

Research on Cooperative Innovative Talents Training Mechanism of Economic and Management Specialty in Private Colleges from the Perspective of Symbiosis Theory

Lijuan Zhang and Zhenjie Liao

Huashang College, Guangdong University of Finance & Economics
Guangzhou, Guangdong, Peoples R China

281746568@qq.com

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Abstract. Promoting synergistic innovation in an all-round way has become an important way and means for private colleges to improve the quality of personnel training. Aiming at the problems existing in the current talent training mode, this paper establishes a cooperative innovation mode framework for the training of innovative talents in the field of economics and management in private colleges through demand analysis, actively constructs a new mode for the training of innovative talents in such fields as school integration, school-enterprise cooperation, School-School alliance, serving local and International exchanges, and continuously improves the teaching level and personnel training of the specialty of economics and management in private colleges.

Introduction

In recent years, private colleges have developed rapidly, thanks to the application-oriented personnel training mode under the market operation and the flexible school-running mode with its own characteristics. This "application-oriented" talent training model has gradually become a magic weapon for the success of private colleges and the goal of unremitting pursuit. However, with the increasingly fierce competition in Colleges and universities, the personnel training mode of private colleges in the new situation also needs to be innovated to meet the needs of development in the new environment and the challenges of competitors. Based on the analysis of the current situation and existing problems of the cooperative innovation development of economic and management specialty in private colleges, this paper explores the personnel training mode of private colleges under the new situation, and considers that the personnel training mode of economic and management specialty in private colleges needs systematic coordination and overall reform.

Connotation of Collaborative Innovation and Its Relation with the Reform of Economic and Management Professional Training in Private Institutions

Collaborative Innovation and Symbiosis Theory. Collaborative Innovation was first defined by Peter Gloor, a researcher at MIT Sloan's S Center for Collective Intelligence, as "a network group of self-motivated people forms a collective vision and collaborates to achieve common goals through the exchange of ideas, information and working conditions on the Internet[1]." Similarly, the collaborative innovation of universities can refer to the collaborative innovation within universities, that is, the collaboration among various elements within universities and various innovations and explorations carried out; it can also refer to the collaborative innovation outside universities, that is, the collaborative innovation between universities and governments, enterprises and scientific research institutes outside universities.

Symbiosis refers to the relationship between the main bodies of each unit in accordance with a certain mode under certain conditions, forming interrelated, coexistence and co-evolution. Its constituent elements include symbiotic units, symbiotic modes and symbiotic environment[2]. Symbiotic units refer to the basic energy production and exchange units that constitute symbiotic clusters or symbiotic relationships, and are the basic material conditions for the formation of

symbiotics; symbiotic modes refer to the way in which symbiotic units interact or cooperate with each other; and symbiotic environment refers to the internal or external conditions for the existence and development of symbiotic relationships, i.e., symbiotic models. Any symbiotic relationship is the result of interaction and mutual promotion of the three elements. Horizontal and vertical integration of knowledge and technology within an organization is the root of coordinated innovation, and the organizational network among elements will affect the interaction and complementary effect of innovation[3].

The Relationship between the Concept of Synergistic Innovation and the Reform of the Training Mode of Economic and Management Professionals in Private Colleges. The concept of collaborative innovation includes two aspects: collaboration and innovation. In 1971, Hermann Haken, a German physicist, first put forward the concept of "synergy" in system theory, which refers to the collective action and synergy of the coordination, cooperation, coordination or synchronization of various subsystems in the system[4]. As a result, the synergy effect of $1+1>2$ is produced[5]. At the present stage, in order to achieve the goal of cultivating "high-quality applied talents with solid foundation, strong ability, innovative and entrepreneurial consciousness and international vision" in private colleges, it is also necessary to actively construct the operational mechanism and organizational system in line with the training of applied talents to ensure its implementation. Therefore, the reform and innovation of personnel training mode for economic and management majors in private colleges is not an isolated reform problem, but a process of joint cooperation and Collaborative Innovation led by Application-oriented Undergraduate Universities and jointly participated by relevant industry enterprises, scientific research institutes, other universities and government departments.

Model Construction of Co-existing and Innovative Talents Training System for Economic and Management Majors in Private Colleges

On the basis of learning and drawing lessons from the training mode and experience of innovative talents at home and abroad, this paper analyses the current situation of economic and social development, and puts forward new ideas and new ideas of innovative applied talents training mode for economic and management majors in private colleges, so as to meet the actual needs of social and economic development in the Pearl River Delta region(Figure 1).By integrating the concepts of collaborative innovation, we can break the current situation and pattern of classified training of "specialization" in economic and management disciplines, strive to build a new mode and mechanism of personnel training under the guidance of "the concept of compound talents training of business disciplines", and highlight "employment-oriented, application-oriented and innovation-oriented".

Collaborative Innovation System in School. Collaborative innovation has the characteristics of comprehensiveness and systematicness, and involves the mutual restriction, interference or coordination and interaction between different systems. Therefore, it also has the characteristics of complexity, cooperation, synergy and interaction. Unlike other institutions, collaborative innovation in Colleges and universities places more emphasis on the main role and advantages of colleges and universities, or carries out collaborative innovation based on the functions and objectives of colleges and universities, and constantly strengthens the consciousness of university's subjectivity and participation in collaborative innovation, giving full play to the roles of participation, guidance and control. Therefore, in essence, collaborative innovation in Colleges and universities is also important. Management innovation is needed[6].

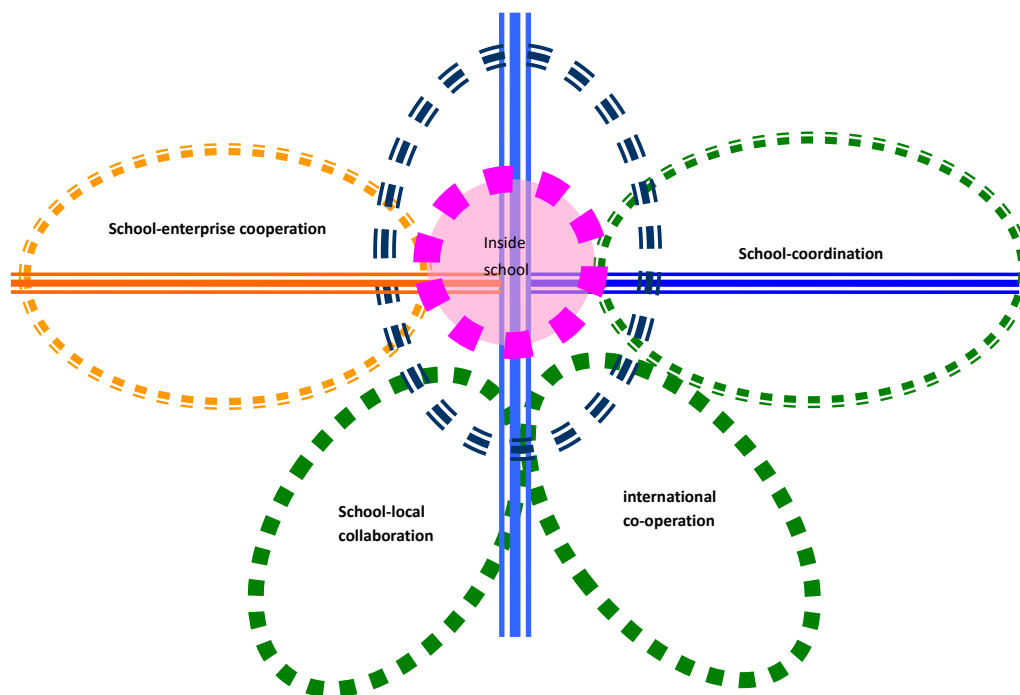


Figure. 1 Symbiotic Training System for Cooperative Innovative Talents of Economics and Management Specialty in Private Colleges

with the deepening and rapid development of market economy, today's economic and social demand for the diversity and diversity of talent has gradually increased, and the traditional talent training model has been unable to meet the current requirements. Therefore, the specialty, direction and curriculum of economic management in private colleges should get rid of and overcome the restrictions and restrictions of the traditional mechanism and mode of personnel training in the field of "economy", and focus on "big market", "big management" and "big circulation". Through the effective integration and innovation of the knowledge of economic management discipline, all kinds of organizations can develop rapidly in the market economy. Enterprises, especially for SMEs[7]. At the same time, efforts should be made to strengthen the study of teaching contents and methods, and to achieve "three combinations" in the teaching process and management, namely, combining theory with practice, emphasizing the application of knowledge; combining the cultivation of generality with the development of personality, emphasizing the cultivation of personality; combining inheritance with innovation, emphasizing the innovation of knowledge[8].

The curriculum system is the core of the talent training mode. The innovation of the curriculum system of economics and management specialty in private colleges can be decomposed and refined according to the knowledge, ability and basic quality that the professionals of various posts (groups) should possess. The talent training scheme and teaching system can be designed according to the required knowledge, ability and quality, and constructed and perfected in accordance with the principles of practice, practice and practicality. "Platform + module + direction type curriculum system and training mode. Establish the practice of "one main line (to cultivate students' practical ability and innovation spirit as the main line), two platforms (supported by the first and second classroom platforms), three levels (around the basic, practical and innovative three levels of practical teaching), four modules (forming four teaching modules of experimental practice, skills and competitions, thesis design and social practice)" Practice teaching system.

Collaborative Innovation System between School and Enterprise. Foreign school-enterprise cooperative education originated from Sundland Technical College in 1903. Later, this Half-work and half-study mode of education has gradually been widely promoted and applied. The forms and contents of cooperation have also been enriched and deepened, and the scope has gradually expanded to major European and American countries. Among them, CDIO project education

concept is a teaching concept initiated by European and American universities in the early 21st century. The meaning of CDIO is C (Conceive) concept, D (Design), I (Implement) implementation and O (Operate) operation, aiming at cultivating innovative application talents with high quality and ability. In recent years, Chinese universities have also carried out a series of collaborative innovation activities, and achieved certain construction results. According to the different leading position and responsibilities of schools and enterprises in school-enterprise cooperation, they can be divided into three modes: enterprise cooperation, school-enterprise joint training and school-enterprise entity cooperation[9].

The major of economics and management is a typical cross-disciplinary and applied one, which has strong practicality. It requires students not only to master solid basic theory and broad professional knowledge, but also to have the ability to solve practical problems. Practical teaching links can not be replaced and compared with classroom teaching in terms of cultivating students'ability to solve practical problems and innovate. Schools and enterprises can adopt a win-win and mutually beneficial model to build practice and training bases. On the one hand, we can use winter and summer vacation or combine professional practice and graduation thesis (design) to train students'practical ability, and through entering the practice unit in advance to participate in social practice, we can experience the project in the real practice environment. On the other hand, we can train order-oriented talents for enterprises, invite enterprise experts to lecture in schools and offer corresponding courses and common guidance. Students'graduation thesis (design), school-enterprise cooperation projects and other ways, so that students in the enterprise practice training base get real knife and gun training and experience accumulation. For example, in the process of construction of the practice base, the school should formulate and sign a joint construction agreement with the enterprise. Both sides of the school and the enterprise should invest human, material and financial resources to provide high-quality teaching services and scientific research resources for the practice base. The practice base under this system has been successfully applied and developed in Changlong Practice Teaching Base Group of Economics and Management Specialty of HuaBusiness College of Guangdong University of Finance and Economics. Through seven years'operation and practice, the practice base has broken the traditional construction mode and structure of the practice base for economics and management majors. By constructing two platforms of deep cooperation between schools and enterprises and school-enterprise cooperation, the practice ability of students has been exercised, the innovative thinking of students has been strengthened, and the difficulties and problems of students' inadaptability and difficulty in starting work have been solved. The land improves students'adaptability and employers' satisfaction.

Innovative practical teaching system is an important way and effective means to cultivate innovative talents. We should take the cultivation of practical ability and innovative ability as the main line, and gradually cultivate and improve students'practical ability and comprehensive innovative ability according to the modularization of teaching content, hierarchy of ability cultivation and diversification of innovative ability[10].

Collaborative Innovation Model of Schools and Schools.The development experience of the international Bay area shows that high-level universities play an important role in supporting the economy of the Bay area. As a counterbid international Bay area, innovation will be the core competitiveness of Guangdong, Hong Kong and Macao to reach or even surpass other international Bay areas. Therefore, the Dawan District of Guangdong, Hong Kong and Macao has a coupling relationship with the "regional" higher education alliance. Because of the unbalanced development level and the different advantages of different majors among colleges and universities, cooperation and win-win situation can be achieved by strengthening cooperation and innovation among colleges and universities to train applied talents. Private colleges in Guangdong Province should cooperate in training professionals and colonels to realize complementary advantages and resource sharing. The training of economic and management professionals can strengthen the collaborative and innovative development of schools and colleges from the following aspects: First, strengthen the exchange and cooperation of training programs for applied talents of economic and management. Seminars on training programs for economic and management professionals in private colleges are held regularly.

Secondly, we should strengthen the development of common curriculum for teaching. Cross-school curriculum R&D team should be set up, and excellent teaching materials should be widely used in relevant colleges and universities of cooperative research team in textbook development. Finally, we should strengthen the sharing of teaching and scientific research resources. Private colleges in Guangdong Province have paired up with high-level universities in Guangdong, Hong Kong and Macao, and developed rapidly with the help of good schools. Especially in the practical teaching resources, there is a great investment. The experimental teaching platform can be built and shared among the schools close to the geographical location. Hardware and software facilities can be built and shared together, while some experimental teaching resources can be shared among the universities far away from the geographical location, such as professional learning websites, online teaching case base and online teaching development resources can be shared. Focusing on the transformation and development of application-oriented universities, local universities should strengthen cooperation. By establishing an alliance organization for collaborative and innovative training of talents, strengthening their contacts and cooperation, holding regular alliance meetings, and jointly promoting School-School cooperation and innovative training mode of talents.

Collaborative Innovation Model between School and Local. Private colleges should combine the needs of local regional economic development with the professional structure of economic management, strengthen the close links between schools and local areas in personnel training. Among them, specialties should be effectively linked up with local characteristic industries. Private colleges should change the traditional training mode of talents, which attaches importance to knowledge imparting, ignores ability quality training and theory teaching, and ignores practice teaching. It will be demand-oriented and cultivate applied, compound and international middle and senior economic and management talents. In order to transform Guangdong Province from a manufacturing province to a "smart" and strong province in the future, it is necessary to vigorously promote green manufacturing and smart manufacturing and actively cultivate new economic growth points. As a national strategy, "Guangdong, Hong Kong and Macao Great Bay Area" came into being under this background. To enhance the core competitiveness of the global manufacturing industry, Guangdong, Hong Kong and Macao Bay Area under construction should further promote the transformation and upgrading of manufacturing industry and optimize its development, cultivate and strengthen strategic emerging industries, create a center of technological and industrial innovation with important international influence, and make Guangdong, Hong Kong and Macao Bay Area a strong growth pole for economic growth in southern China. However, there are some contradictions between the existing talent training mode of higher education in Guangdong Province and this development strategy, and the application-oriented talents can not meet the needs of this development strategy. Therefore, the training of Applied Talents in Guangdong local undergraduate colleges must meet the strategic needs of Guangdong, Hong Kong, Macao and the Great Bay Area, and create a world-oriented Southern educational highland.

Collaborative Innovation System of International Cooperation. Private colleges need to further expand their opening-up efforts, expand cooperation with high-level foreign universities through multiple channels and channels, introduce advanced foreign teaching concepts, training modes and professional courses, organize Sino-foreign cooperative school-running projects in accordance with regulations, train outstanding talents with international vision and cross-cultural communication ability, and strive to cultivate broad and appropriate professional knowledge. Applied talents with strong ability, innovative spirit and practical ability should be trained with characteristics. According to the training needs of applied talents, strengthening the exchange with international universities, introducing the experience and methods of practical teaching in foreign universities, increasing the learning opportunities and time of teachers, invisibly can improve the level of teachers in universities. Especially for the training of young teachers, strengthening international exchanges can better train young teachers into teachers with professional skills and knowledge, and then optimize the whole teacher system.

Summary

In order to establish a practical, effective and feasible cooperative innovation training mode for applied, compound and innovative talents in the new era, private colleges must take the concept of cooperative innovation as the guide, study the relevant theories of cooperative innovation in depth, break through the practical development dilemma, combine theoretical research with reform practice, integrate both inside and outside schools, actively construct and implement integration within schools and cooperation between schools and enterprises. This is also the theoretical basis and fundamental guarantee for private colleges to effectively implement the reform of personnel training mode and improve the quality of personnel training. On the one hand, through adjusting the structure and content of the specialty, we should vigorously carry out educational and teaching reform, focusing on cultivating students' innovative and entrepreneurial abilities; on the other hand, we should strengthen school-enterprise cooperation in educating people, optimize personnel training programs and curriculum systems, actively explore effective teaching methods, reform and innovation, and constantly improve the teaching level and quality of personnel training in private colleges.

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