

Research on the Joint Training Model of Master's Degree in Sino-Foreign Cooperation in Running Schools

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Abstract: Aiming at the problem of poor innovation ability and comprehensive ability of domestic postgraduates, this paper studies the mode of joint training of postgraduates based on the background of sino-foreign cooperative education. By building a platform for cooperation and exchange between Chinese and foreign universities, domestic students will have more opportunities to access the educational resources of foreign universities. Establish the joint supervision system of the government and universities, and supervise the whole process of sino-foreign cooperation in running schools, so as to ensure the training effect of joint training of postgraduates. Through the establishment of advanced management standards for selection and training, the selection of students who meet the joint training standards and the establishment of a database for joint training of students provide data basis for future training work, thus constituting the whole mode of joint training of master's degree students in sino-foreign cooperative education. Through questionnaires, the innovative and comprehensive abilities of graduate students in domestic universities and in joint training with foreign countries are tested. Survey results: master students jointly trained at home and abroad not only have relatively strong innovative ability, but also have relatively outstanding comprehensive ability.

Keywords: Sino-foreign cooperation in running schools; Master's degree students; Training mode

1. Introduction

With the rapid development of global economic integration, the country's demand for innovative elite talents is increasing, and there are higher requirements. In recent years, the solution of many international problems requires the joint efforts of many countries on the basis of the global perspective. In this international environment, education is no longer a national problem, but a global problem. The globalization of education has become an indisputable fact. With the deepening of China's reform and opening up, the beneficial experience of the development of foreign higher education has been introduced to China, the exchanges between students and teachers have become increasingly frequent, the cooperation between teaching and scientific research has also gradually deepened, and the internationalization of higher education has begun to receive extensive attention in China. At the same time, under the background of the globalization of higher education and the continuous expansion of the scale of education, China's colleges and universities are constantly exploring and trying the innovative talent training mode. Graduate students are an important reserve force for China's innovative talents, a major human resource for China to implement the innovation-driven development strategy and lead the new normal of economic development, and an important support for China

to enhance its core competitiveness and improve its international status. Promoting the sustainable development of graduate education has become an important issue in the reform of China's higher education model [1]. In the postgraduate education, the joint training education between China and foreign countries can directly expose students to foreign economic and cultural knowledge, enrich diversified teaching concepts and educational resources, and make use of the complementary advantages of China and foreign countries to cultivate domestic talents with an international perspective and the ability to compete with talents from other countries on the international stage. The sino-foreign joint training of postgraduate students is very beneficial for China to cultivate new talents with international vision, which is a long-term task that must be carried out in a talent training program. Therefore, with the increasing demand for high-level and national talents in various fields of economy and trade, the joint cultivation of postgraduate education with foreign countries is the only way for the reform of China's higher education system. Sino-foreign cooperation in running schools is an important educational and cultural exchange activity and an important part of the internationalization of postgraduate education in China. Chinese-foreign cooperation in running schools make the graduate education reform in China has the international reference system, promotes the internationalization of

graduate education, promote the reform and development of Chinese graduate education, promoting the international competitiveness of the Chinese postgraduate education this paper hope through to the sino-foreign cooperation in running schools joint cultivation mode of postgraduate studies, and for domestic reference and promote the effect of the graduate education mode reform, allow them to learn Chinese and foreign joint training internationalized vision [2].

2. Joint Training Model of Master's Degree in Sino-Foreign Cooperation in Running Schools

Overseas universities have a complete independent system for the cultivation of postgraduates. The cultivation of postgraduates in domestic universities is still in the initial stage. joint cultivation of postgraduates through sino-foreign cooperative education can enable domestic universities to learn different educational concepts in the process of cooperation, enable domestic postgraduates to experience different teaching styles, and communicate with students from different countries, regions and cultures [3]. Figure 1 The influence of joint training between China and foreign countries on postgraduate students.

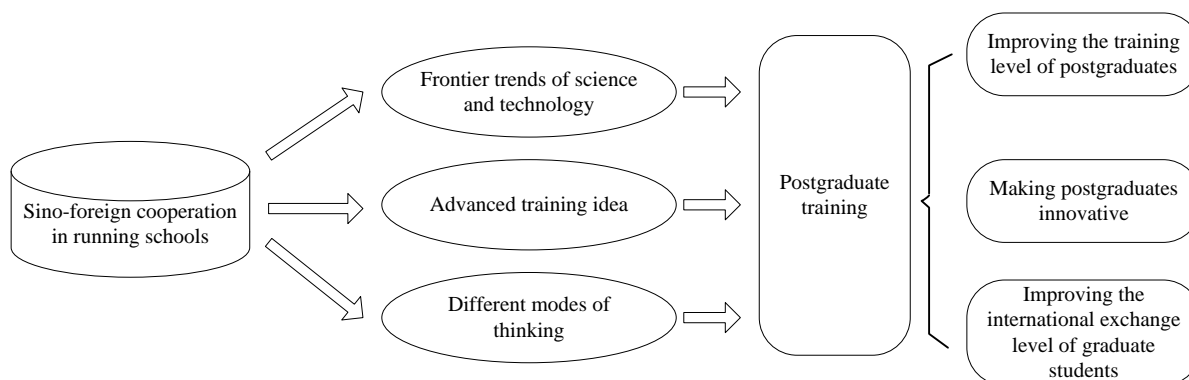


Figure 1. The influence of Sino-foreign joint training on Postgraduates

2.1. Building a platform for cooperation and exchange between Chinese and foreign universities

Compared with domestic universities, the training system for postgraduates in foreign universities is more perfect. Through the signing of cooperation agreements between universities, exchanges between students and invitation of foreign professors to guide the establishment of cooperation and exchange platform between Chinese and foreign universities. In recent years, with the intensification of talent competition and the popularization of higher education from elitism to popularization, the number of graduate students in China has increased rapidly, while the corresponding teachers and research resources cannot be synchronously increased [4].

Sino-foreign joint training, on the one hand, can introduce high-quality teachers and scientific research resources, on the other hand, alleviate the plight of relatively inadequate educational resources in domestic universities. The establishment of cooperation platform between Chinese and foreign universities enables inter-school educational resources to be exchanged by using network technology. Domestic students can get the guidance of foreign university professors, experience different education modes, and exercise the innovative ability of graduate students. Establishing a platform for cooperation and

exchange between Chinese and foreign universities, realizing bilingual or full English teaching, and adding internationalized content to the curriculum will be of great help for graduate students to quickly contact the world's top scientific research information. Establishing a platform for cooperation and exchange between Chinese and foreign universities can also provide excellent graduate students in China with the opportunity to participate in foreign research projects [5]. Project-based training is a common form of joint training. The research of sino-foreign cooperative scientific research projects plays a very important role in cultivating graduate students' scientific research and innovation ability. Postgraduates can fully exercise their scientific research ability by completing projects in foreign laboratories, and create a good academic atmosphere for students through regular academic exchanges within the research group. In terms of curriculum training, higher education institutions can also set up international courses in an all-round way, so that more graduate students in China can achieve sino-foreign joint training even if they do not go abroad. At the same time, we should strengthen the classified guidance for the introduction of foreign educational resources, systematically drain and support more and more foreign educational resources, provide guarantee for the establishment of a more systematic high-level teaching staff in colleges

and universities, avoid blindly introducing foreign ideas, and lead to the mixed situation of domestic and foreign educational models. Based on our own country and referring to foreign advanced models, we can promote mutu-

ally conditional and complementary cooperative relations, and truly provide enough resources and platforms for the cultivation of talents with an international perspective.

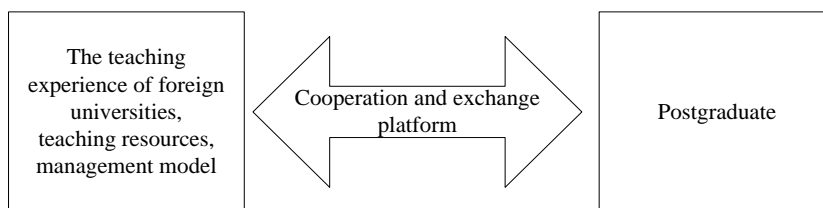


Figure 2. Framework of sino-foreign university cooperation and exchange platform

2.2. Establishing the joint supervision system of government and universities

Our government has played a leading role in the quality management of sino-foreign joint training projects. Despite the rapid development in the number of sino-foreign joint training postgraduate projects in recent years, Chinese universities have established in-depth cooperative relations with famous universities in many countries. Cooperative power is the key to the development of joint postgraduate training both at home and abroad. At present, the government should play the leading role in training postgraduates. Government-led means that the Chinese government invests and attracts funds, raises funds through various channels, provides funds, and sends postgraduates abroad to train by schools [6]. However, with the increasing number of such projects in the future, the workload and difficulty of the government in project approval, qualification examination and periodic evaluation will continue to expand. At that time, universities will become an important supplement and information provider in the quality management of the joint political and foreign postgraduate training projects.

Therefore, the joint supervision system of government and universities can be established. The guidance and support of the government is the catalyst for the success of cooperative education. From the overall, overall and long-term perspective, we can promote the cooperation intention between Chinese and foreign universities and research institutes through macro-control and coordination of interests on the basis of respective local interests of Chinese and foreign universities and research institutes. Giving colleges and universities more implementation and selection authority can effectively improve the quality of dispatch and selection efficiency [7]. The government still plays a leading role in the quality management of the joint training of postgraduate education between China and foreign countries. The management of the training process and the level of degree award is the main way to manage the quality management of the joint training of postgraduate projects in foreign universities. Its

characteristic is to emphasize the basic level of degree. Therefore, the management and evaluation indexes used are mostly those adopted by foreign cooperative universities. There is a lack of special requirements and differential treatment for the joint training of postgraduate education between China and foreign countries. As mentioned above, students are in the sandwich position between domestic universities, government agencies and foreign joint training universities when carrying out sino-foreign joint training. They need to face many institutions. For example, for scientific research and training in joint training projects, the Overseas Study Fund Committee has the final decision-making power. Because universities have a more comprehensive understanding of students, if the decision-making power of the Overseas Study Fund Committee is properly transferred to universities, on the one hand, it will be more conducive to screening out students with excellent comprehensive quality. On the other hand, the number of institutions faced by students will also decrease, which avoids the inefficiency of students' application. As the investor of some joint training projects, the government also has the authority of supervision, which can avoid the decision-making mistakes brought by the single responsible person in colleges and universities. To sum up, it is a more effective mode of sino-foreign joint training management to give higher education institutions more selection authority and assist government supervision and supervision.

2.3. Establishing advanced management standards for selection and training

As the scale of joint training of postgraduates at home and abroad is expanding, it is necessary to establish perfect information management standards for the selection and information management of joint training of postgraduates to improve the management efficiency of schools. Therefore, it is of great practical significance to formulate a management standard that can realize the decentralized collection, comprehensive utilization, unified management and resource sharing of postgraduate information in joint training [8]. Implementing the sys-

tem of "strict access and strict exit" in the selection of students for joint training is to raise the threshold for the selection of students for joint training and to strictly control the learning quality of dispatched students. This prin-

ciple guarantees the quality of the mode of joint training for postgraduates both at home and abroad, and also avoids interference with the original training plan of students in colleges and universities.

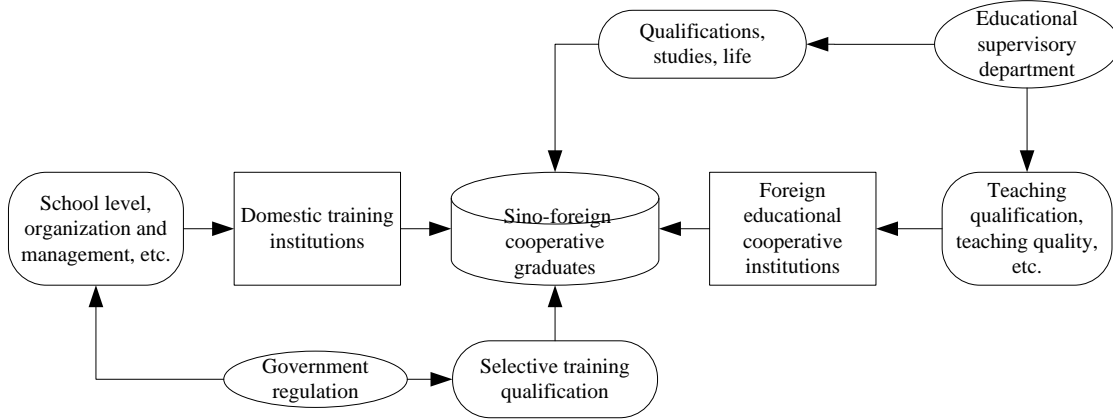


Figure 3. The schematic diagram of the joint supervision structure of the government and universities

$$W_n = \frac{p_1 + p_2 + \dots + p_n}{n} \quad (1)$$

$$I_i = \alpha \cdot W_n \quad (2)$$

$$I_s = \sum_{i=1}^n (I_1 + I_2 + \dots + I_i) \quad (3)$$

Specifically, the training assessment agreement can be reached by domestic universities and foreign educational institutions, and the assessment agreement can be combined with the existing domestic research plan of graduates. Through the quantitative evaluation of the selected students according to formula (1) (2) (3), the joint training quota can be determined. In the formulas, p_n is the results of a certain discipline, W_n is the average results of a certain discipline, I_i is the quantitative results of I disciplines, α is the quantitative parameters, and I_s is the overall quantitative results of students[9].

Strict assessment of students' learning and scientific research results, if the assessment results can not meet the standards, students can be disqualified. In this way, when applying, students will consider their existing research plans and directions, and in the process of dispatching their studies, they will give priority to their studies. To sum up, the measures of "strict entry and strict exit" can effectively guarantee the quality of dispatch. In addition, the combination of students' domestic research plan and foreign learning plan can effectively avoid the interference of domestic university research plan.

2.4. Establishment of joint training student database

In the era of big data, the establishment of database is particularly urgent. Establish a database of joint training of students at home and abroad, including students' ap-

plication for school information, application experience and experience sharing of studying abroad [10]. These data and information are open to students who apply for joint training in the future. It is convenient for students to understand the whole process of public application and provide the pass rate of admission. At the same time, the database also keeps the academic achievements, scientific research results, publishing papers and so on of postgraduates during the joint training period, which is not only data preservation, but also provides learning materials for postgraduates jointly trained in the future. In addition, the database is also a channel and platform for students to establish communication and exchange with previous applicants. It is convenient for students to consult with previous applicants about application process, material preparation, college information and so on. It is also convenient for students to manage abroad.

3. Practice of Joint Training Model

A total of 300 postgraduates who participated in the joint training of sino-foreign cooperatively-run schools and domestic universities were selected. Taking the joint training of postgraduates as the test group and the domestic postgraduates as the control group, the innovative ability of postgraduates was tested by means of questionnaires, and the comprehensive ability of postgraduates was evaluated.

3.1. Postgraduate innovation ability test

Questionnaire design includes four aspects: innovative consciousness, innovative intelligence, innovative knowledge and innovative skills. Through the analysis of the questionnaire answers of 300 graduate students who participated in the questionnaire survey, the comprehen-

sive value of the two groups of graduate students' answers and the predicted value were regressively analyzed,

and the results as shown in table 1 were obtained.

Table 1. Innovation capability regression analysis table

Project	Estimated value	Standard error of experimental group	Standard error of control group
Innovative consciousness	2.6502	1.1491	1.5368
Creative intelligence	1.8136	0.6354	1.1247
Innovative knowledge	2.1253	0.7436	0.9536
Innovative skills	1.9340	0.9359	1.0276

From the analysis of table 1, it can be concluded that in the results of the innovation ability test for postgraduates, compared with the postgraduates trained in domestic universities, the overall innovation ability of the postgraduates trained by sino-foreign joint education has a smaller error in the prediction. It shows that the innovative ability of graduate students jointly trained by China and foreign countries is closer to the expected standard.

3.2. Assessment of comprehensive ability

Postgraduates are the main body of academic research and an important part of top-notch talents to promote the development and progress of national science and technology. Through questionnaires, 300 graduate students' comprehensive abilities, including cooperation, discovery and creativity, problem discovery and solution, communication and expression, etc. As shown in figure 4, it is a comparative picture of the comprehensive abilities of Chinese and foreign joint training postgraduates and domestic university postgraduates.

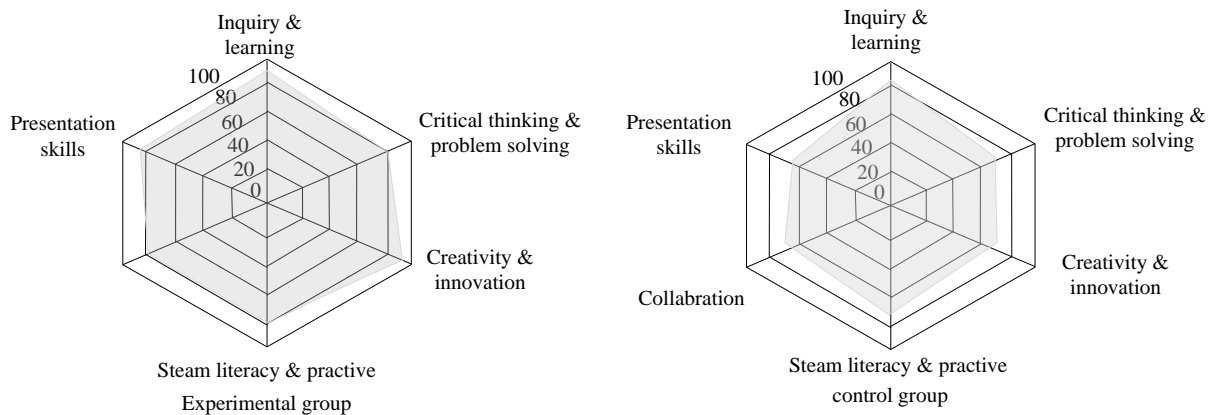


Figure 4. Comparing the comprehensive ability of postgraduates

As can be seen from figure 4, there is little difference in learning ability between the graduate students trained by sino-foreign joint education and those trained by domestic universities, and there is little difference in language reading and writing ability and problem-finding and problem-solving ability. However, the graduate students trained by sino-foreign joint education are higher than those trained by domestic universities in terms of discovering innovation ability, communicating and expressing ability and cooperative spirit. In terms of comprehensive ability, graduate students jointly trained have received the impact of two different education cultures, and their overall comprehensive ability has been greatly improved.

4. Peroration

Different countries in the world have formed their own postgraduate education modes and styles because of their different levels of economic development, educational development history, customs and habits. In particular,

many experiences accumulated by developed countries have obvious educational advantages. Master graduates can receive the guidance of two different educational ideas in the learning stage, which will be of great help to their future research path. Accepting education from different cultures and communicating with students from different cultural backgrounds all lay a solid foundation for the research road after their birthday. sino-foreign cooperation in running schools provides a convenient platform for strengthening international cooperation and realizing the internationalization of education. Since the establishment of the State Overseas Education Fund Committee, joint training at home and abroad has stepped into normalization and stabilization. However, how to improve the effectiveness of joint training of postgraduates at home and abroad, expand the channels of cooperation between domestic universities and advanced research institutes abroad, and give full play to the backbone role of joint training of postgraduates in

serving the society, there is room for further excavation. Only by incorporating such work into the research. Only through rigorous and meticulous investigation and analysis can we make the best use of the limited educational resources and obtain the greatest benefits.

As an important channel for training high-level talents, sino-foreign cooperatively-run postgraduate education plays an important role in promoting Chinese culture and improving international competitiveness. Today, with the development of internationalization of higher education, we can get rid of the dependence of education and improve the international competitiveness of our higher education only if we base ourselves on the development of localization of running schools in cooperation with China and foreign countries, highlight the national characteristics of running schools, and constantly develop and innovate.

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