in-depth analysis of the current practices of these types of universities in entrepreneurship education. It is worth noting that although school wide entrepreneurship education is widely



adopted in current universities, each school has its own specific operating mechanism, which leads to differences in implementation effectiveness among different schools.

Tong,X.L.(2012) conducted an in-depth analysis of the entrepreneurship education system in universities in her research. She believes that this system or its internal components mainly include five core aspects: the goal concept system of innovation and entrepreneurship education, the organizational environment system, the participation subject system, the curriculum content system, and the practice platform system. Tong Xiaoling further proposed the "three classroom model" to run entrepreneurship education, which is considered to be the core of entrepreneurship education. However, a significant drawback of this study is that despite describing the operating mechanisms of these modes, their effectiveness has not been evaluated, and there is a lack of comparative analysis between different modes.

The uniqueness of the operation mechanism of entrepreneurship education in Colleges and universities can be investigated from three aspects. First, the characteristics of colleges and universities can not be ignored. As an important part of higher education, colleges and universities have significant advantages in resources, talents and vision, which makes them unique in the goals and methods of entrepreneurship education. Secondly, the differences between entrepreneurship education and other forms of education. The position of entrepreneurship education in the higher education system has not been fixed, and it may become the focus of future development, or it may only be a supplement to general education. Finally, the relationship between innovation education and entrepreneurship education. Innovation education emphasizes the cultivation of innovation consciousness, thinking and ability, while entrepreneurship education focuses more on practical application and enterprise creation. At present, China combines innovation and entrepreneurship education to form the overall concept of innovation and Entrepreneurship Education (Cao,Y.,2014).

In educational practice, innovation education and entrepreneurship education are often juxtaposed, demonstrating the commonality between the two. However, there is a fundamental difference between the two. The core of entrepreneurship education lies in cultivating students' entrepreneurial spirit and ability, emphasizing the transformation of innovative thinking into concrete actions. In contrast,

innovation education mainly focuses on cultivating innovative spirit and does not necessarily cover the cultivation of entrepreneurial ability. Furthermore, the exploration of operational mechanisms goes beyond the scope of patterns, structures, or systems, focusing on the interaction of various elements within the system. Although the entrepreneurship education system has certain commonalities among different universities, such as goals, faculty, curriculum settings, etc., its operational effects and methods vary depending on the environment. This study focuses on exploring effective operational mechanisms for entrepreneurship education, namely practical models that can sustain stable operation and provide reference for other institutions. The focus is on how to effectively implement entrepreneurship education, rather than whether there is a unified model.

In this study, we examine the multiple complexity of the operating mechanism of the university entrepreneurship education system. We believe that this mechanism involves the internal elements of the education system and its interaction with external socio-economic factors. Although the existing research often aims at a universal model or system, this study emphasizes that it is difficult to find a universal model due to the uniqueness of each university. Therefore, the focus should be on customizing the unique operation mechanism of entrepreneurship education for each university according to the key elements.

## **Related Research**

### **Literature research on entrepreneurship education**

Research on the connotation and concept of entrepreneurship education. Entrepreneurship education, as an education mode, aims to cultivate and develop individual entrepreneurial ability and business opportunity cognition. Bechard and Toulouse (1998) defined it as a teaching process aimed at entrepreneurship and the development of small and medium-sized enterprises. Colin and Jack (2004) go further and believe that entrepreneurship education not only provides learning opportunities, but also cultivates the necessary observation, theoretical knowledge and practical ability in entrepreneurial activities. These definitions jointly emphasize the importance of entrepreneurship education in stimulating entrepreneurship and cultivating practical skills.

Zhang,D.J.(2006) emphasized the important role of entrepreneurship education in quality education by comparing it with other forms of education. Zhao,Z.J.(2006) regards entrepreneurship education as the key to cultivating individuals with innovative abilities and pioneering spirit. Mei,W.H.(2009) advocates a three-dimensional perspective on entrepreneurship education, emphasizing its strategic, systematic, collaborative, and innovative nature. Zhang,G.C.(2011) believes that cultivating entrepreneurial spirit is the core of entrepreneurship education. Feng,X.(2016) values the role of entrepreneurship education in value education. Although there are differences in these views, they all agree that entrepreneurship education aims to cultivate students' innovative spirit, entrepreneurial awareness, and abilities.

Research on the essence and value of entrepreneurship education. The existing research literature generally shows that scholars at home and abroad agree with the important value of entrepreneurship education for national development and personal growth. Kuratko (1999) pointed out that entrepreneurship education plays an important role in the market economy, not only reshaping the market structure, but also playing a core role in promoting innovation. Richard Lambert (2003) emphasizes that entrepreneurship education can improve students' innovation ability and entrepreneurial skills from the perspective of students, so as to enhance their employment competitiveness. Luo,Z.M.(2011) proposed that the fundamental purpose of entrepreneurship education in Colleges and universities is to cultivate talents with entrepreneurial quality. Specifically, it refers to the educational activities implemented in higher education institutions to cultivate the quality required by students' future career development. The effective implementation of entrepreneurship education in Colleges and universities should take "realistic people" as the starting point and "developed people" as the end point, and realize the transformation from the starting point to the end point.

Xiao,L.H.(2011) believes that the value of entrepreneurship education is to teach students to have entrepreneurial spirit and entrepreneurial thinking. Han,G.L.(2013) believes that the essence of entrepreneurship education is quality education, and its core is to cultivate entrepreneurship. Lin,W.W.(2016), in his doctoral dissertation entitled "Research on the value of University Entrepreneurship Education", discussed the value basis, implication, system and implementation of

entrepreneurship education, and proposed that the value of entrepreneurship education lies in promoting people's free and comprehensive development, the symbiosis of virtue and wealth, achieving a happy life, and promoting economic development, cultural progress and the cultivation of entrepreneurial talents. Overall, researchers generally believe that entrepreneurship education, as a complex and systematic project, has far-reaching and positive significance for the construction of an innovative country, the construction of a harmonious society, the cultivation of innovative talents in Colleges and universities, and the all-round development of college students.

Research on the goal and mode of entrepreneurship education. In terms of exploring the objectives of entrepreneurship education, international scholars have conducted research mainly from the perspectives of psychology, pedagogy and other disciplines. Hills (1988) believes that the two main goals of entrepreneurship education include improving entrepreneurship awareness and understanding the process of entrepreneurship and management, as well as enhancing college students' awareness of career choice. Through the evaluation of six projects in five European countries, Garavan (1997) proposed that the purpose of entrepreneurship education should include stimulating entrepreneurial motivation, cultivating entrepreneurial ability, correct risk judgment, and adaptability to environmental changes.

In China, scholars have conducted in-depth research on the objectives and types of entrepreneurship education from different perspectives. Xia, R.Q. (2010) believes that the goal of entrepreneurship education should be divided into three levels: the first level is to cultivate social citizens with good entrepreneurial quality, the second level is to become the creator of self employment, and the third level is the founder of new enterprises. Yang, Y.B. (2010) proposed three levels of entrepreneurship education goals: basic, universal and improving. Different types of colleges and universities, such as research universities, entrepreneurial universities, normal universities, application-oriented universities and higher vocational colleges, have also put forward entrepreneurship education goals in line with their own characteristics. Ma, X.H. (2013) emphasizing that entrepreneurship education in entrepreneurial universities focuses on helping college students develop their entrepreneurial potential, education focuses on helping college students develop

entrepreneurial potential, cultivate entrepreneurial awareness, shape entrepreneurial spirit, and improve entrepreneurial ability and quality, so as to achieve sustainable development. Wang,G.L.(2010) believes that the goal of innovation and entrepreneurship education in higher vocational colleges is to cultivate diversified innovative talents. Feng,G.W.(2010) proposed that the goal of entrepreneurship education in normal universities should reflect the times according to social needs, reflect the levels in line with the requirements of higher education, reflect the educational characteristics of normal universities, and reflect the differences according to individual development needs.

Over the years, the development of entrepreneurship education abroad has formed a variety of education models based on ability and entrepreneurial practice. In China, the research of entrepreneurship education model is significantly influenced by entrepreneurship education in American colleges and universities. Timmons (2009), a famous American entrepreneurship education management scientist, put forward two entrepreneurship education modes, the integrated mode and the compound mode, in his book entrepreneurship. Domestic research has conducted in-depth discussion on these models, including not only the conceptual framework, but also the improvement in practice.

Mu,Z.R.(2006) proposed two core elements: first, establish a reasonable entrepreneurship education curriculum system, including five modules: entrepreneurship curriculum, entrepreneurship research, Entrepreneurship Forum, entrepreneurship competition and Entrepreneur Alliance; The second is to organize and cultivate excellent entrepreneurial teachers. Xu,P.P.(2010) explored the entrepreneurial education model based on dynamic ability and built an entrepreneurial education model with harmonious environment. Li,Z.(2011) implemented the "platform module window" entrepreneurship education model in local comprehensive universities. Mei,W.H.(2016) introduced the focus mode, magnet mode and radiation mode in American universities. Hu,C.(2016) built an "entrepreneurship center model" suitable for Chinese Universities on the basis of integrating the advantages of American university entrepreneurship education model.

In terms of specific case studies, Xu,J.(2008) introduced the popular entrepreneurship education of the Central University of Finance and economics, in which the "entrepreneurship pioneer class" is the leader of systematic

entrepreneurship education and training, and integrates students' entrepreneurial practice activities into the education mode. Zhou, Q.J. (2009) introduced the "curriculum, practice and management" three in one entrepreneurship education mode of Ningbo University.

Entrepreneurship education curriculum and practical research. In the implementation of entrepreneurship education, curriculum serves as the main carrier and is a key bridge for transforming ideas into educational practice, which has a direct impact on the effectiveness of entrepreneurship education. Therefore, the design and implementation of entrepreneurship education courses have always been a key area of research. At the international level, the curriculum design of entrepreneurship education usually has good systematicity and comprehensiveness. Carolyn Brown (2000) proposed that in addition to existing courses, entrepreneurship education should also include aspects such as business planning, entrepreneurial practice, understanding of the business environment, politics, and education. Solomon (2002) emphasizes the importance of promoting entrepreneurship courses in interdisciplinary fields, covering entrepreneurship management, entrepreneurship law, and entrepreneurship financial accounting, to help students master the basic knowledge of entrepreneurship and legal operations.

Domestic scholars' research on entrepreneurship education curriculum mainly focuses on introducing foreign curriculum system and exploring domestic curriculum structure. Hu, B.H. (2010) analyzed the entrepreneurship education curriculum of Baisan business school in the United States, and pointed out that it would integrate the required knowledge into the complete entrepreneurial process, such as entrepreneurial opportunity identification, enterprise growth, success harvest and other links. Xiang, D.C. (2003) divided the entrepreneurship education curriculum system into two categories and four modules, including explicit courses and implicit courses, as well as four modules involving the basic theory of entrepreneurship, entrepreneurial awareness, entrepreneurial culture and entrepreneurial practice. Huang, Z.X. (2012) put forward the idea of organically integrating three forms: theoretical courses and practical courses, basic courses and professional courses, and implicit courses and explicit courses.

In recent years, the diversification of entrepreneurship education practice in Colleges and universities has become a hot topic in the academic community.

Li,S.C.(2004) comprehensively combed and summarized the typical models of entrepreneurship education practice in foreign developed countries and domestic universities. Meng,X.(2016) pointed out that the practice system of entrepreneurship education in Colleges and universities should include three elements: practice subject, content and environment, and stressed that university science and technology park is an effective carrier of the practice system. Yao,G.X.(2016) proposed that the reform of practical education has brought new development opportunities and challenges to college students' entrepreneurship education.

In terms of specific university practice, Wang,Z.R.(2012) proposed a "broad spectrum" entrepreneurship education model. Ma,Y.B.(2015) proposed the viewpoint of fully utilizing the ecological network model, taking the entrepreneurship and innovation education practice of Tsinghua Shenzhen Graduate School as an example. Huang,Z.X.(2011) provided a detailed introduction to the entrepreneurship education practice of Wenzhou University, which has attracted widespread attention to the "Wenzhou model". However, despite the existence of these practical cases, there is still relatively little research on the construction of entrepreneurial education practice systems and the evaluation of entrepreneurial practice effects in existing literature.

Research on the comparison and evaluation of entrepreneurship education. Domestic scholars have conducted extensive research and introduction on entrepreneurship education around the world, especially in the United States. You,Z.S.(2011) comprehensively analyzed the entrepreneurship education in the United States in his doctoral thesis. Taking the University of Illinois as a case, he pointed out that its entrepreneurship education integrates the diversified characteristics of business school, engineering school, interdisciplinary and academic entrepreneurship. Huang,Z.X.(2010) discussed the "cooperation" mode in American entrepreneurship education, including the macro cooperation of the national Entrepreneurship Education Alliance, various meso level cooperation, and interdisciplinary micro education practice on campus.

Bao,S.M.(2016) proposed six characteristics of entrepreneurship education in the United States, using Massachusetts Institute of Technology, Stanford University, and Parsons School of Business as examples: the positioning of quality education goals, professional education management, a teaching team combining full-time and

part-time teachers, interdisciplinary course groups, a focus on innovation and entrepreneurship activities, and the dominant position of universities with government and corporate support. Li, W. Y. (2010) introduced the professional model, popularization model, and training model of entrepreneurship education adopted by Australian universities. Liu, M. (2010) introduced the situation of entrepreneurship education in France through the case of the Central Polytechnic University in Paris. At the same time, some scholars have studied entrepreneurship education in Germany, South Korea and Taiwan, China.

The quality evaluation of entrepreneurship education has always been a key research field of concern in the international academic community. As early as the early 1990s, American magazines such as *Success* and *Entrepreneur* began regularly evaluating entrepreneurship education. As Peter Robinson and Max Haynes (1991) pointed out, evaluating the quality of entrepreneurship education should be reflected in the design and implementation of entrepreneurship courses. Lundström and Stevenson (2003) proposed a comprehensive evaluation framework that includes six aspects: entrepreneurship promotion, education, environment, financing, start-up business support, and target group strategy by analyzing public entrepreneurship policies in 15 countries. Karl Vesper's (2007) research focuses on the evaluation of entrepreneurship education, including seven aspects: curriculum provision, social influence, and alumni achievement.

In China, the research on the evaluation of entrepreneurship education in Colleges and universities started late and the results are relatively limited, but the research combining quantitative and qualitative methods has gradually become a trend. Qin, J. M. (2009) constructed an evaluation structure based on QFD method in his doctoral dissertation, covering 5 first-class indicators, 16 second-class indicators and 57 third-class indicators. Dong, X. H. (2009) proposed a quality evaluation index system of entrepreneurship education, which includes 8 categories and 40 evaluation indexes. Liu, H. B. (2012) studied the evaluation index system of entrepreneurship education based on AHP method, built an evaluation system consisting of 4 first-class indicators, 10 second-class indicators and 40 third-class indicators, and assigned weights to each level of indicators. Ge, L. (2014) focused on the evaluation index system of entrepreneurship education ability in Colleges and Universities Based on CIPP model.



Through the preliminary analysis of the research literature in various fields of entrepreneurship education, we can see that entrepreneurship education has become an important field of higher education research in China. The number of literatures in this field and the scope of research involved are unprecedented in the past, and the research methods also show a trend of diversification.

1) At present, research on entrepreneurship education mainly focuses on operational issues such as models, curriculum, current situation, and countermeasures, while there is relatively little research on the essence of entrepreneurship education. The essence of entrepreneurship education involves key issues such as the essence and value, concept and nature, function and purpose of entrepreneurship education. These issues are the fundamental fulcrums for the theoretical development and practical exploration of entrepreneurship education. If there is no in-depth research on these fundamental issues, research on entrepreneurship education may become a castle in the air with no practical foundation. Therefore, future research should prioritize clarifying its essence, value, and purpose, laying a solid foundation for the disciplinary development of entrepreneurship education.

2) At present, the research on the introduction of foreign entrepreneurship education experience is more, but the "localization" transformation is not deep enough, and the research on how to build the practice system and discourse system of entrepreneurship education suitable for China's actual situation is relatively less. Although foreign experience can provide enlightenment for our theory and practice, considering the differences of national conditions, the development level of higher education and traditional concepts, how to guide and standardize the practice of entrepreneurship education in China from the perspective of rationality and localization should become the key direction of future research. In addition, for different types of colleges and universities, according to their school running type, development orientation, characteristic fields and basic conditions, targeted entrepreneurship education research and practice are still very limited.

3) The existing research mostly focuses on the overall framework at the macro level, paying less attention to the micro elements, the analysis of the factors affecting the effect of entrepreneurship education, policy improvement, social services and classroom teaching ecology. How to strengthen the guidance, incentive,

standardization and evaluation of entrepreneurship education from the national policy and system level will become the key to improve the level of entrepreneurship education. At the same time, as the key link of the effect of entrepreneurship education, how to improve the classroom teaching effect, teachers' level and teaching methods should also become the focus of researchers.

4) From the perspective of research methods, at present, it is mainly from the perspective of pedagogy, and the introduction of interdisciplinary research is not sufficient. Although management, psychology and other disciplines have been involved, and the ecological perspective has also been applied to entrepreneurship education research, interdisciplinary research is almost blank in the definition of basic concepts, characteristics analysis, principles, conditions and risks. This situation limits the diversified support that entrepreneurship education needs in the process of disciplinary development. At the same time, the current research on entrepreneurship education mostly relies on empirical summary and qualitative speculation, while the lack of quantitative research leads to the lack of support for research conclusions.

#### **Literature research on educational ecology**

Educational ecology, the science of applying ecological principles and methods to study educational phenomena, has gradually become a new frontier discipline in Britain and the United States since the 1960s and 1970s. W. Waller (1932) put forward the concept of "classroom ecology" for the first time in his book "sociology of education", and creatively introduced the concept of ecology into the field of education. Later, British scholars Ashby, e. (1966) proposed "higher education ecology" and began to explore the use of ecological principles and methods to study higher education.

The 1970s was a prosperous period for educational ecology research abroad, during which various research trends emerged. During this period, the research of Cremin, L.A., former dean of Columbia Normal College in the United States, was particularly influential. He formally proposed the concept of "educational ecology" in his 1976 book "Public Education". Cremin, L.A.'s educational ecology has received high praise from Huxen, President of the International Association for Educational Evaluation. After entering the 1980s, the research scope of educational ecology in the West has been further expanded and deepened. Goodlad, J.I. (1987) of the

University of Washington focused particularly on micro school ecology research and for the first time viewed schools as a "cultural ecosystem.". During the same period, Bowers, C.A. (1990) became one of the fruitful educational ecologists of this period, whose research covered both micro classroom ecology and macro educational ecological issues such as education, culture, and ecological crises. David W. Orr (1992) proposed an initiative to strengthen "ecological literacy" based on exploring the relationship between modern educational perspectives and ecological crises.

In China, the study of educational ecology began to develop in Taiwan at the earliest, and showed a general trend from macro to micro, from theoretical exploration to practical analysis. Fang,B.L.(1975), in his book ecological environment and education, first tried to build a disciplinary system of educational ecology, dividing the research scope into "social ecology and education", "cultural ecology and education", "family environment and education" and "school ecology and education". Li,C.M.(1989) in "Education Ecology - Introduction to ecological thinking on education issues", combined with the educational reality in Taiwan, used the principle of education ecology to think about various educational issues, such as "education management", "early childhood education" and "national education".

In contrast, mainland scholars started their research on educational ecology late, mainly in the late 1980s and early 1990s. Representative studies include the ecology of education by Wu Ding,F.(1988), which preliminarily discusses the ecological environment of education, individual ecology and group ecology, ecosystem and ecological balance. In addition, educational ecology, CO authored by Wu Ding,F.(1990) and Zhu Wenwei, is the first monograph in this field, which draws heavily on the theories, concepts and terms of ecology. The ecology of education, CO authored by Ren Kai and Bai,Y.(1992), aims to analyze educational phenomena using ecological principles and methods. Fan,G.R.(2000)'s doctoral thesis "educational ecology" examines the impact of environment on education, schools and human development from the perspective of culture, population, resources, schools, environment and other systems.

In recent years, the application of Educational Ecology Thinking in all kinds of educational research at all levels is increasing. Zhu,J.X.(2007) discussed the application of ecological orientation theory in preschool education in his book preschool education from the perspective of ecology. Zhang,Q.H.(2010)'s doctoral

thesis "university strategic management from the perspective of ecology" comprehensively examines and designs university strategic management through ecological methods. Fan Guo,R.(2011) "symbiosis and harmony: school development from the perspective of ecology" uses the research method of educational ecology to analyze the school education ecosystem.

Research on the appropriateness of educational ecology. In order to explore whether educational ecology can become an effective premise of educational research, we first need to clarify the ecological attribute of educational activities, that is, to prove that educational activities are similar to biology and other social activities in essence, so as to provide the necessary theoretical basis for introducing ecological theory and thinking into educational research. Liu,G.H. and zhu,X.M.(2007) made an in-depth discussion on this issue in their article "analysis of the appropriateness of ecology for educational research" published in educational research. By comparing the ecological principles of biology, sociology and education, especially from the aspects of integrity, sustainability and dynamic balance, as well as the methodology, values and thinking mode of ecology, this paper confirms the commonness of the ecological principles of nature, society and education system. On the basis of this commonness, the wisdom and thinking mode of ecology have been proved to be effective in educational research, and ecological thinking is more closely linked with educational forms.

Specifically, the embodiment of this appropriateness can be understood from the following four aspects:

1) Both educational ecology and natural ecology pay attention to the integrity and sustainability of individual life growth. In both systems, "life" is the core of research, and it is essential to respect the law of life development and the way of value.

2) The importance of environmental adaptability. Ecology focuses on the relationship between organisms and the inorganic world. Similarly, educational ecology also focuses on creating a harmonious growth environment, which plays a fundamental role in individual development.

3) Respect for the diversity of life objects. Ecosystem has complex and diverse structures and relationships, which also applies to the field of education. Educational objects with different physical, psychological and cultural structures require diversity in educational methods and results.

4) Compliance with dynamic balance. Members of the ecosystem are interdependent in the process of material and energy exchange. Teachers and students in the education ecosystem should also maintain dynamic communication and balance in the aspects of thoughts, knowledge and emotions.

Research methods of educational ecology. In recent years, a large number of research results of educational ecology at home and abroad have emerged. The prosperity and development of these studies reflect the unique value of taking ecology as the perspective, position, mode of thinking and value orientation of educational research. However, there are also some problems in this field, such as the simple application of ecological concepts and the lack of depth and substantive ecological connotation. The root cause of this phenomenon may be the lack of an educational ecology research method that can balance the research perspective and value orientation.

At present, the research of educational ecology has gradually formed its own paradigm, mainly focusing on the ecological category path and the ecological principle path. In the path of ecology category, the research mainly applies the core concepts of ecology directly or creatively to the study of educational ecology. Fan,G.R.(1997) summarized the subject of educational ecology and its relationship with the environment as three key concepts: "adaptation and development", "balance and imbalance" and "symbiosis and competition". LiuGuiHua put forward four pairs of concepts: "subject and environment", "Heredity and variation", "balance and imbalance" and "symbiosis and competition". Although this method can expand the research field of education discipline, it also has the risk of simple derivation due to the differences between disciplines.

Another common research method is the ecological principle path, that is, the ecological principle is the core proposition of educational research. Keleming proposed three ways of thinking about educational ecology: comprehensive thinking, connected thinking and open thinking. The thinking mode proposed by fan Guo,R.(2000) in his book "ecology of education" is more widely applicable to the study of educational ecology than the category research method, and is similar to the "Anthropocentrism" to be broken through in ecology.

Wang,Q.Q.(2008) stressed that when creating the research methods of educational ecology, we should adhere to the basic position of pedagogy, and at the

same time use the rich resources of ecology to introduce the latest research results of different ecological branches, so as to promote the deepening and expansion of the research of educational ecology.

Research on Higher Education Ecology. In recent years, the application of ecological concepts in higher education has provided new ideas for the development of this field. The application of ecological thinking in higher education research has become an emerging research paradigm in recent years. Over the past decade, over 50 articles and nearly 10 master's and doctoral theses have delved into this field, focusing on the ecological structure of higher education, regional ecological balance of higher education, and the ecological environment of higher education.

Among these studies, the review of higher education ecology published by He,Z.B.(2005) has great influence and has been cited 199 times. In his doctoral dissertation "ecological analysis of China's higher education system" in 2004, he first raised the issue of the inheritance and carrying capacity of higher education ecology, and elaborated the objectivity, variability and multi-level of higher education ecological carrying capacity, including the self-sustaining and energy regulation of higher education ecosystem, as well as the educational resources and environmental carrying capacity of subsystems.

On the basis of elaborating on the connotation of the concept of university ecosystem, Li,J.(2006) doctoral thesis analyzed its significance, characteristics, constituent elements, and structure. Zhang,G.C.(2009) proposed ecological niche and environmental strategies for the ecological development of regional higher education. Peng,F.Y.(2011) explored the necessity and implementation methods of ecological development in higher education. Guo,Y.Q.(2016) used CiteSpace software for situational and keyword analysis, summarized the development stages and context of higher education ecosystem research, and studied the opportunities and challenges that MOOCs bring to the open development of China's education ecosystem.

Since the 21st century, the research on Educational Ecology in mainland China has gradually risen, which has attracted the attention and discussion of many scholars. The research field covers academic ecology, school ecology, higher education ecology, regional education ecology, curriculum ecology and teaching ecology. In addition, ecological research methods have been applied to vocational

education, higher education, adult education, basic education and other fields of education, indicating the wide applicability of educational ecology in educational research.

However, although educational ecology has made some progress in Chinese Mainland, the research in this field is still in its infancy. At present, the main challenges faced by educational ecology lie in how to effectively apply ecological principles to the analysis and research of educational phenomena and problems, as well as how to construct a unique and scientific research field of educational ecology. Therefore, future research directions should focus on establishing a clear and comprehensive theoretical framework for educational ecology, in order to enhance the scientific and practical nature of the discipline and better serve educational practice and policy formulation.

#### **Literature research on entrepreneurship education ecosystem**

First, the connotation and characteristics of entrepreneurship education ecosystem. In recent years, the introduction of ecological thinking into the research and practice of entrepreneurship education has become a new perspective in the field of entrepreneurship education. This trend aims to learn from the research paradigm of ecology and explore effective ways to improve the effectiveness of entrepreneurship education. Scholars have made in-depth exploration on the concept, characteristics, construction strategies and operation mechanism of entrepreneurship education ecosystem. Entrepreneurship education is regarded as a systematic project, which needs a comprehensive and systematic understanding.

Luke Pittaway (2007) emphasized the importance of systematic understanding of entrepreneurship education. Cheng (2012) pointed out that the core significance of ecosystem concept in entrepreneurship education lies in the collaborative relationship between the elements within the system: the elements interact and play a role as a whole. McKeon (2013) believes that colleges and universities are the core of the entrepreneurship education system and play the role of "convener", promoting the exchange and dialogue of various elements in the system and generating synergy with other elements of the community.

As for the connotation of entrepreneurship education ecosystem, the existing research usually starts from "entrepreneurship ecology". Xu, X.Z. (2016) proposed that the entrepreneurship education ecosystem should be regarded as a target functional

unit, in which innovative and entrepreneurial talents are the core species, and schools, families, governments, enterprises and so on constitute each niche in the system. Chen,S.X.(2014) believes that the entrepreneurship education ecosystem is a unified whole formed by universities and surrounding ecological environmental factors (such as government, enterprises, society, families, etc.) in a specific time and space, through material circulation, information transmission and resource complementarity. Xu,Z.H.(2016) emphasized the construction of an environment to support students' innovation and entrepreneurship, and the integration of education with the goal of cultivating innovative talents.

In the research on the characteristics of entrepreneurship education ecosystem, researchers mostly start from the characteristics of higher education system. Chen Jing (2017) pointed out that the ecology of entrepreneurship education is open, non-linear and practical. Liu,H.B.(2018) believes that the ecosystem of entrepreneurship education in Colleges and universities is an educational system composed of multiple subjects and elements, which is characterized by openness, complexity and dynamic balance.

The second is the elements and theoretical construction of entrepreneurship education ecosystem. In recent years, the introduction of ecological thinking in the research and practice of entrepreneurship education has become a new perspective, aiming to find ways to improve the effectiveness of entrepreneurship education by using the research paradigm of ecology for reference. In this research field, scholars mainly focus on the constituent elements, characteristics, construction strategies and operation mechanism of entrepreneurship education ecosystem.

Domestic scholars have also shown rich research on the entrepreneurial education ecosystem. Ma,X.H.(2013) pointed out that the transformation of the entrepreneurial education ecosystem is influenced by internal and external factors, such as top-level education design, organizational system, policy funding support, etc. Chen,J.(2017) conducted a detailed analysis of the functional levels of the university entrepreneurship education ecosystem from three levels: micro, meso, and macro. Huang,Z.X.(2017) elaborated on the key subjects, support groups, and key elements in the ecosystem of entrepreneurship education in universities. Wang,C.H. (2012) advocates that research on innovation and entrepreneurship education should be integrated with various support systems to build a comprehensive and three-



dimensional education ecological cultivation system. Dong,Y.L.(2013) constructed a university entrepreneurship education ecosystem that includes goals, curriculum, practice, incubation, faculty, and cultural system. Xu,X.Z.(2016) proposed the "GALCHS" development concept, emphasizing the importance of external driving forces such as global, national, and lifelong, as well as internal stresses such as complementarity, wholeness, and sustainability. Tian,X.P.(2016) proposed a strategy for building an innovation and entrepreneurship education community from the perspective of educational ecology theory. Lin,H.(2016) proposed feasible ideas for introducing the entrepreneurial education ecosystem and pointed out possible risks. Yang,X.H. (2018) analyzed the special path and problems of entrepreneurship education in China, emphasizing the construction of an entrepreneurship education ecosystem with Chinese characteristics.

Third, the introduction and Enlightenment of foreign entrepreneurship education ecosystem. In recent years, scholars have conducted in-depth research on the successful experience of foreign universities in the construction of entrepreneurship education ecosystem, especially focusing on some top universities in the United States, such as Massachusetts Institute of Technology (MIT), which have attracted much attention due to their remarkable achievements in the field of entrepreneurship education. For example, Zhang,S.(2011) explored the ecological environment of entrepreneurship education at MIT, mainly from the aspects of practical education, general education, extracurricular activities and entrepreneurship. Zhang,H.M.(2012) introduced MIT's "entrepreneurship education ecosystem" in depth, focusing on the University's positioning, curriculum system, teaching staff, school organization, social support and cultural atmosphere.

He,Y.B.(2015) through multiple case studies of Stanford University, Munich University of technology and Nanyang Technological University, this paper attempts to reveal the internal operation mechanism of these universities' entrepreneurship education ecosystem. Zhuo,Z.L.(2016) took King's College London as an example to comprehensively introduce many aspects of the University's entrepreneurship education ecosystem, including interdisciplinary entrepreneurship curriculum system, faculty, entrepreneurship education supporting institutions, etc. Xu,T.(2017) analyzed the MIT innovation and entrepreneurship education ecosystem model and its components from six aspects, including the degree and curriculum of innovation and

entrepreneurship education. Fan,L.(2017) introduced the development, construction and internal and external factors of entrepreneurship education ecosystem in British universities. Yao,X.L.(2018) introduced the innovation and entrepreneurship ecosystem of Stanford University from the perspective of internal and external resource integration. Chen,S.H.(2018) conducted a comparative study on the ecosystem of entrepreneurship education in the United States, Germany and Japan, taking Stanford University, the University of Munich and the University of Tokyo as examples.

In the section of "comparison and evaluation" which summarizes the theme of entrepreneurship education, many research results on entrepreneurship education abroad also involve the relevant content of entrepreneurship education ecosystem, reflecting the international vision and diversified characteristics of this field.

Fourth, the practice of entrepreneurship education ecosystem in China. On the basis of drawing on the experience of constructing entrepreneurship education ecosystems in foreign universities, domestic scholars have also begun to pay attention to the construction and development of regional entrepreneurship education ecosystems. Zhou,Y.(2013) used Jiangsu Province as a case study and conducted research on innovation and entrepreneurship culture in the region. He proposed various strategies to achieve harmonious and sustainable development of the entrepreneurship education ecosystem, including concept transformation, top-level design, system reconstruction, and classification guidance. In his research in Guangdong Province, Chen,S.X.(2014) revealed the bottlenecks and underlying reasons in the implementation of entrepreneurship education through a sampling survey of seven universities. He advocated from an ecosystem perspective, emphasizing collaboration and symbiosis among multiple departments, resources, and factors.

Wang,T.(2015) took Liaoning Province as an example, based on the investigation of some colleges and universities, proposed four levels of College entrepreneurship education ecosystem: micro system, intermediate system, outer system and macro system, and discussed the specific construction strategies of these systems. When studying the case of Zhejiang Province, Xie,Z.Y.(2018) stressed the importance of grasping the synergy mechanism of various elements in the macro, meso and micro levels and stimulating the innovation power of various subjects.

Some scholars focus on the practice of entrepreneurship education ecosystem construction in specific universities. Hui,X.L.(2014) took Qinhuangdao branch of Northeast University as an example to introduce the innovation and entrepreneurship education mode and its main practice forms based on the entrepreneurship ecosystem. Liu,Y.X.(2015) started from the case of South China Agricultural University, and discussed how agricultural colleges and universities cultivate agricultural science and technology talents with innovative and entrepreneurial spirit, so as to give full play to the advantages of the entrepreneurship education ecosystem of agricultural colleges and universities from the perspective of multiple ecological chains. Fang,X.L.(2016) comprehensively introduced the composition of innovation and entrepreneurship education ecosystem of Huangshan University. Ma,Y.B.(2016) analyzed the entrepreneurship education curriculum system of Tsinghua University from the perspective of entrepreneurship education curriculum ecosystem, and put forward suggestions for improvement.

Fifth, the era expansion of the entrepreneurial education ecosystem. In recent years, the rise and development of big data, the introduction and expansion of maker education, especially in the context of "Internet plus", have injected new vitality into the entrepreneurial education ecosystem of colleges and universities. Li,Y.(2016) proposed that under the framework of "Internet plus Maker Education", colleges and universities can build a new ecology of entrepreneurship education through the following four ways: create an ubiquitous Internet plus+Maker Education environment; Develop open and diversified Internet plus maker education courses; Build a professional teaching team of Internet plus Maker Education; Build a Internet+maker learning model based on creation.

Mi,Y.J.(2016) used Guangdong University of Technology as a case study to explore the construction of a maker education ecosystem. By building multiple chains such as courses, platforms, mentors, practices, and funding, it promotes the integration of educational content, resource aggregation, industry cooperation, and coupling of innovation and entrepreneurship. Based on defining campus entrepreneurship and analyzing its elements, Xu,T.(2016) constructed a campus maker education ecosystem with student maker education as the core, campus maker space construction as the foundation, and teachers and curriculum as the wings.

The research on the impact of big data on the ecosystem of entrepreneurship education in Colleges and universities is still in its infancy. Wang,J.(2016) summarized the big data and entrepreneurship education ecosystem, analyzed the impact of big data on the subject, object, environment, mediator and other elements of the university entrepreneurship education ecosystem, and proposed the system construction strategy based on big data technology.

It can be predicted that with the rapid development of information technology, technology will play an increasingly significant role in the construction of entrepreneurship education ecosystem and become an important growth point for future research and practice.

In general, the concept of "ecology" has been paid more attention to in the research of entrepreneurship education in Colleges and universities in recent years, which shows that the application of ecological concept in the field of entrepreneurship education is a forward-looking research trend. This trend not only provides a new perspective for the development of entrepreneurship as an independent discipline, but also opens up a new path for future academic exploration. However, according to the existing literature, the use of ecology or educational ecology to carry out entrepreneurship education research is still in the initial and exploratory stage. In this process, we mainly face the following prominent problems:

1) The depth of understanding of the concept needs to be improved: Although the current research mostly focuses on the elements, content and system construction of entrepreneurship education, there is a relative lack of in-depth discussion on how to exchange and coordinate evolution among the elements through material flow, energy flow and information flow. Most studies tend to macro system analysis, but lack of micro ecological analysis of key elements in the system, which leads to the congenital deficiency of the overall ecological structure. In particular, the research on Policy Ecology, curriculum ecology and classroom teaching ecology is relatively few.

2) Shallow dominance of ecological application: although researchers have a certain understanding of ecology, they are mostly in the stage of simple concept application when applying it to entrepreneurship education research. Although terms such as "entrepreneurship education ecology" are used, the definition of its deep

meaning is not clear enough, which leads to many research results exist in name only, and the lack of real integration of ecological thinking and entrepreneurship education research.

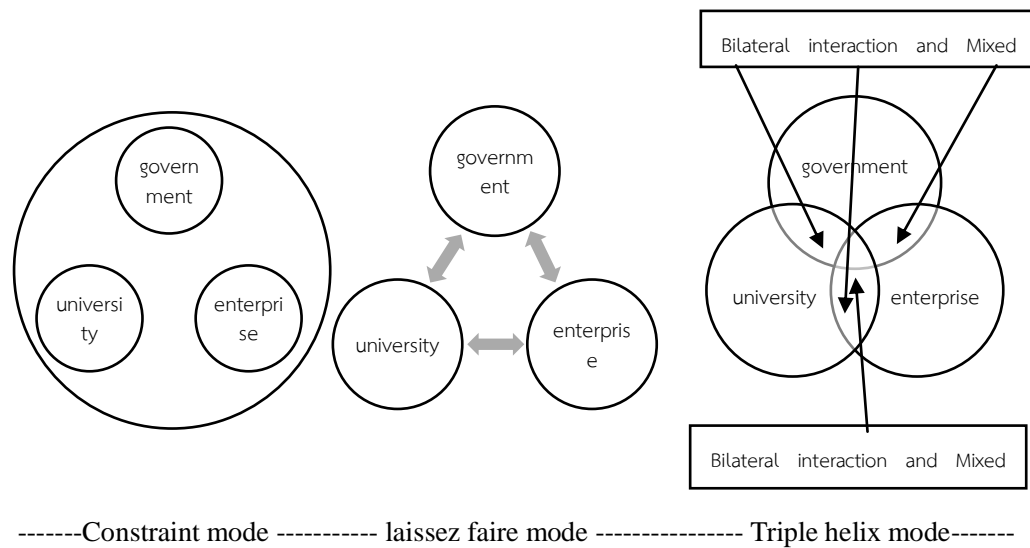
3) The necessity of methodological breakthrough: the current research mostly focuses on borrowing the basic terms or concepts of ecology, lacking the overall framework of systematic thinking. As a dynamic organism, entrepreneurship education in Colleges and universities is necessary to apply systematic thinking for overall and comprehensive observation.

4) The prerequisite for interdisciplinary research is insufficient: the process of introducing ecological thinking into entrepreneurship education is not simply copying, and there are certain conditions, principles, and limitations for interdisciplinary reference. At present, there is almost no research on risk avoidance in the analysis of entrepreneurial education ecology, which may lead to the blindness and non standardization of disciplinary reference.

5) Expansion needs of practical applications: at present, the case studies on the construction and operation of entrepreneurship education ecosystem are very limited. In particular, there is a lack of research on how to build a characteristic entrepreneurship education ecosystem for colleges and universities with different school running orientations. Therefore, it is an important direction for future research to strengthen the research on the operational mechanism of entrepreneurship education ecology and explore the ecological development path to adapt to the future.

#### **Theoretical research on triple helix innovation model**

Henry Etzkowitz (1995) first proposed the triple helix model, which analyzes the dynamic relationship between government, industry, and universities in the knowledge economy era. The triple helix model theory suggests that the interaction and overlap between government, enterprises, and universities constitute the core unit of the innovation system. The close connection between them is crucial for knowledge production and dissemination, and is crucial for transforming knowledge into productivity and driving the spiral of innovation. At present, the application of the triple helix theory in higher education is mainly focused on the research of entrepreneurial universities.



**Figure 2.1** The pattern evolution process of triple helix theory

The development of the triple helix theoretical model has experienced three stages: the first stage is the constraint mode among the government, enterprises and universities; The second stage is the laissez faire model among the government, enterprises and universities; The third and most mature stage is the triple helix model among government, enterprises and universities, which is usually called the triple helix innovation model theory. As shown in Figure 2.1, the core of this model is that the government, universities and enterprises show some capabilities of the other two institutions while maintaining their independent identities. In other words, while performing their traditional functions, these three institutions also assume the roles of the other two institutions.

The triple helix theory not only provides a new methodology research tool, but also promotes the integration of different value systems among government, enterprises and universities in the process of regional economic and social development. This integration has formed a network integrating knowledge, administration and production forces, laying a solid foundation for economic development. The key is to break the traditional boundaries, such as the boundaries of disciplines, industries, regions and concepts, and build new management, education and social operation mechanisms at these intersections. This theory holds that the cultivation of entrepreneurial talents is a typical model of social education and training, and its success depends on extensive social participation.

In the college entrepreneurship education under the triple helix model, the complementary advantages and resource sharing of universities, enterprises and governments are the key to achieve the goal of Entrepreneurship Talent Training. The triple helix theory emphasizes the coordination and synchronization of the three major innovation roles of universities, enterprises and governments. The lack or weakening of any role will directly affect the effectiveness of the overall innovation. Under this mode of entrepreneurship education in Colleges and universities, the government and enterprises, as social subjects, work in parallel with colleges and universities to create favorable conditions for entrepreneurship education activities from different angles and jointly promote the cultivation and development of entrepreneurial talents.

#### **Timons entrepreneurial theory**

Jeffrey Timmons serves as the Franklin W. Olin Distinguished Professor of Entrepreneurship at Baisan School of Business and is in charge of the school's Platz Baisan School of Business faculty program, which is dedicated to providing professional training for teachers of global entrepreneurship management courses. Since the late 1960s, Professor Timmons has become one of the leading figures in entrepreneurship education and research in the United States. He is recognized as a world-class authority in entrepreneurship management, new enterprise establishment, risk financing and investment, innovation curriculum development and teaching, and has formed a relatively complete entrepreneurial theoretical system.

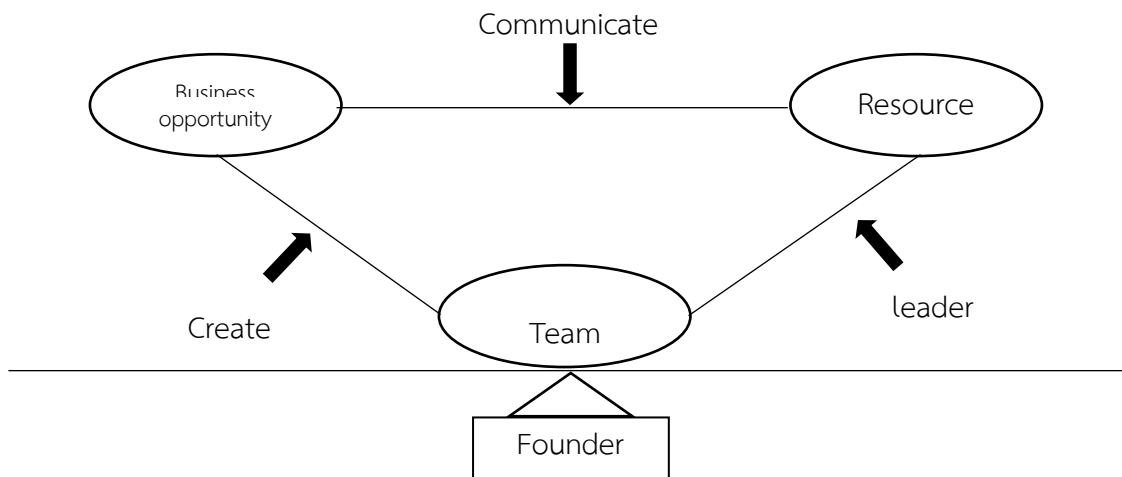
#### **Set entrepreneurial genetic code**

Jeffrey Timmons (2002) pointed out that the University Entrepreneurship Education Adapting to the era of "entrepreneurial revolution" needs to go beyond the short-sighted education concept, and should focus on the future and "set the entrepreneurial genetic code" for American college students. His so-called "setting entrepreneurial genetic code" means that through a unique educational method, the entrepreneurial consciousness, ability and personality like Bill Gates are taught to students and internalized into their entrepreneurial characteristics. Timmons believes that in this way, the United States can rely on its human resources advantages to promote the "entrepreneurial revolution", so as to play an important influence and dominant role in the domestic and even the global economy. Obviously, Timmons' idea

of entrepreneurship education is non utilitarian. It is more forward-looking and can give full play to the role of higher education in social and economic development.

#### Constructing entrepreneurial process model

Jeffrey Timmons (1999) proposed an entrepreneurial management model in his book new venture creation. He stressed that successful entrepreneurial activities depend on the effective matching of three elements: opportunities, entrepreneurial teams and resources, and these elements need to maintain a dynamic balance with the development of enterprises. In his model, the entrepreneurial process begins with the identification of opportunities, followed by the formation of entrepreneurial teams, and efforts to obtain the resources needed to achieve the entrepreneurial plan.



**Figure 2.2** Timons entrepreneurial process model diagram

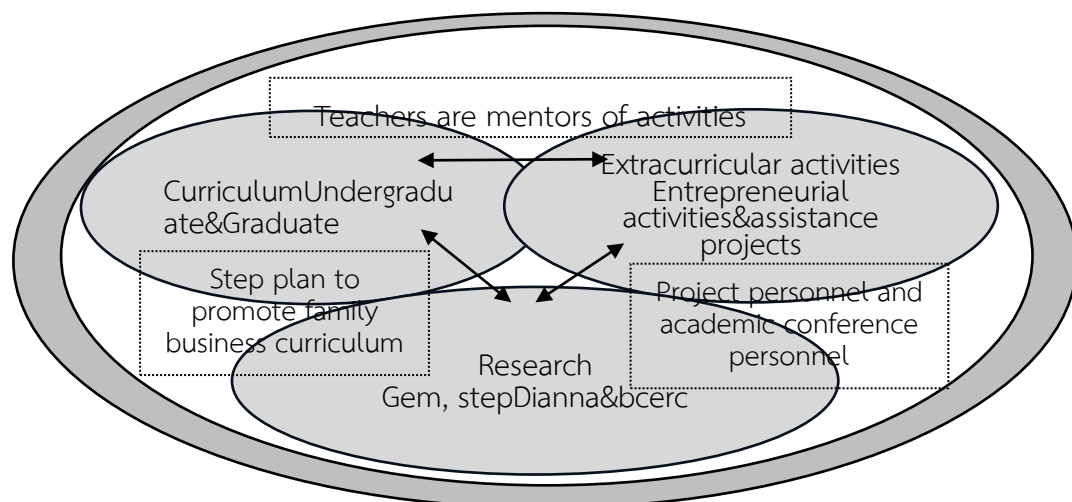
Timmons recognizes that there are many challenges in the entrepreneurial process, such as the uncertainty of opportunities, market volatility, capital market risks and changes in the external environment, which make the entrepreneurial process full of risks. Therefore, entrepreneurs must rely on their own leadership, creativity and communication skills to identify and solve problems, and master the key elements of entrepreneurship. In addition, in order to ensure the smooth development of new enterprises, it is necessary to constantly adjust the combination of opportunities, resources and teams. In Timmons' entrepreneurial theory system, his entrepreneurial process model is widely regarded as the cornerstone of entrepreneurial management theory, while other theories complement, improve and quantify it. See Figure 2.2 for details of the model.



### Montes entrepreneurship curriculum framework

Under Jeffrey Timmons' Entrepreneurship framework, he stressed the importance of interdisciplinary integration in entrepreneurship courses. Timmons advocates integrating rhetoric, art, humanities, social sciences and other general education courses into entrepreneurship courses, so as to achieve mutual penetration among liberal arts, science and engineering, and encourage students to take cross disciplinary elective courses. This method aims to help students build a comprehensive knowledge system and strengthen their comprehensive ability between different disciplines.

Timmons not only includes specialized entrepreneurship education courses in the curriculum of Baisen Business School, but also covers all entrepreneurial activities and behaviors that students participate in during their school years, whether in official events organized by the school or in informal environments. He advocates integrating school resources and providing students with a set of "three stages".



**Figure 2.3** Integrated Diagram of Timmons Entrepreneurship Education Curriculum System

The undergraduate entrepreneurship education curriculum system combines courses, extracurricular activities, and research to create a resource sharing and complementary entrepreneurship education curriculum ecosystem. The specific content and structure of this system can be seen in Figure 2-3.

### **Let students become explorers**

Jeffrey Timmons advocates that entrepreneurship education should be student-centered and let them become active explorers of the "entrepreneurial revolution". He realized that in order to achieve the expected goal of entrepreneurship education, in addition to the need for a perfect curriculum system, effective teaching models should also be adopted. In a variety of teaching modes, classroom teaching, as the basic form of school education, plays an important role. Timmons stressed that in the teaching process of entrepreneurship education, students should not only be the main body of learning, but also become the main body of practice. They should cooperate with teachers, teaching content and teaching environment, and become active participants and explorers in the teaching process.

Timmons broke the traditional teaching mode of "textbook center" and "classroom center". He advocated the use of exploratory teaching methods such as intellectual incentive inquiry, case inquiry teaching and "virtual entrepreneurship" inquiry. These methods encourage students to deeply understand the entrepreneurial process through student-centered practical experience, so as to accumulate entrepreneurial potential.

In addition to the theories mentioned above, the "Hall System Engineering Three Dimensional Structure Theory" and the Entrepreneurial Box Theory proposed by American engineer Hall also provide important theoretical guidance for the ecological research of entrepreneurial education. These theories provide a solid theoretical foundation for this study, aiming to make breakthroughs in the ecological cognition, examination, and construction of the entrepreneurial education ecosystem.

In Hall's three-dimensional structure theory of system engineering, he emphasized the multi-dimensional composition of the system, which provided a new perspective for understanding the complexity of entrepreneurship education. At the same time, the entrepreneurship square box theory provides a framework for analyzing and understanding the multiple elements of the entrepreneurship education ecosystem. Based on these theories, this study will deeply explore the dynamic development process of entrepreneurship education ecosystem, aiming to more comprehensively understand and promote the effective implementation of entrepreneurship education.

### **Theoretical basis of higher education**

#### Development trend of contemporary higher education

Higher education, as a social activity aimed at studying advanced knowledge in various fields and cultivating senior professionals, It is defined by UNESCO as "all kinds of education implemented by universities, colleges of Arts and Sciences, polytechnics, normal colleges and other institutions, including academic education, professional education, technical education, art education, normal education, etc." while the higher education law of the people's Republic of China defines higher education as "education implemented on the basis of the completion of higher secondary education." The definition of the former pays more attention to the content and type of higher education, while the latter emphasizes the important positioning of higher education in the process of talent cultivation.

The development concept and main ideas of higher education have been influenced by the regional economic, political, cultural and other factors. In history, every major change in higher education has been closely linked with social changes. At the same time, these educational innovations have also spawned new social trends of thought. For example, the first industrial revolution not only promoted the transformation of western social economy, politics and culture, but also marked the transformation of higher education from a single mode of talent cultivation to a mode that pays equal attention to talent cultivation and scientific research. This transformation has enhanced the ability of higher education in scientific research and injected vitality into economic and social development.

During the two world wars, universities must closely combine their own development with the needs of war, which prompted the transformation of higher education from pure scientific research to applied scientific research. For example, the cooperation mode between MIT and industry indicates the development of higher education towards the triple goals of talent cultivation, scientific research and social services. This transformation provided more advanced weapons and equipment for the Allied forces and accelerated the arrival of world peace.

In the early stages of the information revolution, the trend of socialization in higher education became more apparent. The symbiotic and mutually beneficial model between Stanford and Silicon Valley, North Carolina and North Carolina Industrial Park, Taiwan's Tsinghua Jiaotong University and Hsinchu Science and

Technology Park, Beijing's Tsinghua Peking University and Zhongguancun, and other universities and industrial parks, is a typical example of the transformation of higher education from pure scientific research to applied scientific research.

In the current field of higher education research, the classification of the concept of higher education development shows diversity. These ideas can be divided into rationalism, essentialism, instrumentalism, existentialism and analytical philosophy according to their ideological schools. By comprehensively analyzing the views of these schools on the development of higher education, we can conclude several main trends of the current development of higher education

1) pursue people's free and comprehensive development. This trend emphasizes that higher education should promote the overall development of individuals, not only the cultivation of knowledge and skills, but also the cultivation of personality, values and critical thinking.

Marx (2009) put forward the idea of a high-level social form in capital, which emphasizes that "everyone enjoys complete free development" as its fundamental principle. This view indicates the future direction of the development of human society. In addition, in the German Ideology (1995), Marx and Engels deeply discussed and systematically elaborated the theoretical connotation of "human free and comprehensive development" and its importance and key role in the reconstruction of the contemporary value system. In line with this, many higher education scholars also advocate the concepts of "pursuing human development", "advocating 'perfect' education", "cultivating the overall spirit" and so on, which are regarded as the core ideas of the concept of higher education.

Hutchins advocated that the goal of higher education is to develop the intelligence and virtue of the educated and improve their rationality. He believes that the emergence of universities is to achieve this goal, and the university stage is an important stage to promote the formation of the perfect person.

Karl Jaspers (1991) regards human beings as a complete, self-sustaining and developmental entity. Based on this core concept, Jaspers believed that human development is not only a means, but also an end in itself. In his view, the fundamental goal of higher education is to promote comprehensive human development and make it a complete existence. This means that higher education should strive to cultivate individuals who are self actualizing, self transcending, or

self improving, in order to achieve comprehensive and harmonious development of individuals.

Maritain stressed that only when human reason is fully developed can people become truly free individuals. He further advocated that the fundamental goal of higher education should be to cultivate and develop people's rational ability. Echoing Maritain's view, UNESCO put forward an important view at the "International Symposium on education for the 21st century" held in Beijing in 1989: in the new century, only people with all-round development can become the most successful workers. Therefore, the education facing the 21st century should take the cultivation of all-round development as its core goal.

With the joint efforts of many well-known institutions of higher education and scholars around the world, more and more institutions of higher learning have begun to take "people's free and comprehensive development" as the core idea of education in their teaching practice. This trend emphasizes the cultivation of talents with all-round development, rather than just a single dimension of knowledge transfer.

For example, the educational goal of Harvard University is to cultivate elites with rich knowledge, profound cultural heritage and good thinking habits. These elites are the representatives of all-round development individuals. MIT focuses on professional education to help students experience a rich and complete life, so as to cultivate students' literacy in the humanities and social sciences. Oxford University has gone further, implementing comprehensive talent education, paying attention to students' career growth and overall quality of life in the future, and has set "cultivating leading talents in all fields" as its core goal.

This trend has become a powerful trend, not only widely respected in the international higher education community, but also has a profound impact on the development of China's higher education, leading the future development direction of world higher education.

2) pursue the development direction of popularization. This trend focuses on the popularization and inclusiveness of higher education, aiming to provide educational opportunities for the wider social groups and reduce the inequality of educational opportunities.

In the 1970s, with the rapid development of productivity and science and technology, the renowned American educator M.Trow first explicitly proposed the concept of mass higher education. He pointed out that when more than 15% of the population aged 18 to 22 receive higher education, it marks the entry into the stage of mass higher education; When this proportion exceeds 50%, it enters the stage of universal higher education. In the era of knowledge economy, the demand for high-level talents in society is increasing day by day, and this change in supply and demand relationship has driven the continuous expansion of higher education scale and the improvement of education participation.

The popularization of higher education is not only reflected in the expansion of enrollment scale, but also in the diversification of educational forms, enrichment of educational content, and expansion of educational targets. In terms of organizational form, public and private universities coexist, academic and non academic education run parallel, general higher education coexists with vocational higher education, full-time education coexists with distance education, continuing education, and other forms, providing a wide range of learning pathways for all levels of society. In terms of educational content, the fields of moral education, intellectual education, physical education, and aesthetic education are integrated with each other. Numerous natural sciences and humanities and social sciences disciplines provide a broad stage for combining personal interests with social needs. The rise of practical teaching injects new vitality into higher education. In terms of educational targets, the development of adult and continuing education provides learning opportunities for a wider age group, greatly enhancing the coverage and influence of higher education.

With the in-depth development of knowledge economy and the progress of higher education, the development concept of popular education is gradually deepened, not only in the expansion of quantity, but also in the enrichment of content and connotation. Providing more equitable opportunities for higher education for the whole society and creating conditions for the public to accept higher education have become the consensus of higher education development, and gradually become the core mechanism of higher education development.

3) pursue deeper service to the society. Under this trend, higher education is not only a place to impart knowledge, but also an important force to actively participate in social problem solving, innovation and social development. The

combination of academic research and social practice makes higher education play a more far-reaching impact in the process of serving the society.

In exploring the social service function of higher education, American higher education scholar C Kerr emphasized in his work "The Function of Universities" that universities have become a core part of social development. He advocates that higher education should comprehensively serve society. Former President of Harvard University D Bok, as a renowned contemporary American higher education scholar, advocates for strengthening the connection between universities and society, believing that universities should actively serve society while maintaining independence and academic freedom. Former Director General of UNESCO and Yugoslavian educator Neumann also believes that serving society in multiple aspects is a trend in the development of contemporary higher education, and higher education institutions should be more widely and comprehensively open to society.

Classic models in history, such as the "university industry" cooperation model of MIT during the two world wars, and the "Stanford Silicon Valley" model in the second half of the 20th century, "Three North Carolina Universities - North Carolina Industrial Park", "Tsinghua Jiaotong University - Hsinchu Science and Technology Park in Taiwan", "Tsinghua Beida - Zhongguancun" and so on, have proved the great value and "win-win" effect of higher education in serving the social function. In recent years, with the development of technology and the evolution of innovation forms, the Chinese government has paid more attention to the "combination of production, education and research", that is, the coordination and integration of production, education and scientific research, and further emphasized the role of higher education in cultivating talents to meet social needs and serving social development. Driven by a series of effective policies, technology R&D and transformation centers, industrialization bases, and innovation and entrepreneurship incubation platforms established around colleges and universities have sprung up one after another to promote higher education to serve the society in depth from the practical level.

Whether at the international or domestic level, higher education institutions are increasingly crucial in seeking an internal balance with social development. This trend not only reflects the diversified needs of colleges and universities, the government and society, but also reflects the strategic transformation and far-reaching impact of higher education in serving the society.

## Higher education system structure and operation mechanism

### Institutional structure of higher education

Hao,K.M. and Wang,Y.Q.(1987) broadly defined a system as a systematic organizational system in the field of organizational and management studies. Based on this definition, the institutional structure of higher education can be understood as an overall framework that includes both operational management system structure and institutional structure. Wen,H.(2001) further elaborated on the complexity and interactivity of the higher education system. He pointed out that in society, a system with distinct characteristics of integrity, hierarchy, timing, balance, and openness, education is not only influenced by other subsystems such as politics, economy, culture, and technology, but also has a profound impact on these subsystems, demonstrating a clear interaction relationship. Within the education subsystem, there are various elements, including educators, learners, educational environment, educational methods, teaching content, etc., which are closely related and interact with each other. Therefore, the institutional structure of higher education is actually a complex network composed of the interrelationships and interactions between these internal and external factors.

Pan,M.Y.(1995) first explored the internal and external relationship between higher education and other elements of society. He pointed out that higher education occupies a unique position in the social system and shoulders a special mission. In terms of external relations, higher education interacts closely with social factors such as politics, economy, culture and population. On the one hand, higher education is largely affected and restricted by the political, economic and cultural environment; On the other hand, higher education provides support and services to the political, economic and cultural fields to a certain extent, and even has the potential to affect and change the development of these fields. Pan Maoyuan's view highlights the two-way interaction between higher education and various elements of society, and emphasizes the key role of higher education in promoting the overall progress of society.

The global higher education system structure can be roughly divided into three categories: central management system, local management system, and autonomous system. Under the central management system, the education department of the central government has absolute authority and is responsible for formulating higher education policies and strictly supervising the awarding of



diplomas, appointment of teaching positions, and allocation of funds in universities. The higher education system in France is a representative of this category. On the other hand, in the local management system, the management power of higher education is delegated to local governments, allowing them to formulate higher education strategies suitable for the region in combination with national policies and local needs. Local governments have a direct impact on university construction, personnel appointments, teacher standards, and even teaching and research, and the higher education system in the United States is a typical example of this category. In the autonomous system, universities enjoy high autonomy and can set rules and regulations according to their own development needs, with less influence from national or local government management. The higher education system in the UK is a representative of this model.

The structure of China's higher education system exhibits the characteristics of unified central leadership and two-level management at both the central and local levels at a macro level. This structure is conducive to ensuring that the strategic intentions of the central government are implemented in universities, effectively promoting the development of national key projects, and also stimulating local governments to support higher education and enhance the ability of universities to serve local economic development. However, this system also has certain limitations, such as excessive government intervention and insufficient autonomy of universities.

The key elements of the institutional structure of higher education include academic structure, discipline structure and formal structure. The academic structure mainly involves the proportion of college, undergraduate, master and doctoral students, which not only reflects the distribution of higher education levels, but also reveals the development priorities of higher education institutions. For example, higher vocational colleges that attach importance to the cultivation of technical talents, teaching universities that focus on undergraduate education, and research universities that focus on graduate education have their own characteristics and priorities. The discipline structure focuses on the distribution of disciplines in higher education, which is not only a response to the needs of scientific research, but also an adaptation to the needs of economic and social development. The discipline structure predicts the supply of future talents in specific industries and fields to a

certain extent. The formal structure covers the number and proportion of full-time colleges and universities, adult higher education institutions, private or private colleges and universities. This structure reflects the diversity and overall development level of a country's higher education.

The evolution and formation of the higher education system structure is a comprehensive process that is not only deeply influenced by traditional factors, but also to a greater extent influenced by the current social development, economic construction, and technological progress of countries and regions. The establishment and adjustment of this system must be based on meeting the needs of the country and society, with adapting to the dynamic needs of reform and development as the core standard. The design and implementation of the higher education system structure should fully consider the current situation and long-term development trends of the country and society, to ensure that the education system can effectively respond to the requirements of social change, economic development, and technological innovation.

#### **Operating mechanism of higher education**

Yao,Q.H.(1994) proposed that the key to understanding the operation mechanism of higher education is to grasp the core composition of its management system. The management system covers a variety of elements within the organization, including institutional setting, subordination, authority division and so on. The operation mechanism focuses on the interaction mode and principle of these elements under the specific management system. As a complex social activity, the interaction between many internal factors and the external environment (such as economy, politics and Culture) constitutes the core of its operation mechanism.

The operating mechanism of higher education involves not only internal teaching, research, management and other elements, but also the dynamic interaction between these elements and external factors such as society, economy and culture. This mechanism covers the internal structure, functions and interaction of educational institutions, and also considers their interaction and influence with all aspects of society. In short, the operation mechanism of higher education is a complex system, which aims to guide and restrict all aspects of education and achieve the effective achievement of educational objectives.

Under the background of education reform and development, it is

particularly important to build a reasonable higher education operation mechanism. This requires us not only to solve the problems of inconsistency, imbalance and inaccuracy in the management process, but also to promote the coordinated development with external political, economic, cultural and other factors. Higher education institutions should maintain the internal ecological balance and form a benign interaction with social development. In this way, higher education can more effectively realize its multiple functions, including talent training, scientific research, social service and cultural heritage.

The operation mechanism of higher education should also pay attention to the trend of globalization and informatization. With the development of technology and the strengthening of international exchanges, the internationalization of higher education has become a trend that can not be ignored. This requires our higher education system to adapt to the challenges of globalization and cultivate talents with international vision and cross-cultural ability. At the same time, the development of information technology has brought a profound impact on the teaching and research methods of higher education, which requires our education system to make full use of these new technologies to improve the quality and efficiency of education.

#### **Research on individual entrepreneurial intention**

Bird and Bandura (1988; 2001) proposed the concept of "intention", which originated from the field of social psychology. This concept represents the individual's belief in taking a specific behavior in the future, and guides the individual to focus on the specific goals and methods of implementing the behavior. "Intention" can be understood as a positive commitment to perform a certain behavior in the future.

A remarkable feature of intention is that it has tension. Even in the face of obstacles, individuals will firmly maintain their values and determination, which has been verified by many theorists and researchers (Bugental, 1980; McClelland, 1985), and is used as an important variable in the behavior control model of psychology.

Zhang,Y.L.and Yang,J.(2009) proposed that entrepreneurial intention is usually formed in the early stage of the entrepreneurial process in the field of entrepreneurial research, which is considered to be a key factor in evaluating whether individuals will participate in entrepreneurial activities.

Many scholars agree that entrepreneurial intention is a core concept in entrepreneurial decision-making research (Bird, 1988; Krueger, Reilly, and Carsrud, 2000; Carr and Sequeira, 2007; Wilson, Kickul, and Marlino, 2007). In English literature, entrepreneurial intention usually appears in three common expressions: entrepreneurial orientation (EO), entrepreneurial intention and entrepreneurial intention. Entrepreneurial orientation plays an important role in entrepreneurial research at the organizational or corporate level (Lumpkin and DESs, 1996), also known as "entrepreneurial orientation". Entrepreneurial intention and entrepreneurial tendency are usually abbreviated by EI, which have the same meaning and focus on subjective tendency. They are widely used in individual entrepreneurship research, whether as independent variables or dependent variables, to study and predict individual entrepreneurial behavior (Thompson, 2009). These concepts are usually translated as "entrepreneurial intention", "entrepreneurial intention" or "entrepreneurial tendency".

#### **Definition of individual entrepreneurial intention**

Bygrave and Hofer (1991) emphasized in their entrepreneurship research paper that excellent scientific research work must start with a clear concept. Although there are clear and definite conceptual definitions and measurement methods for entrepreneurial intention at the organizational or corporate level (Knight, 1997; Brown, Davidson, and Wiklund, 2001), the academic community has not yet formed a consistent and clear definition of individual entrepreneurial intention; Most studies did not clearly define individual entrepreneurial intention, but implied the definition of this concept according to the context or through the measurement items in the individual entrepreneurial intention scale, which led to the emergence of various definitions of individual entrepreneurial intention, and even some scholars regarded it as a concept that can be defined at will. This situation hinders the further development of relevant theoretical and Empirical Research (Lumpkin, Priem and McGee, 2003; Lee and Wong, 2004; Thompson, 2009). For example, Jenkins and Johnson (1997) defined entrepreneurial intention as the wishes of individual entrepreneurs who have already started a business according to their research objectives. This definition is inconsistent with the "intention to start a business" expressed by entrepreneurial intention, which is wrong. Some scholars have confused the concepts of "owning an enterprise", "self employment" and "creating a new enterprise" when defining "entrepreneurial intention", for example, Singh and

Denoble(2003) believed that entrepreneurial intention is an individual's desire/intention to own an enterprise and become a self-employed person; and Crant(1996) confused the meaning that entrepreneurial intention is equivalent to ownership of enterprises in the measurement items of its scale.

Shook, Priem and McGee (2003) put forward that "the desire to own an enterprise or self employment" is completely different from "the desire to create a new enterprise". The former can be achieved even without entrepreneurial action. For example, when an individual wants to own an enterprise, he can acquire an existing company and hire a manager to operate it without participating in any activities related to entrepreneurship. Similarly, self employment can be achieved by purchasing franchise rights to sell products. Individual entrepreneurial intention will also be involved in the research in the field of psychology and career planning. These studies mainly focus on factors such as individual goals, talents, aspirations or interests, which may indirectly lead to or form individual entrepreneurial intention (Bonnett and Furnham, 1991; Sagie and Elizur, 1999; Wang and Wong, 2004). However, although individuals with certain personality characteristics and tendencies may become potential entrepreneurs, they may not necessarily show a specific intention or planned action to start a business in the future; Therefore, it is necessary to consider their degree of conscious thinking about how to start their own businesses in the future and the possibility of refusing to start their own businesses, so as to distinguish between individuals with entrepreneurial characteristics or characteristics and those with real entrepreneurial intentions. Only those potential entrepreneurs with clear entrepreneurial intentions are likely to really engage in entrepreneurial activities (Thompson, 2009; Krueger, 2000).

From the above discussion, we can clearly see that in order to better carry out the follow-up research work, it is necessary to clearly define the concept of individual entrepreneurial intention. Reviewing the relevant literature, there are some clearly defined and frequently quoted definitions of "individual entrepreneurial intention", including: 1) entrepreneurial intention refers to the psychological state in which entrepreneurs consciously direct their attention, energy and behavior to specific goals. This goal setting process aims to create a new enterprise or create new value for existing enterprises (bird, 1988); 2) Entrepreneurial intention refers to the intention of an individual to establish a new enterprise (Lee and Wang, 2004); 3)

Entrepreneurial intention is the belief that individuals have the ability to carry out certain entrepreneurial behavior and consciously take entrepreneurial action at a certain point in the future (Thompson, 2009). In general, this paper believes that entrepreneurial intention is an individual's belief and intention to engage in entrepreneurial behavior and complete a series of entrepreneurial activities.

In the study of individual entrepreneurial intention, some scholars focus on college students and introduce the concept of "College Students' entrepreneurial intention". Some representative definitions include: 1) entrepreneurial intention refers to the possibility that college students choose to start their own businesses (Phan, Wong, and Wang, 2002); 2) Entrepreneurial intention refers to the possibility of College Students' starting a business in the foreseeable future after graduation (Luthje and Frank, 2003). Based on the previous research results, this paper defines "College Students' entrepreneurial intention" as follows: College Students' entrepreneurial intention indicates that college students have the intention to start a business, and have planned the time to start a business, which is a conscious psychological state.

### **Review of research on individual entrepreneurial intention**

Reviewing the relevant literature, we can see that the research on individual entrepreneurial behavior has gone through the evolution process from trait model to intention model. In the empirical study of individual entrepreneurial intention, scholars mainly based on Ajzen's planned behavior theory and shapero's entrepreneurial event model, and achieved remarkable results in the study of the influencing factors of individual entrepreneurial intention. These studies provide a useful reference for this study.

#### **1) Overview of early research**

In the early micro level research on the law of entrepreneurial behavior, scholars mainly focused on the unique personality and psychological characteristics of entrepreneurs to answer questions, such as "why some people choose to start a business" and "who is suitable to become an entrepreneur". This research direction aims to identify the unique qualities of entrepreneurs relative to others, thus forming the research school of entrepreneurial trait theory. These scholars believe that people may find entrepreneurial opportunities, but individual personality characteristics will determine whether they are willing to take the first step in entrepreneurship.

Zhang,Y.L.and Yang,J.(2010) proposed that using personal traits to predict entrepreneurial intention and behavior did not achieve the expected effect, and these studies failed to clarify the differences between entrepreneurs and managers in terms of psychological characteristics, nor did they clearly discuss the problems that which personality traits may increase the possibility of Entrepreneurship (Wu,L.F, 2008). In general, the early entrepreneurial trait theorists' definition of the concept of entrepreneur is ambiguous. In their research, they did not successfully outline the characteristics of entrepreneurs, and sometimes even described entrepreneurs as surreal characters full of contradictions.

Gartner (1989) pointed out in the systematic summary of entrepreneurial trait theory that inappropriate measurement tools and sample selection may lead to measurement errors, resulting in wrong research conclusions. In addition, studies in the fields of social psychology and cognitive psychology have proved that individual traits change with time and situation, so it is necessary to use the mature theories in these fields to study whether entrepreneurs' personality characteristics affect their entrepreneurial activities. At the same time, Gartner also pointed out that entrepreneurial research should pay more attention to the behavior of entrepreneurs and the laws of entrepreneurial process. Therefore, the study of entrepreneurial process theory has gradually replaced the study of entrepreneurial trait theory, and has become a hot direction in the field of entrepreneurial research.

In recent years, the research on the influence of personality characteristics in the process of entrepreneurship has resurfaced, and this field has attracted renewed attention after nearly two decades of interruption. Scholars such as Shane, Locke and Collins (2003) and Rauch and Frese (2007) pointed out that early studies on the relationship between personality traits and entrepreneurial behavior had contradictory conclusions. The reason for this contradiction lies in the lack of assumptions and logical derivation process based on theoretical derivation, which leads to the fact that most studies are only based on narrative artificial speculation.

Daltonetal.(2005) proposed that meta-analysis technology can correct the shortcomings of sampling error and low reliability in narrative research, so it is suitable for studying the relationship between personality characteristics and entrepreneurial behavior. Some studies using meta-analysis technology have reached the conclusion that entrepreneurs are significantly different from other people (such

as managers) in many personality characteristics (Zhao, Seibert and Lumpkin, 2009). For example, these studies found that entrepreneurs are significantly higher than non-entrepreneurs in achievement motivation, risk-taking orientation, emotional stability, experience openness and responsibility seriousness, But in terms of affinity, it is lower than that of non-entrepreneur managers (Stewart and Roth, 2001, 2004; Collins, Hanges and Locke, 2004; Zhao and Seibert, 2006; Stewart and Roth, 2007).

Although the study of entrepreneurial process theory occupies a dominant position in the current field of entrepreneurial research, scholars have been exploring the impact of individual characteristics on entrepreneurial intention and how to reflect this impact in the actual entrepreneurial behavior. After in-depth study, some scholars pointed out that entrepreneurship is a behavior with clear intention. When studying the influence mechanism of entrepreneurial behavior, intention model is more predictive than trait model or scenario model. Therefore, individualistic scholars regard entrepreneurial intention as an important idea of research, and have carried out a lot of academic research work. They agreed that entrepreneurial intention is one of the variables that can best predict entrepreneurial behavior, and it represents the subjective attitude of potential entrepreneurs whether they will engage in entrepreneurial activities in the future. Only those potential entrepreneurs with relatively strong entrepreneurial intentions are likely to start a business (Bird, 1988; Krueger, 1993; Krueger, Reilly and Carsrud, 2000; Carr and Sequeira, 2007; Wilson, Kickul and Marlino, 2007).

## **2) Theoretical perspective of empirical research on individual entrepreneurial intention**

Reviewing the relevant literature, empirical research on individual entrepreneurial intention in academic circles at home and abroad is usually based on three main theories: Theory of planned behavior (TPB), entrepreneurial event model and Bandura's self-efficacy theory.

Ajzen (1991) proposed the theory of planned behavior (TPB), which is a theory that closely links attitude and behavior. It pointed out that the actual behavior of individuals can be predicted by their behavioral intentions. This is because some behaviors of individuals are not completely spontaneous, but are influenced by three variables: behavior attitude, subjective norms and perceived behavior control, which constitute the antecedents of behavior intention.



Bird (1988) pointed out that the theory of planned behavior holds that the individual's intention is the expected behavior result after making the plan, and the establishment of a new enterprise needs to invest time and make the plan. Therefore, this theory is applicable in the study of entrepreneurial intention. Scholars studying entrepreneurship in different countries, such as the United States, Finland, Sweden, France, Norway, Russia and so on, selected college students of different majors as the survey sample, and used Ajzen's planned behavior theory to study individual entrepreneurial intention. The results show that behavior attitude, subjective norms and perceived behavior control, as well as their corresponding behavior beliefs, significantly affect individual entrepreneurial intention. Therefore, these studies suggest that the theoretical model of planned behavior should be used to predict the entrepreneurial intention of individuals (Kolvereid, 1996; Autio, Keeley, Klofsten et al., 1997, 2001; Tkachev and Kolvereid, 1999).

The Model of the Entrepreneurial Event (SEE) proposed by Shapero (1982) suggests that an individual's entrepreneurial intention is influenced by three factors: perceived necessity, perceived feasibility, and propensity to act. Perceived demand refers to the attractiveness of entrepreneurship to individuals; Perceived feasibility refers to an individual's assessment of their ability to engage in entrepreneurship; Behavioral tendency refers to an individual's tendency to take action after making a decision. These three factors are all positively correlated with entrepreneurial intention, among which perceived feasibility has the most significant predictive ability on entrepreneurial intention.

Bandura (1977) pointed out that self-efficacy is an individual's expected judgment of his own ability in a specific situation, which affects people's perception, thinking, motivation and action. He defined self-efficacy as people's judgment and confidence in the ability to successfully organize and execute a series of activities and achieve the desired results. Self efficacy has nothing to do with the skills that individuals actually master, but is related to the judgment of the degree to which individuals can play their skills. It involves whether an individual chooses to start an activity, the degree of individual effort, the degree of individual persistence in completing the selected activity, and the thinking process and emotional response of an individual in the face of difficulties (Bandura, 1997; lent, brown and Hackett, 1994). Therefore, in the study of individual behavior, the perceived degree of self-efficacy is

more important than the skills that individuals actually possess, so it is often regarded as an important variable in the study of individual differences (Krueger and Dickson, 1994).

For this study, we chose the theory of planned behavior as the theoretical basis to explore the mechanism of the pre influencing factors of College Students' entrepreneurial intention from the perspective of entrepreneurship education.

Krueger (2000) pointed out that Shapero's definition of three variables in his entrepreneurial event model is relatively vague, while Ajzen's planned behavior theory uses perception based key variables such as attitude and belief to predict individual behavioral intentions, which has strong predictive ability and is therefore suitable for studying the entrepreneurial intentions of potential entrepreneurs. Therefore, considering the needs of this research question, it is appropriate to choose the Theory of Planned Behavior as the theoretical basis for the study.

### **3) Research on the influencing factors of individual entrepreneurial intention**

Reviewing the relevant literature, the research on the influencing factors of individual entrepreneurial intention is mainly carried out from the perspective of individual and environment. In the research of individual perspective, it mainly discusses the influence of personality characteristics, individual background factors and individual cognitive characteristics on entrepreneurial intention. In the environmental perspective, the research mainly focuses on the impact of social culture and entrepreneurship education on individual entrepreneurial intention.

#### **First, research on the influencing factors of entrepreneurial intention based on the individual perspective**

##### Personality factors

Personality traits can measure the tendency of individuals to produce positive behavior, and identify the degree of difference between different individuals' initiative to influence the surrounding environment in the group (Buss and Finn, 1987). Some scholars have used meta-analysis technology to study the relationship between personality characteristics and entrepreneurial behavior, and concluded that entrepreneurs are indeed different from others in many personality characteristics (Zhao, Seibert and Lumpkin, 2009).

Reviewing the relevant literature, the research on the influence of personality characteristics and entrepreneurial intention mainly takes students as the sample, with MBA students and college students as the main research objects. Previous studies have shown that proactive personality can positively promote the entrepreneurial intention of individuals (Crant, 1996).

By further summarizing the existing studies, we can conclude that the following typical personality characteristics have a significant positive impact on entrepreneurial intention, including achievement needs, locus of control, tolerance for uncertainty, risk-taking tendency, innovation orientation, openness to experience, conscientiousness of responsibility, improvisation tendency and need for autonomy.

It should be emphasized that there may be differences among individuals in different countries in the significant influence factors of the above personality characteristics on entrepreneurial intention, and the influence of some personality characteristics on entrepreneurial intention has not been confirmed by the statistical test of significance in the empirical study. For example, Koh (1995)'s research involved 200 college students majoring in business in Hong Kong. The results showed that there was a significant positive correlation between individual entrepreneurial intention and achievement needs, risk-taking tendency, uncertainty tolerance and innovation.

Gürol and Atsan (2006) conducted research on 400 senior students from two universities in Türkiye. The results showed that students with entrepreneurial intention showed a high level of innovation, sense of achievement, internal control and risk taking, but there was no significant correlation between uncertainty tolerance and self-confidence and entrepreneurial intention. Fan Wei and Wang, C.M. (2004) study analyzed 210 valid questionnaire data using fourth year undergraduate, second year master's, second year doctoral, second year MBA students, and past college students within three years of graduation from a Chinese university as samples. The results showed that experience, openness and conscientiousness had a significant impact on individual entrepreneurial intention, but control had no significant impact on individual entrepreneurial intention.

Hmieleski and Corbett (2006) believe that in entrepreneurial activities, there will be some situations, such as resource constraints, when entrepreneurs' personality characteristics, such as "instant decision-making" tendency, may appear.

After analyzing the effective questionnaire data of 430 college students with an average age of 20, they found that even after controlling many factors such as personality traits, entrepreneurial motivation, cognitive type and individual style, they still found that the tendency of "instant decision" can provide additional explanatory information for individual entrepreneurial intention.

#### **Individual background factors**

When studying the impact of individual background factors on their entrepreneurial intention, through reviewing the relevant literature, we can find that individual family background, education level, work experience and entrepreneurial experience may have an impact on individual entrepreneurial intention. For example, Crant(1996) used the analysis of variance (ANOVA) method to conduct an empirical study on the questionnaire survey data of 181 MBA students and undergraduate students. When comparing the entrepreneurial intention of MBA students with three years' work experience and undergraduates, the results show that the entrepreneurial intention of the former is significantly higher than that of the latter, and the entrepreneurial intention of MBA students is significantly higher than that of undergraduates. In addition, the study also shows that students whose parents are entrepreneurs have significantly higher entrepreneurial intention than students whose parents are not entrepreneurs. This means that entrepreneurs among family members, especially when their parents are entrepreneurs, will set an example for individuals, making their cognition and feasibility of entrepreneurship more authentic and positive, thus affecting their attitude towards entrepreneurship. Research by Chinese scholars Wang,M.S. and Li,C.Y.(2011) also shows that students with business operation experience or entrepreneurial experience among family members have significantly higher entrepreneurial intention than students without these background factors or experiences.

Fan,W. and Wang Chong,M.(2004) proposed that different levels of education will also have an impact on individual entrepreneurial intentions. Generally speaking, the entrepreneurial intention of those with MBA degrees is significantly higher than that of those with bachelor, master and doctor degrees. However, there is no significant difference in individual entrepreneurial intention among the latter three.

Mazzaroetal (1999) proposed about the work experience of individuals. The study found that the entrepreneurial intention of individuals with work experience in

state-owned enterprises was significantly lower than that of individuals with work experience in private enterprises. In addition, the study also shows that if an individual has entrepreneurial experience, this experience will become an advantage for him to engage in entrepreneurial activities again, and the individual's entrepreneurial experience is one of the most stable indicators to predict his entrepreneurial performance (Singer, 1995).

In addition to the influencing factors of individual entrepreneurial intention discussed above, through literature review, we can also find that demographic characteristics, such as gender and age, can also lead to differences in individual entrepreneurial intention. Specifically, research shows that men's entrepreneurial intention is generally higher than that of women (Crant, 1996; Singh and Denoble, 2003; Zhao, Seibert and Hills, 2005). In addition, American scholars such as Reynolds, Bygrave and Autio (2002) found that among college graduates aged between 25 and 34, the entrepreneurial tendency reached the highest point. The research of Chinese scholars Fanwei and Wang, C., M. (2004) shows that the entrepreneurial intention of individuals aged under 25 and between 25 and 30 is significantly higher than that of individuals aged over 30.

#### **Individual cognitive characteristics**

According to the literature review, when studying the influencing factors of entrepreneurial intention from the perspective of individual cognitive characteristics, entrepreneurial self-efficacy has become the main research focus.

Krueger and Dickson (1994) proposed that the concept of entrepreneurial self-efficacy originates from Bandura's self-efficacy theory. It plays an important role in revealing the basic skills required in the process of new enterprise creation.

Many scholars have pointed out through empirical research that entrepreneurial self-efficacy plays an important leading role in influencing the formation of entrepreneurial intention (Bird, 1988; Krueger and Carsrud, 1993; Boyd and Vozikis, 1994; Zhao, Seibert, and Hills, 2005; Barbosa, France, and Kickul, 2007).

Bird (1988) and Boyd and Vozikis (1994) proposed to define entrepreneurial self-efficacy as the self-confidence of individuals that they have the skills and abilities required for entrepreneurship to successfully establish enterprises and complete various entrepreneurial tasks. They believe that entrepreneurial self-efficacy comprehensively considers individual characteristics and environmental

factors, so it has a vital position in the field of entrepreneurship research and is regarded as a key predictor of entrepreneurial intention and entrepreneurial behavior. Previous studies have shown that entrepreneurial self-efficacy has a positive impact on individual entrepreneurial intention, that is, individuals with higher entrepreneurial self-efficacy generally show stronger entrepreneurial intention (Chen, Greene, Crick, 1998; de noble, Jung, and Ehrlich, 1999; Jung, Ehrlich, de noble, 2001; Zhao, Seibert, and hills, 2005; Barbosa, France, andKickul,2007).

### **Second, research on the influencing factors of entrepreneurial intention from the perspective of environment**

Boyd and Vozikis(1994) proposed that environmental factors have an important impact on individual entrepreneurial intention. In addition to macro factors, such as politics, economy and social culture, micro factors, such as time constraints, task difficulty and social pressure from others, can also affect individuals' entrepreneurial attitudes, thus affecting their entrepreneurial intentions (Krueger, 1993; Lee and Wong, 2004).

By combing the relevant literature, we can see that when studying the influencing factors of individual entrepreneurial intention based on macro environmental factors, the study of social and cultural factors accounts for a considerable proportion. However, in contrast, the research on the impact of entrepreneurship education on individual entrepreneurial intention is still in the exploratory stage.

#### **Social culture**

Mueller and Thomas (2001) proposed that social culture is the value system of a specific group or the whole society, which has a far-reaching impact on individual behavior. Therefore, entrepreneurship researchers regard social culture as an important variable and study its influence mechanism on entrepreneurial behavior. Existing studies have shown that social and cultural factors can affect the formation of individual entrepreneurial intention (Malhotra and Mccort, 2001). According to the theory of planned behavior, the values contained in social culture will affect the antecedents of intention related to motivation. For example, the culture that supports entrepreneurship will make entrepreneurship legal in society (Etzioni, 1987), so this cultural value will strongly affect the motivation of Entrepreneurship (Ajzen, 2001; Kristiansen and Indarti, 2004).

By combing the relevant literature, we can see that some studies focus on the impact of social culture itself on entrepreneurial activities, while others focus on the comparative study of cultural differences in different countries on individual entrepreneurial intentions. In short, social and cultural factors play an important role in the study of the relationship between external environmental factors and entrepreneurial intention.

### **Entrepreneurship education**

Through literature review, we can learn that early studies have made it clear that entrepreneurship education plays a positive role in promoting individuals to become entrepreneurs. Specifically, entrepreneurship education has a positive impact on individual entrepreneurial self-efficacy, entrepreneurial attitude and entrepreneurial choice.

Clouse (1990) proposed that students receiving entrepreneurship education have accumulated more experience in decision-making and entrepreneurship, which helps them make more favorable decisions. The research results of researchers Koivereid and Moen (1997) show that students majoring in Entrepreneurship show higher entrepreneurial intention and are more likely to start new businesses. Noel (1998, 2001) not only confirmed that college students majoring in entrepreneurship have higher entrepreneurial intention than students majoring in other majors, but also pointed out that within 2-5 years after graduation, students majoring in entrepreneurship have higher scores of entrepreneurial intention and entrepreneurial self-efficacy than students majoring in other majors. According to the research results of Wilson, Kickul and Marlino (2007), entrepreneurship education helps to improve individual self-efficacy. In addition, Varela and Jimenez (2001) showed that the investment of universities in entrepreneurship education was positively correlated with the proportion of students becoming entrepreneurs. The research of Tkachev and Kolvereid (1999) and Fayolle, Gailly and Kickul (2005) have proved that entrepreneurship education courses can improve students' entrepreneurial intention.

However, most of these studies have the following three problems: first, in terms of research objects, some studies focus on business school students, entrepreneurship students or students with management knowledge, so the universality of their conclusions is limited; Secondly, in terms of research content, some studies only regard whether students have received entrepreneurship

education or learned knowledge related to management as the dividing line, without considering the multidimensional nature of entrepreneurship education. Therefore, the validity of the conclusion is problematic; Thirdly, most studies do not regard entrepreneurship education as a multi-dimensional concept, but simplify it to a single dimension, ignoring the question of which factors in entrepreneurship education affect individual attitudes and intentions. Therefore, the research on the relationship between entrepreneurship education and individual entrepreneurial intention is still in the exploratory stage.

### **Review and enlightenment of previous studies**

To sum up, the research on entrepreneurial intention has been quite rich, and previous research has shown obvious characteristics in terms of theoretical perspective, statistical analysis methods and research content. Specifically, most studies are based on Ajzen's (1991) theory of planned behavior and Bandura's (1977) theory of self-efficacy. In addition, some studies are based on Shapero's (1982) entrepreneurial event model. In addition, in terms of empirical research, most studies on entrepreneurial intention use the analysis method of linear regression model (Chandler and Lyon, 2001), while only a few studies use structural equation model.

Wang (2004) pointed out that there are various factors influencing individual entrepreneurial intention. From the perspective of internal factors, these factors are usually related to individual needs, values, behavior habits and beliefs. Among these factors, personality characteristics play an important role in influencing individual entrepreneurial intention, so the relevant research covers a wide range of content. In addition, researchers usually use the "Big Five" personality scale as a measurement tool to carry out relevant research work. From the perspective of external factors, environmental factors also have an impact on individual entrepreneurial intention (Tubbs and Ekeberg, 1991; Boyd and Vozikis, 1994). In this field, entrepreneurship education and socio-cultural differences are still research issues of great concern.

In summary, previous studies mainly focused on the impact of individual characteristics, individual background factors, entrepreneurial self-efficacy, social and cultural factors and entrepreneurship education on individual entrepreneurial intention. The research on individual characteristics, individual background factors, entrepreneurial self-efficacy and social and cultural factors has achieved fruitful results. However, the research on the relationship between entrepreneurship



education and individual entrepreneurial intention is still in the exploratory stage.

The research proposed by Jian,D.D, Duan,L.Y. and zhu,Y.L.(2010) mainly focuses on the description of entrepreneurship education courses, the trend of entrepreneurship education and the evaluation of the value of entrepreneurship courses, but there are two main shortcomings: first, the research on how individuals' attitudes towards entrepreneurship education affect their entrepreneurial intentions and what factors in individuals' attitudes have a key impact on entrepreneurial intentions is not sufficient; Second, few studies have divided the broad concept of entrepreneurship education into multiple dimensions and conducted in-depth research, while most studies only put forward that entrepreneurship education can help improve individual entrepreneurial intention in general (Zhao, Seibert and hills, 2005;Souitans,ZerbinatiAnd Al Laham, 2007). Therefore, based on the theoretical model of planned behavior, we divide entrepreneurship education into two constructs, and study the mechanism of the influence of students' attitude factors and school teaching factors on individual entrepreneurial intention, which forms the core research problem of this paper.

## Chapter 3

### Research Methodology

This study aims to promote the development of the entrepreneurship education operational mechanism at Guiyang University. It examines the current state of the entrepreneurship education operational mechanism at Guiyang University, providing guidelines and assessment criteria for its development. The researchers follow the following procedures.

1. Subject population/sample population
2. Research tools
3. Data collection
4. Data analysis

In the following chapters, each procedure will be elaborated and discussed in detail to ensure the reliability and validity of the research.

#### The population/Sample Group

##### The Population

Study subjects: The subjects of this study are students and teachers of Guiyang University. Guiyang University currently has nearly 12,000 full-time undergraduate and graduate students and more than 970 faculty members, including 717 full-time teachers. (As shown in Table 3.1)

**Table 3.1** Statistics of professional colleges of Guiyang University

No	College	Number of teachers	Name of undergraduate major
1	School of Culture and Media	43	Chinese Language and Literature, Radio and Television, Radio and Television Director
2	School of Foreign Languages	56	English, Japanese
3	School of Law	36	Law, social work

Table 3.1 (Continued)

No	College	Number of teachers	Name of undergraduate major
4	School of Marxism	41	Ideological and Political Education
5	School of Mathematics and Information Science	63	Software engineering, computer science and technology, Mathematics and Applied Mathematics, Information and Computing Science, Data Science and Big Data Technology, Applied Statistics
6	School of Educational Science	46	Preschool education, primary education, applied psychology
7	School of Electronic and Communication Engineering	46	Electronic Information Engineering, Communication Engineering, Electronic Information Science and Technology, Artificial Intelligence
8	School of Chemistry and Materials Engineering	41	Chemistry, Materials Science and Engineering, Science Education
9	School of Economics and Management	58	Economics, International Economics and Trade, Logistics Management, Tourism Management, Digital Economy
10	School of Biological and Environmental Engineering	53	Environmental Ecological Engineering, Biological Engineering, Tea Science, Landscape Architecture, Bioinformatics
11	School of Mechanical Engineering	35	Mechanical Design and Manufacturing and Automation, Mechanical and Electronic Engineering, Automotive Service Engineering, Intelligent Manufacturing Engineering
12	School of Food and Pharmaceutical Engineering	49	Pharmaceutical Engineering, Food Science and Engineering, Food Quality and Safety, Pharmacy

Table 3.1 (Continued)

No	College	Number of teachers	Name of undergraduate major
13	School of Urban Planning and Architectural Engineering	27	Civil engineering, architecture
14	School of Music	45	Music performance, musicology, dance
15	School of Fine Arts	47	Fine Arts, Visual Communication Design, Environmental Design
16	School of Physical Education	31	Physical Education, Social Sports Guidance and Management
<b>Total</b>		<b>717</b>	

Due to: <http://www.gyu.cn/yxszyzyxy.ht>

### The Sample Group

1) Sample subjects: The research subjects are teachers from Guiyang University. Guiyang University has 717 full-time teachers.

2) Teacher sample selection: Random sampling method is used to select teachers from the school's professional colleges as samples. To determine the appropriate sample size, we used the Yamane formula for sample size calculation. Set the overall size (study population size) to  $N=717$  people and select the expected sampling error of  $e=0.05$ . According to Yamane's formula, the calculation formula for sample size ( $n$ ) is  $n=N/(1+N(e^2))$ . By substituting specific numerical values for calculation, an approximate sample size of 257 people was obtained. For the convenience of research implementation and the efficiency of data collection, we rounded the sample size to 260 people. The specific random sampling process may include the following steps:

Step 1: Randomly select a sample from the total number of professional college teachers in Guiyang University.

Step 2: Ensure that the sample is representative, fully considering factors such as the research direction and professional titles of teachers in various professional colleges of the school.

3) Selection of samples of entrepreneurship education experts: 13 expert teachers in the field of entrepreneurship education at Guiyang University were selected for interviews. (As shown in Table 3.2) (As shown in Table 3.3) (As shown in Table 3.4)

**Table 3.2** Detailed sample group information

Research Objectives	Sample Group	Research Instruments	Data collection	Data analysis
1	260 teachers	Questionnaire	Survey	Quantitative analysis by mean value by standard deviation
2	13 entrepreneurship education experts	Interview	Interview	Quantitative analysis by mean value by standard deviation
3	5 experts	evaluation sheet	Survey	Assessment by mean value by standard deviation

**Table 3.3** Specific results of sample selection for questionnaire survey in Guiyang University

	College of major	The numbers
1	School of Culture and Media	16
2	School of Foreign Languages	20
3	School of Law	13
4	School of Marxism	15
5	School of Mathematics and Information Science	23
6	School of Educational Science	17
7	School of Electronic and Communication Engineering	17
8	School of Chemistry and Materials Engineering	15
9	School of Economics and Management	21
10	School of Biological and Environmental Engineering	19
11	School of Mechanical Engineering	13
12	School of Food and Pharmaceutical Engineering	17

Table 3.3 (Continued)

	College of major	The numbers
13	School of Urban Planning and Architectural Engineering	10
14	School of Music	16
15	School of Fine Arts	17
16	School of Physical Education	11
<b>All of them</b>		<b>260</b>

Table 3.4 Specific results of interview sample selection in Guiyang University

Educational background	The numbers
Doctor	9
Master's degree	4
All of them	13

Table 3.5 Lists of informational interview group

No	Guiyang University	Sample group
1	School of Culture and Media	1
2	School of Foreign Languages	1
3	School of Law	1
4	School of Mathematics and Information Science	1
5	School of Educational Science	1
6	School of Electronic and Communication Engineering	1
7	School of Chemistry and Materials Engineering	1
8	School of Economics and Management	1
9	School of Biological and Environmental Engineering	1
10	School of Mechanical Engineering	1
11	School of Food and Pharmaceutical Engineering	1
12	School of Music	1
13	School of Fine Arts	1
<b>Total</b>		<b>13</b>

According to Table 3.5, the researchers selected each branch of Guiyang University and conducted interviews with the entrepreneurship education management teachers in each branch to better reflect the overall situation of the entrepreneurship education operation mechanism of Guiyang University.

The experts who evaluated the applicability and feasibility of the research guide for the entrepreneurship education operating mechanism of Guiyang University were five entrepreneurship education management personnel from Guiyang University. The qualifications of the experts are as follows: 1) at least 10 years of relevant work experience in entrepreneurship education in Guiyang Universitys and universities, 2) familiarity with the entire process of entrepreneurship education, 3) graduation from a doctoral degree, and 4) academic title of associate professor or above.

**Table 3.6** Lists of evaluation experts group

No	Guiyang University	Sample group
1	School of Electronic and Communication Engineering	1
2	School of Chemistry and Materials Engineering	1
3	School of Economics and Management	1
4	School of Urban Planning and Architectural Engineering	1
5	School of Fine Arts	1
<b>Total</b>		<b>5</b>

According to Table 3.6, the school with the largest number of students and the highest reputation for entrepreneurship education quality is the School of Economics and Management, which is evaluated by experts from the school.

## Research Instruments

### Questionnaire

The instrument to collect the data for objective one, to study the current situation of the entrepreneurship education operational mechanism at Guiyang University, involves the use of a questionnaire survey. The questionnaire, designed based on the entrepreneurship education operational mechanism of Guiyang University, covers seven main aspects: 1) School support and entrepreneurial

ecosystem; 2) Mentor and teacher support and guidance; 3) Educational courses and activities promoting entrepreneurial practice; 4) Entrepreneurship resources and support networks; 5) Entrepreneurial ecosystem and policy support; 6) Students' entrepreneurial intentions and abilities; 7) Evaluating the operational mechanism of entrepreneurship education. The questionnaire is divided into two parts:

Part 1: Survey about respondents personal information, classified by gender, age, educational level, professional title, and work experience.

Part 2: Survey about the current operating mechanism of Guiyang University. There are 5 questions on school support and entrepreneurial ecosystem, 5 questions on mentor and teacher support and guidance, 5 questions on educational courses and activities to promote entrepreneurial practice, 5 questions on entrepreneurial resources and support network, 5 questions on entrepreneurial ecosystem and policy support, 5 questions on student entrepreneurial willingness and ability assessment, and 6 questions on assessing the operating mechanism of entrepreneurial education. The data interpretation criteria based on the five-point Likert scale are as follows:

5 express the level of entrepreneurship education operation mechanism at strongly high level

4 express the level of entrepreneurship education operation mechanism at high level

3 express the level of entrepreneurship education operation mechanism at medium level

2 express the level of entrepreneurship education operation mechanism at low level

1 express the level of entrepreneurship education operation mechanism at strongly low level

### **Constructing a questionnaire process**

The construction process of questionnaire was as follows:

Step 1: Review and analyze the relevant documents, concepts, theories, and research on the operating mechanism of entrepreneurship education.

Step 2: Construct a questionnaire survey on the current status of entrepreneurship education operating mechanisms in Guiyang University. Then send the questionnaire outline to the thesis mentor and revise the content based on their



suggestions.

Step 3: The index of objective congruence (IOC) of the questionnaire was examined by three experts. The index of objective congruence (IOC) was 0.67 to 1.00.

Step 4: Revise the questionnaire based on the experts' suggestions.

Step 5: The questionnaire was distributed to 30 entrepreneurship education personnel at Guiyang University for try-out. The reliability of the questionnaire was obtained by Conbach's Alpha Coefficient, the reliability was 0.982.

Step 6: The questionnaire was applied to 260 teachers at Guiyang University.

### **Structured Interview**

The instrument to collect the data for objective two, to provide strategic guidelines for the entrepreneurship education operational mechanism at Guiyang University, utilizes structured interviews. This article conducts structured interviews on the entrepreneurship education operational mechanism at Guiyang University from three aspects: 1) Factors influencing the entrepreneurship education operational mechanism; 2) Recommendations for the entrepreneurship education operational mechanism. The interview is divided into two parts:

Part 1: Structured interviews regarding the respondents' personal information, categorized by gender, educational background, date of interview, age, position, and faculty.

Part 2: Structured interviews on the entrepreneurship education operational mechanism at Guiyang University. There are seven questions on the factors influencing the entrepreneurship education operational mechanism and one question on recommendations for the operational mechanism, totaling nine questions.

### **Constructing a structured interview process**

The construction process of structured interview were as follows:

Step 1: Review and analyze the relevant documents, concepts, theories, and research on the operating mechanism of entrepreneurship education.

Step 2: Construct a structured interview for the research on the operating mechanism of entrepreneurship education in Guiyang University. Then send the structured interview outline to the thesis mentor, and review and revise the content based on their suggestions.

Step 3: Revise the structured interview according to the experts' suggestions.

Step 4: The structured interview with 13 entrepreneurship education personnel from Guiyang University's entrepreneurship education operation mechanism.

#### **Evaluation form**

The instrument to collect the data for objective three, to evaluate the suitability and feasibility of the research guidelines for the entrepreneurship education operational mechanism at Guiyang University. The researcher invites 5 experts to conduct the evaluation, with these invited experts possessing significant experience and a rich theoretical background in the field of entrepreneurship education management. The data interpretation is based on the average value method of Rensis Likert (1932). The data interpretation is as follows:

- 4.50 – 5.00 express highest level
- 3.50 – 4.49 express high level
- 2.50 – 3.49 express medium level
- 1.50 – 2.49 express low level
- 1.00 – 1.49 express lowest level

#### **Data Collection**

The data collection for objective 1: to study the current situation of the entrepreneurship education operational mechanism at Guiyang University, with the following procedures:

Step 1: The researcher requested a requirement letter from the Graduate School of Bansomdejchaopraya Rajabhat University to collect data from 260 teachers at Guiyang University.

Step 2: The researcher distributed questionnaires to 260 teachers. A total of 260 questionnaires could be returned, accounting for 100%.

The data collection for objective 2: to propose guidelines for the entrepreneurship education operational mechanism at Guiyang University.

Step 1: The researcher requested a requirement letter from the Graduate School of Bansomdejchaopraya Rajabhat University to collect interview data from 8 entrepreneurship education managers at Guiyang University.

Step 2: The researcher conducted in-depth interviews with 13 entrepreneurship education managers at Guiyang University. These managers responded to targeted

questions posed by the researcher and discussed their views on the entrepreneurship education operational mechanism at Guiyang University. The researcher also maintained records of the interviews.

The data collection for objective 3: to evaluate the suitability and feasibility of the guidelines for the entrepreneurship education operational mechanism at Guiyang University.

Step 1: The researcher requested a requirement letter from the Graduate School of Bansomdejchaopraya Rajabhat University to collect suitability and credibility data assessment forms from 5 entrepreneurship education management experts at Guiyang University.

Step 2: The researcher sent the assessment forms to 5 entrepreneurship education management experts. A total of 5 assessment forms were returned, accounting for 100%.

## **Data Analysis**

The data analysis in this research, the researcher analyzes the data through a package program, as follows:

Step 1: The personal information of the respondents was analyzed by frequency and percentage, categorized by gender, educational background, cultural level, and years of work experience.

Step 2: The current situation of the entrepreneurship education operational mechanism at Guiyang University in seven aspects was analyzed using average value and standard deviation: 1) School support and entrepreneurial ecosystem, 2) Mentor and teacher support and guidance, 3) Educational courses and activities promoting entrepreneurial practice, 4) Entrepreneurship resources and support network, 5) Entrepreneurial ecosystem and policy support, 6) Students' entrepreneurial intentions and abilities, 7) The operational mechanism of entrepreneurship education.

Step 3: Content analysis was conducted on the structured interviews regarding the guidelines for the entrepreneurship education operational mechanism at Guiyang University.

Step 4: The evaluation of the suitability and feasibility of the research guidelines for the entrepreneurship education operational mechanism at Guiyang University was conducted using average value and standard deviation.

# Chapter 4

## Results of Analysis

Research on the operation mechanism of entrepreneurship education in Guiyang University. The purpose of this study is: 1) to study the current situation of the operation mechanism of entrepreneurship education in Guiyang University. 2) Put forward the factors and relationships that affect the operation mechanism of entrepreneurship education in Guiyang University. 3) Evaluate the adaptability and feasibility of the improvement and development of the operation mechanism of entrepreneurship education in Guiyang University. The data analysis results are as follows:

1. Symbol and Abbreviations
2. Presentation of Data Analysis
3. Results of Data Analysis

The details are as follows.

### Symbol and Abbreviations

- N refers to sample group
- $\bar{x}$  refers to average value
- S.D refers to standard deviation

### Presentation of Data Analysis

Part 1: The analysis results about the personal information of respondents, classified by gender, age, cultural level, professional title and working years, presented the data in the form of frequency and percentage.

Part 2: The analysis of the current status of the entrepreneurship education operating mechanism at Guiyang University. The data is displayed in the form of average values and standard deviations.

Part 3: The analyze interview content of the development guide for the entrepreneurship education operating mechanism of Guiyang University.

Part 4: The analysis of the evaluation of the suitability and feasibility of the development guidelines for the entrepreneurship education operational mechanism at Guiyang University. The data are presented in the form of average value and standard deviation.

## Results of Data Analysis

The researcher analyzed the data in four parts as follows:

Part 1: The analysis results about the personal information of respondents, classified by gender, age, cultural level, professional title and working years, presented the data in the form of frequency and percentage.

Table 4.1 Basic information of respondents

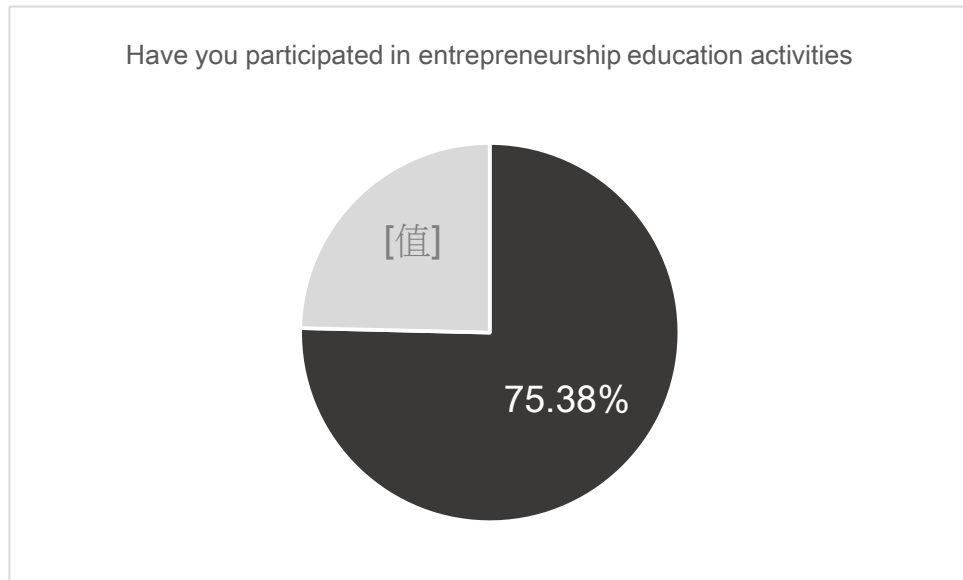
(n=260)

subject	option	frequency	percentage
1. Age	30 years and under	33	12.69%
	31-40 years old	93	35.77%
	41-50 years old	88	33.85%
	Over 50 years old	46	17.69%
2. Gender	male	116	44.62%
	female	144	55.38%
3. Educational background	undergraduate course	14	5.38%
	master	115	44.23%
	doctor	131	50.38%
4. College	School of culture and media	16	6.15%
	College of foreign languages	20	7.69%
	law school	13	5%
	College of Marxism	15	5.77%
	School of mathematics and Information Science	23	8.85%
	College of Educational Sciences	17	6.54%
	School of electronic and Communication Engineering	17	6.54%
	School of chemistry and materials engineering	15	5.77%
	School of economics and management	21	8.08%
	College of biological and environmental engineering	19	7.31%
	College of Mechanical Engineering	13	5%

Table 4.1 (Continued)

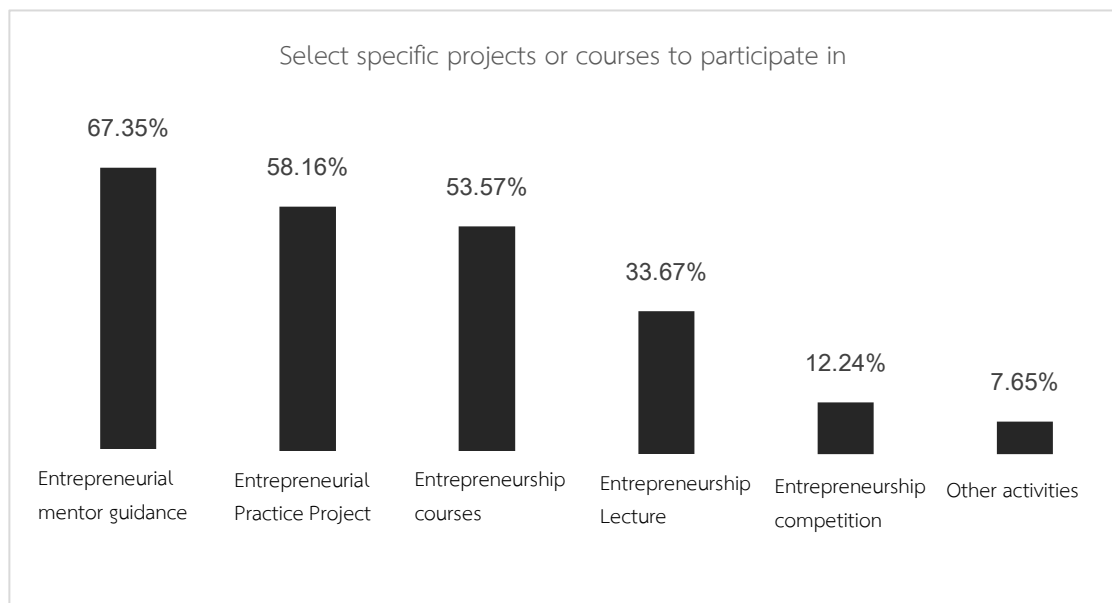
		(n=260)	
subject	option	frequency	percentage
	School of food and pharmaceutical engineering	17	6.54%
	School of urban and rural planning and architectural engineering	10	3.85%
	Conservatory of music	16	6.15%
	Academy of Fine Arts	17	6.54%
	Institute of Physical Education	11	4.23%
5. Educational experience	1-5 years	47	18.08%
	6-10 years	44	16.92%
	11-15 years	94	36.15%
	More than 15 years	75	28.85%

A total of 260 valid questionnaires were collected in this study. Through the statistical analysis of questionnaire data using SPSS25.0 and AMOS23, the research model and hypotheses in this article were verified. From the table above (as shown in Table 4.1), it can be seen that among the 260 surveyed teacher samples, the age group of 31-40 years old has the largest proportion, accounting for 35.77%. The next largest group is teachers aged 41-50 years old, accounting for 33.85%. The proportion of those over 50 years old is 17.69%, while that of those aged 30 and below is 12.69%. From the perspective of gender, males account for 44.62% and females account for 55.38%. From the perspective of educational background, 50.38% of teachers have doctoral degrees and 44.23% have master's degrees. The college conducted stratified sampling based on the number of full-time teachers in the school, with the highest proportion of educational experience being 11-15 years, accounting for 36.15%, followed by those with more than 15 years of experience, accounting for 28.85%.



**Figure 4.1** Participation ratio in entrepreneurship education activities

From Figure 4.1 above, it can be seen that 75.38% of teachers have participated in entrepreneurship education activities, while 24.62% of respondents have not participated in any entrepreneurship education activities.



**Figure 4.2** The proportion of participants in entrepreneurship activity courses

As shown in Figure 4.2, after understanding the specific projects or courses selected by the 196 teachers who participated, it was found that teachers who had participated in entrepreneurship education preferred to participate in the form of entrepreneurial mentor guidance, entrepreneurial practice projects, and entrepreneurial courses, accounting for 67.35%, 58.16%, and 53.57% respectively. Other participation modes included entrepreneurship lectures and entrepreneurship competitions, accounting for 33.67% and 12.24% respectively.

**Part 2: The analysis of the current status of the entrepreneurship education operating mechanism at Guiyang University. The data is displayed in the form of average values and standard deviations.**

**Table 4.2** Current situation of "school support and entrepreneurial ecology"

(n=260)

No	Measurement Questions	$\bar{X}$	S.D.	level	rank
1	The school has provided sufficient resources to promote entrepreneurship education.	3.44	1.34	Moderate	1
2	The entrepreneurial orientation of the school matches the needs of students.	3.21	1.10	Moderate	2
3	The school provides students with entrepreneurial guidance and support.	3.20	1.05	Moderate	3
4	The school has created an atmosphere to encourage students' innovation and entrepreneurship.	3.15	1.10	Moderate	4
5	The school actively promotes the development and practice of entrepreneurship education.	3.11	1.08	Moderate	5
<b>Total</b>	<b>School support and entrepreneurial ecology</b>	<b>3.22</b>	<b>0.93</b>	<b>Moderate</b>	



According to Table 4.2, the school support and entrepreneurial ecology in terms of factors related to the operation mechanism of entrepreneurship education are above average ( $\bar{x}=3.22$ ). Specifically, from high to low, the following are: the school provides sufficient resources in promoting entrepreneurship education ( $\bar{x}=3.44$ ), the school's entrepreneurial orientation matches the needs of students ( $\bar{x}=3.21$ ), the school provides students with entrepreneurial guidance and support ( $\bar{x}=3.20$ ), the school creates an atmosphere that encourages students to innovate and start businesses ( $\bar{x}=3.15$ ), and the school actively promotes the development and practice of entrepreneurship education ( $\bar{x}=3.11$ ).

**Table 4.3** Current situation of "tutor and teacher support and guidance"

(n=260)

No	Measurement Questions	$\bar{X}$	S.D.	level	rank
1	Tutors and teachers pay high attention to students' entrepreneurial willingness and ability.	3.32	1.37	Moderate	1
2	Mentors and teachers provided effective entrepreneurial guidance and guidance.	3.12	1.18	Moderate	2
3	Mentors and teachers encourage students to participate in entrepreneurial practices and activities.	3.06	1.18	Moderate	3
4	Mentors and teachers have rich entrepreneurial background and experience.	3.02	1.09	Moderate	5
5	Tutors and teachers actively participate in the training and guidance of students' entrepreneurship projects.	3.03	1.09	Moderate	4
<b>Total</b>	<b>Tutor and teacher support and guidance</b>	<b>3.11</b>	<b>0.97</b>	<b>Moderate</b>	

According to Table 4.3, the support and guidance factors of mentors and teachers in the operation mechanism of entrepreneurship education are above average ( $\bar{x}=3.11$ ). Specifically, from high to low, they are: mentors and teachers have

a high level of attention to students' entrepreneurial intentions and abilities ( $\bar{x}=3.32$ ), mentors and teachers provide effective entrepreneurial guidance and guidance ( $\bar{x}=3.12$ ), mentors and teachers encourage students to participate in entrepreneurial practices and activities ( $\bar{x}=3.06$ ), mentors and teachers actively participate in the cultivation and guidance of student entrepreneurial projects ( $\bar{x}=3.03$ ), mentors and teachers have rich entrepreneurial backgrounds and experience ( $\bar{x}=3.02$ ).

**Table 4.4** Current situation of "educational courses and activities to promote entrepreneurial practice"

(n=260)

No	Measurement Questions	$\bar{X}$	S.D.	level	rank
1	The entrepreneurship education courses and activities offered by the school are rich and diverse	3.54	1.25	Moderate	1
2	Entrepreneurship education courses and activities can meet the entrepreneurial needs of students	3.22	1.13	Moderate	4
3	The school provides a wealth of entrepreneurial practice opportunities and project incubation	3.16	1.13	Moderate	5
4	Entrepreneurship education courses and activities are closely integrated with market demand	3.30	1.08	Moderate	3
5	The school actively explores innovative entrepreneurship education courses and activity forms	3.30	1.06	Moderate	2
<b>Total</b>	<b>Educational courses and activities to promote entrepreneurial practice</b>	<b>3.30</b>	<b>0.91</b>	<b>Moderate</b>	

According to Table 4.4, it can be seen that the educational curriculum and activity factors that promote entrepreneurial practice in the operation mechanism of entrepreneurship education are at a slightly above average level ( $x=3.30$ ). Specifically, from high to low, the entrepreneurship education courses and activities offered by schools are rich and diverse ( $x=3.54$ ), the school actively explores innovative

entrepreneurship education courses and activity forms ( $x=3.30$ ), entrepreneurship education courses and activities are closely integrated with market demand ( $x=3.30$ ), entrepreneurship education courses and activities can meet the entrepreneurial needs of students ( $x=3.22$ ), and schools provide rich opportunities for entrepreneurship practice and project incubation ( $x=3.16$ ).

**Table 4.5** Status of "entrepreneurial resources and support network"

(n=260)

No	Measurement Questions	$\bar{X}$	S.D.	level	rank
1	The school has clear policies and regulations on entrepreneurship education.	3.51	1.26	Moderate	1
2	The school's entrepreneurship policy has a positive incentive and support effect on students' entrepreneurship.	3.25	1.08	Moderate	3
3	The school system is conducive to the smooth operation and development of entrepreneurship education.	3.31	1.07	Moderate	2
4	The school encourages students' innovation and entrepreneurship and provides policy support.	3.19	1.15	Moderate	5
5	The school actively improves the policies and systems related to entrepreneurship education to promote the development of entrepreneurship education.	3.20	1.08	Moderate	4
<b>Total</b>	<b>Entrepreneurial resources and support network</b>	<b>3.29</b>	<b>0.90</b>	<b>Moderate</b>	

According to Table 4.5, The entrepreneurial resources and support network factors related to the operation mechanism of entrepreneurship education are at a slightly above average level ( $\bar{x}=3.29$ ). Specifically, from high to low, schools have clear policies and regulations on entrepreneurship education ( $\bar{x}=3.51$ ), school systems contribute to the smooth operation and development of entrepreneurship education ( $\bar{x}=3.31$ ), school entrepreneurship policies have a positive incentive and

support effect on student entrepreneurship ( $\bar{x} = 3.25$ ), schools actively improve policies and systems related to entrepreneurship education to promote the development of entrepreneurship education ( $\bar{x} = 3.20$ ), and schools encourage students to innovate and start businesses, Provide policy support ( $\bar{x} = 3.19$ ).

**Table 4.6** Current situation of "entrepreneurial ecology and policy support"

(n-260)					
No	Measurement Questions	$\bar{X}$	S.D.	level	rank
1	Whether the school's entrepreneurship policies and systems are conducive to the application and implementation of students' entrepreneurship projects.	3.36	1.40	Moderate	1
2	Whether the school has provided corresponding policy support and preferential policies for students' entrepreneurship.	3.23	1.14	Moderate	2
3	Whether the school encourages students to start businesses and provides relevant incentives.	3.12	1.12	Moderate	5
4	Whether the school's entrepreneurship policy provides the necessary legal and policy guarantee for students' entrepreneurship.	3.15	1.11	Moderate	4
5	Whether the school's entrepreneurship policy is conducive to promoting the development of entrepreneurship education.	3.17	1.18	Moderate	3
<b>Total</b>	<b>Entrepreneurial ecology and policy support</b>	<b>3.21</b>	<b>0.98</b>	<b>Moderate</b>	

According to Table 4.6, the entrepreneurial ecology and policy support factors related to the operation mechanism of entrepreneurship education are at a slightly above average level ( $\bar{x} = 3.21$ ). Specifically, from high to low, the school's entrepreneurship policies and systems are conducive to the application and

implementation of student entrepreneurship projects ( $\bar{x}=3.36$ ), the school provides corresponding policy support and preferential policies for student entrepreneurship ( $\bar{x}=3.23$ ), the school's entrepreneurship policies are conducive to promoting the development of entrepreneurship education ( $\bar{x}=3.17$ ), the school's entrepreneurship policies provide necessary legal and policy guarantees for student entrepreneurship ( $\bar{x}=3.15$ ), and the school encourages students to start businesses, And provide relevant reward measures ( $\bar{x}=3.12$ ).

**Table 4.7** Current situation of "students' entrepreneurial willingness and ability"

(n=260)

No	Measurement Questions	$\bar{X}$	S.D.	level	rank
1	I have observed that many students show strong interest and willingness in entrepreneurship.	3.22	1.34	Moderate	1
2	I think the students have a certain accumulation in the ability and quality required for entrepreneurship.	3.06	1.15	Moderate	3
3	In teaching, I noticed that the students had begun to conceive some entrepreneurial plans and ideas.	3.13	1.10	Moderate	2
4	I have observed that students are willing to actively participate in entrepreneurial practices and activities.	3.05	1.11	Moderate	4
5	In my opinion, students believe that entrepreneurship education can bring them success and achievement.	3.01	1.16	Moderate	5
<b>Total</b>	<b>Students' entrepreneurial willingness and ability</b>	<b>3.10</b>	<b>0.97</b>	<b>Moderate</b>	

According to Table 4.7, In terms of factors related to the operation mechanism of entrepreneurship education, the overall evaluation of student entrepreneurial willingness and ability is above average ( $\bar{x}=3.10$ ). Specifically, from high to low, I have observed that many students show a strong interest and

willingness in entrepreneurship ( $\bar{x}=3.22$ ). In teaching, I have noticed that students have started to conceive some entrepreneurial plans and ideas ( $\bar{x}=3.13$ ). I believe that students have accumulated a certain amount of abilities and qualities required for entrepreneurship ( $\bar{x}=3.06$ ). I have also observed that students are willing to actively participate in entrepreneurial practices and activities ( $\bar{x}=3.05$ ). In my opinion, Students believe that entrepreneurship education can bring them success and achievement ( $\bar{x}=3.01$ ).

**Table 4.8** Current situation of "operation mechanism of entrepreneurship education" (n=260)

No	Measurement Questions	$\bar{X}$	S.D.	level	rank
1	School support and entrepreneurial ecology	3.22	0.93	Moderate	3
2	Support and guidance from mentors and teachers	3.11	0.97	Moderate	5
3	Educational courses and Activities for entrepreneurial practice	3.30	0.91	Moderate	1
4	Entrepreneurial Resources and Support Network	3.29	0.90	Moderate	2
5	Entrepreneurial Ecology and Policy Support	3.21	0.98	Moderate	4
6	Student entrepreneurial willingness and ability	3.10	0.97	Moderate	6
<b>Total</b>	<b>operation mechanism of entrepreneurship education</b>	<b>3.20</b>	<b>0.94</b>	<b>Moderate</b>	

According to Table 4.8, The overall operation mechanism of entrepreneurship education is at a slightly above average level ( $\bar{x}=3.20$ ). Specifically, from high to low, they are: educational courses and activities for entrepreneurial practice ( $\bar{x}=3.30$ ), entrepreneurial resources and support networks ( $\bar{x}=3.29$ ), school support and entrepreneurial ecology ( $\bar{x}=3.22$ ), entrepreneurial ecology and policy support ( $\bar{x}=3.21$ ), support and guidance from mentors and teachers ( $\bar{x}=3.11$ ), student entrepreneurial willingness and ability ( $x=3.10$ ).

**Part 3: The analyze interview content of the development guide for the entrepreneurship education operating mechanism of Guiyang University.**

**Table 4.9** Personal information of respondents

(n=13)

Interviewee	Education background	Interview Date	Interview Time
Interviewee 1	Education: Master's degree Expertise:Entrepreneurship mentor Work experience: 10years	June 13, 2023	09:30 am GMT +8 35 minutes
Interviewee 2	Education: Master's degree Expertise:Entrepreneurship mentor Work experience: 10 years	June 13, 2023	11:00 am GMT +8 30 minutes
Interviewee 3	Education: Master's degree Expertise:Entrepreneurship mentor Work experience: 9 years	June 13, 2023	15:30 pm GMT +8 40 minutes
Interviewee 4	Education: Doctor's degree Expertise:Entrepreneurship mentor Work experience: 9 years	June 14, 2023	10:30 am GMT +8 37 minutes
Interviewee 5	Education: Doctor's degree Expertise:Entrepreneurship mentor Work experience: 12 years	June 14 2023	11:30 am GMT +8 32 minutes
Interviewee 6	Education: Master's degree Expertise:Entrepreneurship mentor Work experience: 14 years	June 14, 2023	14:30 pm GMT +8 33 minutes
Interviewee 7	Education: Doctor's degree Expertise:Entrepreneurship mentor Work experience: 18 years	June 15, 2023	10:10 am GMT +8 30 minutes

Table 4.9 (Continued)

(n=13)

Interviewee	Education background	Interview Date	Interview Time
Interviewee 8	Education: Doctor's degree Expertise: Entrepreneurship mentor Work experience: 22 years	June 15, 2023	11:20 am GMT +8 31 minutes
Interviewee 9	Education: Doctor's degree Expertise: Entrepreneurship education expert Work experience: 21 years	June 15, 2023	14:10 pm GMT +8 35 minutes
Interviewee10	Education: Doctor's degree Expertise: Entrepreneurship education expert Work experience: 20 years	June 15, 2023	16:20 pm GMT +8 40 minutes
Interviewee11	Education: Doctor's degree Expertise: Entrepreneurship education expert Work experience: 17 years	June 16, 2023	09:30 am GMT +8 37 minutes
Interviewee12	Education: Doctor's degree Expertise: Entrepreneurship education expert Work experience: 18 years	June 16, 2023	10:50 am GMT +8 36 minutes
Interviewee13	Education: Doctor's degree Expertise: Entrepreneurship education expert Work experience: 25 years	June 16, 2023	15:30 pm GMT +8 41 minutes

Through a mixed quantitative and qualitative study, it can be concluded that the main factors affecting the operation of the entrepreneurship education mechanism include the investment of entrepreneurial resources in schools, the support of entrepreneurial mentors, the design of entrepreneurial curriculum education, the entrepreneurial ecological environment, the support of entrepreneurial policies, and the entrepreneurial ability and willingness of students.



The following is the analysis and conclusion of structured interviews with 13 entrepreneurial education managers:

**In terms of resource investment factors**, the main influencing factors are providing entrepreneurial practice opportunities, offering entrepreneurial education courses, supporting entrepreneurial resources, and providing entrepreneurial competition opportunities. Entrepreneurial mentor Teacher Zhang mentioned, "My suggestion is to first pay attention to the combination of theory and practice. In the process of imparting theoretical knowledge, more opportunities for entrepreneurial practice should be expanded." Entrepreneurial mentor Teacher Song mentioned: "From my experience and feelings, the first point is that schools should strive to improve the support of entrepreneurial resources as much as possible, including the improvement of entrepreneurial education courses, sufficient support from entrepreneurial mentors, and the creation of a good entrepreneurial atmosphere in schools, in order to subtly influence students' entrepreneurial awareness," said Zhang, an expert in entrepreneurial education management "In the process of entrepreneurship education, attention should be paid to the combination of theoretical education and practice, so that students can feel the risks and difficulties of entrepreneurship in the actual operation process, learn to deal with the problems and challenges faced by entrepreneurship, and ultimately promote more students to achieve ideal results after participating in entrepreneurship." Through visits and exchanges with entrepreneurship mentors and management experts, and suggestions for improving the mechanism of entrepreneurship education, Multiple teachers have emphasized the importance of combining theory and practice, which requires that when constructing an entrepreneurship education mechanism, in addition to increasing the theoretical knowledge and skill teaching of student entrepreneurship education, it is more important to provide students with more opportunities to participate in and practice entrepreneurship, including entrepreneurship practice projects, entrepreneurship competitions, entrepreneurship exchange activities, etc., all of which require the school to provide and support relevant resources.

**In terms of supporting factors for entrepreneurial mentors**, the main influencing factors are mentor entrepreneurship guidance and guidance in developing entrepreneurial strategies. Secondly, concepts such as sufficient entrepreneurial mentors, personalized entrepreneurial guidance, inviting entrepreneurs to participate

in evaluations and mentor systems are also mentioned. Students learning entrepreneurial theory knowledge and participating in entrepreneurial practice content cannot do without the guidance and guidance of entrepreneurial mentors, Entrepreneurship mentor Teacher Zhao mentioned, "We should pay attention to the interests and needs of students, and provide personalized guidance and guidance based on their personal characteristics, abilities, and resources in the process of cultivating their entrepreneurial thinking and awareness." Entrepreneurship mentor Teacher Zhang mentioned: "Secondly, it is to stimulate and cultivate students' innovative thinking and abilities, such as providing personalized entrepreneurial guidance based on students' interests, abilities, and backgrounds, helping them discover suitable entrepreneurial opportunities and directions." Both teachers emphasized the importance of personalized entrepreneurial guidance. In the process of mentoring entrepreneurship, in addition to providing regular guidance during the entrepreneurial process, it should also be combined with the characteristics, abilities, and abilities of students Provide targeted suggestions based on the background and existing resources, and guide students to achieve entrepreneurial success.

**In terms of the design factors of entrepreneurship curriculum education,** the main influencing factors are sharing and analyzing entrepreneurship cases and keeping pace with market changes in curriculum design. Secondly, it is mentioned that integrating interdisciplinary teaching courses, timely updating entrepreneurship education courses, systematizing entrepreneurship courses, and introducing international entrepreneurship education concepts are also mentioned. Entrepreneurship courses are one of the main ways for students to understand and learn entrepreneurship related knowledge and skills. Therefore, in the process of designing entrepreneurship courses, It should be combined with the actual application of students and market changes. Entrepreneurship mentor Teacher Zong mentioned, "Another point is to keep up with market development trends and demand changes in course design and case sharing, so that students can have a certain sensitivity to the business market." Entrepreneurship education management expert Teacher Yang mentioned: "I believe that in the current entrepreneurship education, overall planning and coordination should be carried out to ensure the coherence and systematicity of different courses and activities, so that students can also have a more systematic understanding of entrepreneurship related knowledge."

Multiple teachers have provided practical suggestions for the implementation of entrepreneurship course design in improving the entrepreneurship education mechanism, which also indicates that in the process of entrepreneurship education course design, attention should be paid to the selection and analysis of entrepreneurship cases, The cutting-edge and market timeliness of the curriculum, as well as the integration and systematization of interdisciplinary teaching content, should be emphasized to ensure that students can have a clearer understanding and mastery of knowledge and skills related to entrepreneurship education.

**In terms of entrepreneurial ecological environment factors,** the main influencing factors are entrepreneurial support networks, entrepreneurial ecology, and entrepreneurial atmosphere. Secondly, the evaluation system for entrepreneurial education effectiveness was also mentioned, Entrepreneurship mentor Teacher Wang mentioned, "I believe that first of all, schools should create a good entrepreneurial culture and atmosphere, so that more students can receive more support and recognition for entrepreneurship in the current employment environment and economic situation, and also encourage students to innovate, dare to try and fail." Entrepreneurship mentor Teacher Liu mentioned: The second is to create a sustainable entrepreneurial ecosystem, such as establishing incubators, entrepreneurship laboratories, investment platforms, etc., to provide students with more entrepreneurial plans while also providing continuous support and resources for entrepreneurs after graduation, helping them grow continuously in the entrepreneurial journey. A good entrepreneurial atmosphere and environment, and even a complete entrepreneurial ecosystem, can stimulate students' entrepreneurial awareness while, Providing students with the necessary resources and channels for entrepreneurship, lowering the threshold for entrepreneurship, can more effectively promote their participation in entrepreneurship and successful entrepreneurship. Therefore, while providing entrepreneurial education resources, it is essential for schools to create a good entrepreneurial ecological environment.

**In terms of policy support, Teacher Wang,** an expert in entrepreneurship education management, said, "The school's entrepreneurship education system and policies provide students with resource support and an excellent entrepreneurial environment. For example, entrepreneurship incubators provide basic resources such as office space and equipment for entrepreneurship; entrepreneurship competitions

and funds provide financial support; entrepreneurship mentors and expert teams provide guidance and consultation. These resources and environments provide more favorable conditions for students to start their own businesses." The investment of entrepreneurial resources and the construction of entrepreneurial ecology cannot be separated from the support of entrepreneurial policies and systems. In 2015, the State Council issued the "Opinions on Several Policy Measures to Vigorously Promote Mass Entrepreneurship and Innovation", which clearly pointed out the development of entrepreneurial services and the construction of entrepreneurial ecology, and also demonstrated the strong support of the country for entrepreneurial education.

**From the perspective of students,** in addition to being influenced by external factors such as entrepreneurial resources, their internal factors are also key factors affecting the success of entrepreneurship, that is, their own entrepreneurial ability and willingness. Therefore, this is also one of the key factors affecting the final outcome of the school's entrepreneurial education mechanism. From the quantitative analysis process, it was found that school factors such as entrepreneurial resource investment, entrepreneurial mentor support, entrepreneurial curriculum education design, entrepreneurial ecological environment, and entrepreneurial policy support affect students' entrepreneurial ability and willingness, further achieving the closed-loop operation of the entrepreneurial education mechanism. In the qualitative analysis process, it was found that different entrepreneurial mentors and entrepreneurial education management experts all mentioned that by improving factors such as entrepreneurial resource investment, entrepreneurial mentor support, entrepreneurial course education design, entrepreneurial ecological environment, and entrepreneurial policy support, students' entrepreneurial willingness and ability can be further stimulated and improved, and the effective operation of the entrepreneurial education mechanism can be achieved. It can be seen that through mixed quantitative and qualitative research, the key role of students' entrepreneurial ability and willingness in the operation of entrepreneurship education mechanism has been mutually verified. It also indicates that when improving entrepreneurship education mechanism, it is necessary to combine the actual situation and needs of students from different schools, comprehensively consider their comprehensive abilities and resources, and create a more matching entrepreneurship education mechanism.

Part 4: The analysis of the evaluation of the suitability and feasibility of the development guidelines for the entrepreneurship education operational mechanism at Guiyang University. The data are presented in the form of average value and standard deviation.

**Table 4.10** Guideline for the Development of Operation Mechanism of Entrepreneurship Education in Guiyang University

Guidelline for the Development of Operation Medchanism of Entrepreneurship Education	How to
Build entrepreneurship education ecosystem	<ol style="list-style-type: none"> <li>1. Establish a diversified entrepreneurial curriculum that includes business fundamentals, market strategy, and innovation management.</li> <li>2. Establish partnerships with enterprises to provide students with practical entrepreneurial experience and project opportunities.</li> <li>3. Build an online entrepreneurship platform to gather entrepreneurial materials, courses, and interactive forums.</li> <li>4. Regularly hold entrepreneurship seminars and lectures, inviting industry experts and successful entrepreneurs to share their valuable experiences.</li> <li>5. Establish entrepreneurial associations for students to promote interdisciplinary cooperation and creative exchange.</li> <li>6. Carry out entrepreneurial consulting services, covering market research and business planning.</li> <li>7. Arrange off-campus field trips to enable students to gain a deeper understanding of the real business environment.</li> </ol>

Table 4.10 (Continued)

Guidelline for the Development of Operation Medchanism of Entrepreneurship Education	How to
Improve the support for entrepreneurship education in schools	<ol style="list-style-type: none"> <li>1. Establish an entrepreneurship support center to provide students with comprehensive entrepreneurial services and resources.</li> <li>2. Establish entrepreneurship-oriented scholarship and funding programs.</li> <li>3. Organize short-term workshops and series of lectures on entrepreneurship.</li> <li>4. Hire senior entrepreneurial mentors to provide customized guidance to students.</li> <li>5. Regularly hold entrepreneurial project competitions and innovation challenges.</li> <li>6. Hold advanced lectures on entrepreneurship, covering topics such as venture capital acquisition and intellectual property protection.</li> <li>7. Deepen the cooperation between schools and enterprises, and provide students with practical project experience.</li> </ol>
Strengthen entrepreneurial guidance for mentors and teachers	<ol style="list-style-type: none"> <li>1. Implement a mentor matching mechanism so that students can be matched with suitable entrepreneurial mentors.</li> <li>2. Regularly carry out a series of seminars on entrepreneurial case analysis.</li> <li>3. Offer a special course on writing and evaluating business plans.</li> <li>4. Organize practical workshops on market research and business planning.</li> <li>5. Organize regular project progress review meetings for students and mentors.</li> <li>6. Carry out entrepreneurial salon activities to promote</li> </ol>

Table 4.10 (Continued)

Guidelline for the Development of Operation Medchanism of Entrepreneurship Education	How to
	<p>in-depth exchanges between students, alumni, and industry experts.</p> <p>7. Offer comprehensive training courses covering entrepreneurial strategy and leadership.</p>
Enrich entrepreneurship education courses and activities	<ol style="list-style-type: none"> <li>1. Cooperate with enterprises to conduct in-depth research and analysis of real entrepreneurial cases.</li> <li>2. Organize a series of thematic lectures covering entrepreneurial thinking and innovative methods.</li> <li>3. Hold entrepreneurial and creative competition activities both inside and outside the school.</li> <li>4. Arrange students to visit enterprises and conduct industry field visits.</li> <li>5. Open online interactive entrepreneurship courses covering the latest market trends and strategies.</li> <li>6. Organize entrepreneurial activities and exhibitions open to the public.</li> <li>7. Hold regular exhibitions of student entrepreneurship projects and achievements.</li> </ol>
Strengthen entrepreneurial resource support for schools	<ol style="list-style-type: none"> <li>1. Establish an entrepreneurial incubation center to provide comprehensive services including office space, technical support, and management guidance.</li> <li>2. Establish a cooperation network with venture capitalists and angel investors to provide financial assistance for student projects.</li> <li>3. Open professional training courses related to law, finance, and marketing.</li> <li>4. Establish online forums and social media platforms to promote the exchange of entrepreneurial information and the sharing of experience.</li> </ol>

Table 4.10 (Continued)

Guidelline for the Development of Operation Medchanism of Entrepreneurship Education	How to
	<p>5. Provide diversified entrepreneurial consulting and coaching services, covering industry analysis, business strategy, and other aspects.</p> <p>6. Hold regular entrepreneurial resource exhibitions to connect students with potential investors and partners.</p> <p>7. Promote the interaction and communication between students and alumni entrepreneurs, and provide practical industry guidance.</p>
Improve entrepreneurship education system and policies	<p>1. Formulate policies and rules specifically targeted at entrepreneurship education to clarify its objectives and specific scope of support.</p> <p>2. Establish cooperation with government departments and industry associations to ensure efficient connection between entrepreneurship education policies and resources.</p> <p>3. Establish a comprehensive entrepreneurial case database, covering various cases of success and failure.</p> <p>4. Regularly evaluate and adjust entrepreneurship education policies to ensure consistency with market trends.</p> <p>5. Establish research institutions for entrepreneurship, focusing on academic research and practical application in the field of entrepreneurship.</p> <p>6. Provide legal and ethical guidance to support the compliance of entrepreneurial activities.</p> <p>7. Organize policy analysis seminars to help students better understand the entrepreneurial environment.</p>
Promote the improvement of	<p>1. Conduct entrepreneurship training and seminars covering the stages from start-up to maturity to adapt</p>



Table 4.10 (Continued)

Guidelline for the Development of Operation Medchanism of Entrepreneurship Education	How to
students' entrepreneurial willingness and ability	<p>to different stages of entrepreneurial aspirations.</p> <ol style="list-style-type: none"> <li>2. Offer career planning courses to guide students to identify and set entrepreneurial goals.</li> <li>3. Organize psychological counseling workshops aimed at enhancing students' psychological resilience and ability to deal with challenges.</li> <li>4. Strengthen students' practical skills through simulation business games and interactive activities.</li> <li>5. Organize a series of seminars on career development and entrepreneurship guidance.</li> <li>6. Offer entrepreneurial guidance courses for specific industries to meet their specific needs.</li> <li>7. Conduct team building and collaboration skills training to enhance communication and cooperation among students.</li> </ol>
Comprehensively optimize entrepreneurship education mechanism	<ol style="list-style-type: none"> <li>1. Regularly collect and analyze feedback from students, teachers, and industry in order to continuously optimize entrepreneurship education programs.</li> <li>2. Strengthen the connection between curriculum and market, and ensure that teaching content meets industry needs.</li> <li>3. Provide entrepreneurship courses that integrate multiple disciplines to promote the integration of innovative thinking and methods.</li> <li>4. Expand exchanges and cooperation with international entrepreneurship education institutions and introduce an international perspective.</li> <li>5. Utilize emerging technologies and advanced</li> </ol>

Table 4.10 (Continued)

Guidelline for the Development of Operation Medchanism of Entrepreneurship Education	How to
	<p>methods, such as virtual reality and online simulation, to conduct entrepreneurship education.</p> <p>6. Provide professional development training and opportunities for teachers oriented towards entrepreneurship education.</p> <p>7. Establish an entrepreneurship education effectiveness evaluation system to regularly review teaching effectiveness and student satisfaction.</p>

According to Table 4.10, the researchers proposed guidelines for developing the entrepreneurship education operating mechanism of Guiyang University from eight aspects, including 56 measures. Among the entrepreneurship education operating mechanism, there are 7 measures to build an entrepreneurship education ecosystem, 7 measures to enhance the support of entrepreneurship education in schools, 7 measures to strengthen the guidance of mentors and teachers in entrepreneurship, 7 measures to enrich entrepreneurship education courses and activities, 7 measures to enhance the support of entrepreneurship resources in schools, 7 measures to improve the entrepreneurship education system and policies, 7 measures to promote the improvement of students' entrepreneurial willingness and ability, and 7 measures to comprehensively optimize the entrepreneurship education mechanism.

**Table 4.11** The average value and standard deviation of the evaluation of the suitability and feasibility of the guidelines for the development of the entrepreneurship education operational mechanism.

(n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
1	Building an entrepreneurial education ecosystem	4.43	0.17	high	4.11	0.16	high
2	Enhance support for entrepreneurship education in schools	4.57	0.20	highest	4.09	0.28	high
3	Strengthen entrepreneurial guidance from mentors and teachers	4.60	0.16	highest	4.11	0.19	high
4	Enriching entrepreneurship education courses and activities	4.60	0.26	highest	4.06	0.16	high
5	Enhance the support of entrepreneurial resources in schools	4.51	0.16	highest	4.09	0.22	high
6	Improve the system and policies of entrepreneurship education	4.46	0.19	high	4.09	0.19	high
7	Promoting the enhancement of students' entrepreneurial willingness and ability	4.57	0.17	highest	4.09	0.16	high
8	Comprehensively optimize the mechanism of entrepreneurship education	4.57	0.14	highest	4.09	0.36	high
<b>Total</b>		<b>4.54</b>	<b>0.18</b>	<b>highest</b>	<b>4.09</b>	<b>0.22</b>	<b>high</b>

According to Table 4.11, the adaptability of the development guidelines for improving the operation mechanism of entrepreneurship education from eight aspects is at the highest level, with values ranging from 4.0 to 5.00. This means that the development guidelines for the operation mechanism of entrepreneurship education are adaptable. The feasibility of improving the development guidelines for the operation mechanism of entrepreneurship education from eight aspects is at a high level, with values ranging from 4.0 to 5.00. This means that the development guidelines for the operation mechanism of entrepreneurship education are feasible.

**Table 4.12** The average value and standard deviation of the evaluation of the suitability and feasibility of guidelines for building an entrepreneurship education ecosystem as part of the development of the entrepreneurship education operational mechanism.

(n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	Level
1	Establish diversified entrepreneurship courses that include business fundamentals, market strategy, and innovation management.	4.40	0.55	high	4.20	0.84	high
2	Establishing partnerships with enterprises to provide students with practical entrepreneurial experiences and project opportunities.	4.40	0.55	high	4.00	1.00	high
3	Build an online entrepreneurship platform that gathers entrepreneurial materials, courses, and interactive forums.	4.40	0.55	high	4.00	0.00	high

Table 4.12 (Continued)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
4	Regularly hold entrepreneurship seminars and lectures, inviting industry experts and successful entrepreneurs to share their valuable experiences.	4.40	0.55	high	4.00	0.71	high
5	Establish student oriented entrepreneurship clubs to promote interdisciplinary cooperation and creative exchange.	4.40	0.55	high	4.40	0.89	high
6	Provide entrepreneurial consulting services, covering areas such as market research and business planning.	4.60	0.55	highest	4.20	0.84	high
7	Arrange extracurricular field trips to help students gain a deeper understanding of the real business environment.	4.40	0.55	high	4.00	0.71	high
<b>Total</b>		<b>4.43</b>	<b>0.17</b>	<b>high</b>	<b>4.11</b>	<b>0.16</b>	<b>high</b>

According to Table 4.12, the applicability of building an entrepreneurial education ecosystem in the development guide for entrepreneurial education operation mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that the development guide for entrepreneurial education operation mechanism in building an entrepreneurial education ecosystem has adaptability. The feasibility of constructing an entrepreneurial education ecosystem in the development guide for entrepreneurial education operation mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that the development guide for entrepreneurial

education operation mechanism in constructing an entrepreneurial education ecosystem is feasible.

**Table 4.13** The average value and standard deviation of the evaluation of the suitability and feasibility of guidelines for enhancing school support in entrepreneurship education as part of the development of the entrepreneurship education operational mechanism.

(n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	Level
1	Establish an entrepreneurial support center to provide students with comprehensive entrepreneurial services and resources.	4.80	0.45	highest	4.00	1.00	high
2	Establish entrepreneurship oriented scholarships and funding programs.	4.60	0.55	highest	4.40	0.89	high
3	Organize short-term workshops and a series of lectures on entrepreneurship as the theme.	4.60	0.55	highest	4.00	1.00	high
4	Hire senior entrepreneurial mentors to provide customized guidance to students.	4.60	0.55	highest	4.00	0.71	high
5	Regularly hold entrepreneurship project competitions and innovation challenge competitions.	4.40	0.55	high	4.00	1.00	high

Table 4.13 (Continued)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	(n=5)					
		Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
6	Organize advanced lectures on entrepreneurship, covering topics such as venture capital acquisition and intellectual property protection.	4.40	0.55	high	4.20	0.84	high
7	Deepen the school enterprise cooperation relationship and provide students with practical project experience.	4.60	0.55	highest	4.00	0.71	high
<b>Total</b>		<b>4.57</b>	<b>0.20</b>	<b>highest</b>	<b>4.09</b>	<b>0.28</b>	<b>high</b>

According to Table 4.13, the applicability of the Guidelines for the Development of the Operation Mechanism of Entrepreneurship Education in Schools is at a high level, with values ranging from 4.0 to 5.00. This means that the Guidelines for the Development of the Operation Mechanism of Entrepreneurship Education in Schools are adaptable. The feasibility of enhancing school entrepreneurship education support in the development guide of entrepreneurship education operation mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that the development guide of entrepreneurship education operation mechanism to enhance school entrepreneurship education support is feasible.

**Table 4.14** The average value and standard deviation of the evaluation of the suitability and feasibility of guidelines for strengthening entrepreneurship guidance by mentors and teachers in the development of the entrepreneurship education operational mechanism

(n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
1	Implement a mentor matching mechanism so that students can be matched with suitable entrepreneurial mentors.	4.60	0.55	highest	4.20	0.45	high
2	Regularly conduct a series of seminars on entrepreneurial case analysis.	4.60	0.55	highest	4.20	0.84	high
3	Offering specialized courses on business plan writing and evaluation.	4.60	0.55	highest	4.20	0.84	high
4	Organize practical workshops on market research and business planning.	4.80	0.45	highest	4.00	0.71	high
5	Regularly organize project progress review meetings for students and mentors.	4.60	0.55	highest	4.00	0.71	high
6	Carry out entrepreneurship salon activities to promote in-depth communication between students, alumni, and industry experts.	4.40	0.55	high	4.00	0.00	high
7	Offering comprehensive training courses covering entrepreneurial strategy and leadership.	4.60	0.55	highest	4.20	0.84	high
<b>Total</b>		<b>4.60</b>	<b>0.16</b>	<b>highest</b>	<b>4.11</b>	<b>0.19</b>	<b>high</b>



According to Table 4.14, the applicability of strengthening entrepreneurial guidance from mentors and teachers in the development guide of entrepreneurial education operation mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that the development guide of entrepreneurial education operation mechanism that strengthens entrepreneurial guidance from mentors and teachers has adaptability. The feasibility of strengthening the entrepreneurial guidance of mentors and teachers in the development guide of entrepreneurial education operation mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that strengthening the entrepreneurial guidance of mentors and teachers in the development guide of entrepreneurial education operation mechanism is feasible.

**Table 4.15** The average value and standard deviation of the evaluation of the suitability and feasibility of guidelines for enriching entrepreneurship education courses and activities in the development of the entrepreneurship education operational mechanism

(n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
1	Conduct in-depth research and analysis on real entrepreneurial cases in collaboration with enterprises.	4.60	0.55	highest	4.20	0.84	high
2	Organize a series of special lectures covering entrepreneurial thinking and innovative methods.	4.40	0.55	high	4.00	1.00	high
3	Organize entrepreneurial and creative competitions both on and off campus.	4.60	0.55	highest	4.00	1.00	high

Table 4.15 (Continued)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
4	Arrange students to visit enterprises and conduct field investigations in the industry.	4.80	0.45	highest	4.00	1.00	high
5	Open online interactive entrepreneurship courses that cover the latest market trends and strategies.	4.40	0.55	high	4.00	0.71	high
6	Organize entrepreneurial activities and exhibitions open to the public.	4.60	0.55	highest	4.20	0.84	high
7	Regularly hold exhibition activities for student entrepreneurship projects and achievements.	4.80	0.45	highest	4.00	0.71	high
<b>Total</b>		<b>4.60</b>	<b>0.26</b>	<b>highest</b>	<b>4.06</b>	<b>0.16</b>	<b>high</b>

According to Table 4.15, the applicability of enriching entrepreneurship education courses and activities in the development guide of entrepreneurship education operation mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that the entrepreneurship education operation mechanism development guide that enriches entrepreneurship education courses and activities has adaptability. The feasibility of enriching entrepreneurship education courses and activities in the development guide of entrepreneurship education operation mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that the development guide of entrepreneurship education operation mechanism for enriching entrepreneurship education courses and activities is feasible.

**Table 4.16** The average value and standard deviation of the evaluation of the suitability and feasibility of guidelines for enhancing the entrepreneurship resource support in schools as part of the development of the entrepreneurship education operational mechanism

(n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
1	Establish an entrepreneurship incubation center to provide comprehensive services including office space, technical support, and management guidance.	4.60	0.55	highest	4.00	0.71	high
2	Establish a collaborative network with venture capitalists and angel investors to provide financial assistance for student projects.	4.60	0.55	highest	4.20	0.84	high
3	Offering professional training courses related to law, finance, and marketing.	4.60	0.55	highest	4.20	1.10	High
4	Establish online forums and social media platforms to promote the exchange of entrepreneurial information and the sharing of experiences.	4.60	0.55	highest	4.00	0.71	high
5	Provide diversified entrepreneurial consulting and coaching services,	4.40	0.55	high	4.20	0.84	high

Table 4.16 (Continued)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	(n=5)					
		Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
	covering industry analysis, business strategy, and other aspects.						
6	Regularly hold entrepreneurship resource exhibitions to connect students with potential investors and partners.	4.40	0.55	high	4.00	0.00	high
7	Promote interaction and communication between students and alumni entrepreneurs, and provide practical industry guidance.	4.40	0.55	high	4.00	0.71	high
<b>Total</b>		<b>4.51</b>	<b>0.16</b>	<b>highest</b>	<b>4.09</b>	<b>0.22</b>	<b>high</b>

According to Table 4.16, the applicability of the Guidelines for the Development of Entrepreneurship Education Operation Mechanism to enhance the support of entrepreneurial resources in schools is at a high level, with values ranging from 4.0 to 5.00. This means that the Guidelines for the Development of Entrepreneurship Education Operation Mechanism to enhance the support of entrepreneurial resources in schools have adaptability. The feasibility of enhancing the support of entrepreneurial resources in schools in the development guide of entrepreneurial education operation mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that the development guide of entrepreneurial education operation mechanism that enhances the support of entrepreneurial resources in schools is feasible.

**Table 4.17** The average value and standard deviation of the evaluation of the suitability and feasibility of guidelines for improving the entrepreneurship education system and policies as part of the development of the entrepreneurship education operational mechanism

(n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
1	Develop policies and rules specifically targeting entrepreneurship education to clarify its goals and specific scope of support.	4.40	0.55	high	4.20	0.84	high
2	Establish cooperation with government departments and industry associations to ensure efficient integration of entrepreneurship education policies and resources.	4.40	0.55	high	4.00	0.71	high
3	Establish a comprehensive database of entrepreneurial cases, covering various types of successful and failed cases.	4.60	0.55	highest	4.00	0.71	high
4	Regularly evaluate and adjust entrepreneurship education policies to ensure consistency with market trends.	4.40	0.55	high	4.00	0.71	high
5	Establish a research institution focused on entrepreneurship, focusing on academic research and practical applications in the field of entrepreneurship.	4.40	0.55	high	4.20	1.10	high

Table 4.17 (Continued)

(n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
6	Provide legal and ethical guidance to support compliance in entrepreneurial activities.	4.40	0.55	high	4.20	0.84	high
7	Organize a policy analysis seminar to help students better understand the entrepreneurial environment.	4.60	0.55	highes t	4.00	1.00	high
<b>Total</b>		<b>4.46</b>	<b>0.19</b>	<b>high</b>	<b>4.09</b>	<b>0.19</b>	<b>high</b>

According to Table 4.17, the applicability of improving the entrepreneurship education system and policies in the development guidelines for the operation mechanism of entrepreneurship education is at a high level, with values ranging from 4.0 to 5.00. This means that the development guidelines for the operation mechanism of entrepreneurship education that improve the entrepreneurship education system and policies have adaptability. The feasibility of improving the entrepreneurship education system and policies in the development guide for the operation mechanism of entrepreneurship education is at a high level, with values ranging from 4.0 to 5.00. This means that the development guide for the operation mechanism of entrepreneurship education to improve the entrepreneurship education system and policies is feasible.

**Table 4.18** The average value and standard deviation of the evaluation of the suitability and feasibility of guidelines for fostering the enhancement of students' entrepreneurial intentions and abilities as part of the development of the entrepreneurship education operational mechanism (n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
1	Carry out entrepreneurship training and seminars covering the stages from start-up to maturity, adapting to the entrepreneurial intentions of different stages.	4.60	0.55	highest	4.20	0.84	high
2	Offering career planning courses to guide students in clarifying and setting entrepreneurial goals.	4.80	0.45	highest	4.00	0.71	high
3	Holding a psychological counseling workshop aims to enhance students' psychological resilience and ability to cope with challenges.	4.60	0.55	highest	4.20	0.84	high
4	By simulating commercial operation games and interactive activities, students can enhance their practical operational skills.	4.40	0.55	high	4.00	1.00	high
5	Organize a series of seminars on career development and entrepreneurship guidance.	4.60	0.55	highest	4.20	0.84	high

Table 4.18 (Continued)

(n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
6	Offering entrepreneurship guidance courses tailored to specific industries to meet their specific needs.	4.60	0.55	highest	4.00	0.71	high
7	Conduct team building and collaboration training to enhance communication and cooperation among students.	4.40	0.55	high	4.00	1.00	high
<b>Total</b>		<b>4.57</b>	<b>0.17</b>	<b>highest</b>	<b>4.09</b>	<b>0.16</b>	<b>high</b>

According to Table 4.18, the applicability of the Guidelines for Promoting Student Entrepreneurship Intention and Ability in the Development of Entrepreneurship Education Operation Mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that the Guidelines for Promoting Student Entrepreneurship Intention and Ability in the Development of Entrepreneurship Education Operation Mechanism have adaptability. The feasibility of promoting student entrepreneurial willingness and ability in the development guide of entrepreneurial education operation mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that the development guide of entrepreneurial education operation mechanism that promotes student entrepreneurial willingness and ability is feasible.



**Table 4.19** The average value and standard deviation of the evaluation of the suitability and feasibility of guidelines for the comprehensive optimization of the entrepreneurship education mechanism as part of the development of the entrepreneurship education operational mechanism.

(n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
1	Regularly collect and analyze feedback from students, teachers, and the industry, with the aim of continuously optimizing entrepreneurship education projects.	4.60	0.55	highest	4.20	0.84	high
2	Strengthen the integration of courses and the market to ensure that teaching content meets industry needs.	4.60	0.55	highest	4.00	0.71	high
3	Provide interdisciplinary entrepreneurship courses to promote the integration of innovative thinking and methods.	4.60	0.55	highest	4.20	1.10	high
4	Expand communication and cooperation with international entrepreneurship education institutions, and introduce an international perspective.	4.60	0.55	highest	4.00	0.71	high
5	Utilize emerging technologies and advanced methods, such as virtual reality and online simulation, to conduct entrepreneurship education.	4.40	0.55	high	4.00	1.00	high

Table 4.19 (Continued)

(n=5)

No	Guideline for the Development of Operation Mechanism of Entrepreneurship Education	Suitability			Feasibility		
		$\bar{x}$	S.D.	level	$\bar{x}$	S.D.	level
6	Provide professional development training and opportunities for teachers in entrepreneurship education.	4.60	0.55	highest	4.00	1.00	high
7	Establish an evaluation system for the effectiveness of entrepreneurship education to regularly review teaching effectiveness and student satisfaction.	4.60	0.55	highest	4.20	0.45	high
<b>Total</b>		<b>4.57</b>	<b>0.14</b>	<b>highest</b>	<b>4.09</b>	<b>0.36</b>	<b>high</b>

According to Table 4.19, the applicability of the comprehensive optimization of entrepreneurship education mechanism in the development guide of entrepreneurship education operation mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that the development guide of entrepreneurship education operation mechanism for comprehensive optimization of entrepreneurship education mechanism has adaptability. The feasibility of comprehensively optimizing the entrepreneurship education mechanism in the development guide of entrepreneurship education operation mechanism is at a high level, with values ranging from 4.0 to 5.00. This means that the development guide of entrepreneurship education operation mechanism for comprehensively optimizing the entrepreneurship education mechanism is feasible.

## Chapter 5

### Conclusion Discussion and Recommendations

The research in the guideline for development of entrepreneurship education operation mechanism in Guiyang University. The purpose of this study is to: 1) investigate the current situation of entrepreneurship education operation mechanism in Guiyang University. 2) explore the guiding principles of entrepreneurship education operation mechanism in Guiyang University. 3) assess the adaptability and feasibility of entrepreneurship education operation mechanism in Guiyang University. The guideline includes the following eight aspects: 1) constructing an entrepreneurship education ecosystem. 2) enhancing the support of entrepreneurship education in schools. 3) strengthening the guidance of mentors and teachers on entrepreneurship. 4) enriching entrepreneurship education courses and activities. 5) enhancing the support of entrepreneurial resources in schools. 6) improving entrepreneurship education systems and policies. 7) promoting students' willingness and ability to start businesses. 8) comprehensively optimizing entrepreneurship education mechanism. The sample group of this study is 260 in-service professional teachers in Guiyang University. The interview group is composed of 13 entrepreneurship education mentors, including 5 experts in entrepreneurship education. The research tools are literature analysis, questionnaire survey, and structured interview. The statistical data for data analysis are percentages, averages, and standard deviations. The conclusions, discussions, and suggestions from this study are as follows:

#### Conclusion

The research in the guidelines for the development of entrepreneurship education operating mechanism of Guiyang University. The researchers summarized the conclusions into three parts, as follows:

Part 1: The Current Status of the Entrepreneurship Education Operating Mechanism at Guiyang University.

Part 2: The Guideline for the Development of Operation Mechanism of Entrepreneurship Education in Guiyang University

Part 3: The adaptability and feasibility of the development guide for the operation mechanism of entrepreneurship education in Guiyang University.

**Part 1: The Current Status of the Entrepreneurship Education Operating Mechanism at Guiyang University.**

The current situation of the operation mechanism of entrepreneurship education is at the medium level in six aspects. Considering the results of this study, from the highest to the lowest, the highest is the educational courses and activities to promote entrepreneurial practice, followed by entrepreneurial resources and support networks, and students' entrepreneurial willingness and ability are the lowest.

The school support and entrepreneurial ecological factors of entrepreneurship education related resources are at the medium level. Considering the results of this study, the order from the highest to the lowest is: the highest is that the school provides sufficient resources to promote entrepreneurship education, the second is that the entrepreneurial orientation of the school matches the needs of students, and the school actively promotes the development and practice of entrepreneurship education is the lowest.

The support and guidance factors of tutors and teachers in the resources related to entrepreneurship education are at the medium level. Considering the results of this study, the order from the highest to the lowest is: the highest is that the tutors and teachers pay high attention to students' entrepreneurial willingness and ability, the second is that the tutors and teachers provide effective entrepreneurial guidance and guidance, and the tutors and teachers have rich entrepreneurial background and experience.

The educational curriculum and activity factors that promote entrepreneurial practice in terms of resources related to entrepreneurship education are at the medium level. Considering the results of this study, the order from the highest to the lowest is: the highest is the rich and diverse content of entrepreneurship education courses and activities offered by the school, followed by the close combination of entrepreneurship education courses and activities with market demand, while the school provides a wealth of entrepreneurial practice opportunities and project incubation is the lowest.

The entrepreneurial resources and support network factors related to entrepreneurship education are at the medium level. Considering the results of this

study, the order from the highest to the lowest is: the highest is that the school has clear entrepreneurship education policies and regulations, the second is that the school system is conducive to the smooth operation and development of entrepreneurship education, and the school encourages students' innovation and entrepreneurship and provides the lowest policy support

The entrepreneurial ecology and policy support factors of resources related to entrepreneurship education are at the medium level. Considering the results of this study, the order from the highest to the lowest is: the highest is that the school's entrepreneurship policies and systems are conducive to the application and implementation of students' entrepreneurship projects, followed by the school's corresponding policy support and preferential policies for students' entrepreneurship, while the school encourages students' Entrepreneurship and provides the lowest relevant incentives.

The overall evaluation of students' entrepreneurial intention and ability is at the medium level. Considering the results of this study, the order from the highest to the lowest is: the highest is that I observed that many students showed strong interest and willingness in entrepreneurship. Secondly, in teaching, I noticed that students have begun to conceive some entrepreneurial plans and ideas, and students believe that entrepreneurship education can bring them success and achievement.

### **Part 2: The Guideline for the Development of Operation Mechanism of Entrepreneurship Education in Guiyang University**

The guidelines for the operation mechanism of entrepreneurship education are divided into 8 aspects, including 56 measures. There are 7 measures to build the ecological system of entrepreneurship education, 7 measures to improve the support of entrepreneurship education in schools, 7 measures to strengthen the entrepreneurship guidance of tutors and teachers, 7 measures to enrich entrepreneurship education courses and activities, 7 measures to enhance the support of entrepreneurship resources in schools, 7 measures to improve the entrepreneurship education system and policies, 7 measures to promote the improvement of students' entrepreneurial willingness and ability, and 7 measures to comprehensively optimize the entrepreneurship education mechanism.

To build an entrepreneurship education ecosystem, including 7 measures: 1) set up diversified entrepreneurship courses including business foundation, market strategy and innovation management. 2) Establish partnership with enterprises to provide students with practical entrepreneurial experience and project opportunities. 3) Build an online entrepreneurship platform to collect entrepreneurship materials, courses and interactive forums. 4) Regularly hold entrepreneurship seminars and lectures, and invite industry experts and successful entrepreneurs to share their valuable experience. 5) Establish student oriented entrepreneurial associations to promote interdisciplinary cooperation and creative exchanges. 6) Carry out entrepreneurship consulting services, covering market research, business planning and other fields. 7) Arrange on-the-spot investigation activities outside the school to enable students to have an in-depth understanding of the real business environment.

There are 7 measures to improve the support of entrepreneurship education in schools: 1) establish an entrepreneurship support center to provide students with comprehensive entrepreneurship services and resources. 2) Set up an entrepreneurship oriented scholarship and subsidy program. 3) Organize short-term workshops and lectures on entrepreneurship. 4) Employ senior entrepreneurship tutors to provide customized guidance to students. 5) Regularly hold entrepreneurship project competitions and Innovation Challenge competitions. 6) Hold high-level lectures on entrepreneurship, covering topics such as venture capital acquisition and intellectual property protection. 7) Deepen school enterprise cooperation and provide students with practical project experience.

Strengthen the entrepreneurial guidance of tutors and teachers, including 7 measures: 1) implement the tutor matching mechanism, so that students can match the appropriate entrepreneurial tutors. 2) Regularly carry out a series of seminars on entrepreneurship case analysis. 3) Set up a special course on the preparation and evaluation of business plans. 4) Hold practical workshops on Market Research and business planning. 5) Regularly organize project progress review meetings between students and tutors. 6) Carry out entrepreneurship salon activities to promote in-depth exchanges between students and alumni and industry experts. 7) Set up comprehensive training courses covering entrepreneurial strategy and leadership.

Enrich entrepreneurship education courses and activities, including 7 measures: 1) cooperate with enterprises to carry out in-depth research and analysis

of real entrepreneurship cases. 2) Hold a series of special lectures covering entrepreneurial thinking and innovative methods. 3) Hold entrepreneurship and creativity competitions inside and outside the school. 4) Arrange students to visit enterprises and make field visits to the industry. 5) Open an online interactive entrepreneurship course covering the latest market trends and strategies. 6) Hold entrepreneurial activities and exhibitions open to the public. 7) Regularly hold student entrepreneurship projects and achievements display activities.

To strengthen the school's entrepreneurial resources support, including 7 measures: 1) establish an entrepreneurial incubation center to provide comprehensive services including office space, technical support and management guidance. 2) Establish a cooperation network with venture investors and angel investors to provide financial assistance for student projects. 3) Set up professional training courses involving law, finance and marketing. 4) Establish online forums and social media platforms to promote the exchange of entrepreneurial information and the sharing of experience. 5) Carry out diversified entrepreneurial consulting and counseling services, covering industry analysis, business strategies and other aspects. 6) Regularly hold entrepreneurship resource exhibitions to connect students with potential investors and partners. 7) Promote the interaction between students and alumni entrepreneurs, and provide practical industry guidance.

Improve the entrepreneurship education system and policies, including 7 measures: 1) formulate policies and rules specifically for entrepreneurship education to clarify its objectives and specific scope of support. 2) Establish cooperation with government departments and industry associations to ensure the efficient connection between entrepreneurship education policies and resources. 3) Establish a comprehensive entrepreneurial case database, covering all kinds of successful and failed cases. 4) Regularly evaluate and adjust the entrepreneurship education policy to ensure consistency with the market development trend. 5) Set up research institutions for entrepreneurship, focusing on academic research and practical application in the field of entrepreneurship. 6) Provide legal and ethical guidance to support the compliance of entrepreneurial activities. 7) Organize policy analysis seminars to help students better understand the entrepreneurial environment.

Promote the improvement of students' entrepreneurial willingness and ability, including 7 measures: 1) carry out entrepreneurship training and discussion covering

the stage from start-up to maturity, and adapt to the entrepreneurial willingness at different stages. 2) Set up a career planning course to guide students to clarify and set entrepreneurial goals. 3) Psychological counseling workshops are held to improve students' psychological resilience and ability to cope with challenges. 4) Strengthen students' practical skills through simulated business operation games and interactive activities. 5) Organize a series of seminars on career development and entrepreneurship guidance. 6) Set up entrepreneurship guidance courses for specific industries to meet the specific needs of the industry. 7) Carry out team building and cooperation ability training to enhance exchanges and cooperation among students.

Comprehensively optimize the entrepreneurship education mechanism, including 7 measures: 1) regularly collect and analyze the feedback from students, teachers and the industry, with the purpose of continuously optimizing entrepreneurship education projects. 2) Strengthen the connection between the course and the market to ensure that the teaching content meets the needs of the industry. 3) Provide multi-disciplinary entrepreneurship courses to promote the integration of innovative thinking and methods. 4) Expand exchanges and cooperation with international entrepreneurship education institutions and introduce an international perspective. 5) Use emerging technologies and advanced methods, such as virtual reality and online simulation, to carry out entrepreneurship education. 6) Provide teachers with professional development training and opportunities for entrepreneurship education. 7) Establish an evaluation system for the effect of entrepreneurship education to regularly examine the teaching effect and students' satisfaction.

### **Part 3: The adaptability and feasibility of the development guide for the operation mechanism of entrepreneurship education in Guiyang University.**

The development guide for the operation mechanism of entrepreneurship education has the highest adaptability and feasibility in eight aspects, with a value between 4.00 and 5.00, which means that the development guide for the operation mechanism of entrepreneurship education is adaptive and feasible.

The adaptability of constructing the entrepreneurship education ecosystem is high, which is 4.43, and the feasibility is high, which is 4.11. The value is between 4.00 and 5.00, which means that the policy of constructing the entrepreneurship education ecosystem among the factors of the operation mechanism of entrepreneurship education is adaptive and feasible.



The adaptability of Improving school entrepreneurship education support is the highest, 4.57, which is feasible, 4.09. The value is between 4.00 and 5.00, which means that the policy of improving the support of school entrepreneurship education in the operation mechanism of entrepreneurship education is adaptive and feasible.

The adaptability of strengthening mentors' and teachers' entrepreneurial guidance is the highest, which is 4.60, and the feasibility is high, which is 4.11. The value is between 4.00 and 5.00, which means that the policy of strengthening mentors' and teachers' entrepreneurial guidance in the operational mechanism of entrepreneurship education is adaptive and feasible.

The adaptability of enriching entrepreneurship education courses and activities is the highest, which is 4.60, and the feasibility is high, which is 4.06. The value is between 4.00 and 5.00, which means that the policy of enriching entrepreneurship education courses and activities among the factors of entrepreneurship education operation mechanism is adaptive and feasible.

The adaptability of enhancing the entrepreneurial resource support of the school is the highest, which is 4.51, and the feasibility is high, which is 4.09. The value is between 4.00 and 5.00, which means that the policy of enhancing the school's entrepreneurial resources support in the operational mechanism of entrepreneurship education is adaptive and feasible.

The adaptability of improving the entrepreneurship education system and policies is high, which is 4.46, and the feasibility is high, which is 4.09. The value is between 4.00 and 5.00, which means that the policy of improving the entrepreneurship education system and policy is adaptive and feasible among the factors of the operation mechanism of entrepreneurship education.

The adaptability of promoting students' entrepreneurial willingness and ability is the highest, which is 4.57, and the feasibility is high, which is 4.09. The value is between 4.00 and 5.00, which means that the policy of promoting students' entrepreneurial willingness and ability in the operating mechanism of entrepreneurship education is adaptive and feasible.

The adaptability of comprehensively optimizing the entrepreneurship education mechanism is the highest, which is 4.57, and the feasibility is high, which is 4.09. The value is between 4.00 and 5.00, which means that the policy of

comprehensively optimizing the operation mechanism of entrepreneurship education is adaptive and feasible.

## Discussion

The research in the guidelines for the development of entrepreneurship education operating mechanism of Guiyang University. The researchers summarized the conclusions into three parts, as follows:

Part 1: The Current Status of the Entrepreneurship Education Operating Mechanism at Guiyang University.

Part 2: The Guideline for the Development of Operation Mechanism of Entrepreneurship Education in Guiyang University

Part 3: The adaptability and feasibility of the development guide for the operation mechanism of entrepreneurship education in Guiyang University.

### **Part 1: The Current Status of the Entrepreneurship Education Operating Mechanism at Guiyang University.**

The current situation of the operation mechanism of entrepreneurship education is at the medium level in six aspects. Considering the results of this study, from the highest to the lowest, the highest is the educational courses and activities to promote entrepreneurial practice, followed by entrepreneurial resources and support networks, and students' entrepreneurial willingness and ability are the lowest.

The educational courses and activities to promote entrepreneurial practice are at a medium level. This finding echoes the research results of Li,Q.(2018), He stressed the importance of combining theory with practice in entrepreneurship education, and proposed the challenge that the content of entrepreneurship courses should be updated with market demand. Specifically, Guiyang University is the most outstanding in providing practice opportunities and implementation effects, followed by the support and personalized guidance of entrepreneurial mentors, while the combination of entrepreneurial curriculum design and market trends is relatively weak. The current situation of entrepreneurship education in Guiyang University shows that practical courses play a key role in stimulating students' entrepreneurial interest and ability training. However, there are still some challenges in the design of course content and the synchronization of market dynamics. Huang,C.Y.(2006) also mentioned a similar view in his research, that is, the content design and update of

entrepreneurship courses should closely follow the market trend, so as to better adapt to the actual needs of students and market development. Although Guiyang University has made achievements in promoting the educational courses and activities of entrepreneurial practice, it still needs to further optimize the curriculum design to better integrate theory and practice and meet the needs of students' entrepreneurial needs and market development.

The entrepreneurial resources and support network are at a medium level. This is consistent with the research view of Wang,C.W.(2017), He pointed out that the effective allocation of entrepreneurial resources and the establishment of support network are the key factors for the success of entrepreneurship education. In the specific situation of Guiyang University, the university has clear entrepreneurship education policies and rules, which provides positive incentives and support for students' entrepreneurship, and is the most prominent part of the resources and support network. However, there is still room for schools to improve policies and systems related to entrepreneurship education, which is a potential area for entrepreneurship resources and support network development. According to the research results, although the school's entrepreneurship policy has a positive effect on students' entrepreneurship, the efficiency and effectiveness of policy implementation and resource allocation need to be strengthened. Li,S.(2016) also stressed the importance of policy support in entrepreneurship education, pointing out that the effective implementation of entrepreneurship education in Colleges and universities needs to rely on clear policy guidance and stable resource support. Although the performance of Guiyang University in entrepreneurial resources and support network is stable, in order to achieve the long-term development and greater success of entrepreneurship education, it is necessary to further optimize and improve the entrepreneurial policy and enhance the efficiency and pertinence of resource allocation. Through these measures, students' entrepreneurial potential can be more effectively stimulated and a solid support foundation can be provided for their entrepreneurial journey.

School support and entrepreneurial ecology are at the medium level. This is consistent with the research idea of Huang,J.(2017), in which she emphasized the importance of schools in providing entrepreneurial support and creating entrepreneurial ecology. In the specific situation of Guiyang University, the school

provides sufficient resources to promote entrepreneurship education, and creates an atmosphere to encourage students' innovation and entrepreneurship, which are the aspects of school support and entrepreneurship ecology that perform well. However, there is still room for improvement in the development and practice of entrepreneurship education in schools. According to the results of the study, Guiyang University has a fair performance in matching entrepreneurial orientation with students' needs and providing entrepreneurial guidance and support for students, but it is relatively weak in actively promoting the development of entrepreneurial education. This echoed the view of Chu,H.Q.(2013). In his research, he pointed out that colleges and universities should not only provide resources, but also actively participate in the formulation and implementation of entrepreneurship education strategies, so as to better adapt to market demand and students' entrepreneurial willingness. In the future development of Guiyang University, it is necessary to further strengthen the entrepreneurial support of the University, especially in the formulation and implementation of strategies, so as to better promote the improvement of students' entrepreneurial ability and the formation of entrepreneurial ecology. Through these improvements, students can be provided with a more conducive entrepreneurial environment, so as to stimulate their entrepreneurial enthusiasm and promote their entrepreneurial success.

The entrepreneurial ecology and policy support are at a medium level. This is consistent with the research view of Zhang,R.(2008), He emphasized the key role of entrepreneurial ecological environment and policy support in Entrepreneurship Education in Colleges and universities. In the specific situation of Guiyang University, the University's entrepreneurial policies and systems provide strong support for the application and implementation of students' entrepreneurial projects, and are the highlights of entrepreneurial ecology and policy support. However, the policy formulation and implementation of schools in promoting the development of entrepreneurship education need to be strengthened. According to the research results, although the school has performed well in providing policy support and preferential policies for students' entrepreneurship, there is still room for improvement in the implementation of entrepreneurship education policies and legal protection. This echoes the research of Liu,Z.(2013). He pointed out that the effective implementation of entrepreneurship education in Colleges and universities

depends on clear policy guidance and stable resource support, as well as the improvement of entrepreneurship laws and policies. Guiyang University should strengthen the improvement and implementation of entrepreneurship policy in the future development strategy, so as to promote the better matching of entrepreneurship education policy with market demand and students' entrepreneurial willingness. Through these measures, we can provide a more favorable policy environment for students' entrepreneurship, stimulate their entrepreneurial enthusiasm, and provide a solid foundation for their entrepreneurial success.

The support and guidance of tutors and teachers are at the medium level. This is consistent with the view put forward by Chen,X.J.(2015) in his research. He emphasized the important role of tutors and teachers in entrepreneurship education, especially in providing students with entrepreneurship guidance and support. In the specific situation of Guiyang University, tutors and teachers' attention to students' entrepreneurial willingness and ability shows a good performance, but there is still room for improvement in providing effective entrepreneurial guidance and guidance. According to the research results, although tutors and teachers have performed well in encouraging students to participate in entrepreneurial practice and activities, they are slightly inadequate in actively participating in the training and guidance of students' entrepreneurial projects. This echoes the research of Dong,Y. Zheng,Y.Q. and Li,J.(2016), who pointed out that the active participation and personalized guidance of tutors and teachers are crucial to the success of students' entrepreneurship. Guiyang University should strengthen the role and function of tutors and teachers in students' Entrepreneurship Education in improving the effect of entrepreneurship education. Especially in terms of personalized entrepreneurial guidance and project participation, more attention should be paid to students' specific needs and entrepreneurial motivation to more effectively stimulate students' entrepreneurial potential and provide strong guidance and support for their entrepreneurial journey. Through these measures, Guiyang University can better cultivate students with entrepreneurial spirit and practical ability, and further promote the development of entrepreneurship education.

The Students' entrepreneurial willingness and ability are at the medium level. This phenomenon is consistent with the view of Yi,G.F.(2017) in his research,

which emphasizes the importance of cultivating students' entrepreneurial willingness and ability in entrepreneurship education. In the specific situation of Guiyang University, students' interest and willingness to start a business are relatively positive, but there is still room for improvement in entrepreneurial ability and practice participation. According to the research results, although students show some enthusiasm in conceiving entrepreneurial plans and ideas, the accumulation of abilities and qualities required for entrepreneurship is not enough. This echoes the research of Panmaoyuan (2001), who pointed out that students' entrepreneurial willingness needs to be transformed into practical entrepreneurial ability through effective education and practical activities. In order to improve students' entrepreneurial willingness and ability, Guiyang University needs to take more targeted measures in the entrepreneurship education mechanism. This includes strengthening the combination of entrepreneurship theory education and practical activities, providing more opportunities for entrepreneurship practice, and providing customized entrepreneurship guidance for students' personal characteristics and abilities. This practice will help students better understand and master the knowledge related to entrepreneurship, enhance their practical entrepreneurial ability, and more effectively promote the realization of their entrepreneurial intention. Through these comprehensive measures, Guiyang University can more comprehensively cultivate students' entrepreneurial spirit and entrepreneurial practice ability.

#### **Part 2: The Guideline for the Development of Operation Mechanism of Entrepreneurship Education in Guiyang University**

The researchers put forward the guidelines for the development of the operation mechanism of entrepreneurship education in Guiyang University from eight aspects, including 56 measures. In the operation mechanism of entrepreneurship education, there are seven measures to build an entrepreneurship education ecosystem, seven measures to enhance the support of entrepreneurship education in schools, seven measures to strengthen the guidance of mentors and teachers, seven measures to enrich entrepreneurship education courses and activities, seven measures to enhance the support of entrepreneurship resources in schools, seven measures to improve the entrepreneurship education system and policies, and seven measures to promote the improvement of students' entrepreneurial willingness and

ability, Seven measures were taken to comprehensively optimize the entrepreneurship education mechanism.

**1. To cultivate all-around entrepreneurial abilities and an innovative spirit, thereby constructing an entrepreneurial education ecosystem.** By building a comprehensive entrepreneurship education ecosystem, the aim is to cultivate students' entrepreneurial ability and innovative spirit. According to Huang,Z.X.(2016) research, a successful entrepreneurship education system should not only require innovative educational content, but also include high-quality teaching staff, sufficient teaching resources, policy support, and a collaborative network both inside and outside the school. Therefore, Guiyang University is exploring more diverse and interactive educational strategies beyond traditional teaching methods to better meet the growing entrepreneurial needs of students. Huang's research further emphasizes that entrepreneurship education should go beyond simply imparting knowledge and focus more on cultivating practical skills and stimulating innovative thinking. This means that Guiyang University needs to strengthen the combination of course content and market demand, provide more practical opportunities, such as entrepreneurial internships, project competitions, and industry cooperation, to stimulate students' entrepreneurial enthusiasm and innovation ability. At the same time, Guiyang University is committed to establishing an inclusive, supportive, and innovative learning environment, enabling students to learn through practice and grow through failure. In summary, when constructing its entrepreneurial education ecosystem, Guiyang University not only attaches importance to imparting knowledge and skills, but also focuses on creating an environment conducive to student innovation and entrepreneurship, to help students not only learn entrepreneurial knowledge, but also cultivate practical entrepreneurial abilities and sustained innovative spirit.

**2. To enhance school entrepreneurship education support through the integration of multi-dimensional resources and the cultivation of practical experience.** By integrating multidimensional resources and cultivating practical experience, the level of support for entrepreneurship education has been significantly improved. Li,S.(2014) pointed out that the effectiveness of entrepreneurship education depends not only on the transmission of theoretical knowledge, but also on providing practical entrepreneurial experience and diverse

resources. To this end, Guiyang University has built a comprehensive learning environment by combining professional knowledge in the industry, market trends, policy environment, and the practical experience of entrepreneurial mentors. The college has effectively improved its educational support level by integrating internal and external resources, such as enterprise cooperation, industry lectures, and practical projects. This multi-dimensional resource integration not only deepens students' understanding of entrepreneurial theory, but also provides them with rich practical experience, such as enterprise internships and project incubation. These experiences are extremely important for enhancing students' entrepreneurial and problem-solving abilities. Therefore, when implementing entrepreneurship education, Guiyang University pays special attention to the integration of resources and the cultivation of practical experience, aiming to enrich the learning content of students and effectively enhance their entrepreneurial ability and innovative thinking. This educational model enables students to learn through practice, grow through challenges, and lay a solid foundation for their future entrepreneurial path.

**3. To deepen the interactive cooperation between students and mentors, strengthening the entrepreneurial guidance of mentors and teachers.** By deepening the interaction and cooperation between students and mentors, and strengthening the entrepreneurial guidance of mentors and teachers, we can enhance the effectiveness of entrepreneurship education. Dong Ying, Zheng Youzhi, and Li, J. (2016) believe that effective entrepreneurship education requires close cooperation and communication between mentors, teachers, and students. In this model, mentors and teachers are not only knowledge transmitters, but also mentors and motivators in the entrepreneurial process. Through practical communication and cooperation, mentors can better understand the needs and challenges of students, thereby providing more targeted guidance and support. At Guiyang University, the effectiveness of entrepreneurship education has been significantly improved through the implementation of one-on-one tutoring, group discussions, and project cooperation activities. These activities enable students to directly gain valuable entrepreneurial experience and practical skills from mentors, enhancing their entrepreneurial skills and innovative thinking. Therefore, Guiyang University is continuing to deepen the interaction and cooperation between students and mentors, and strengthening the roles of mentors and teachers in entrepreneurship



education. This not only enhances students' practical experience and entrepreneurial ability, but also provides a solid foundation and support for their future entrepreneurial path.

**4. To cultivate an entrepreneurial spirit that combines innovation with practice, enriching entrepreneurship education courses and activities.** By cultivating an entrepreneurial spirit that combines innovation and practice, and continuously enriching its entrepreneurship education curriculum and activities. Huang,C.Y.(2006) research supports this viewpoint, stating that the core of entrepreneurship education lies in cultivating students' practical entrepreneurial abilities through practical courses and activities, combined with theoretical knowledge and innovative thinking. Therefore, entrepreneurship education should go beyond the limitations of traditional classroom teaching and stimulate students' entrepreneurial interest and innovation ability through project practice, case studies, and entrepreneurship competitions. At Guiyang University, the emphasis on practical courses and activities has been proven to be an effective strategy for improving the quality of education. The college not only offers courses closely related to the market, but also organizes students to participate in real business projects and provides opportunities for enterprise internships, closely integrating theoretical knowledge with practical operations. This educational model not only deepens students' understanding of entrepreneurial theory, but also enhances their practical skills and innovative thinking. Therefore, when enriching its entrepreneurship education courses and activities, Guiyang University focuses on cultivating students' innovative thinking and practical abilities, effectively stimulating their entrepreneurial enthusiasm and laying a solid foundation for their future entrepreneurial journey.

**5. To create a comprehensively developed entrepreneurial environment, enhancing the entrepreneurial resource support in schools.** By building a comprehensive entrepreneurial environment and enhancing the support of entrepreneurial resources in schools, this is consistent with Huang,C.Y. (2006) viewpoint. He emphasized that the success of entrepreneurship education depends on providing a comprehensive and supportive environment, with a focus on providing sufficient resources and opportunities to stimulate students' entrepreneurial potential and practical abilities. At Guiyang University, this includes not only theoretical education and skill training, but also effective integration of

entrepreneurial resources, such as financial support, incubation facilities, industry connections, and mentor networks. By collaborating with industry enterprises, the college provides students with internship and project practice opportunities, while integrating expert resources from different fields to provide multi-dimensional entrepreneurial guidance and support. In addition, the college also focuses on the construction of entrepreneurial infrastructure, such as establishing entrepreneurship incubation centers to provide students with necessary physical space and technological resources. Therefore, Guiyang University continues to strengthen resource integration and environmental construction in enhancing entrepreneurial resource support and building a comprehensive entrepreneurial environment. This approach helps to provide a comprehensive and supportive entrepreneurial learning environment, stimulate students' entrepreneurial enthusiasm and enhance practical abilities, lay a solid foundation for their entrepreneurial journey, and provide broad development possibilities.

**6. To build a systematic entrepreneurship education, perfecting the entrepreneurship education system and policies.** By constructing a systematic entrepreneurship education system and improving the system and policies of entrepreneurship education, it is consistent with the viewpoint of Ma,X.H. (2015). He emphasized that the effectiveness of entrepreneurship education not only depends on curriculum content and teaching methods, but also on a sound system of institutional and policy support. Entrepreneurship education in universities should be based on a systematic and comprehensive framework, including clear educational goals, a comprehensive curriculum system, effective evaluation mechanisms, and a supportive policy environment. In the practice of Guiyang University, an entrepreneurship education system that includes these elements has been constructed. The college not only sets specific goals for entrepreneurship education, but also designs comprehensive and practical oriented courses, and establishes an evaluation and guidance mechanism for entrepreneurship projects. In addition, the college also values cooperation with the government and industry to ensure effective support of policies and resources. Therefore, Guiyang University is continuing to strengthen the construction of institutional frameworks in improving the entrepreneurship education system and policies, ensuring the coordination and consistency of educational goals, course content, evaluation mechanisms, and policy

support. This systematic entrepreneurial education method helps to provide students with a more comprehensive and effective entrepreneurial learning experience, promoting the development of their entrepreneurial ability and innovative spirit.

**7. To enhance students' entrepreneurial intentions and abilities by stimulating their potential.** By stimulating potential, it effectively promotes the improvement of students' entrepreneurial willingness and ability, which is consistent with the viewpoint of Yi,G.F.(2017). He believes that the core of entrepreneurship education in universities is to stimulate students' entrepreneurial potential, enhance their entrepreneurial willingness and ability. Therefore, entrepreneurship education should not be limited to imparting knowledge and skills, but should focus more on stimulating students' intrinsic motivation and innovative thinking, making them more proactive and confident in future entrepreneurial activities. In the implementation of Guiyang College, through innovative teaching methods, practical projects, mentor guidance, and entrepreneurial resource support, the college has effectively stimulated the entrepreneurial potential of students. The college encourages students to actively explore innovative ideas and business models through organizing entrepreneurship lectures, seminars, and case studies, thereby enhancing their entrepreneurial willingness. In addition, the college also provides practical entrepreneurial opportunities, such as entrepreneurship competitions and incubation projects, to help students exercise and improve their entrepreneurial abilities in practice. Therefore, Guiyang University is not only stimulating students' entrepreneurial potential, but also actively enhancing their entrepreneurial willingness and ability. This educational method not only helps students acquire necessary entrepreneurial knowledge and skills, but more importantly, cultivates their entrepreneurial spirit and innovation ability, laying a solid foundation for their future entrepreneurial path.

**8. To drive comprehensive optimization of the entrepreneurship education mechanism with innovative technology and international cooperation.** Driven by innovative technology and international cooperation, we will comprehensively optimize its entrepreneurship education mechanism, which is consistent with the viewpoint of Xi,S.Y.(2008). He proposed that the development trend of entrepreneurship education lies in utilizing innovative technologies and

expanding international cooperation to enhance the quality of education and expand global perspectives. He suggests using online platforms, virtual simulation and other technological means to enrich teaching content and methods, and providing students with broader learning perspectives and practical opportunities through international exchanges and cooperation. At Guiyang University, advanced educational technologies such as online courses and virtual enterprise operation simulations have significantly improved the interactivity and practicality of teaching. In addition, the college has effectively broadened students' international perspectives and enhanced their entrepreneurial abilities in the context of globalization by participating in international exchange programs, inviting foreign experts to give lectures, and organizing students to participate in international entrepreneurship competitions and internship projects. Therefore, Guiyang University has effectively optimized the mechanism of entrepreneurship education by introducing innovative technologies and strengthening international cooperation. This method not only improves the teaching quality and practical effectiveness of education, but also provides students with the ability to understand and respond to entrepreneurial challenges in the context of globalization, laying a solid foundation for their future entrepreneurial path.

### **Part 3: The adaptability and feasibility of the development guide for the operation mechanism of entrepreneurship education in Guiyang University.**

The researcher invited five experts from the school of electronic and communication engineering, the school of chemistry and materials engineering, the school of economics and management, the school of urban and rural planning and architectural engineering, and the school of fine arts to evaluate the development guide of the operation mechanism of entrepreneurship education. These five branches have good quality and high popularity of entrepreneurship education in Guiyang University, and the invited experts have certain experience and rich theory in the field of entrepreneurship education. base on Rensis Likert (1932)'s average data interpretation shows that the adaptability and feasibility of the guidelines for the development of the operation mechanism of entrepreneurship education are at the highest level in eight aspects, with a value between 4.00 and 5.00, which means that the guidelines for the development of the operation mechanism of entrepreneurship education are appropriate and feasible.

In the operation mechanism of entrepreneurship education, the construction of an entrepreneurship education ecosystem has reached a high level. This guideline is closely linked to the expert viewpoint proposed by Ma,X.H.(2015). He proposed that the success of entrepreneurship education in universities depends on establishing a comprehensive and ecological educational environment. In this environment, diverse educational resources and participants - including students, teachers, entrepreneurs, and policy makers - work together to form a supportive and interactive learning ecosystem. In the case of Guiyang University, by integrating educational resources both inside and outside the university, introducing industry experts to participate, promoting interaction between students and enterprises, and leveraging policy support, the university has built a diversified and highly interactive entrepreneurship education ecosystem. This not only provides students with the theoretical knowledge they need, but also provides them with rich resources and opportunities for practical entrepreneurial practice, effectively stimulating their entrepreneurial interest and innovation ability. Guiyang University not only reflects its understanding of the importance of entrepreneurship education in building an ecosystem for entrepreneurship education, but also demonstrates its innovation and foresight in practice. The construction of this ecosystem provides students with a multi-dimensional learning platform, promotes their comprehensive development, and also provides a solid foundation for their future entrepreneurial journey. This guideline can make significant progress in the field of entrepreneurship education and provide valuable experience for other educational institutions.

In the operation mechanism of entrepreneurship education, the support for entrepreneurship education in schools has reached the highest level. This guideline is closely linked to the expert recommendations proposed by Huang Zhao,X.(2013). He proposed that the success of entrepreneurship education in universities largely depends on the level of support provided by the school for entrepreneurship education, including policy formulation, resource allocation, teacher training, and the creation of an entrepreneurial atmosphere. He suggested that schools should integrate internal and external resources, establish an effective entrepreneurship education network, and provide necessary material and spiritual support to promote the cultivation of students' entrepreneurial spirit and abilities. In the practice of Guiyang College, the college can enhance entrepreneurship education support

through a series of measures. This includes developing a policy environment conducive to entrepreneurship, investing sufficient financial and material resources, strengthening teacher training in entrepreneurship education, and creating a campus culture that encourages entrepreneurship. The implementation of these measures not only enhances the entrepreneurial willingness of students, but also improves their performance and success rate in actual entrepreneurial activities. In the process of enhancing support for entrepreneurship education, Guiyang University has demonstrated a profound understanding of the importance of entrepreneurship education and a commitment to innovative practice. Through these efforts, the college can not only provide students with an inspiring and supportive learning environment, but also provide valuable references for the development of other educational institutions in the field of entrepreneurship education.

In the operation mechanism of entrepreneurship education, strengthening the guidance of mentors and teachers on entrepreneurship is the highest level. This guideline echoes the expert views of Li,S.(2014). He proposed that the effectiveness of entrepreneurship education largely depends on the quality and guidance ability of mentors and teachers. He suggests that teachers and mentors should possess profound entrepreneurial knowledge, rich practical experience, and excellent guidance skills in order to provide strong entrepreneurial support and guidance for students. In the practice of Guiyang College, the college has significantly improved the entrepreneurial guidance ability of mentors and teachers by providing professional training, introducing industry experts, and increasing opportunities for interaction between teachers and entrepreneurs. These measures enable teachers and mentors to more effectively impart entrepreneurial knowledge, share practical experiences, and provide personalized entrepreneurial guidance. The expert's ratings reflect the outstanding performance of the college in this area, highlighting the important role of teachers and mentors in the entrepreneurship education system. The achievements of Guiyang University in strengthening the guidance of mentors and teachers on entrepreneurship demonstrate its commitment to improving the quality of entrepreneurship education. This method of focusing on enhancing the abilities of teachers and mentors not only enhances the overall quality of entrepreneurship education, but also provides a solid foundation for the success of student entrepreneurship. By continuously investing in the development of teachers

and mentors, the college can more effectively cultivate students' entrepreneurial abilities and innovative thinking, thereby promoting their success in the field of entrepreneurship.

In the operation mechanism of entrepreneurship education, enriching entrepreneurship education courses and activities is the highest level. This guideline is consistent with the expert recommendations proposed by Huang,Z,X.(2013). He proposed that the core of entrepreneurship education lies in providing a diverse range of courses and activities, which should include practical oriented projects, case studies, workshops, entrepreneurship competitions, and internship opportunities. He believes that through such rich courses and activities, students can acquire comprehensive entrepreneurial knowledge and skills, while stimulating their innovative thinking and practical abilities. In the practice of Guiyang University, by implementing a series of innovative and practical oriented courses and activities, such as entrepreneurship training programs, market simulations, industry cooperation projects, and entrepreneurship internships, the university has successfully improved the quality of entrepreneurship education and student participation. These courses and activities not only enhance students' understanding of entrepreneurial theory, but also provide opportunities for practical application, enabling them to test and develop their entrepreneurial skills in real business environments. This comprehensive and practical oriented curriculum and activity design not only promotes students' learning and development, but also provides a solid foundation for their future entrepreneurial path, and provides valuable reference and inspiration for the development of other educational institutions in the field of entrepreneurship education.

In the operation mechanism of entrepreneurship education, enhancing the support of entrepreneurial resources in schools is the highest level. This guideline is consistent with the expert recommendations proposed by Li,S.(2014). He proposed that the effectiveness of entrepreneurship education in universities not only depends on the course content and teaching methods, but more importantly, on the entrepreneurial resources provided by the school. It is suggested that schools should focus on optimizing funding support, entrepreneurial incubation space, industry connections, and guidance resources to promote student entrepreneurial practice and success. In the entrepreneurship education practice of Guiyang College, the college has significantly enhanced support for student entrepreneurship activities by

establishing an entrepreneurship incubation center, providing financial support, enhancing connections and cooperation with the industry, and introducing experienced entrepreneurship mentors. These resources not only provide students with a platform for practical operation and experimentation, but also increase their opportunities to apply the knowledge they have learned in real business environments. This strengthening of entrepreneurial resources not only improves the quality of entrepreneurship education in the college, but also provides students with the necessary conditions to achieve their entrepreneurial goals. By continuously optimizing and enhancing entrepreneurial resource support, the college can more effectively cultivate students' entrepreneurial abilities and innovative thinking, laying a solid foundation for their future entrepreneurial journey.

In the operation mechanism of entrepreneurship education, improving the system and policies of entrepreneurship education is at a high level. This guideline corresponds to the viewpoint proposed by Huang,Z,X. (2013). He proposed that the success of entrepreneurship education depends on solid institutional and policy support. Universities should formulate clear policies for entrepreneurship education and establish a supportive institutional environment to promote the implementation of entrepreneurship education and the development of student entrepreneurship activities. This includes setting goals for entrepreneurship education, providing necessary resources and support, and creating a campus culture that encourages entrepreneurship. In the practice of Guiyang College, by formulating specific entrepreneurship education policies, establishing effective organizational structures and support systems, the college has provided a solid institutional foundation for student entrepreneurship. In addition, the college has strengthened the implementation of entrepreneurship policies through cooperation with government agencies and industry partners, providing a wide range of resources and opportunities to promote the development of students' entrepreneurial abilities. This deepening and optimization of entrepreneurship education policies and systems not only enhances the implementation effect of education, but also provides necessary support and incentives for students, helping them achieve success on the path of entrepreneurship. By continuously improving the system and policies of entrepreneurship education, the college can more effectively cultivate students with entrepreneurial spirit and abilities.



In the operation mechanism of entrepreneurship education, promoting the improvement of students' entrepreneurial willingness and ability is the highest level. This guideline is consistent with the expert recommendations proposed by Yi,G,F. (2017). He proposed that the core purpose of entrepreneurship education is to stimulate students' entrepreneurial willingness and enhance their entrepreneurial abilities. It is suggested that universities should adopt comprehensive educational strategies, including theoretical teaching, practical activities, guidance from entrepreneurial mentors, and provision of entrepreneurial resources, to comprehensively enhance students' entrepreneurial willingness and ability. In the practice of Guiyang College, the college has effectively enhanced students' entrepreneurial willingness and ability through a series of innovative teaching methods and practical activities. This includes offering courses related to entrepreneurship, organizing entrepreneurship seminars, providing opportunities for practical entrepreneurial projects, and establishing a network of entrepreneurial mentors. These measures not only enhance students' theoretical knowledge, but also provide a platform for practical operation, thereby exercising and enhancing their entrepreneurial abilities in practice. Through comprehensive teaching and practical activities, the college not only stimulates students' entrepreneurial enthusiasm, but also provides them with a solid foundation for their future entrepreneurial journey. By continuously optimizing and innovating strategies and methods for entrepreneurship education, the college can more effectively cultivate students with entrepreneurial spirit and abilities.

In the operation mechanism of entrepreneurship education, the comprehensive optimization of entrepreneurship education mechanism is the highest level. This guideline corresponds to the expert recommendations proposed by Huang,Z,X. (2017). He proposed that the effectiveness of entrepreneurship education depends not only on a single educational strategy or resource, but also on a comprehensive and systematic educational mechanism, including policy support, resource integration, innovative teaching methods, and cross-border cooperation. He suggested that universities should establish a comprehensive and optimized entrepreneurship education mechanism to promote the comprehensive development of students and the enhancement of their entrepreneurial abilities. In the practice of Guiyang University, the university has successfully achieved

comprehensive optimization of the entrepreneurship education mechanism through a series of measures. This includes developing and implementing comprehensive entrepreneurship education policies, integrating internal and external resources to support entrepreneurship education, adopting innovative teaching methods, and encouraging inter school and international cooperation. Through these strategies, the college not only provides abundant learning resources and practical opportunities, but also creates a supportive and innovative entrepreneurial education environment. This comprehensive and systematic entrepreneurship education mechanism not only improves the quality and effectiveness of education, but also provides a solid foundation for the success of student entrepreneurship. This indicates that through comprehensive and systematic improvements, the college can more effectively cultivate students with entrepreneurial spirit and abilities, laying a solid foundation for their future entrepreneurial journey.

## Recommendations

The research results show that the following suggestions are put forward in the guidelines for the operation mechanism of entrepreneurship education in Guiyang University:

**1. Strengthen the combination of practice and theory.** Guiyang University has made remarkable progress in entrepreneurship education, especially in providing students with rich practical opportunities. However, further strengthening the combination of theoretical teaching and practical activities is the key to improve the effect of education. Theoretical knowledge provides students with a basic framework for entrepreneurship, while practical activities enable these knowledge to be applied and tested in a real environment. Suggestions are as follows: 1) case study. Add more case studies related to the actual entrepreneurial experience in the course, especially the cases from local enterprises. This can not only enable students to understand the practical application of theoretical knowledge, but also increase their understanding of the local market. Case studies should cover a variety of situations in the entrepreneurial process, including success and failure cases, to provide a comprehensive perspective. 2) Practical projects. Encourage students to participate in practical entrepreneurial projects, such as cooperation with school enterprises or local start-ups. Such projects can be short-term, such as the challenge of solving

specific problems for enterprises, or long-term, such as incubator projects. These projects not only provide practical experience, but also enhance students' ability to solve problems and team work. 3) Simulation exercises. Using simulation software or business games, let students test their entrepreneurial strategies in a controlled environment. This simulation exercise can help students understand market dynamics, learn how to make quick decisions, and evaluate the effects of different business strategies. 4) Industry interaction. Entrepreneurs, investors and industry experts are regularly invited to the University for exchanges. These activities not only provide learning opportunities, but also provide a platform for students to establish industry contacts and obtain practical insights. 5) Evaluation and feedback. For each practical project and case study, detailed evaluation and feedback should be carried out. This includes teacher assessment, peer review, and opinions from industry experts. Such feedback is essential for students to understand their strengths and areas of improvement. Through these measures, Guiyang University will be able to better integrate theory with practice and provide students with a comprehensive, interactive and practical learning environment. This comprehensive approach can not only improve students' entrepreneurial skills, but also stimulate their innovative spirit and problem-solving ability, laying a solid foundation for their future entrepreneurial journey.

**2. Further optimization of entrepreneurial mentor resources.** In entrepreneurship education, the role of mentors is crucial. Guiyang University currently has an entrepreneurial mentor team composed of experienced teachers, but in order to further improve the quality of education, we should focus on optimizing the mentor resources, especially in enhancing the diversity and professionalism of the mentor team. The following are specific suggestions: 1) diversity. Invite entrepreneurship experts with different industry backgrounds to join the mentor team. These experts can come from technology, service industry, manufacturing and other industries. Their diversified backgrounds will provide students with a broader perspective and richer learning content. 2) Industry experience. Give priority to those who have not only theoretical knowledge, but also practical entrepreneurial experience. Mentors with rich practical experience can share their own experiences, including the challenges they face, the ways to solve problems, and the experiences of success and failure. 3) Professional training. Provide

professional training for entrepreneurial mentors to ensure that they stay ahead of the latest entrepreneurial theory and practice. Such training can include seminars, workshops and short-term courses to improve their teaching ability and industry knowledge. 4) Industry interaction. Promote the interaction between tutors and the industry, such as through field visits, project cooperation, etc. This interaction not only helps the tutor to understand the latest industry trends, but also creates opportunities for students to cooperate with enterprises. 5) Student feedback. Regularly collect students' feedback on the tutor's teaching effect. This feedback can help the college evaluate the teaching effect of the tutor and make appropriate adjustments according to the needs of students. 6) Mentor network. Establish a strong tutor network, including experts inside and outside the school and industry leaders. This network can not only provide teaching resources, but also provide support and guidance for students' entrepreneurial projects. Through these measures, Guiyang University will be able to establish a more diversified and professional entrepreneurship tutor team, so as to provide students with more comprehensive and in-depth entrepreneurship education. Enhancing the diversity and professionalism of the tutor team is the key to improve the quality of entrepreneurship education, and it is also an important basis for cultivating future entrepreneurs.

### **3. Continuous updating and internationalization of course content.**

Guiyang University has made remarkable achievements in the field of entrepreneurship education, but in order to further improve the quality of education and the global competitiveness of students, we must focus on the continuous updating and internationalization of curriculum content. The following are specific suggestions: 1) continuously update the course content. With the rapid changes in the market and technology, entrepreneurship education courses need to be constantly updated to ensure the timeliness and relevance of the content. This includes the introduction of new business models, market trends, technological innovation and other aspects of knowledge. 2) Introduce international cases. Integrate more international entrepreneurship cases into the course, such as studying the success and failure entrepreneurship stories of different countries and regions, as well as their specific market environment and cultural background. This will help students gain a broader global perspective. 3) Cross cultural entrepreneurship

strategies. Teach students how to effectively start businesses in different cultural backgrounds, understand and adapt to business norms and consumer behavior in different countries and regions. 4) International cooperation and exchange. Through the cooperation with foreign universities and institutions, it provides opportunities for exchange and learning, so that students can experience the entrepreneurial environment and culture of different countries. 5) Bilingual or multilingual teaching. Encourage the use of English or other international languages as the teaching language to improve students' language ability and international communication ability. 6) International teaching staff. Introduce international entrepreneurship experts and scholars as visiting professors or lecturers to provide students with a more diversified learning experience. 7) International standards and trends. Teach students about international entrepreneurship standards and regulations, and enhance their understanding of the global business environment. By implementing these measures, Guiyang University will be able to provide a more comprehensive and international entrepreneurship education environment to help students prepare for entrepreneurship in the global market. The internationalization of this kind of education not only helps to enhance students' global competitiveness, but also stimulates their innovative thinking and cross-cultural communication ability.

**4. Expand the scope of school enterprise cooperation.** In order to further enhance students' practical experience and career preparation, Guiyang University should focus on expanding cooperation with enterprises. The following are specific suggestions: 1) establish a diversified enterprise cooperation network. Actively seek to establish cooperative relations with enterprises in different industries and fields. These partners should include not only large enterprises, but also small and medium-sized enterprises and start-ups to provide a wider range of internship and project opportunities. 2) Diversification of internship programs. Design various forms of internship projects, including short-term internship, summer internship, and even one-year internship projects. These internships can not only provide practical work experience, but also help students establish professional networks. 3) Industry mentoring program. Invite industry experts and entrepreneurs as tutors for students to provide career guidance and industry insights. This tutorial system can help students better understand the needs of the industry and future career development direction. 4) Add project-based learning. Cooperate with enterprises to carry out real

business projects, let students apply what they have learned in the actual environment, and exercise their team cooperation and project management ability. 5) Career development seminars and lectures. Hold special career development activities, such as resume writing workshops, interview skills lectures, career planning seminars, etc., to provide students with comprehensive employment preparation support. 6) Regular evaluation and feedback. Regularly collect feedback from enterprises, evaluate the effectiveness of internships and projects, as well as students' performance and progress. These feedback can be used to adjust and optimize cooperation projects. 7) Business incubation support. Provide necessary resources and support for students who are interested in entrepreneurship, such as office space, technical support, market analysis, etc., to help them transform their entrepreneurial ideas into practical projects. Through the implementation of these measures, Guiyang University can not only provide a more practical and career oriented education environment, but also lay a solid foundation for students' career development. This school enterprise cooperation mode is not only conducive to the improvement of students' comprehensive quality and skills, but also enhances their adaptability and competitiveness to the future workplace.

**5. Strengthen the interaction and technology application of entrepreneurship education.** In the process of improving the quality of entrepreneurship education, Guiyang University can make significant progress by enhancing interaction and applying cutting-edge technologies. The following are specific suggestions: 1) use the online platform to enhance interactivity. Through the establishment of online platforms and the use of social media tools, the interaction and communication between teachers and students can be enhanced. For example, create online forums, wechat groups, or use slack and other tools to enable students and teachers to effectively communicate and discuss outside class. 2) Introduce virtual reality technology. Virtual reality (VR) technology can simulate the real entrepreneurial environment and scenarios, such as virtual market analysis and product display, so that students can learn and practice in an immersive environment. 3) The application of artificial intelligence assisted teaching. Use artificial intelligence (AI) tools to personalize teaching contents and paths, such as analyzing students' learning progress and preferences through intelligent systems, and providing customized learning suggestions and resources. 4) Carry out online

entrepreneurship simulation activities. The use of online simulation software, such as the simulated entrepreneurial business game, allows students to practice entrepreneurship in a virtual environment, enhancing their understanding of the entrepreneurial process and mastering coping strategies. 5) Digital course content. Convert traditional course materials into digital formats, such as e-books, online video lectures, etc., so that students can access and study anytime, anywhere. 6) Hold online entrepreneurship competition. Encourage students to participate in online entrepreneurship competitions and challenges. These activities can not only stimulate students' entrepreneurial enthusiasm, but also provide practical opportunities. 7) Regularly evaluate the effect of technology application. Regularly collect feedback and evaluate the effect of using new technologies in entrepreneurship education to ensure that these tools and methods can effectively support students' learning and development. Through the above measures, Guiyang University can use modern technology to not only improve the quality and efficiency of entrepreneurship education, but also provide students with a richer and dynamic learning experience. The application of this technology helps to cultivate students' innovative thinking and problem-solving ability, and provides a solid foundation for their future entrepreneurial journey.

**6. Improve the evaluation and feedback mechanism.** In order to ensure the continuous improvement and development of entrepreneurship education in Guiyang University, it is essential to establish a comprehensive evaluation and feedback mechanism. The following are specific suggestions: 1) establish a multi-dimensional evaluation system. Design an evaluation system including student satisfaction, entrepreneurial success rate, curriculum participation and other dimensions. This system can help the college fully understand the effectiveness of entrepreneurship education, including the quality of course content, the effectiveness of teaching methods and the overall response of students. 2) Regularly evaluate the effectiveness of education. Conduct a comprehensive assessment of the entrepreneurship education project on a regular basis to monitor its long-term effect and impact. This includes a follow-up survey of graduates' entrepreneurial activities and an assessment of students' entrepreneurial willingness and ability. 3) Collect feedback from students and teachers. Students and teachers are encouraged to provide regular feedback through questionnaires, interviews, group discussions, etc.

Student feedback helps to understand the effectiveness of course content, teaching methods and practice opportunities; Teacher feedback can provide insights into teaching methods and curriculum design. 4) Alumni participation and feedback. Encourage alumni to participate in entrepreneurship education assessment and provide feedback on the practical application of their knowledge and skills in their career. The opinions of alumni can provide valuable practical experience and help to continuously improve and update the educational content. 5) Transparent and timely feedback sharing. Ensure that the evaluation results and feedback are handled in a timely manner and shared openly and transparently within the college. In this way, the teaching contents and methods can be continuously updated, and teachers and students are encouraged to participate in the improvement process. 6) Use technical tools for data analysis. Use data analysis tools to process and analyze evaluation data, so as to more accurately identify trends and problems. The application of technical tools helps to organize and interpret a large amount of data more effectively, so as to make more informed decisions. Through the above measures, Guiyang University can ensure that its entrepreneurship education project is continuously evaluated and improved. This comprehensive evaluation and feedback mechanism not only helps to improve the quality of education, but also ensures that the education content keeps pace with students' needs, market trends and technological development, and ultimately achieves the goal of cultivating high-quality entrepreneurial talents.

**7. Cultivate students' entrepreneurial spirit and sense of social responsibility.** In order to better achieve the social goal of entrepreneurship education in Guiyang University, it is particularly necessary to emphasize the cultivation of social responsibility and morality in curriculum design and activities. The following are specific suggestions: 1) Integrate into social responsibility education. Integrate the teaching content of social responsibility and ethics into the entrepreneurship education curriculum. Through case studies, seminars and project design, students can understand and explore how to balance profits and social responsibility in the process of entrepreneurship. 2) Encourage the exploration of social entrepreneurship projects. Encourage students to explore and develop entrepreneurial projects with social influence. These projects not only focus on economic interests, but also pay more attention to solving social problems, such as



environmental protection, social justice and sustainable development. 3) Organize social responsibility related activities. Regularly hold seminars, workshops and lectures related to social responsibility, and invite social entrepreneurs and experts to share their experience and opinions, so as to strengthen students' awareness of social responsibility. 4) Implement social responsibility practice project. Provide practical projects to encourage students to participate in community service and social entrepreneurship activities. Through these practical experiences, students can directly experience the practical significance and value of social responsibility. 5) Emphasize the importance of morality and ethics. Emphasize the importance of business ethics and professional ethics in entrepreneurship courses. Enhance students' ethical awareness by discussing topics such as integrity, transparency and fairness. 6) Evaluate and reward social responsibility performance. When evaluating students' entrepreneurship projects, social responsibility should be included in one of the evaluation criteria, and those projects with outstanding performance in social responsibility should be rewarded and recognized. 7) Foster a global vision. Students are encouraged to develop an international perspective and understand the practice of social responsibility in different cultural backgrounds. Improve students' awareness and sensitivity to global issues through international exchange programs and multicultural activities. Through these comprehensive measures, entrepreneurship education in Guiyang University will not only promote students' business success, but also cultivate them to become entrepreneurs with a sense of social responsibility. This kind of education method not only contributes to the overall development of students, but also promotes the harmonious and sustainable development of society.

#### **Future Researches**

1. Research on the long-term impact of entrepreneurship education: current research mainly focuses on the immediate effect of entrepreneurship education, such as students' entrepreneurial skills and willingness. Future research can explore the impact of this education on students' long-term career development, including the proportion of their entrepreneurial success, sustainability and social influence. In addition, the study can examine the different effects of different types of entrepreneurship education (such as theoretical courses and practical projects) on students' career choice and entrepreneurial behavior.

2. Comparison of cross-cultural entrepreneurship education models: given that different cultural backgrounds may have an impact on the acceptance and effect of entrepreneurship education, future research can focus on entrepreneurship education models in different countries and cultural backgrounds. Comparative research can reveal which methods are the most effective in different education systems, and how to adjust education strategies according to the specific cultural environment, so as to improve the universality and adaptability of entrepreneurship education.

3. The role of technology in Entrepreneurship Education: with the continuous progress of science and technology, future research can explore the application and effect of emerging technologies (such as artificial intelligence, virtual reality, etc.) in entrepreneurship education. Research can focus on how these technologies can improve teaching methods, increase student participation, provide personalized learning experience, and help students better adapt to the rapidly changing business environment.

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## Appendices

## Appendix A

List of Specialists and Letters of Specialists Invitation  
for IOC Verification



Ref.No. MHESI 0643.14/ 685

Bansomdejchaopraya Rajabhat University  
1061 Itsaraparb Hirunrujee  
Thonburi Bangkok 10600

12 July 2023

RE: Invitation to validate research instrument

Dear Assoc. Prof. Dr. Jittawisit Wimuttipanya

Mr. Du Hai is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "Guidance on the development of the operation mechanism of entrepreneurship education in Guiyang University"

The thesis advisory committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. We would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Sincerely,

A handwritten signature in black ink, appearing to be 'Kanakorn'.

(Assistant Professor Dr. Kanakorn Sawangcharoen)  
Dean of Graduate School

Bansomdejchaopraya Rajabhat University  
Tel. +662-473-7000  
www.bsru.ac.th  
E-mail: grad@bsru.ac.th



Ref.No. MHESI0643.14/ 686

Bansomdejchaopraya Rajabhat University  
1061 Itsaraparb Hirunrujee  
Thonburi Bangkok 10600

12 July 2023

RE: Invitation to validate research instrument

Dear Assist. Prof. Dr.Aree Phasansinthuwong

Mr.Du Hai is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitle "Guidance on the development of the operation mechanism of entrepreneurship education in Guiyang University"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. Would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Sincerely,

A handwritten signature in black ink, appearing to be 'Kanakorn Sawangcharoen'.

(Assistant Professor Dr.Kanakorn Sawangcharoen)  
Dean of Graduate School

Bansomdejchaopraya Rajabhat University  
Tel.+662-473-7000  
www.bsru.ac.th  
E-mail: grad@bsru.ac.th



Ref.No. MHESI0643.14/ 687

Bansomdejchaopraya Rajabhat University  
1061 Itsaraparb Hirunrujee  
Thonburi Bangkok 10600

12 July 2023

RE: Invitation to validate research instrument

Dear Assist. Prof. Acting Sub Lt. Dr.Nantouchaporn Panarat

Mr.Du Hai is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitle "Guidance on the development of the operation mechanism of entrepreneurship education in Guiyang University"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

With your expertise, we would like to ask your permission to validate the attached research instrument. Would like to avail ourselves of this opportunity to express our sincere thanks and appreciation for your help.

Sincerely,

A handwritten signature in black ink, appearing to be 'Kanakorn'.

(Assistant Professor Dr.Kanakorn Sawangcharoen)  
Dean of Graduate School

Bansomdejchaopraya Rajabhat University  
Tel.+662-473-7000  
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E-mail: grad@bsru.ac.th

Appendix B  
Official Letter



Ref.No. MHESI 0643.14/108

Bansomdejchaopraya Rajabhat University  
1061 Itsaraparb Hirunrujee  
Thonburi Bangkok 10600

25 January 2024

**Subject:** Request for Cooperation in Data Collection

**Dear** President of Guiyang University

**Attachment** Questionnaire 260 set

This is to certify that Mr. Du Hai is a Ph.D. student in Philosophy Program in Educational Administration, Bansomdejchaopraya Rajabhat University. He is conducting research entitled "Guideline for the Development of Operation Mechanism of Entrepreneurship Education in Guiyang University" under the supervision of Assoc. Prof. Dr. Niran Suthinirandon as major advisor and Assoc. Prof. Dr. Kulsirin Aphiratvoradej and Assoc. Prof. Dr. Buranajit Kaewsrimon as co-advisor. His contact information is as follows: telephone number 13312246113, email 13760402@qq.com

In this regard, the student researcher has to collect data from lecturers using questionnaire and interview. The students will subsequently coordinate with you and provide more detail on this matter.

Accordingly, I would like to kindly request for your permission to allow this student researcher to collect data for academic purposes. Your cooperation will be highly appreciated.

Yours sincerely,

(Assistant Professor Akaranun Asavarutpokin)  
Vice Dean of Graduate School

Bansomdejchaopraya Rajabhat University  
Tel.+662-473-7000  
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E-mail: grad@bsru.ac.th

Appendix C  
Research Instrument



### Questionnaire Investigation

(Teacher)

This questionnaire aims to further understand the organizational and operational status of entrepreneurship education in Guiyang University, and promote the scientific, institutionalized, and standardized construction of entrepreneurship education. The questionnaire results are only for academic research. Please fill them out truthfully. Thank you for your participation!

#### Part 1: Basic Information of the Investigation Object

1. Your age: (    )

2. Gender:

Male (    )    Female (    )

3. Your educational background:

Undergraduate (    )    Master's (    )    Doctoral (    )

4. Your college/department: \_\_\_\_\_

5. Your educational experience (years): (    )

6. Have you ever participated in entrepreneurship education activities

Yes (    )    No (    )

7. If you have participated in entrepreneurship education activities, please choose the specific project or course you are participating in (multiple choices are allowed):

Entrepreneurship Lecture (    )    Entrepreneurship Competition (    )

Entrepreneurship Course (    )    Entrepreneurship Practice Project (    )

Entrepreneurship mentor guidance (    )

Other (please specify) \_\_\_\_\_

#### Part 2: Evaluation of Factors Related to Entrepreneurship Education

Please rate each question using the 5-level Likert scale based on the following description.

1- Completely disagree

2- Disagree

3- Neutral

4- Agree

5- Fully agree

No	School Support and Entrepreneurship Ecology	Comment level				
		1	2	3	4	5
1	The school provides sufficient resources in promoting entrepreneurship education.					
2	The school's entrepreneurial orientation matches the needs of students.					
3	The school provides students with entrepreneurial guidance and support.					
4	The school has created an atmosphere that encourages students to innovate and start businesses.					
5	The school actively promotes the development and practice of entrepreneurship education.					
No	Mentor and Teacher Support and Guidance	Comment level				
		1	2	3	4	5
6	Mentors and teachers pay high attention to students' entrepreneurial willingness and abilities.					
7	Mentors and teachers provide effective entrepreneurial guidance and guidance.					
8	Mentors and teachers encourage students to participate in entrepreneurial practices and activities.					
9	Mentors and teachers have rich entrepreneurial backgrounds and experience.					
10	Mentors and teachers actively participate in the cultivation and guidance of student entrepreneurship projects.					
No	Educational courses and activities to promote entrepreneurial practice	Comment level				
		1	2	3	4	5
11	The entrepreneurship education courses and activities offered by the school are rich and diverse.					

12	Entrepreneurship education courses and activities can meet students' entrepreneurial needs.					
13	The school provides rich entrepreneurial practice opportunities and project incubation.					
14	Entrepreneurship education courses and activities are closely integrated with market demand.					
15	The school actively explores innovative entrepreneurship education courses and activity forms.					
<b>Entrepreneurship Resources and Support Network</b>						
No	Entrepreneurship Resources and Support Network	Comment level				
		1	2	3	4	5
16	The school has clear policies and regulations for entrepreneurship education.					
17	The school's entrepreneurship policy has a positive incentive and support effect on students' entrepreneurship.					
18	The school's system contributes to the smooth operation and development of entrepreneurship education.					
19	The school encourages students to innovate and start businesses, and provides policy support.					
20	The school actively improves policies and systems related to entrepreneurship education to promote the development of entrepreneurship education.					
<b>Entrepreneurship Ecology and Policy Support</b>						
No	Entrepreneurship Ecology and Policy Support	Comment level				
		1	2	3	4	5
21	Does the school's entrepreneurial policies and systems contribute to the application and implementation of student entrepreneurship projects.					

22	Does the school provide corresponding policy support and preferential policies for students' entrepreneurship.					
23	Does the school encourage students to start businesses and provide relevant incentive measures.					
24	Does the school's entrepreneurship policy provide necessary legal and policy guarantees for students' entrepreneurship.					
25	Is the school's entrepreneurship policy conducive to promoting the development of entrepreneurship education.					

### Part 3: Teacher Entrepreneurship Impact and Ability Assessment

Please rate each question using the 5-level Likert scale based on the following description.

1- Completely disagree

2- Disagree

3- Neutral

4- Agree

5- Fully agree

No	Teacher Entrepreneurship Impact and Ability Assessment	Comment level				
		1	2	3	4	5
1	My entrepreneurial experience and successful cases have a positive impact on enhancing students' entrepreneurial willingness.					
2	I am able to provide students with entrepreneurial inspiration and guidance through practical cases and experience					
3	My entrepreneurial network and resources can provide support for students' entrepreneurial projects.					
4	My entrepreneurship education in the classroom can stimulate students' innovative thinking and practical actions.					
5	My entrepreneurial background and abilities can inspire students' entrepreneurial					

	confidence in uncertain environments.					
<b>Part 4: Evaluation of the Operation Mechanism of Entrepreneurship Education</b>						
Please rate each question using the 5-level Likert scale based on the following description.						
1- Completely disagree						
2- Disagree						
3- Neutral						
4- Agree						
5- Fully agree						
No	Evaluate the operational mechanism of entrepreneurship education	Comment level				
		1	2	3	4	5
1	Is the organization and management of entrepreneurship education in schools effective.					
2	Is there a high level of support from mentors and teachers for entrepreneurship education.					
3	Can the courses and activities of entrepreneurship education in schools meet the entrepreneurial needs of students.					
4	Is the resource support for entrepreneurship education in schools sufficient.					
5	Does the policy and system of entrepreneurship education in schools help promote the development of entrepreneurship education.					
6	Have your entrepreneurial willingness and ability been improved after participating in entrepreneurship education					
<b>Part 5: Open ended questions</b>						
Please provide your suggestions and opinions on the operational mechanism of entrepreneurship education in schools:						
<hr/>						
<hr/>						
Thank you again for participating in the survey						

<p>Interview Paper</p> <p>(Entrepreneurship Education Teachers and Experts)</p> <p>Project: Doctoral Dissertation Research</p>
<p>Respondent Information:</p> <p>Name:</p> <p>Gender:</p> <p>Age:</p>
<p><b>1. Teacher background and experience:</b></p> <p>Please briefly introduce your professional background, educational experience, and teaching experience related to entrepreneurship education.</p>
<p><b>2. Understanding of the operational mechanism of entrepreneurship education:</b></p> <p>What is your understanding of the operational mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability development.</p>
<p><b>3. Evaluation of school support factors:</b></p> <p>How much support do you think the school has in promoting entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?</p>
<p><b>4. Role of mentor and teacher:</b></p> <p>What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?</p>
<p><b>5. Perspectives on Entrepreneurship Education Curriculum and Activities:</b></p> <p>How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?</p>
<p><b>6. Understanding of entrepreneurial resource support:</b></p> <p>In your opinion, what role does the school play in providing resource support for students' entrepreneurship in entrepreneurship education?</p>
<p><b>7. Opinions on institutional and policy factors:</b></p> <p>What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?</p>

**8. Observation of students' entrepreneurial willingness and ability:**

Based on your comprehensive observation, what changes have occurred in the performance of students' entrepreneurial willingness and ability after the operation of the entrepreneurship education mechanism?

**9. Suggestions for the operation mechanism of entrepreneurship education:**

In your opinion, how can we further improve the operational mechanism of entrepreneurship education? Please provide your suggestions.

**Thank you for your participation!**

**Expert Evaluation Form for the Development Policy of Entrepreneurship  
Education Operation Mechanism**

This evaluation form aims to evaluate the adaptability and feasibility of the development guidelines for the operation mechanism of entrepreneurship education in Guiyang University, and promote the scientific, institutionalized, and standardized construction of entrepreneurship education. The questionnaire results are only for academic research. Please fill them out truthfully. Thank you for your participation!

**1. Assessor Information**

Name:

Position:

Professional background:

**2. Explanation of evaluation indicators**

Please rate the adaptability and feasibility of each measure based on the following criteria. The score range is 1-5. 1 represents "very unsuitable/infeasible", and 5 represents "very suitable/very feasible".















3. Score the adaptability and feasibility evaluation of the development policy for the operation mechanism of entrepreneurship education										
Guidelines for Entrepreneurship Education	Suitability					Feasibility				
	1	2	3	4	5	1	2	3	4	5
institutions, and introduce an international perspective.										
5. Utilize emerging technologies and advanced methods, such as virtual reality and online simulation, to conduct entrepreneurship education.										
6. Provide professional development training and opportunities for teachers in entrepreneurship education.										
7. Establish an evaluation system for the effectiveness of entrepreneurship education to regularly review teaching effectiveness and student satisfaction.										
<b>Evaluator's signature</b> <b>Signature:</b> <b>Date:</b> <p style="text-align: center;">Thank you again for your evaluation</p>										

## Appendix D

The Results of the Quality Analysis of Research Instruments



The index of objective congruence (IOC)

Guideline for the Development of Operation Mechanism of Entrepreneurship Education  
in Guiyang University

No	Operation mechanism of entrepreneurship education	Experts			IOC	Validity
		NO1	NO2	NO3		
<b>School Support and Entrepreneurship Ecology</b>						
1	The school provides sufficient resources in promoting entrepreneurship education.	1	1	1	1	Valid
2	The school's entrepreneurial orientation matches the needs of students.	1	1	1	1	Valid
3	The school provides students with entrepreneurial guidance and support.	1	1	1	1	Valid
4	The school has created an atmosphere that encourages students to innovate and start businesses.	1	1	1	1	Valid
5	The school actively promotes the development and practice of entrepreneurship education.	1	1	1	1	Valid
<b>Mentor and Teacher Support and Guidance</b>						
6	Mentors and teachers pay high attention to students' entrepreneurial willingness and abilities.	1	1	1	1	Valid
7	Mentors and teachers provide effective entrepreneurial guidance and guidance.	1	1	1	1	Valid
8	Mentors and teachers encourage students to participate in entrepreneurial practices and activities.	1	1	1	1	Valid

### The index of objective congruence (IOC)

#### Guideline for the Development of Operation Mechanism of Entrepreneurship Education in Guiyang University

No	Operation mechanism of	Experts			IOC	Validity
9	Mentors and teachers have rich entrepreneurial backgrounds and experience.	1	1	1	1	Valid
10	Mentors and teachers actively participate in the cultivation and guidance of student entrepreneurship projects.	1	1	1	1	Valid
<b>Educational courses and activities to promote entrepreneurial practice</b>						
11	The entrepreneurship education courses and activities offered by the school are rich and diverse.	1	1	1	1	Valid
12	Entrepreneurship education courses and activities can meet students' entrepreneurial needs.	1	1	1	1	Valid
13	The school provides rich entrepreneurial practice opportunities and project incubation.	1	1	1	1	Valid
14	Entrepreneurship education courses and activities are closely integrated with market demand.	1	1	1	1	Valid
15	The school actively explores innovative entrepreneurship education courses and activity forms.	1	1	1	1	Valid
<b>Entrepreneurship Resources and Support Network</b>						
16	The school has clear policies and regulations for entrepreneurship education.	1	1	1	1	Valid
17	The school's entrepreneurship policy has a positive incentive and support effect on students' entrepreneurship.	1	1	1	1	Valid

The index of objective congruence (IOC)

Guideline for the Development of Operation Mechanism of Entrepreneurship Education  
in Guiyang University

No	Operation mechanism of	Experts			IOC	Validity
18	The school's system contributes to the smooth operation and development of entrepreneurship education.	1	1	1	1	Valid
19	The school encourages students to innovate and start businesses, and provides policy support.	1	1	1	1	Valid
20	The school actively improves policies and systems related to entrepreneurship education to promote the development of entrepreneurship education.	1	1	0	0.67	Valid
<b>Entrepreneurship Ecology and Policy Support</b>						
21	Does the school's entrepreneurial policies and systems contribute to the application and implementation of student entrepreneurship projects.	1	1	1	1	Valid
22	Does the school provide corresponding policy support and preferential policies for students' entrepreneurship.	1	1	1	1	Valid
23	Does the school encourage students to start businesses and provide relevant incentive measures.	1	1	1	1	Valid
24	Does the school's entrepreneurship policy provide necessary legal and policy guarantees for students' entrepreneurship.	1	1	1	1	Valid
25	Is the school's entrepreneurship policy conducive to promoting the	1	1	0	0.67	Valid

The index of objective congruence (IOC)

Guideline for the Development of Operation Mechanism of Entrepreneurship Education  
in Guiyang University

No	Operation mechanism of	Experts			IOC	Validity
	development of entrepreneurship education.					
<b>Teacher Entrepreneurship Impact and Ability Assessment</b>						
1	My entrepreneurial experience and successful cases have a positive impact on enhancing students' entrepreneurial willingness.	1	1	1	1	Valid
2	I am able to provide students with entrepreneurial inspiration and guidance through practical cases and experience	1	1	1	1	Valid
3	My entrepreneurial network and resources can provide support for students' entrepreneurial projects.	1	1	1	1	Valid
4	My entrepreneurship education in the classroom can stimulate students' innovative thinking and practical actions.	1	1	1	1	Valid
5	My entrepreneurial background and abilities can inspire students' entrepreneurial confidence in uncertain environments.	1	1	1	1	Valid
<b>Evaluate the operational mechanism of entrepreneurship education</b>						
1	Is the organization and management of entrepreneurship education in schools effective.	1	1	1	1	Valid
2	Is there a high level of support from mentors and teachers for entrepreneurship education.	1	1	1	1	Valid
3	Can the courses and activities of entrepreneurship education in	1	1	1	1	Valid

The index of objective congruence (IOC)

Guideline for the Development of Operation Mechanism of Entrepreneurship Education  
in Guiyang University

No	Operation mechanism of	Experts			IOC	Validity
	schools meet the entrepreneurial needs of students.					
4	Is the resource support for entrepreneurship education in schools sufficient.	1	1	1	1	Valid
5	Does the policy and system of entrepreneurship education in schools help promote the development of entrepreneurship education.	1	1	1	1	Valid
6	Have your entrepreneurial willingness and ability been improved after participating in entrepreneurship education	1	1	1	1	Valid

Appendix E  
Certificate of English



**English Language Proficiency Level Descriptors: Common European Framework of Reference for Languages (CEFR)**

**A1**

- Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction needs of a concrete type.
- Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has.
- Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help.

**A2**

- Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment).
- Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters.
- Can describe in simple terms aspects of his/her background, immediate environment and matters in care of immediate need.

**B1**

- Can understand the main points of clear standard input on familiar matters regularly encountered in school, leisure, etc.
- Can deal with most situations likely to arise while travelling in an area where the language is spoken.
- Can produce simple connected text on topics that are familiar or of personal interest.
- Can describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans.

**B2**

- Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialization.
- Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party.
- Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.

**C1**

- Can understand a wide range of demanding, longer texts, and recognise implicit meaning.
- Can express ideas fluently and spontaneously without much obvious searching for expressions.
- Can use language flexibly and effectively for social, academic and professional purposes.
- Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.

**C2**

- Can understand with ease virtually everything heard or read.
- Can summarize information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation.
- Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in the most complex situations.

Source: Common European Framework of Reference for Languages: Learning, teaching, assessment (www.coe.int)

**BSRU-TEP Criteria**

CEFR Level	BSRU-TEP
A1	1 - 20
A2	21 - 40
B1	41 - 60
B2	61 - 80
C1	81 - 100
C2	101 - 120

No. **CEFR2022/0411**

Office of International Affairs and  
ASEAN Network

Appendix F  
Interview Information



Structured Interview Interviewee Information

No	Name	Gender	Age	Position	School
1	Wang Wanpeng	Male	29	assistant professor	School of Culture and Media
2	Cheng Chang	Female	32	assistant professor	School of Foreign Languages
3	Ding Zuomei	Male	35	assistant professor	School of Law
4	Zhou Hongwu	Male	38	assistant professor	School of Mathematics and Information Science
5	Yang Jing	Female	41	assistant professor	School of Educational Science
6	Chai Zhicheng	Male	43	assistant professor	School of Electronic and Communication Engineering
7	Zhang Chunmei	Female	51	professor	School of Chemistry and Materials Engineering
8	Liu Shiyu	Male	55	professor	School of Economics and Management
9	Li Guoyong	Male	36	assistant professor	School of Biological and Environmental Engineering
10	Wang Juan	Female	39	assistant professor	School of Mechanical Engineering
11	Liu Xiaoyan	Female	42	professor	School of Food and Pharmaceutical Engineering
12	Fan Peipei	Male	47	professor	School of Urban Planning and Architectural Engineering
13	Liu Jianfeng	Male	53	professor	School of Fine Arts

### Interviewee 1

1. How do you understand the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

I believe that the operation mechanism of entrepreneurship education is a comprehensive system that includes teaching, resource support, training, mentor guidance, policy support, and other aspects, with the aim of cultivating students' entrepreneurial willingness and comprehensive entrepreneurial abilities. Within this system, students can learn knowledge and skills in entrepreneurship, cultivate their entrepreneurial thinking and problem-solving abilities, and provide opportunities and experiences for entrepreneurial practice or competitions under the guidance of teachers and the support of school resources.

2. How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

The level of support for entrepreneurship education varies among different schools and regions, but overall, since the release of entrepreneurship policies, schools have increased their emphasis on entrepreneurship education. By offering entrepreneurship courses and practical entrepreneurship projects, the school not only stimulates students' entrepreneurial awareness and willingness, but also provides coaching resources for students to improve their entrepreneurial abilities, giving them the opportunity and conditions to understand and participate in entrepreneurship.

3. What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

The role is similar to that of a leader, teaching students basic entrepreneurial knowledge and skills, providing entrepreneurial guidance and advice, answering some of the problems they encounter during the entrepreneurial process, and guiding them in formulating reasonable entrepreneurial plans and strategies.

4. How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Entrepreneurship education courses and activities can showcase the opportunities and potential of entrepreneurship to students, stimulate their interest in entrepreneurship, and encourage them to start thinking about the possibilities of entrepreneurship.

5. In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

The resource support from schools can lower the economic threshold for students to start businesses, allowing more students with entrepreneurial potential to have the opportunity to try entrepreneurship.

6. What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The school's entrepreneurship education system and policies can stimulate students' interest in entrepreneurship and encourage them to start thinking about the possibilities of entrepreneurship by offering entrepreneurship courses, organizing entrepreneurship activities, and other means.

7. According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

Students have significantly improved their entrepreneurial willingness and ability.

8. In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

I suggest that the first thing is to pay attention to the combination of theory and practice, and in the process of imparting theoretical knowledge, expand more opportunities for entrepreneurial practice. Secondly, it is to stimulate and cultivate students' innovative thinking and abilities, such as providing personalized entrepreneurial guidance based on their interests, abilities, and backgrounds, helping them discover suitable entrepreneurial opportunities and directions. In other aspects, entrepreneurship education courses should be updated in a timely manner to adapt to market demands and changes.

## **Interviewee 2**

1. How do you understand the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

The entrepreneurship education mechanism I understand is a comprehensive ecosystem, in which students and mentors are the main entrepreneurial subjects and participants, while other factors constitute a comprehensive entrepreneurial environment. The two are integrated into a sustainable organic whole. This entrepreneurship education mechanism, through providing entrepreneurship education courses, resources, policies, and other support networks, promotes students to learn relevant knowledge and skills in entrepreneurship under the guidance of

mentors. With the participation of entrepreneurship practice projects, entrepreneurship competitions, and other practical platforms, it further cultivates students' comprehensive entrepreneurial abilities and promotes their success in the field of entrepreneurship.

2. How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

The school has played a significant positive role in promoting entrepreneurship education. The school's entrepreneurship practice projects or competitions have created a good entrepreneurial atmosphere for students. The start of entrepreneurship courses and the guidance of practical project mentors also provide the most basic guarantee for students to master entrepreneurship related knowledge.

3. What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

As a teacher, I usually teach students entrepreneurship related knowledge and methods through entrepreneurship education courses, explain some successful or failed cases of entrepreneurship, help them avoid entrepreneurial risks, improve their ability to identify opportunities, and provide answers and guidance when they encounter difficulties in the entrepreneurial process.

4. How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Entrepreneurship education emphasizes innovation and problem-solving abilities, which can cultivate students' innovative thinking and enable them to face challenges more creatively.

5. In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

The resource support provided by the school can provide students with practical entrepreneurial practice opportunities, allowing them to experience the entire process of entrepreneurship in a real environment.

6. What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The entrepreneurship education system and policies can provide students with diverse training and practical opportunities, helping them develop various skills required for entrepreneurship, such as business plan writing, team management, market analysis, etc.

7. According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

I have observed that after receiving entrepreneurship education, students become more rational in recognizing the opportunities and challenges of entrepreneurship, enhancing their awareness and desire for entrepreneurship, and thus enhancing their entrepreneurial willingness.

8. In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

From my experience and feelings, the first point is that schools should strive to improve the support of entrepreneurial resources as much as possible, including the improvement of entrepreneurial education courses, sufficient support from entrepreneurial mentors, and the creation of a good entrepreneurial atmosphere in order to subtly influence students' entrepreneurial awareness. Secondly, in terms of entrepreneurship courses, we should be good at integrating interdisciplinary resources. Entrepreneurship involves knowledge and skills from multiple fields, and designing interdisciplinary entrepreneurship courses can help students fully understand the entrepreneurial process. My third feeling is that entrepreneurship education is scattered, and there may be scattered situations between different courses and activities, lacking overall planning and coordination. Therefore, I believe that schools can establish a complete entrepreneurship ecosystem, including incubators, entrepreneurship laboratories, investment platforms, etc., to provide students with comprehensive entrepreneurial support.

### **Interviewee 3**

1. How do you understand the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

The operation mechanism of entrepreneurship education is a complex and comprehensive education system, which aims to cultivate students' entrepreneurial willingness and ability. In this process of cultivation, it involves multiple aspects of content, including curriculum education, mentor guidance, entrepreneurial resource provision, entrepreneurial platform cooperation, entrepreneurial practice project support, entrepreneurial competition support, and other resource support, comprehensively promoting the improvement of students' entrepreneurial knowledge and skills. It is also constantly influencing and exercising students' entrepreneurial

awareness, inspiration, and vision, laying a good foundation for students to better understand entrepreneurship, participate in entrepreneurship, and even achieve entrepreneurial success.

2.How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

Schools are very supportive and encouraging in promoting entrepreneurship education, including but not limited to offering courses related to entrepreneurship education, providing resources for participating in entrepreneurial practice projects, etc., to stimulate students' entrepreneurial awareness, enable them to master certain entrepreneurial basic abilities, and provide opportunities for entrepreneurial practice, ensuring comprehensive support from theoretical knowledge learning to practice.

3.What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

In the process of serving as an entrepreneurial mentor, I assist students in developing comprehensive entrepreneurial plans, guiding them on how to analyze business models, evaluate market demand and competitive environment, and also assist students in assessing risks in the entrepreneurial process.

4.How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Entrepreneurship education courses can teach students knowledge about business operations, market analysis, financial management, and other aspects, providing them with a foundation for entrepreneurship.

5.In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

Schools can introduce entrepreneurial mentors to provide students with practical entrepreneurial experience and guidance, helping them develop entrepreneurial strategies and plans.

6.What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The school's entrepreneurship education system and policies can provide entrepreneurial resource support, including office space, equipment, funds, etc., reduce the threshold for entrepreneurship, and allow more students to have the opportunity to try entrepreneurship.

7.According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the

performance of students' entrepreneurial willingness and ability?

Students have greatly improved their entrepreneurial abilities and thinking, which has also stimulated some of their entrepreneurial willingness and courage.

8. In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

I would like to provide suggestions from two aspects. Firstly, improve the connection between schools and the market, timely grasp market demand and changes, so that students can correctly analyze the entrepreneurial risks and needs of the market. The second is to provide more practical opportunities that are in line with the market, so that students can exercise their entrepreneurial skills and problem-solving abilities in a real environment.

#### **Interviewee 4**

1. How do you understand the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

The operation mechanism of entrepreneurship education is a comprehensive teaching structure that can improve students' entrepreneurial ability and awareness. It involves a lot of content, not only teaching courses and guidance from mentors, but also providing entrepreneurial practice opportunities for students who are willing to understand and participate in entrepreneurship, such as participating in entrepreneurial practice projects, entrepreneurship competitions, etc. Under the influence of this educational operation mechanism, firstly, students can have a clear understanding of the basic abilities, methods and skills of entrepreneurship, and even the risks and challenges of entrepreneurship. This is to awaken students' entrepreneurial awareness, provide them with entrepreneurial assistance guidance, and guide them on how to start their own businesses, ultimately promoting more students to achieve success in entrepreneurship through the guidance of school entrepreneurship education.

2. How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

Different schools have different educational resources, but I believe that entrepreneurship education has always been strongly supported and promoted. Most schools offer courses related to entrepreneurship, actively recommend entrepreneurship mentors and entrepreneurs to give entrepreneurship lectures on

campus, and even provide opportunities and resources for entrepreneurial practice, providing students with comprehensive tutoring resources from learning to practice.

3. What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

I have served as an entrepreneurial mentor before, during which I mainly tutored students on how to avoid unnecessary errors and risks in the entrepreneurial process, helped them review and improve their entrepreneurial plans, and provided them with resources, tools, and links related to entrepreneurship, helping them better prepare for entrepreneurial plans and implementation processes.

4. How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Students can learn how to build and optimize business models through entrepreneurship courses and activities, in order to better provide value to the market and customers.

5. In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

The school's resource support can provide technical and professional support to students, helping them solve technical or professional problems encountered in the entrepreneurial process.

6. What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

Schools can introduce entrepreneurial mentors to provide students with practical entrepreneurial experience and guidance, helping them solve problems encountered during the entrepreneurial process.

7. According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

After the operation of the entrepreneurship education mechanism, students' employment views have undergone some changes. After possessing certain entrepreneurial knowledge and skills, it has stimulated some students' entrepreneurial willingness and behavior.

8. In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

I believe that first of all, schools should create a good entrepreneurial culture and atmosphere, so that more students can receive more support and recognition for entrepreneurship in the current employment environment and economic situation,



and also have the courage to innovate, try and fail. Secondly, it is necessary to increase the combination of theoretical knowledge transmission and practical education methods, especially focusing on practical aspects, to provide more practical entrepreneurial opportunities. Finally, emphasis should be placed on cultivating students' innovative thinking and abilities. By exploring their interests and hobbies, combined with their personal abilities, personalities, and resources, students should be further encouraged to discover entrepreneurial opportunities and directions that suit them.

#### **Interviewee 5**

1.How do you understand the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

The operation mechanism of entrepreneurship education is a comprehensive and systematic entrepreneurship education system, which provides students with entrepreneurship course education, mentor guidance, practical platforms, entrepreneurship related resources and other support, cultivates students' entrepreneurial ability and willingness, and teaches entrepreneurial methods and skills to students with creative ideas. It also provides comprehensive abilities such as risk awareness and problem-solving, while stimulating students' entrepreneurial awareness, Enable students to face entrepreneurial environments and challenges rationally, correctly, and adequately prepared.

2.How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

The school attaches great importance to promoting entrepreneurship education, and because of the measures taken by the school in offering entrepreneurship education courses and organizing entrepreneurship competitions, it has stimulated some students' entrepreneurial awareness and cultivated their entrepreneurial abilities, including but not limited to entrepreneurial concepts, methods, and risk identification. While promoting the increase of students' entrepreneurial willingness, it enables them to have comprehensive entrepreneurial abilities.

3.What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

I have led students to participate in entrepreneurship competitions. During the competition, I guided them on how to learn entrepreneurial knowledge and skills, and

also assisted them in improving their entrepreneurial plans and implementation processes. I even helped students evaluate entrepreneurial risks and provided solutions to problems encountered during the entrepreneurial process.

4.How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Entrepreneurship education courses and activities enable students to learn successful cases of entrepreneurship, receive guidance from teachers on entrepreneurship, and enhance their confidence in entrepreneurship, giving them the courage to take the first step in entrepreneurship in the future.

5.In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

Schools can organize entrepreneurship competitions and activities to provide students with opportunities to showcase their creativity and projects, while also attracting investors and partners.

6.What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The school's entrepreneurship education system and policies can help students establish connections with mentors, investors, entrepreneurial partners, and provide support for their future entrepreneurial development.

7.According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

After the operation of the entrepreneurship education mechanism, students have made great progress in their entrepreneurial abilities and are willing to actively learn about entrepreneurship, and even participate in entrepreneurship competitions or activities.

8.In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

I believe that in order to improve the mechanism of entrepreneurship education, we can start from two aspects. On the one hand, schools and entrepreneurship mentors should keep up with market needs and development trends, design education courses and entrepreneurship cases that are in line with market demand, so that students can better and faster adapt to the competitive situation in the market. On the other hand, attention should be paid to the cultivation of students' comprehensive abilities, including the integration of teaching across multiple different disciplines, and the cultivation of student teamwork and leadership abilities.

### Interviewee 6

1.How do you understand the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

I believe that the operation mechanism of entrepreneurship education is a relatively complete education system that promotes students to improve their entrepreneurial awareness and ability. In this educational process, the school not only provides students with knowledge and methods related to entrepreneurship, but also introduces cooperation platforms, real-life cases, etc., allowing students to truly feel the risks and opportunities of entrepreneurship. Through a series of entrepreneurial practice activities, students are allowed to personally experience and learn, promoting their ability to have sufficient knowledge reserves, market perspectives, and face the challenges of entrepreneurial risks when they have creative ideas or entrepreneurial operations.

2.How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

In response to the policies related to mass entrepreneurship, the school has been vigorously promoting the implementation of entrepreneurship education, further stimulating students' interest and awareness in entrepreneurship, cultivating their entrepreneurial thinking and risk perception ability, and providing a good choice environment for diversified employment for students.

3.What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

When students participate in entrepreneurial practice projects, as an entrepreneurial mentor, I will arrange a learning plan for entrepreneurial knowledge for them, provide them with relevant entrepreneurial success and failure cases, and guide them to improve the entrepreneurial plan, implement the operational process in the entrepreneurial process, and reduce the risks encountered in entrepreneurship.

4.How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Entrepreneurship practice is usually carried out in the form of teams. Entrepreneurship education courses and activities focus on cultivating students' spirit of cooperation and teamwork ability, enabling them to learn effective communication with others, coordinate division of labor, resolve conflicts, etc., and make students more aware of the importance of teams.

5. In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

The resource support provided by the school can make it easier for students to access various resources required for entrepreneurship, including office space, equipment, technical support, etc.

6. What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The school's entrepreneurship education system and policies can cultivate an entrepreneurial ecosystem, promote the flourishing of entrepreneurial culture on campus, and stimulate the innovation and entrepreneurship potential of more students.

7. According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

After mastering certain entrepreneurial knowledge and skills, students have significantly different entrepreneurial intentions. Many students are willing to use the resources and platforms of the school to participate in entrepreneurial practice projects or competitions.

8. In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

At present, I mainly think of three points. Firstly, schools provide more opportunities for entrepreneurial practice, allowing students to have practical exercises and experiences on the basis of learning entrepreneurial theory knowledge, thereby improving their problem-solving ability; The second is to create a sustainable entrepreneurial ecosystem, such as establishing incubators, entrepreneurship laboratories, investment platforms, etc., to provide students with more entrepreneurial plans while also providing continuous support and resources for entrepreneurs after graduation, helping them grow continuously in the entrepreneurial journey; The third is to accumulate a database of entrepreneurial cases, and improve students' identification of entrepreneurial risks and opportunities by sharing and analyzing successful and failed entrepreneurial cases.

### **Interviewee 7**

1. How do you understand the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

In terms of the operational content of entrepreneurship education, it includes support for resources, the establishment of entrepreneurship courses, policy and institutional support, the creation of an entrepreneurial environment and atmosphere, as well as the personal guidance and guidance of mentors. It enables participating students to have a comprehensive understanding of entrepreneurship and practice entrepreneurship. So this entire education system ultimately promotes students to enhance their entrepreneurial abilities and awareness, providing them with more employment opportunities.

2. How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

Schools are one of the main forces in promoting entrepreneurship education. By providing resources such as entrepreneurship practice projects, entrepreneurship competitions, and entrepreneurship lectures, they provide students with opportunities and resources for entrepreneurship practice. They also provide guidance and tutoring teachers for students to participate in entrepreneurship, providing various guarantees for students to learn entrepreneurship skills and experience entrepreneurship practice in all aspects.

3. What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

As a guiding teacher, in the process of assisting students in completing entrepreneurial practice projects, more emphasis is placed on providing them with learning directions, resources, and tools related to entrepreneurship, guiding them to improve their entrepreneurial plans, and enabling them to understand the concepts, methods, risks, and challenges of entrepreneurship during the practical process.

4. How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Entrepreneurship education courses and activities have a positive impact on students' entrepreneurial willingness and ability. They stimulate students' entrepreneurial willingness, cultivate entrepreneurial thinking, enhance entrepreneurial abilities, and promote their spirit of cooperation.

5. In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

Schools can provide the necessary resources and financial support for entrepreneurship, helping students achieve the landing of entrepreneurial projects. By providing these resources and financial support, schools can reduce the risks and

barriers for students to start businesses, encourage them to actively start businesses, and increase the chances of successful entrepreneurship.

6. What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The school's entrepreneurship education system and policies have cultivated students' entrepreneurial abilities and professional qualities. Through entrepreneurship courses and practical projects, students can learn knowledge and skills in innovation and entrepreneurship, and exercise their entrepreneurial abilities through practical operations. At the same time, entrepreneurship education also focuses on cultivating students' professional qualities such as teamwork, communication, and leadership, enabling them to possess the comprehensive abilities required for successful entrepreneurship.

7. According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

I feel that after the operation of the entrepreneurship education mechanism, the sprouts of students' entrepreneurial awareness have been stimulated, especially after a series of training, they have also gained courage and confidence in the unknown challenges of entrepreneurship.

8. In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

I believe that schools can introduce international entrepreneurial resources and educational concepts to cultivate and expand students' international perspectives and market sensitivity. In addition, schools should pay attention to the cultivation of students' comprehensive abilities, including business, communication, leadership, and other abilities, so that students can better adapt to the needs of entrepreneurship. Another point is to keep up with market trends and changes in demand in course design and case sharing, so that students can have a certain sensitivity to the business market.

### **Interviewee 8**

1. How do you understand the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

The operation mechanism of entrepreneurship education is a comprehensive and comprehensive entrepreneurship education system designed to enhance

students' entrepreneurial ability and awareness. Under this system, schools provide various resource support, including entrepreneurial funds, entrepreneurial knowledge transmission, entrepreneurial networks, guidance from entrepreneurial mentors, and networking, to provide necessary support and guarantee for students' entrepreneurial projects. Through a series of entrepreneurial education influences, it stimulates students' entrepreneurial awareness and willingness, trains their entrepreneurial abilities and skills, enables them to correctly understand the risks and challenges brought by entrepreneurship, and also enables them to identify the entrepreneurial environment and opportunities.

2.How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

The school attaches great importance to the promotion of entrepreneurship education, and through the support of school resources, students can have a clearer understanding of the risks and challenges of entrepreneurship. It also helps students understand the knowledge reserves and resource requirements before entrepreneurship, laying a solid foundation for achieving successful entrepreneurship.

3.What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

I have conducted lectures on entrepreneurship before. In terms of content arrangement, firstly, I taught students the concept and basic knowledge of entrepreneurship, and secondly, I shared some entrepreneurial experiences and insights, analyzed the reasons and existing problems of successful and failed entrepreneurial cases, and helped them better understand entrepreneurship.

4.How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Entrepreneurship education courses and activities provide students with opportunities to establish connections with mentors, entrepreneurs, investors, and expand their social networks. Students will also learn about market demand and trends through market research and analysis courses, which will help them more accurately position products or services.

5.In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

Schools can organize entrepreneurship exchange activities, entrepreneurship competitions, etc., to build a platform for students to exchange and cooperate in entrepreneurship. Entrepreneurs and investors can also be invited to participate in the

evaluation and mentoring system, providing students with more entrepreneurial opportunities and guidance.

6. What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The school's entrepreneurship education system and policies allow the school to hold entrepreneurship competitions, provide students with a platform to showcase entrepreneurial ideas and projects, and also incentivize them to better implement entrepreneurship plans through rewards.

7. According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

Entrepreneurship used to be a term with a high threshold, but after the implementation of the entrepreneurship education mechanism, many students have fully recognized and contacted the relevant knowledge and information of entrepreneurship, understood the risks and opportunities of entrepreneurship, and with certain entrepreneurial skills, their willingness to start a business has significantly increased.

8. In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

I believe that the entrepreneurial resources in schools will to some extent affect students' entrepreneurial willingness and opportunities, so schools should pay attention to the investment of entrepreneurial resources, including entrepreneurial mentors, incubators, entrepreneurial competitions, funds, etc. In addition, attention should be paid to the interests and needs of students. In the process of cultivating students' entrepreneurial thinking and awareness, personalized guidance and guidance should be provided based on their personal characteristics, abilities, and resource situation.

### **Interviewee 9**

1. What is your understanding of the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

The establishment of the operation mechanism of entrepreneurship education is to respond to national policies and promote more people to have entrepreneurial awareness and behavior. With this premise, as college students with a higher level of knowledge foundation, they are one of the key targets for cultivating entrepreneurial



awareness and ability. Through a series of entrepreneurship education courses, entrepreneurship practice projects, entrepreneurship competitions, entrepreneurship resources, and guidance from entrepreneurship mentors, students can master the concepts, methods, and skills of entrepreneurship, understand the risks and opportunities of entrepreneurship, possess certain entrepreneurial abilities and problem-solving abilities in entrepreneurship, further stimulate their entrepreneurial awareness and behavior, promote more people to choose entrepreneurship, and expand employment opportunities independently, And can achieve entrepreneurial success.

2.How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

Schools have always been the main force in promoting entrepreneurship education, serving as the cradle for inspiring students' entrepreneurial awareness and cultivating their entrepreneurial abilities. As far as I know, under the guidance of a series of entrepreneurship education in schools, more students have understood the concepts and methods of entrepreneurship, as well as the risks and opportunities of entrepreneurship. They are able to calmly and rationally view entrepreneurship and have certain abilities to carry out entrepreneurship.

3.What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

I have offered entrepreneurship courses and participated in guiding entrepreneurial practice projects. During this process, I guided students to learn entrepreneurial knowledge and skills independently, assisted them in conducting business analysis and market evaluation with a sound knowledge framework and logic, guided students in formulating entrepreneurial plans and practical steps, and assisted students in evaluating entrepreneurial risks.

4.How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Entrepreneurship education courses and activities can have a positive impact on students' entrepreneurial intentions and abilities through various channels such as knowledge transfer, skill development, and practical opportunities.

5.In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

The resource support provided by schools for student entrepreneurship plays a crucial role in entrepreneurship education. It can provide students with necessary

tools, funds, information, and guidance to help them better prepare and implement entrepreneurship plans.

6. What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The school's entrepreneurship education system and policies provide a beneficial environment and support for students to start their own businesses, which can play a positive role in cultivating entrepreneurial awareness, enhancing entrepreneurial abilities, and helping students achieve their entrepreneurial dreams.

7. According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

After the implementation of the school's entrepreneurship education mechanism, many students have benefited greatly. Firstly, they have gained an understanding of entrepreneurship related knowledge, and even have more opportunities and platforms to participate in and practice entrepreneurship projects, which has greatly improved their entrepreneurial ability and stimulated more students' entrepreneurial awareness.

8. In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

From the perspective of improving the mechanism of entrepreneurship education, my suggestion is that schools should first build a good entrepreneurial ecosystem, providing entrepreneurship systems such as incubators and investment platforms, and providing students with comprehensive entrepreneurial support. Secondly, it is necessary to cultivate a good entrepreneurial atmosphere, enhance the recognition and support of the public and students for entrepreneurship, and only then can more students who are interested in entrepreneurship dare to take the first step. In addition, in the process of entrepreneurship education, attention should be paid to the combination of theoretical education and practice, so that students can feel the risks and difficulties of entrepreneurship in the actual operation process, learn to deal with the problems and challenges faced by entrepreneurship, and ultimately promote more students to achieve ideal results after participating in entrepreneurship.

#### **Interviewee 10**

1. What is your understanding of the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

The operation mechanism of entrepreneurship education is a systematic and operable entrepreneurship education practice system. By offering entrepreneurship education courses, providing entrepreneurship practice projects and competitions, and even building opportunities for students to cooperate and connect with other entrepreneurs, entrepreneurs, etc., under the guidance of teachers and the support of various resources in the school, it promotes students to understand the concept and methods of entrepreneurship, learn the skills and abilities of entrepreneurship, Further cultivate college students with entrepreneurial abilities and lay a solid foundation for current and future participation in entrepreneurship, thereby promoting the increase of social employment rate and the success rate of entrepreneurship.

2.How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

Overall, more and more schools are realizing the importance of entrepreneurship education and providing corresponding support, including entrepreneurship courses, entrepreneurship competitions, entrepreneurship guidance, entrepreneurship incubators, etc., allowing students to have the opportunity to access knowledge and resources related to entrepreneurship, stimulating their entrepreneurial awareness, improving their entrepreneurial ability, providing practical opportunities for entrepreneurship, and cultivating their entrepreneurial thinking, Reduce the entrepreneurial risks of students and even provide them with entrepreneurial network resources.

3.What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

In terms of entrepreneurship education, I have played the role of an entrepreneurship mentor and also conducted entrepreneurship lectures for more students. Although there are differences in methods, the only purpose is to provide students with the opportunity to understand entrepreneurial knowledge and access entrepreneurial resources through channels.

4.How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Entrepreneurship education courses and activities provide systematic entrepreneurship skills training, such as business model design, market analysis, team management, etc. Through these trainings, students are able to understand and master the key elements in the entrepreneurial process, and possess practical operational abilities. At the same time, practical projects in courses and activities also

provide students with opportunities to exercise their entrepreneurial abilities, enabling them to apply the knowledge they have learned in real environments and enhance their entrepreneurial abilities.

5. In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

The school provides entrepreneurship education courses and training, teaching students theoretical knowledge, skills, and tools for entrepreneurship. These courses can include market analysis, business model design, innovation management, and other content, helping students master the basic knowledge and skills required for entrepreneurship. At the same time, schools can also invite industry experts such as successful entrepreneurs and investors to give lectures and discussions, providing students with practical experience and case sharing, and expanding their entrepreneurial perspectives.

6. What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The school's entrepreneurship education system and policies provide students with resource support and an excellent entrepreneurial environment. For example, entrepreneurship incubators provide basic resources such as office space and equipment needed for entrepreneurship; Entrepreneurship competitions and start-up funds provide financial support; Entrepreneurship mentors and expert teams provide guidance and consultation. These resources and environments provide more favorable conditions for student entrepreneurship.

7. According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

From my observation and understanding, after receiving a series of entrepreneurship education and influence, students have a clearer and more rational view of their employment and entrepreneurship choices, and also have a certain ability to bravely challenge and participate in entrepreneurship.

8. In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

To improve the mechanism of entrepreneurship education, the school and the entrepreneurial ecological environment in the school's location are important influencing factors, including investment atmosphere, entrepreneurial resources, industry agglomeration, etc., which will affect students' entrepreneurial willingness and effectiveness. In addition, attention should be paid to the interests and needs of

students, and objective and reasonable employment and entrepreneurship guidance should be provided after considering their comprehensive abilities.

### **Interviewee 11**

1. What is your understanding of the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

The operation mechanism of entrepreneurship education is a series of operational methods and organizational structures established to promote the cultivation of students' entrepreneurial willingness and ability. It includes arrangements for curriculum design, mentor guidance, practical training, resource support, and other aspects to provide a comprehensive and systematic entrepreneurial education environment. Through this series of entrepreneurship education operations, it can stimulate students' entrepreneurial willingness, cultivate their entrepreneurial abilities, and also promote their overall quality improvement.

2. How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

I believe that schools are one of the main battlefields for entrepreneurship education and also play a very important role in promoting entrepreneurship education. For example, providing entrepreneurship courses, conducting entrepreneurship expert lectures, organizing entrepreneurship competitions, and providing entrepreneurship guidance and resources all promote the influence of entrepreneurial ideas among students to varying degrees, and also promote the improvement of students' entrepreneurial awareness and ability.

3. What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

I have started entrepreneurship lectures and led students to participate in entrepreneurship competitions. In terms of responsibilities, I take it upon myself to improve students' creative abilities and entrepreneurial awareness, and I am also doing my best to cultivate their entrepreneurial thinking, encouraging them to think about different entrepreneurial opportunities and solutions.

4. How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Entrepreneurship education courses and activities provide students with theoretical guidance and practical opportunities, and also focus on cultivating their

innovative thinking and creativity, helping them better prepare and meet entrepreneurial challenges.

5. In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

The resource support provided by the school serves as a bridge and booster in entrepreneurship education, helping students transform entrepreneurial concepts into practical actions, reduce entrepreneurial risks, and provide a more stable foundation for their entrepreneurial journey.

6. What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The school's entrepreneurship education system and policies provide students with a comprehensive entrepreneurial support system. This includes the construction of resources such as entrepreneurship curriculum, entrepreneurship practice projects, and entrepreneurship incubators. Through these systems and policies, students can access various knowledge, skills, and resources required for entrepreneurship, thereby better preparing and carrying out entrepreneurial activities.

7. According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

I believe that after the operation of the entrepreneurship education mechanism, it has not only stimulated the awareness of entrepreneurship among most students, but also promoted some students with entrepreneurial ideas to have the confidence and resources to try entrepreneurship after mastering entrepreneurial skills and methods.

8. In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

I believe that in current entrepreneurship education, overall planning and coordination should be carried out to ensure the coherence and systematicity of different courses and activities, so that students can also have a more systematic understanding and comprehension of entrepreneurship related knowledge. In addition, it is best to have a relatively complete evaluation system for the effectiveness of entrepreneurship education, in order to better identify the problems and shortcomings in the current operation of the entrepreneurship education mechanism.

### Interviewee 12

1.What is your understanding of the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

The operation mechanism of entrepreneurship education is a comprehensive entrepreneurship education system that includes entrepreneurship curriculum education, entrepreneurship practice guidance, entrepreneurship practice experience and competition, entrepreneurship resource support, and entrepreneurship environment creation. It aims to cultivate students' entrepreneurial awareness and ability, and through a series of practical and competition activities, understand the risks and opportunities of entrepreneurship, master certain entrepreneurial skills and the ability to control entrepreneurial risk awareness, So as to improve the participation of students in entrepreneurship and the success rate of entrepreneurship, ultimately achieving the creation of more employment opportunities for society, solving employment problems, and achieving the social problem of full employment for college students.

2.How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

The school strongly supports the promotion of entrepreneurship education and is also striving to improve the ecosystem of entrepreneurship education. Common types of entrepreneurship education, such as entrepreneurship competitions, entrepreneurship practice projects, and entrepreneurship mentor guidance, are provided by the school while providing platforms and resources. At the same time, the school provides students with relevant knowledge and skill guidance, allowing them to understand the concept and skills of entrepreneurship, understand the risks and opportunities of entrepreneurship during their participation and learning process, It also further cultivates students' entrepreneurial awareness and abilities.

3.What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

I have led entrepreneurial practice projects, guiding students to learn entrepreneurial knowledge and experience related to entrepreneurial cases during the process of participating in entrepreneurial practice projects, and developing reasonable business plans and implementation plans.

4.How do you think entrepreneurship education courses and activities affect students' entrepreneurial willingness and ability?

Entrepreneurship education courses and activities have a profound impact on students' entrepreneurial willingness and ability, which can stimulate their interest, cultivate entrepreneurial abilities in multiple aspects, and provide support for their future entrepreneurial journey.

5. In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

Schools can provide the necessary resources and financial support for entrepreneurship, helping students achieve the landing of entrepreneurial projects. This includes providing resources such as office space, equipment and facilities, technical support, and finding entrepreneurial funds and investment opportunities for students. By providing these resources and financial support, schools can reduce the risks and barriers for students to start businesses, encourage them to actively start businesses, and increase the chances of successful entrepreneurship.

6. What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The entrepreneurship education system and policies have stimulated students' entrepreneurial willingness and innovative thinking. They convey cases of successful entrepreneurs to students, cultivating their entrepreneurial interest and potential. At the same time, these systems and policies focus on cultivating students' innovative thinking and problem-solving abilities, enabling them to better respond to challenges and create business value.

7. According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

Entrepreneurship education is a comprehensive ability education, so in addition to the improvement of students' entrepreneurial awareness and ability, there has also been a significant improvement in their comprehensive abilities and literacy, which is a good foundation for future employment and entrepreneurship.

8. In your opinion, how to further improve the operation mechanism of entrepreneurship education? Please make your suggestion.

Entrepreneurship education is a comprehensive ability education, so in addition to the improvement of students' entrepreneurial awareness and ability, there has also been a significant improvement in their comprehensive abilities and literacy, which is a good foundation for future employment and entrepreneurship.



### Interviewee 13

1. What is your understanding of the operation mechanism of entrepreneurship education? Please describe the role and impact of this mechanism in promoting students' entrepreneurial willingness and ability.

In 2015, the State Council issued the Opinions on Several Policy Measures to Vigorously Promote Mass Entrepreneurship and Innovation, which clearly pointed out the development of entrepreneurial services and the construction of an entrepreneurial ecosystem. In terms of the operation mechanism of entrepreneurship education, it can be understood as a set of structurally reasonable and sustainable entrepreneurship education ecosystem constructed to cultivate the entrepreneurial awareness and ability of college students. In this system, students learn the concepts and methods of entrepreneurship, understand the risks and opportunities of entrepreneurship, and stimulate their innovative and entrepreneurial awareness on the entrepreneurial learning and practice platforms built by schools and society. This ensures that students have the ability to face some problems encountered during the entrepreneurial process, and even experience the real process of entrepreneurship through practice or competitions. Ultimately, cultivate high-quality college students with comprehensive entrepreneurial abilities for society.

2. How much do you think the school supports the promotion of entrepreneurship education? What is the impact on students' entrepreneurial willingness and ability?

In terms of support level, although there may be differences among different schools, it is generally increasingly valued and promoted. The school provides opportunities for students to participate in and practice entrepreneurship through organizing entrepreneurship competitions and offering entrepreneurship practice projects. At the same time, the guidance role of entrepreneurship mentors enables students to fully grasp the basic knowledge and skills of entrepreneurship in the practical process, enabling them to have the ability and confidence to participate in entrepreneurship.

3. What is your role and responsibility in entrepreneurship education? How does it help students' entrepreneurial willingness and ability development?

In the process of leading students to participate in entrepreneurship competitions, my responsibility is to guide them to objectively and clearly evaluate market demand and competitive environment, assist them in completing business plans, and assist them in conducting business risk assessments.

4. How do you think entrepreneurship education courses and activities affect

students' entrepreneurial willingness and ability?

Entrepreneurship education courses and activities introduce students to the opportunities and challenges of entrepreneurship, providing successful entrepreneurs with case studies and experience sharing. Through the teaching of these contents, students' understanding of entrepreneurship is expanded, thereby stimulating their entrepreneurial willingness. The practical projects in courses and activities also help students have a more direct exposure to the practical operations of entrepreneurship, enhancing their interest and enthusiasm for entrepreneurship.

5. In your opinion, what role does the resource support provided by the school for students' Entrepreneurship play in entrepreneurship education?

The resource support of schools plays a crucial role in entrepreneurship education. It provides students with entrepreneurial guidance and consultation, entrepreneurial courses and training, entrepreneurial resources and financial support, as well as entrepreneurial exchange platforms and network resources. These resource supports can reduce the risks of student entrepreneurship, enhance their entrepreneurial abilities, and provide more opportunities and platforms for student entrepreneurship.

6. What do you think is the positive impact of the school's entrepreneurship education system and policies on students' entrepreneurship?

The school's entrepreneurship education system and policies have a positive impact on student entrepreneurship. They provide students with comprehensive entrepreneurial support, stimulate entrepreneurial willingness and innovative thinking, provide resource support and entrepreneurial environment, cultivate entrepreneurial abilities and professional qualities, and also promote the connection between students and entrepreneurial resources and social networks. These impacts provide students with more opportunities and conditions for entrepreneurship, increasing their likelihood of successful entrepreneurship.

7. According to your comprehensive observation, after the operation of the entrepreneurship education mechanism, what changes have taken place in the performance of students' entrepreneurial willingness and ability?

Entrepreneurship education is a good educational model that not only stimulates students' entrepreneurial awareness and enhances their entrepreneurial ability, but also enables them to understand the working methods and approaches of the business society earlier, thereby improving their business vision and processing ability, promoting better employment and creating their own value.

8. In your opinion, how to further improve the operation mechanism of

entrepreneurship education? Please make your suggestion.

Improving the mechanism of entrepreneurship education can be considered from multiple aspects. From the perspective of schools, more entrepreneurial resources can be provided, including introductory entrepreneurship courses, experienced entrepreneurship mentors, entrepreneurship incubators, investment channels, etc., allowing students to have more opportunities to engage and participate in entrepreneurial practice. From the perspective of students, it is necessary to focus on cultivating their entrepreneurial ability and comprehensive literacy. Entrepreneurship involves knowledge and skills in multiple fields. While schools provide interdisciplinary entrepreneurship education, students should have a certain degree of self-learning ability and actively learn entrepreneurial related knowledge. From a market perspective, the demand in the commercial market is changing rapidly, competition is fierce, and market resources are also unequal. In guiding students to start their own businesses, schools should objectively and correctly view the market environment, and dialectically analyze successful and failed cases of entrepreneurship.

## Appendix G

The Document for Acceptance Research



มหาวิทยาลัยมหจุฬาลงกรณราชวิทยาลัย  
วิทยาเขตนครศรีธรรมราช  
๓/๓ ม.๕ ต.มะม่วงสองต้น อ.เมือง จ.นครศรีธรรมราช ๘๐๐๐๐  
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๕ กุมภาพันธ์ ๒๕๖๗

เรื่อง รับรองการลงบทความวิจัยเพื่อตีพิมพ์ในวารสารมหาจุฬานาครทรรณ

เรียน นายตู้ ไท่

ตามที่ นายตู้ ไท่และ รศ.ดร.นิรันดร์ สุธีนิรันดร์, ผศ.ดร.กุลสิรินทร์ อภิรัตน์วรเดช, ผศ.ดร.พัชรา เดชโฮม และรศ.ดร.จิตติวิสุทธิ วิมุติปัญญา ได้ส่งบทความวิจัยเรื่อง “แนวทางการพัฒนาผลโภการดำเนินงานการศึกษาผู้ประกอบการในมหาวิทยาลัยกฤษฎาง” เพื่อพิจารณาตีพิมพ์ในวารสารมหาจุฬานาครทรรณ มหาวิทยาลัยมหจุฬาลงกรณราชวิทยาลัย วิทยาเขตนครศรีธรรมราช ซึ่งได้รับการคัดเลือกเข้าสู่ฐานข้อมูลของศูนย์ดัชนีการอ้างอิงวารสารไทย (ศูนย์ TCI) ได้ถูกจัดกลุ่มคุณภาพวารสารประจำปี พ.ศ.๒๕๖๒ ให้เป็น วารสารที่มีคุณภาพกลุ่มที่ ๒ (TCI ฐาน ๒) และอยู่ในฐานข้อมูล TCI จนถึง ๓๑ ธันวาคม ๒๕๖๗ โดยจะดำเนินการจัดพิมพ์ในฉบับต่อไปตามระยะเวลาที่ได้กำหนดไว้ และวารสารมหาจุฬานาครทรรณได้รับบทความวิจัยของท่านเป็นที่เรียบร้อยแล้ว

ในการนี้ วารสารมหาจุฬานาครทรรณ มหาวิทยาลัยมหจุฬาลงกรณราชวิทยาลัย วิทยาเขตนครศรีธรรมราช ขอรับรองว่าบทความของท่านได้ผ่านตอบรับเพื่อพิจารณาบทความตีพิมพ์เผยแพร่ในปีที่ ๑๑ ฉบับที่ ๓ (มีนาคม ๒๕๖๗) นี้ ซึ่งภายหลังจากนี้บทความจะผ่านการตรวจสอบความถูกต้องทางวิชาการ โดยกองบรรณาธิการวารสารฯ และผู้ทรงคุณวุฒิต่อไป

จึงเรียนมาเพื่อโปรดทราบและดำเนินการต่อไป

เรียนมาด้วยความเคารพ

(นางสาวปญญาดา จงละเอียด)

บรรณาธิการวารสารมหาจุฬานาครทรรณ

มหาวิทยาลัยมหจุฬาลงกรณราชวิทยาลัย วิทยาเขตนครศรีธรรมราช

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