

The Current Situation, Problems and Countermeasures to Higher Education Cooperation in Guangdong-Hong Kong-Macao Greater Bay Area

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Abstract: Promoting the cooperation of higher education in Guangdong, Hong Kong and Macao will be positive to realize the complementary advantages and strengthen the communication between colleges and universities in the three regions, and will further more play an important role in promoting the economic development in the Great Bay Area. This paper will discuss the current situation of the Greater Bay Area cooperation from the aspects of Chinese-foreign cooperatively-run organizations, personnel trainings, research collaborations and teachers communications, came to a conclusion that higher education cooperation in the Greater Bay Area now has problems as: less effective than expectation, too many scattered and unsystematic cooperation, too much difference in funds management and supervision. We gave causal analysis to above problems, and gave out proposals and countermeasures as to optimize the system environment, innovating for cooperation system and mode, and improve the quality of cooperation, etc.

1. Introduction

Promoting the construction of Guangdong-Hong Kong-Macao Greater Bay Area is an all-new practice in promoting the development of the policy “One Country, Two Systems”, which is advantageous to deepen the communication and cooperation between China mainland, Hong Kong and Macao, and is of great significance for Hongkong and Macao to participate in national development strategy, enhance self-competitiveness and maintain long-term prosperity and stability. While comparing to other world-class bay areas, the laws, policies and systems in Guangdong-Hong Kong-Macao Greater Bay Area differs intricately, thus made higher education cooperation in the Greater Bay Area more unusual. From the perspective of system change theory, the higher education cooperation in the Greater Bay Area is actually a kind of result of rules for stakeholders sharing higher educational resources in the three regions. The process of the coming into being, developing and deepening of higher education cooperation is a series of system arrangements changing and innovating [1].

In this paper we review and summarize the current situation and forms of higher education cooperation in the Greater Bay Area, analyze the problems and causes for higher education cooperation in Guangdong, Hong Kong and Macao, and provide a reference for the further development of higher education cooperation in the Greater Bay Area.

2. Current situation, problems and causals analysis, countermeasures and thinking to higher education cooperation in guangdong-Hong Kong-macao greater bay area

2.1 Current situation

Due to its geographical advantages, there is a long history of cooperation and communications between universities and colleges in Guangdong, Hong Kong and Macao. China government has also issued related policies and regulations to support and standardize the cooperation in running schools in the three regions.

In 2019, Development Planning Outlines for Guangdong-Hong Kong-Macao Greater Bay Area

printed and distributed by the Central Committee of CPC and the State Council points out that we need to “build a highland for educations and talented persons, promote the development of educational cooperation. We need to support universities and colleges in Guangdong, Hong Kong and Macao to cooperate in running schools, and encourage joint constructions of advantageous disciplines, laboratories and research centers.” It raised the higher education cooperation in Guangdong, Hong Kong and Macao to a level of national strategy.

2.1.1 Cooperatively-run organizations

Up to now, there are three representative institutions of cooperation of universities in the Greater Bay Area, they are: Beijing Normal University-Hong Kong Baptist University United International College (UIC for short), The Chinese University of Hong Kong, Shenzhen set up in 2012 and The Hong Kong University of Science and Technology, Guangzhou started to construct in September, 2019:

UIC: As the first key university jointly established by mainland China and Hong Kong higher education sector and approved by the Ministry of Education of the People’s Republic of China, UIC issues its undergraduates graduation certificate of Beijing Normal University-Hong Kong Baptist University United International College and BA in Hong Kong Baptist University;

The Chinese University of Hong Kong, Shenzhen: It inherits the philosophy and academic system of the Chinese University of Hong Kong. The school adopts a council management mechanism in line with the international standards, the principal’s responsibility system under the lead of council;

The Hong Kong University of Science and Technology, Guangzhou: is an academic education implementing university run jointly by China mainland and Hong Kong with independent legal entity. Committed to training international high-end talents with innovation ability, for serving the technological innovation, industrial upgrading and high-quality development of the Greater Bay Area.

Among the colleges jointly run by universities in the bay area, Guangdong University of Technology Guangdong-Hong Kong College of Robotics, and Greater Bay Area International Institute for Innovation are prominent:

Guangdong University of Technology Guangdong-Hong Kong College of Robotics: along with Dongguan Songshan Lake International Robot Industrial Base and Hong Kong University of Science and Technology, launched a joint construction project with a “2+2” cultivating model;

Greater Bay Area International Institute for Innovation: Shenzhen University, along with the Hong Kong Polytechnic University, signed to construct Greater Bay Area International Institute for Innovation jointly, to provide technical supporting for innovation driven development in the two regions.

2.1.2 Personnel training

It is the first priority of universities and colleges in the Greater Bay Area to export more and higher qualified innovative talents for the construction of the Greater Bay Area. As there is an expectation that the Greater Bay Area wants to become an international technological innovation center and a form a modern industrial system with international competitiveness, there is an urgent need of supports from higher-levelled innovative talents. Universities, with their unique intellectual resources, play an important role in talents cultivation. Only by develop with both “Quality” and “Quantity”, can make students cultivating go further.

(1) Enrollment scale of greater bay area universities and colleges

Cross border recruitment of students from Hong Kong and Macao by Guangdong Universities and colleges. In 1999 and 2016, the Ministry of Education issued documents to regulate the recruitment and training of students from Hong Kong, Macao and Taiwan. At present, students from Hong Kong and Macao can study in mainland universities in the following ways: National Recruitment, Two Universities Joint Recruitment, Four Universities (Macao), Hong Kong Diploma of Secondary Education (HKDSE) Examination, Recommended Students Examination in Hong Kong and Macao, etc. In 2018, there are 54 universities in Guangdong Province that can enroll

students from Hong Kong and Macao, 22 universities of them can enroll students from Hong Kong without examination, number of students from Hong Kong and Macao are over 10,000, accounting for about half of the students in Universities in China. Some colleges and universities have introduced relevant plans to expand the enrollment scale of students in Hong Kong and Macao. Based on their own actual situation, the number of students from Hong Kong and Macao studying in the mainland is continuously growing, for example, Jinan University puts forward the idea of “expanding the scale, adjusting the structure and improving the quality”, plans to increase the proportion of oversea students and students from Hong Kong, Macao and Taiwan from about 33% to 40% within three years.

Cross border recruitment of Guangdong students by universities in Hong Kong and Macao. From 2003 to 2019, Chinese government issued specific policies to support and encourage Hong Kong, Macao and the mainland to strengthen educational cooperation and exchanges. By 2019, 21 universities in Hong Kong and Macao enroll mainland students, including 15 in Hong Kong and 6 in Macao. The 21 universities in Hong Kong and Macao adopt two ways of enrollment. One is the Chinese University of Hong Kong and the City University of Hong Kong, which adopt the unified enrollment method; the other is the 13 universities in Hong Kong, including the University of Hong Kong, and 6 universities in Macao, adopt the independent enrollment method.

(2) Students cultivating

Colleges and universities in Guangdong, Hong Kong and Macao create conditions actively to strengthen exchanges and integration, and explore various forms of personnel training cooperation mode constantly. At present, there are three main ways to train students in cooperation: the “2+2” mode, the exchange student mode, the joint curriculum mode, send students to participate in research projects, and establish alliances. Among them, the most distinctive one is the “2+2” model. For example, South China University of Technology and University of Macau signed the agreement on the undergraduate “2+2” joint training project, which is the first two-way two-degree undergraduate training project in the Greater Bay Area, students are issued with BA of the two universities after finishing the cultivation plan [2].

What’s more, establishing alliances is the most convenient way for universities in Guangdong, Hong Kong and Macao to cultivate students cooperatively. For example, dozens of influential alliances in the Greater Bay Area like, the University Alliance of Guangdong-Hong Kong-Macao, the University Online Open-curriculum Alliance of Guangdong-Hong Kong-Macao Greater Bay Area, the Academician and Expert Innovation and Entrepreneurship Alliance of Guangdong-Hong Kong-Macao, the Postgraduate Education Alliance of Guangdong-Hong Kong-Macao, etc, played a positive role in promoting the data sharing and the Greater Bay Area universities credit mutual recognition project, cultivating students’ innovation and entrepreneuring ability, improving the levels of research-oriented innovative talents.

2.1.3 Research collaborations

At present, Guangdong, Hong Kong and Macao have explored a variety of ways to conduct scientific research, such as co-building joint laboratories, co-building research centers, joint applying for projects, and joint carrying out scientific research projects. By strengthening scientific research cooperation and tackling key problems in coordination, we will further promote the flow of factors in the bay area, stimulate scientific research interaction, and produce high-quality scientific research results suitable for the development of the Greater Bay Area.

(1) Co-constructed cooperation platforms

The main mode of co-constructing cooperation platforms of universities and colleges in Guangdong, Hong Kong and Macao is to co-construct joint laboratories and research centers.

In 2001, Jinan University took the nation-wide leading position in exploring the scientific research cooperative mechanism based on the joint laboratories by its own advantageous discipline fields, and established its joint laboratory with the Chinese University of Hongkong, the Joint Laboratory of Regenerative Medicine Research. Subsequently, other universities in Guangdong also

established extensive exchanges and in-depth cooperation with universities in Hong Kong and Macao, and established their joint laboratories.

In 2016, five Guangdong-Hong Kong-Macao joint laboratories were first set up in Guangdong Province. In 2019, Guangdong Province set up 21 projects in Guangdong-Hong Kong-Macao joint laboratory and Guangdong-Hong Kong-Macao science and technology cooperation projects, with a total of 57.5 million yuan of special financial funds.

(2) Scientific research and academic cooperation projects launched jointly

Colleges and universities in Guangdong, Hong Kong and Macao have actively explored cooperative subject declaration projects and scientific research projects.

Sun Yat Sen University adopts various ways to carry out cooperation research with universities in Hong Kong and Macao. For example, the Pearl River Delta Research Center carries cooperative research on issues related to the Pearl River Delta with Hong Kong Baptist University [3].

Yang Ruoxiong, Director of Education Bureau of Hong Kong SAR, said, “At end of November 2017, there are 1417 ongoing academic research cooperation projects in Hong Kong, the mainland and Macao, 333 academic research cooperation projects of them are with universities in Guangdong Province and Macao, accounting for about 25% of the total number of cooperation. At present, 6 universities and colleges in Hong Kong have set up bases or institutes of production, education and research in Shenzhen; with the development of the Greater Bay Area, Hong Kong is able to transfer and commercialize the scientific research achievements from local universities and colleges in its region. [4]”

2.1.4 Teachers communications

Strengthening the teachers and academic exchanges between Guangdong, Hong Kong and Macao universities will help to improve the core competitiveness of talents and the development of higher education in the Greater Bay Area. The main forms of teacher exchange include sending visiting scholars, hiring visiting professors, inviting part-time professors, flexibly introducing or directly employing academic leaders, etc.

For example, Jinan University introduced a group of academic leaders such as academician Su Guohui by the “Jinan Double Thousand Talent Introduction Project”, and Jinan University has 36 teachers from Hong Kong and Macao. In recent years, academic exchanges between universities in Guangdong, Hong Kong and Macao have become more frequent, more diverse in form and richer in content. Through holding symposiums, academic forums, academic conferences and other ways to carry out academic exchanges, not only help teachers and students to broaden their academic horizons, but also stimulate their academic thinking, further improve their academic level and promote the development of disciplines. Since 2019, universities in Guangdong, Hong Kong and Macao have jointly held some influential academic forums and conferences. For example, the “Guangdong-Hong Kong-Macao Greater Bay Area Universities Science and Education Cooperation Forum - opportunities and challenges” sponsored by the University of Macau, discussed the issues of talent training and introducing, inter-universities communicating and cooperating, and scientific and technological innovating, provided suggestions and methods for the deepening of inter-universities communication and cooperation and collaborative innovation.

2.2 Problems and causals analysis

2.2.1 Problems

(1) **Less Effective than Expectation:** First of all, in personnel training, there are still difficulties in the credit mutual recognition system and the arrangement of exchange students, the cooperative training of students is mainly carried out at some of the extension levels, such as personnel exchanges, “2+2” training mode is only carried out in a few “double first-class” project universities in Guangdong. Secondly, in terms of scientific research platform, Guangdong, Hong Kong and Macao have set up a certain number of joint laboratories and research centers, as well as many cooperation projects, but have not achieved deep and substantive scientific research results yet.

Finally, in the alliance of universities and colleges in the three regions, there are more shallow cooperation such as signing agreements, holding cooperation forums and opening academic seminars, etc, but with not deep and substantive enough cooperation.

(2) **Too Many Scattered and Unsystematic Cooperation:** The cooperation projects between universities and colleges in Guangdong, Hong Kong and Macao are lack of effective organization and policy guidance. First, in terms of scientific research cooperation, the cooperation is mainly based on the free participation of individuals, there are almost no effective guide from coordination service agencies participated by the three regions. That's to say, the existing coordination mechanism run by the government level plays an unsatisfying role. Secondly, in terms of cooperation education, its legal basis is The Regulations of the People's Republic of China on Chinese-Foreign Cooperation in Running Schools. However, this regulation has certain limitations on the cooperation of higher education in the Greater Bay Area, the cooperation universities in Guangdong, Hong Kong and Macao are scattered. Thirdly, in terms of academic exchange of teachers, the planning and systematization are not strong enough, for example, though relevant measures in visa, tax and other aspects have been put forward, many practical problems still need to be further solved.

(3) **Too Great Difference in Funds Management and Supervision:** There are difficulties in supervising the funds of Guangdong, Hong Kong and Macao, and the problems in the using of funds for scientific research projects are nowadays increasingly prominent. In Guangdong, Hong Kong and Macao, the financial and scientific research fund systems are different, there are great differences in management and supervision links; What's more, research funds were offered by different suppliers, which is of obvious regional features [5]. Though at present, Guangdong Province government has proposed to "Improve the financial and scientific research fund management mechanism fits into the actual situation of Hong Kong and Macao", only Shenzhen has specifically issued the regulations on the use and management of financial research funds in Hong Kong and Macao, gave its "detailed rules" for the cross-border using of scientific research funds.

2.2.2 Causals analysis

Firstly, "one country, two systems and three legal areas" is a typical feature of the Great Bay Area. Due to the limitations of systems and policies, the cooperation in higher education in the Great Bay Area is struggling. Universities in Guangdong, Hong Kong and Macao have great differences in school running system and autonomy, and their differences will have negative effects on higher education cooperation. For example, most of the universities in Guangdong are public ones, few are private ones, while universities systems in Hong Kong and Macao appeared to be diversified. And, most of the universities in Guangdong implement the president responsibility system under the leadership of the Party Committee of CPC, while universities in Hong Kong and Macao implement the president responsibility system under the leadership of the school board, which gives the president in Hong Kong and Macao universities full administrative powers [6].

Secondly, the abilities of universities in Guangdong, Hong Kong and Macao are unbalanced, which caused the cooperation and exchange to be unequal. For example, Guangdong has a large scale of higher education, with five "double first-class" construction universities, which is a relatively balanced professional layout structure. While Macao has a smaller number and scale of universities and colleges. Hong Kong has strong higher education, outstanding scientific research capacity and universities and colleges highly internationalized, as in QS rankings 2019, there are 4 universities in the Greater Bay Area in the top 100, all of them are in Hong Kong. Although the three regions coexist in the Lingnan cultural circle, Hong Kong and Macao maintain the capitalist system, which is deeply influenced by western culture and education.

Thirdly, there are certain differences in culture and value among the three regions. According to a survey carried out by the Quality Assurance Agency for Higher Education of Britain (QAA) in 2018, there are over 27,000 Hong Kong students studying UK degree or diploma courses, and the overall development of UK cross-border education in Hong Kong is stable. Excluding the distant

education mode, Hong Kong has become the fourth largest cross-border education area of UK, and the third largest source of international students of UK. Moreover, 72% of the courses in Hong Kong are implemented by British universities and their partners [7]. While the number of Hong Kong students applying for higher education in China mainland has only reached 10,000. Such situation, caused higher education cooperation between Guangdong, Hong Kong and Macao to face at cultural and value differences.

Fourthly, there are obvious differences in cooperation motivation and demand among universities in Guangdong, Hong Kong and Macao. Universities and colleges in Hong Kong hold a contradictory attitude towards the mode of deep cooperation in running schools. On the one hand, Hong Kong universities show strong interest in the improvement of knowledge innovation ability, innovation transforming ability, and financial situation, etc. On the other hand, they worry about the potential risks of cooperation [6]; While universities in Guangdong and Macao have strong cooperation motivation and internal demand: Guangdong hope to make up the shortcomings by the cooperation, and Macao hope to expand the scale of enrollments and attract high quality students by the cooperation.

2.3 Countermeasures and thinking

(1) Optimize the System Environment. The symbiosis of University and regional development is a complex organic system. We need to integrate the demands, objectives and resources of the universities, government and other subjects in order to improve the system environment, and to construct the high-efficiency symbiosis system of the universities and regional development on the basis of it [8]. In order to realize the cooperation of universities and colleges in Guangdong, Hong Kong and Macao, it is necessary to establish a modern system, with government leading, university autonomy, social participation and running schools according to law, and to optimize the system environment.

(2) Innovate for Cooperation System and Mode. Firstly, the government should improve laws and regulations, and issue specific policies different from foreign universities for Hong Kong and Macao universities to carry on education cooperation in Guangdong or other places in mainland China, further promote the cooperation and development of higher education in Guangdong, Hong Kong and Macao. Secondly, set up a special working organization to in charge of the overall coordination and overall planning of higher education resources in the Greater Bay Area, coordinate the policy obstacles and bottlenecks encountered in the cooperation from the upper view, and provide the higher education cooperation in the Greater Bay Area with organizational guarantee. Thirdly, we shall establish research cooperation fund for universities in Guangdong, Hong Kong and Macao in order to provide financial support for the research cooperation projects of universities in the Greater Bay Area, and to ensure the standardization and normalization of higher education cooperation in the Greater Bay Area.

(3) Explore for a New Mode in Universities and Colleges Cooperation. Firstly, Guangdong, Hong Kong and Macao universities should give full play to their respective advantages in terms of teachers, disciplines and regions, and explore the establishment of substantive and institutionalized higher education cooperation mechanism. Secondly, the universities of Guangdong, Hong Kong and Macao should take the initiative to meet the national strategic needs, innovate the cooperation mode, establish and improve the incentive mechanism and diversified evaluation mechanism of higher education cooperation, establish the joint meeting system of university presidents in the Greater Bay Area, in order to promote the substantial education cooperation of the University Alliance of Guangdong, Hong Kong and Macao, and promote the in-depth cooperation of the universities in the alliance; Relax the policy of running a university, expand the autonomy of running a university, innovate the management system of the university, and give full play to the initiative of the university itself.

(4) Improve the Quality of Cooperation. Universities in Guangdong, Hong Kong and Macao should follow the guiding ideology of “division of work and cooperation, integration of resources”, realize the complementarity of higher education resources in three regions, and promote the

improvement of cooperation quality. As far as Guangdong universities are concerned, it is the basic requirement to improve the quality of cooperation to improve their internal skills. Guangdong universities should strive to highlight their characteristics, improve their school running strength, expand the scale of high-quality higher education, and enhance their competitiveness. Then to the universities in Hong Kong and Macao, they should change their cooperative thinking, face up to the cooperative motivation and serve the national strategy.

(5) Expand the Depth and Breadth of Cooperation. Governments of the three regions should deepen their strategic cooperation, deepen personnel training from the perspective of serving the development of the country, and strengthen teacher and academic exchange activities, promote scientific research cooperation. Adhere the principle of “Launching high-quality projects”, and continuously ploughing into it. The government of Hong Kong SAR and Macao SAR should strengthen their national education, deepen the national identity, further strengthen cultural exchanges and cooperation with Guangdong Province, to build a value system of “Taking Chinese traditional culture as the core, Coexist multiple cultures all together”; And encourage social forces to participate actively, expand the scope of educational cooperation, and promote the higher education cooperation in the bay area, to show a variety of successful results.

3. Conclusion

Accelerating the higher education cooperation in Guangdong-Hong Kong-Macao Greater Bay Area is an important aspect of promoting the coordinated development of regional higher education. The higher education cooperation in Guangdong, Hong Kong and Macao has a long-standing history. Its development is conducive to the construction of the Greater Bay Area and the promotion of complementary advantages of higher education in Guangdong, Hong Kong and Macao. While at present, the depth and range of cooperation need to be expanded, and the quality of cooperation needs to be improved. By optimizing the institutional environment, innovating the cooperation system and mechanism, exploring the new mode of cooperation among colleges and universities, perfecting the laws and regulations, refining the specific policies, it is conducive to establish a modern university governance system, with government leading, university autonomy, social participation and running schools according to law. It is conducive to form a diversified and deep development situation of higher education cooperation in the Greater Bay Area, and to create an education and talent highland that promotes the economic development of the Greater Bay Area with talent support and intelligence support.

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