

Research on The Integration Path of Innovation and Entrepreneurship Education and Tourism Education Under The Background of Professional Certification -- From The Perspective of Synergy Theory

Chen Jinhua, Wang Danfen, Yang Mengyuan, and Yile Dong*

College of Tourism, Huaqiao University, Quanzhou, China 36202

dyl3324158@126.com

*Corresponding author

Keywords: synergy theory, innovation and entrepreneurship education, professional education, integration path

Abstract: The quality certification of tourism education of the world tourism organization focuses on the quality assurance requirements of tourism education programs in the aspects of educational purposes, educational concepts, teaching methods and school-enterprise cooperation. It emphasizes the applicability of professional theories in practical operation and the cultivation of innovative and entrepreneurial consciousness, practical ability and quality of tourism talents. The integration of innovation entrepreneurship education and professional tourism education meets the objective requirement of professional certification. This paper starts with synergy theory, and takes questionnaire and interview as the main research methods. Taking the key tourism school “L college” which is in China’s South-East coastal areas as an example, this paper analyzes the current situation of the integration of innovation and entrepreneurship education and tourism professional education from the three dimensions of platform and resources integration, guidance and system integration, and form and culture integration, and analyzes the existing problems, aiming to explore the optimization path of the integration of the two development to provide quality assurance for the training of high-quality and application-oriented tourism talents.

1. Introduction

The international professional certification system is a kind of international education quality assurance system, which reflects the general trend of international higher education, that is, the requirements for the internationalization and standardization of education and teaching are getting higher and higher. In the field of tourism professional education, UNWTO TedQual Certification is an international authoritative certification system for tourism education quality. It consists of five modules: enterprise employer, students, teaching system, faculty and staff and management. It emphasizes that the core of assessment is students’ learning achievements [1]. This system provides a set of quality standards that can be used for reference for the world tourism education and training. Meanwhile, it establishes a platform for tourism education and training institutions of various countries to share resources and interaction.

Under the background of professional certification, students are required to pay equal attention to theoretical knowledge and practical skills, and take the path of diversified development. This idea coincides with the requirement of cultivating all-round talents in higher education. Nowadays, innovation and entrepreneurship education has been discussed at a high level. From the central government to the local government, “innovation and entrepreneurship education” is regarded as the cornerstone of future development. Additionally, traditional tourism enterprises explore new markets and new models actively, and the tourism industry shows a new trend of combination of growth rate and business innovation. With the upgrading of the status of the tourism industry, the tourism industry has received great attention [2]. The state council and the ministry of education of China have issued a series of supporting and promoting policy documents, requiring universities to take improving education quality as the starting point and goal of innovation and entrepreneurship

education reform. However, the disconnection between innovation and entrepreneurship education in universities and professional education is still a big problem.

In short, tourism enterprises need application-oriented talents, who not only have rich professional knowledge as theoretical support, but also have communication and coordination ability, teamwork ability and so on. According to previous studies, these abilities can be acquired through the integration of innovation and entrepreneurship education and professional education, but the research on the integration mode and mechanism is not deep enough. Based on the results of the questionnaire survey, this study believes that the integration of platform and resources, guidance and system, and form and culture can cultivate students' innovation and entrepreneurship ability comprehensively.

2. Research Design

With questionnaire survey as the main research method, 544 students majoring in tourism from 2014 to 2017 in L college, a key tourism college in southeast coastal area, were selected as the survey samples. A total of 544 questionnaires were collected and 544 valid questionnaires were completed online. Among the valid questionnaires, 110 are graduate questionnaires, accounting for 20.22%, and 434 are college students, accounting for 79.78%. After testing by SPSS data analysis software, the reliability and validity of the questionnaire are good, which can be used as the data basis for theoretical analysis. Ling jing, associate researcher of JinHua vocational and technical college, mentioned several influencing dimensions in how to integrate innovation and entrepreneurship education and professional education. Finally, this research focused on three dimensions: platform and resource integration, guidance and system integration, and form and culture integration.

3. Overview of Synergy Theory

3.1. Basic Principles of Synergy Theory

Synergy theory, also known as “synergy” or “concord”, is an emerging discipline that has been formed and developed gradually on the basis of multi-disciplinary research since 1970, and is also a major branch theory of system science [3]. Synergy theory mainly refers to that two or more subsystems interact and influence each other to form a complete system, which presents a self-organizing state inside. This state makes the whole system displays a specific structure and function. The operation of synergy theory includes three basic principles. Synergy effect is the driving force for the formation of system order structure, servo principle supervises the formation of the whole process, and finally the result of the operation of synergy theory is realized by self-organization principle.

3.2. Application of Synergy Theory in The Integration of Innovation and Entrepreneurship and Professional Education

On the one hand, synergy theory focuses on the complex and open whole composed of multiple subsystems and focuses on the study of the whole and parts. Innovation and entrepreneurship education in the context of college education involves a wide range, which not only includes the simple integration of innovation and entrepreneurship education and tourism professional education, but also the in-depth study of the role of related subjects, available resources and platforms, etc. The more reasonable the coordination among various subsystems, the better the integration effect will be. Therefore, the application of synergy theory and the research on the integration path of innovation and entrepreneurship education and professional education are highly compatible.

On the other hand, according to the synergy theory, platform and resources are integrated, guidance and system are integrated, and form and culture are integrated in the integration system of innovation and entrepreneurship education and professional education. When these three elements operate in an orderly structure and tend to be stable, the integration efficiency can be improved. The state advocates innovation and entrepreneurship education in colleges must implement the “insist on

collaborative promotion, converge and cultivate join forces” put forward in “opinions on deepening innovation and entrepreneurship education reform in colleges” in 2015, which further reflects that the guiding role of synergy theory in educational integration practice is recognized [4].

4. The Integration of Innovation and Entrepreneurship Education and Professional Education in L College

After years of construction and development, L college has established a series of hardware and software facilities that are conducive to the integration of innovation and entrepreneurship education and professional education. First of all, on the construction of teaching staff, L college attaches great importance to the on the investigation and cultivation to the teachers' practical ability. The teachers in L college have completed more than 20 national research projects and international cooperation projects at all levels, and have undertaken more than 30 tourism development plans inside and outside the province. Professional teachers are familiar with the needs of the tourism industry and have strong professional practice ability; Secondly, in connection with the enterprises inside and outside the university, L college has the KeNong theme experiment restaurant, guest room laboratory and more than 20 high-star hotels and off-campus students' designated internship and practice bases in tourist scenic spots, as well as a number of closely connected enterprises and colleges at home and abroad. The above two aspects reflect that L college has a strong teaching team and a rich practice platform inside and outside the school. In addition, L college creates an atmosphere of innovation and entrepreneurship actively, and encourages students to participate in various innovation and entrepreneurship competitions such as college students' scientific and technological innovation and entrepreneurship practice competition, Internet + and other innovation and entrepreneurship competitions, and carries out annual competitions involving professional skills, such as tourism skills practice competition, so as to give full play to students' professional abilities.

According to the five requirements of the tourism education quality certification of the world tourism organization, L college has a relatively large investment in students and management, and the curriculum and teaching system, teachers and business employers still need to be improved. Under the background of professional certification, in order to better understand the current situation of the integration of innovation and entrepreneurship education and professional education in tourism college, we conducted relevant investigation and research by sending out questionnaires to students in the college. In the overall satisfaction survey of college's innovation and entrepreneurship education and professional education, 42.46% of the students are satisfied with attitude, 42.46% of the students hold a neutral attitude, 15.08% of students have significant dissatisfied attitude, and more than half of the students did not have a favorable view of college related education teaching work. This shows that the innovation and entrepreneurship work organized by the college still has considerable room for improvement. Although there are many ways and means, the effectiveness needs to be improved. Through the analysis, classification and reorganization of effective questionnaires, the current problems faced by L college in the integration of innovation and entrepreneurship education and professional education are summarized into the following three points.

4.1. The Dimension of Platform and Resource Integration: Lack of Perfect Platform for Resource Docking, Showing The Phenomenon of Resource Waste

First of all, in the survey of platform and resource integration (Table 1 and Table 2), 36.77 percent of hospital students are great satisfied and fairly satisfied with the curriculum. They generally agree that the curriculum is single, with a satisfaction rating of 39.34 percent, and nearly 60 percent of college students are not satisfied with the investigation of college in various resources in the construction of innovation and entrepreneurship education platform. All these indicate that there are still many deficiencies in the resource allocation and platform construction of the college.

Secondly, under the teaching environment of the college, students' initial contact with innovation and entrepreneurship projects mostly needs the guidance of teachers, so it is particularly important for teachers to have the ability to combine innovation and entrepreneurship knowledge with

professional theories. Many college students' innovation and entrepreneurship practice projects lack the guidance and attention of comprehensive and practical teachers, and the results are not satisfactory. In terms of government policy resources, capital resources and enterprise cooperation resources, there is no mechanism that can coordinate the operation of all parties, and it is difficult to achieve the linkage among the government, universities and enterprises. There is a lack of seamless connection with college education, and a lack of accurate judgment on the demand for talents in the job market [5]. The disciplinary advantages and scientific research achievements of professional teachers, the active innovative thinking and entrepreneurial ability of young college students, and the practical experience and technological guidance of social enterprises are relatively weak in the process of innovation and entrepreneurship education in colleges, and the teaching mode needs to be innovated, and various resources need to be integrated, coordinated and developed.

Table 1 The satisfaction statistics in curriculum setting of college's innovation and entrepreneurship education.

How satisfied are you with the curriculum setting of innovation and entrepreneurship education?		
	Frequency	Percentage
Great satisfaction	51	9.38%
Relative satisfaction	149	27.39%
General	237	43.57%
Less satisfaction	89	16.36%
Very dissatisfaction	18	3.31%
Total	544	100%

Table 2 The satisfaction statistics in teaching content of college's innovation and entrepreneurship education.

How satisfied are you with the teaching content of innovation and entrepreneurship education?		
	Frequency	Percentage
Great satisfaction	58	10.66%
Relative satisfaction	156	28.68%
General	241	44.3%
Less satisfaction	74	13.6%
Very dissatisfaction	15	2.76%
Total	544	100%

4.2. The Dimension of Guidance and System Integration: College Lacks of Special System, and The Guidance for Students' Innovation and Entrepreneurship is Insufficient

L college has taken many measures to integrate innovation and entrepreneurship education with professional education, but there is still a lack of innovation in the guidance and system construction of innovation and entrepreneurship. Like most ordinary tourism colleges, L college offers relevant professional courses and elective courses every year. However, students are not in good condition in class and attach more importance to the course assessment rather than the class itself. In terms of academic system, graduates in L college must get 2 credits for innovation or practice, which cannot be replaced at will. Although some students are promoted to participate in innovation and entrepreneurship activities, the vast majority of students just cope with it at will for credits. If there is no sufficient guidance and perfect system as a push, then the integration of innovation and entrepreneurship in college and professional education is extremely unfavorable.

In the analysis of the questionnaire results, 47.61% of the students in the school are satisfied with the measures to strengthen the professional education of students with strong innovation and entrepreneurship ability, and 48.16% are satisfied with the incentive measures for individual or collective with outstanding innovation and entrepreneurship performance. Specifically guiding and

enriching the reward system are also effective ways to encourage innovation and entrepreneurship. If L college can put forward more targeted measures in these aspects, it will better improve the teaching quality.

Table 3 The satisfaction statistics in incentive method for individual or collective with outstanding innovation and entrepreneurship performance.

How satisfied are you with the incentive method for individual or collective with outstanding innovation and entrepreneurship performance?		
	Frequency	Percentage
Great satisfaction	61	11.21%
Relative satisfaction	201	36.95%
General	217	39.89%
Less satisfaction	52	9.56%
Very dissatisfaction	13	2.39%
Total	544	100%

4.3. The Dimension of Form and Culture Integration: The Atmosphere of Innovation and Entrepreneurship in The College is Not Strong, and Students do Not Pay Enough Attention to It

Form and culture play a guiding role in the integration of innovation and entrepreneurship education and professional education, which can connect the two invisibly and achieve the goal of perfect integration. But from the point of innovative entrepreneurial organization, the percentage of students who are satisfied with organization form of innovation and entrepreneurship education of college is only 41.54%, and 46.88% of students believe that college does not provide a motivating creative atmosphere, and 68.2% of students do not understand the teaching staff in innovative and entrepreneurship of college and their professional direction, and 40% of students think that participating in innovation and entrepreneurship practice is not of great use to themselves. These figures reflect the deficiencies of college education, namely the lack of atmosphere creation, which leads to the insufficient understanding and attention of students on the integration of innovation and entrepreneurship and majors.

5. The Integration Path of Innovation and Entrepreneurship Education and Professional Education

Professional certification has become a general trend. Under this background, only by strengthening the integration of education can colleges meet the market demand. Through the analysis and research of the questionnaires, we find that L college has done a lot of work and created many favorable conditions in the integration of innovation and entrepreneurship education and professional education. However, due to the late introduction of relevant research in China and the lack of universal and scientific methods for reference, there is still considerable room for progress in path exploration. Based on the field investigation and questionnaire survey of L college, we summarize its deficiencies in the integration of innovation and entrepreneurship education and professional education into the following three aspects: the disharmony between resources and platforms; Lack of guidance and system; The deficiency of shape and culture shaping. In view of the above three points, this paper takes the integration of innovation and entrepreneurship education and professional education in L college as an example to propose three measures.

5.1. The Dimension of Platform and Resource Integration: Building Practice Bases for Innovation and Entrepreneurship and Coordinating The Matching of Various Resources and Platforms

The main purpose of the certification of tourism education quality proposed by the world tourism organization is to cultivate high-quality talents needed by the industry, and the diversified development of talents needs the help of diversified platforms and resources. A broad platform is

the basic stage for teachers and students to practice innovation and entrepreneurship. L college should build a platform actively which is conducive to the integration of innovation and entrepreneurship education into professional education, and conduct reasonable resource allocation [6]. The efficient and scientific resources and coordinated construction of platforms are the premise of the integration of innovation and entrepreneurship with majors, and the rational use of resources can provide more possibilities for students' professional innovation.

First of all, we should fully integrate the resources in the school, and pay attention to the training and investigation of the teacher team, and introducing the entrepreneurial and innovative teacher team with comprehensive ability is a necessary means. At the same time, it should not be limited to professional teachers in the school, but introduce advanced innovation and entrepreneurship teams or individuals from outside the school to teach. We should advocate going out, and overcome the armchair strategist, and guide students to go out to practice and observe and learn personally, which can stimulate students' interest in innovation and entrepreneurship and cultivate innovation and entrepreneurship ability.

Secondly, we should adopt adaptive measures based on our environment. In the era of big data, we should not ignore the role of the Internet in the reconstruction of tourism industry. In addition to establishing cooperation with traditional tourism enterprises such as travel agencies, scenic spots and hotels, tourism colleges should fully explore and expand cooperation with emerging tourism enterprises. For example, we have established cooperation mechanisms with OTA, smart tourism, AR and other enterprises, providing training and internship opportunities for students, and established mutually beneficial cooperation platforms among schools, enterprises and students [7].

Finally, the implementation of any measures cannot be separated from the guidance and support of governments at all levels. We should strive for the preferential government policies and funds. Tourism college should contact with the government to establish cooperation mechanism between campus and government, so as to lay a foundation and provide guarantee for further innovation and entrepreneurship development, and at the same time, supply innovation and entrepreneurship talents for the government.

5.2. The Dimension of Guidance and System Integration: Improving The Existing System and Coordinating The Contradiction between Guidance and System

As previously mentioned, the core of certification of tourism education quality proposed by the world tourism organization is the students' ability and quality, which focuses on the examination of students' learning outcomes. It promotes the change of teaching concept to some extent, and can avoid the disadvantages of traditional teaching design, which lets the students not only focus on how to get good grades, but think about how to really use it.

The same point with other colleges is that there are some differences between innovation and entrepreneurship education and professional education in college L. In terms of course offering, there are few innovation and entrepreneurship courses, and the lack of connection between disciplines makes it difficult for students to master what they have learned and apply it to practice. Aimed at this problem, , the college can adopt the method of credit accumulation or conversion to identify and transfer outstanding achievements of students in science and technology competitions in terms of course management and credit acquisition of students, so that the credits of innovation and entrepreneurship achievements of students can be replaced by the credits of general elective courses, professional courses, second class and other courses, which can stimulate students to participate in innovation and entrepreneurship activities in professional learning [8]. At the same time, there should be more lectures on the integration of innovation and entrepreneurship and specialty, and relevant courses should be set up reasonably, and emphasis should be laid on the cultivation of students' innovation and entrepreneurship ability, so as to provide more opportunities for students to practice.

In addition, L college can carry out cooperation with provincial education department, tourism bureau and other parties. On the basis of active negotiations with relevant units within the school, L college can work out various systems and measures for the integrated development of innovation

and entrepreneurship education and specialty. At the same time, it should cooperate with enterprises actively to identify their talent needs, and make overall planning with the academic affairs office of the university to formulate training programs for innovative and entrepreneurial talents, and define training standards for talents, and compile appropriate teaching materials for innovation and entrepreneurship [9]. Moreover, more comprehensive entrepreneurship practices should be organized to promote the establishment of innovation and entrepreneurship plan system for college students of different levels and systems.

Finally, efforts should also be made to establish an innovation and entrepreneurship evaluation mechanism. The construction, perfection and development of innovation and entrepreneurship education in any university need scientific evaluation of innovation and entrepreneurship. Scientific and reasonable evaluation is the ruler of the integration of innovation and entrepreneurship and professional education in colleges, promoting the improvement of innovation and entrepreneurship in colleges. This assessment is based on the qualitative and quantitative judgment and measurement of the integration of innovation and entrepreneurship education and professional education. It can understand the actual progress to provide a strong basis for further improvement. In addition, innovation and entrepreneurship assessment can also stimulate teachers' innovation and entrepreneurship work and students' innovation and entrepreneurship practice, and promote the promotion and implementation of innovation and entrepreneurship education.

5.3. The Dimension of Form and Culture Integration: Create a Cultural Environment for Innovation and Entrepreneurship, and Coordinate Innovation and Entrepreneurship Culture and Various Organizational Forms

To create a cultural environment for innovation and entrepreneurship, the first step is to integrate organizational form, teaching form, system form, space layout form and innovation education culture into typical cases of talent cultivation [10], creating an atmosphere of “mass entrepreneurship and innovation”. Pay attention to the first lesson of new students' entrance, and try to make every new student pay attention to the observance and standard of the system. Guide students to form good habits and shape healthy mental outlook, and train students to form a self-conscious standard in professional learning and innovation and entrepreneurship activities.

Secondly, we should integrate innovation and entrepreneurship education into the curriculum system of professional education, and integrate innovative thinking and innovative ideas into the teaching design and graduation design of professional education. In the actual classroom teaching, professional teachers should pay attention to the complementary integration of professional knowledge and practice with entrepreneurial knowledge and practice. Tourism, management, anthropology, sociology, economics and other knowledge systems should be included in the compulsory and elective courses for tourism management majors, and professional practice, entrepreneurial practice and social research should be taken as necessary supplements to improve the evaluation mechanism. A curriculum system covering the application of basic knowledge of entrepreneurship and specialty, theoretical improvement, practical exercise, scientific guidance and project innovation will be formed. At the same time, we will introduce all kinds of resources inside and outside the university into professional guidance, professional teaching, professional practice, entrepreneurship practice, social research and service to optimize the personnel training mode of “school, government and enterprise” multi-linkage [11]. and strengthen the all-round interaction between professional teachers, young college students and social resources, and learn more about the innovative development of the social economy and the tourism market. What's more, the course system of innovation and entrepreneurship education with interaction between professional teachers, business elites in the tourism industry and young college students and the integrated education and teaching mode of “production, teaching, research, learning and application” should be discussed.

At present, the development of China's tourism education has entered a “quality revolution” period. The quality certification of tourism education of the world tourism organization focuses on the quality assurance requirements of tourism education programs in the aspects of educational purposes, educational concepts, teaching methods and school-enterprise cooperation. It emphasizes

the applicability of professional theories in practical operation and the cultivation of innovative and entrepreneurial consciousness, practical ability and quality of tourism talents. The integration of innovation entrepreneurship education and professional tourism education meets the objective requirement of professional certification. This paper starts with synergy theory, and takes questionnaire and interview as the main research methods. Taking the key tourism school “L college” which is in China’s South-East coastal areas as an example, this paper analyzes the current situation of the integration of innovation and entrepreneurship education and tourism professional education from the three dimensions of platform and resources integration, guidance and system integration, and form and culture integration, and analyzes the existing problems, aiming to explore the optimization path of the integration of the two development to provide quality assurance for the training of high-quality and application-oriented tourism talents.

Acknowledgement

This paper is a phased achievement of research project on education and teaching reform “Research on the integration and reform of innovation and entrepreneurship education and tourism education under the background of professional certification” in university in Fujian Province in 2019 and project on innovation and entrepreneurship education reform “Research on the integration reform of innovation and entrepreneurship education and tourism major under the background of professional certification” and Tourism information service and outsourcing talent training base project initiated by Huaqiao University in 2018.

References

- [1] Ning bin. (2017) With professional certification as the starting point to promote the construction of “double first-class”. Chinese Higher Education, 3.
- [2] Chen Hongxin. (2015) Research on entrepreneurship education mode of college students from the perspective of cooperation and collaboration theory. Innovation and Entrepreneurship Education, 8, 86-89.
- [3] Liu Baiping, Ren ping, Tang ling, Chen Pingping. (2016) Research on the training mode of “professional-entrepreneurial” tourists under the background of “entrepreneurship and innovation”. Modern Business Trade Industry, 19, 177-178.
- [4] Li Xiaojuan. (2017) The Research and Practice on the Dimensional Practical Teaching System for the Major of Tourism Management based on the Training of Innovation and Entrepreneurship. Journal of Hubei Correspondence University, 1.
- [5] Fan Yaming. (2016) Exploration on practical teaching system reform of tourism management major in local colleges under the background of “entrepreneurship and innovation”. Journal of Green Science and Technology, 23, 149-150.
- [6] Song Caiping, Lin Jiangyong, Jiang biao. (2014) International professional education certification and the strategic choice of colleges. Shanghai Education Evaluation Research, 12, 20-23.
- [7] Zhen yan, Su Weiling. (2017) Research on curriculum system construction of innovation and entrepreneurship education for tourism management major. Foreign Trade, 1, 195-197.
- [8] Ding Yumei. (2017) Exploration and analysis of innovation and entrepreneurship course system reform for tourism management majors. Journal of Higher Education, 2.
- [9] Zhou xu. (2017) Research on the deep integration of innovation and entrepreneurship education and tourism management professional education. Tourism Overview (second half), 11, 222-223.
- [10] Sun Qingzhong, Huang Fangfang. (2014) Exploration and analysis on the construction of the optimal allocation mechanism of collaborative innovation center resources in colleges and

universities. Higher Education Exploration, 5, 26-29.

[11] Geng Junmao. (2015) Research on college students' employment education practice from the perspective of collaborative theory. Social Scientist, 8, 118-121.