



# Preliminary Study on In&Out System Construction of Production Teaching Integration in Private Colleges and Universities

Yaqin Cui

City Design College of Guilin University, Guilin, China

\*Corresponding author: 634934175@qq.com

**Abstract.** The development of private colleges and universities in China is limited by many factors including enrollment and employment, funds and cooperation. Especially in school-enterprise cooperation, most enterprises are unwilling to cooperate with private colleges and universities to train students, which leads to the students losing standardized enterprise practice. In order to address this issue, this paper analyzes the development status of private colleges and universities, finds out the restrictive factors, combines the future development trend, and puts forward the construction of in-out system of production and teaching integration under the school-enterprise mixed system. Intended to build a cultural community between schools and enterprises, providing constructive references for the innovative development of private universities.

**Keywords:** private universities and colleges; integration of enterprises with vocational schools and universities; In & out system; practice

## 1 Introduction

UNESCO defines private educational institutions as "educational institutions controlled and managed by non-governmental organizations (churches, unions, or enterprises), regardless of whether they receive financial support from public institutions"<sup>[1]</sup>. The Organization for Economic Cooperation and Development (OECD) distinguishes between public and private educational institutions based on whether educational institutions are controlled by the public or private sector<sup>[2]</sup>. In China, "private education" is defined as the activity of social organizations or individuals using non-state financial funds to organize schools and other educational institutions for society, which is defined from two perspectives: the host and the source of educational funds. Private universities refer to higher education institutions that utilize private forces to run schools.

## 2 Current Status and Trends of Private Universities and Colleges at Home and Abroad

Since the Third Plenary Session of the Chinese Eleventh CPC Central Committee was held in 1978, private universities and colleges have re-emerged in China and have gone through four stages. The first stage was from 1978 to 1987. At this time, educational resources were relatively scarce. In order to encourage the development of private educational institutions, the legal policy of encouraging private education was clearly stated in the Constitution, which promoted the birth of the budding of private education. The second stage is from 1987 to 1997. In this stage, the development of private universities and colleges in China had taken shape, especially when the national policy of "12 words" was put forward, some private educational institutions were approved by the State Education Commission to become ordinary institutions of higher education, and the private universities and colleges are entering a period of rapid growth. The third stage 1997~2002. Along with the ideological policy of popularization of higher education, more and more companies began to pay attention to private education. Many private educational institutions were upgraded to private universities and colleges, while social forces intervened to promote the development of private institutions better. The fourth stage is from 2002 to the present, when thousands of private educational institutions, hundreds of private universities and colleges, and independent colleges have been formed<sup>[3]</sup>. From 2000 to 2020, the number of Independent Colleges in China has increased from 0 to 245, which shows the rapid development of private colleges and universities (as shown in Figure 1) At any stage, private universities and colleges in China have been in the traditional education model. Although there is no apparent difference between them and the government public schools in terms of education model, their financial strength is inferior to that of public schools. For a long time, private higher education in China has not been developing very well due to the lack of funds and the weakness of teachers and is facing the pressure of enrollment and employment, which needs the intervention of all forces to save.

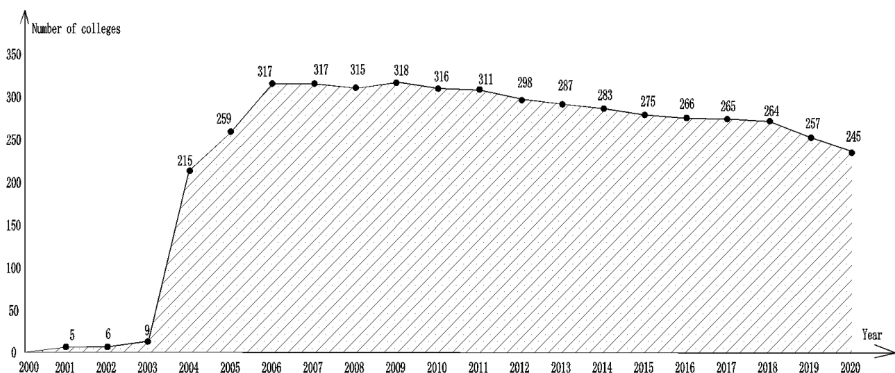


Fig. 1. Number of independent colleges from 2000 to 2020

### **3 Integration of Enterprises with Vocational Schools and Universities of the University-Enterprise Hybrid System**

Integration of enterprises with vocational schools and universities is a term widely used in higher education. From the point of view of economics, it can be interpreted as the relationship between industry and education. The "industry-education" is teaching involving production, an educational activity based on material production, social services, and economic industries, but not just a combination of education and industry, but a mode of deep cooperation between schools and enterprises to jointly train high-quality, highly skilled personnel<sup>[4]</sup>. In the process of cooperation, both the school and the enterprise sides are independent legal entities. From the ultimate purpose of legal entity establishment, the enterprise is to maximize the benefits through product development, product production, and sales to obtain services. The educational purpose of the educational institution is to cultivate talents needed by society through teaching and education, and there is no crossover between the two bodies. However, in terms of the relationship between the beginning and the end, the enterprise needs talents at the beginning, and the school delivers talents at the end, which seems to form a complete and reasonable explanation. This may not be the case, through a large number of social surveys found that 95% of companies are not willing to participate in school education, they believe: companies need talent is through social recruitment to solve the problem, companies looking for talent only accounts for 0.1% of the proportion of corporate energy. Hence, companies are not willing to start cooperation for 0.1%. So the integration of enterprises with vocational schools and universities has some limitations for the development of private universities and colleges in transition.

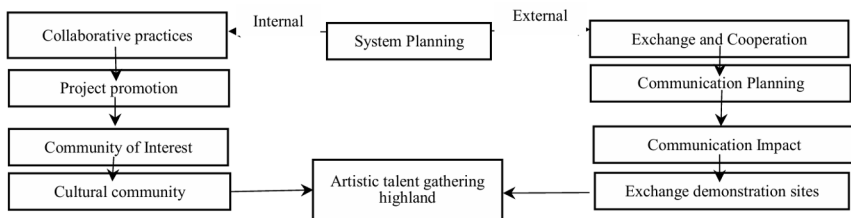
The university-enterprise hybrid system is a system in which universities create their own enterprises. This enterprise has a system of external marketing and

operation, and internal research, and practical education of students. This university-enterprise hybrid system ensures that education is comprehensive from theory to practice and to employment. The school is the talent pool and technology pool of the enterprise, and the enterprise is the talent exporting port of the school, the direction for students to study hard, and the cornerstone for teachers to work hard on research. A percentage of the company's profits is used as the university's research fund to encourage and stimulate the teachers' research practice. According to the Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements, as amended by the State in 2017, the law gives universities the right to dispose of scientific and technological achievements, as well as the right to remunerate scientific and technological personnel. The purpose is better to implement the rewards for scientific and technological personnel and to realize the mixed ownership of scientific research results. It can be summarized into three main aspects. First, the inventor is granted patent rights and patent application rights. Second, the university and the inventor sign an award agreement regarding the patent rights. Third, the inventor is a team, and the team agrees upon its internal distribution ratio<sup>[5]</sup>. According to the spiritual content of this law, the research team enjoys 70% of the research disposition. The ratio of the university-enterprise hybrid system can be referred to as the

"hybrid system of research results" for the distribution of rights and profits in order to ensure the source of motivation for the research team.

## 4 Construction of New Industry Education Integration In & Out System

The "integration of enterprises with vocational schools and universities" teaching model under the university-enterprise hybrid system is relevant and applicable. It can be applied to both teaching and research, and the two are complementary to each other. When applied to teaching, the benefits are more directly to the students. When applied to research, the benefits are more visible to the company, the faculty research team, and the students. Therefore, the "integration of enterprises with vocational schools and universities" in the university-enterprise hybrid system is the most accurate way to achieve the benefits and objectives of both parties and is the basic guarantee and research focus for the integration of benefits and culture<sup>[5]</sup>. In order to break through this focus, the author's team carried out actual research and survey, issued questionnaires to teachers and students on campus and enterprise leaders, and solicited their views and suggestions to develop an ideal research "production to household" cooperation model, the construction of the idea is as follows.



**Fig. 2.** Construction of new industry education integration in&out system

The core of the industry-education integration construction in Figure 2 is systematic planning, with the goal of forming a highland for gathering artistic talents. Systematic planning follows two routes: internal and external. Internally, universities carry out project practice and promotion from inside to outside, establish a cultural community, and thereby realize the gathering of artistic talents. Externally, exchanges and cooperation between enterprises and universities form demonstrative bases for collaborative practice, which further promotes the gathering of artistic talents. These two routes share the same objective: to build a highland for gathering artistic talents.

### 4.1 Internal Line

In the figure 1 diagram, the systematic planning and deployment of research cooperation are carried out for the purpose of building a research base for art and design. Internally, we establish scientific research cooperation bases with our university enterprises. Promote win-win cooperation through joint participation of enterprise engi-

neers, faculty research leaders, and students in competition projects and design projects. The project generates benefits, and both sides share the benefits according to the law of transforming scientific research results, realizing a community of interests. In the process of promoting scientific research, a high degree of unity of thought, value, and aesthetics is formed, which contributes to the cultural community of the research team<sup>[6]</sup>. Only a cultural community under cultural identity can overcome the difficulty of brain drain caused by cultural divorce within the university. Therefore, the reasonable distribution of research rights and interests is the key to retaining and introducing research talents and improving teaching quality.

## 4.2 External Line

For a long time, our country has been following the single, large and comprehensive mass college model set up to meet the demand of planning expansion. The government and individuals are the main subjects of higher education, and the advantages of industry and capital, and other related resources need to be further stimulated and gathered. In the process of school running, the boundaries between the government, universities, social industries, research institutes, and other school running subjects are still relatively clear. They do not form an interactive and co-promotional situation of you in me and me in you<sup>[7]</sup>. This is a direct constraint on the reform of the university education system. Some scholars believe that the future university is an "ecological university" with a distinctive openness that keeps in touch with the world and follows society<sup>[8]</sup>.

Therefore, not considering objective reality is not an excuse for the protection of research property rights. To stand high and look far, scientific research in colleges and universities must be open to exchange with the periphery, promote exchange activities by planning exchange contents and agendas, promote our culture, learn excellent technology from other universities, and expand exchange influence. For activities with high exchange value, we should establish a series of demonstration sites to promote the exchange influence to feed the teaching and scientific research of universities and form a virtuous cycle.

## 4.3 Experimental Verification

- Experimental purpose: through a certain number of junior students participating in the whole process of indoor project design and construction of the base, cultivate students' practical ability and teamwork ability, and improve their professional competitiveness and employment rate.
- Experiment time: June 2019-june 2020
- Number of trainees: 20 students, 1 enterprise designer and 1 engineer.
- Practical requirements: have a certain theoretical basis of interior design, painting basis, professional knowledge and drawing skills, and be able to operate AutoCAD, 3D Max, PS, word, excell, revert and other professional design software, 30 square meters of office, 20 computers, one digital camera, one printer and one projector.

The project cost of more than 2 projects or one year is required to be more than 1 million.

- Practice process: enterprise designers lead students to do projects vertically. The steps are: designers lead students to conduct project investigation and research, project analysis and design positioning, and engineers lead students to conduct project construction, supervision, acceptance and completion; Make professional investigation and exchange horizontally, participate in various exhibitions related to the specialty, and obtain more avant-garde design information.
- Practice results: all 20 students have improved their post skills, mastered the necessary design skills and construction technology, completed 4.2 million projects for the enterprise, and made a profit of 1.8 million yuan. Among them, each student achieved an income of 45000 yuan, and the parent company increased its income by 900000 yuan. It has achieved the win-win goal of increasing students' skills and income and increasing the profits of schools and enterprises.

## 5 Conclusion

From the above analysis, we promote private universities and colleges to effectively dovetail the two research paths internally and externally, build a research base to cultivate talent innovation patterns, fully exploit the depth and breadth of integration of enterprises with vocational schools and universities under the school-enterprise mix, and give full play to the vast resources and advantages of research development space inside and outside the university, so as to build a new university for the world and for the future with research hand in hand with enterprises.

Jinping Xi general secretary pointed out: "a country's higher education system needs the strong support of a first-class university group. The level and quality of the first-class university group determine the level and quality of the higher education system<sup>[9]</sup>." In building a high-quality system for private higher education, optimizing internal competition and actively introducing external high-quality resources are effective means of structural adjustment of higher education, which is conducive to promoting the characteristics and personalized development of private colleges and universities in an all-round way<sup>[10]</sup>.

## Acknowledgments

**Note:** this research is a stage research result (LJGD2020002) concerning Special Project of Applied Higher Education Development Research of Scientific Research Project of Guangxi Humanities and Social Sciences Development Research Center "Household Contract Responsibility System' Education Model of Application-Oriented Private Colleges Under School Enterprise Mixed System -Taking Art Design as an Example"

## References

1. WELLS P J, SADLAK J, VLASCEANU L. The Rising Role and Relevance of Private Higher Education in Europe[R]. Bucharest: UNESCO-CEPES, 2007.
2. OECD. Education at a glance 2008 OECD Indicators [R]. Paris :OECD,2008.
3. Chen Yan. Research on Private Higher Education with Diversification of School Running Subjects. Riverhead University. 2006.
4. Xie Zhiping, Ying Jianming. A review of research on the integration of enterprises with vocational schools and universities in China in the recent decade. Journal of higher vocational education exploration.2018(): pp6-10+28.
5. Solution of some hot issues after the implementation of the Law on Promoting the Transformation of Scientific and Technological Achievements  
[https://www.sohu.com/a/159780494\\_671272](https://www.sohu.com/a/159780494_671272).
6. Barnett The coming of the ecological university. Oxford review of education, 2011(4): 439-455.
7. Wang Zhiqiang, gestating "China's new university": the practical direction of the international higher education demonstration zone in Guangdong, Hong Kong and Macao, JOURNAL OF NATIONAL ACADEMY OF EDUCATION ADMINISTRATION, 2020 (12): pp20-29.
8. BARNETTR The coming of the ecological university. Oxford review of education, 2011(4): 439-455.
9. Fudan University Committee of the Communist Party of China. Serve high-quality development and build a world-class university with Chinese characteristics.  
<https://baijiahao.baidu.com/s?id=1777172438800809617&wfr=spider&for=pc>.
10. Hongsong Li, Xudong Deng. China Education Daily, May 22, 2023(5).

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

