

Alleviating Institutional Tensions and Reconstructing Pathways for Integration and Innovation in Sino-Foreign Cooperative Education in the Guangdong-Hong Kong-Macao Greater Bay Area

Zhenzhu Shu*

Guangzhou College of Commerce, Guangzhou 511363, Guangdong, China

**Author to whom correspondence should be addressed.*

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: The construction of the Guangdong-Hong Kong-Macao Greater Bay Area, as a significant regional development strategy of the nation, poses an urgent demand for cross-border cooperation in higher education. In recent years, the Greater Bay Area has achieved breakthroughs in the field of Sino-foreign and Mainland-Hong Kong-Macao cooperative education, forming a new pattern of two-way mobility. However, the institutional complexity of “one country, two systems, three legal jurisdictions, and three customs territories” presents unique “Bay Area Paradoxes” for cooperative education in terms of legal applicability, governance structure, resource allocation, and cultural identity. Based on empirical investigations into the current state of higher education integration in the Greater Bay Area, this paper delves into the underlying institutional barriers faced by cross-border education and proposes systematic breakthrough pathways from three dimensions: legal construction, governance transformation, and connotative development, aiming to provide theoretical references for constructing an internationally competitive higher education cluster in the Bay Area.

Keywords: Guangdong-Hong Kong-Macao Greater Bay Area; Sino-foreign cooperative education; Institutional barriers; Higher education integration; Educational governance

Online publication: April 28, 2026

1. Evolutionary logic and era orientation of higher education cooperation under the Bay Area strategy

Higher education cooperation in the Guangdong-Hong Kong-Macao Greater Bay Area did not commence today, but its strategic position has undergone a fundamental transformation. Early educational exchanges

between Guangdong, Hong Kong, and Macao were mostly confined to spontaneous and scattered inter-school collaborations among the people, characterized by significant “geographical proximity.” With the implementation of the “Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area”, such geographical cooperation has been elevated to a national strategic level, becoming a core engine driving high-quality regional economic and social development. In this context, cooperative education is no longer merely a simple complement of educational resources but has been entrusted with the grand mission of breaking down institutional barriers, promoting efficient factor mobility, and serving the construction of an international science and technology innovation center ^[1-2].

Amid global geopolitical fluctuations and the rise of anti-globalization sentiments, traditional models of cross-border student mobility face uncertainties. Leveraging the institutional advantages of “One Country, Two Systems”, the Guangdong-Hong Kong-Macao Greater Bay Area has creatively constructed a new paradigm of “local internationalization.” By establishing Sino-foreign cooperative universities and secondary colleges with independent legal personalities, high-quality overseas educational resources are comprehensively introduced into the mainland, enabling students to receive an international education without leaving the country. This paradigm not only reduces educational costs and the risk of culture shock but also substantially promotes the international alignment of educational rules, standards, and governance models. However, the deeper challenge of this model lies in how to “adapt foreign elements to Chinese use”, avoiding simple replication of the Western educational system, and maintaining Chinese characteristics and educational sovereignty during the introduction process—a theoretical and practical proposition that urgently needs to be addressed.

2. Development trends under scale expansion and structural changes

2.1. Cluster emergence and spatial reconfiguration of independent legal entities

In recent years, cooperative education in the Greater Bay Area has exhibited a significant transformation from “project cooperation” to “institutional materialization.” Represented by The Chinese University of Hong Kong, Shenzhen, The Hong Kong University of Science and Technology (Guangzhou), and City University of Hong Kong (Dongguan), a group of high-level cooperative universities with high starting points has taken root in the hinterland of the Greater Bay Area. According to incomplete statistics, there are currently over 40 Sino-foreign (including Mainland-Hong Kong-Macao) cooperative educational institutions at the undergraduate level and above approved by the Ministry of Education, with universities possessing independent legal personalities accounting for more than half of similar institutions nationwide. This clustered development not only alters the landscape of regional higher education resources but also, through the “catfish effect”, forces traditional universities to deepen reforms, enhancing the overall quality of higher education supply in the region.

2.2. Formation of a two-way flow pattern and multi-center network construction

For a long time, higher education cooperation between Guangdong, Hong Kong, and Macao has mainly manifested as Hong Kong and Macao universities “moving north” to establish operations in the mainland. However, a significant turning point in the past two years has been the “southward” expansion of mainland universities. The establishment of the Sun Yat-sen University Hong Kong Advanced Institute marks the formal entry of top mainland universities into Hong Kong for education, breaking the traditional one-way

flow pattern. This two-way movement not only promotes the cross-border circulation of scientific research resources, faculty strength, and student enrollment but also reflects the structural evolution of the higher education ecosystem in the Greater Bay Area from “unipolar radiation” to a “multi-center network.” The southward expansion of mainland universities also provides Hong Kong and Macao youth with a new window to observe national development and integrate into national strategies.

2.3. Increased coupling between disciplinary layout and industrial demands

Unlike early cooperative education, which focused on low-cost disciplines such as business and management, newly established cooperative educational institutions in the Greater Bay Area generally focus on cutting-edge technology fields. Disciplines such as artificial intelligence, data science, and analytics established by The Hong Kong University of Science and Technology (Guangzhou), and intelligent manufacturing and new energy emphasized by City University of Hong Kong (Dongguan), are highly aligned with the industrial structure of the Guangdong-Hong Kong-Macao Greater Bay Area. This precise alignment in disciplinary settings ensures that cooperative education is no longer a closed “ivory tower” but deeply embedded in the regional innovation chain, becoming a key link in promoting the integration of industry, academia, research, and application.

3. Practical obstacles and deep-seated contradictions under multiple institutional barriers

3.1. Dislocation in legal application and regulatory vacuum

The current “Regulations of the People’s Republic of China on Sino-Foreign Cooperative Education” primarily regulates cooperative relationships between Chinese and foreign educational institutions, with limited applicability in terms of legal theory for cross-border cooperation within the special unitary state of the Mainland and the Hong Kong and Macao Special Administrative Regions.

Firstly, there is a mismatch in legal hierarchy. Hong Kong and Macao universities entering the mainland for education must simultaneously confront mainland administrative regulations and local laws in Hong Kong and Macao, which exhibit significant differences in property rights definition, tax policies, labor laws, etc., leading to extremely high transaction costs for both parties during negotiation and contract performance.

Secondly, there is a lack of reverse legislation. Currently, there are no clear national laws and regulations governing mainland universities’ operations in Hong Kong and Macao. Tensions exist between mainland state-owned asset supervision, foreign exchange management, and Hong Kong and Macao’s highly open market systems, often resulting in compliance difficulties for mainland universities when establishing research institutions in Hong Kong, such as difficulties in asset export and restricted fund usage.

3.2. Incompatibility in governance systems and administrative friction

Differences in higher education governance models across the three regions constitute substantial administrative barriers.

In terms of approval mechanisms, the mainland implements a strict administrative approval system, where enrollment plans, tuition standards, and even training programs require layer-by-layer approval, resulting in a lengthy and inflexible process. This conflicts with the board decision-making and academic autonomy models prevalent in Hong Kong and Macao universities, causing cooperative educational

institutions to respond slowly to market changes and academic dynamic adjustments.

Regarding cross-border factor mobility, customs clearance for scientific research instruments, equipment, and experimental consumables still faces cumbersome customs declaration procedures and tariff barriers; mutual recognition of cross-border professional qualifications for high-end talent has not been fully established, leading to a persistent phenomenon of one-way talent flow where “moving south is easy, but moving north is difficult.”

3.3. Deep-seated challenges in cultural identity and curriculum integration

Cooperative education is not merely a superposition of physical spaces but also a fusion of cultural logics.

Some cooperative projects exhibit a tendency towards “enclaveization”, where, although internationalized curricula are introduced on campus, there is a lack of in-depth academic and cultural interaction between teachers and students, as well as between Chinese (or Mainland and Hong Kong-Macao) teachers, forming closed circles.

Furthermore, the difficulty in value guidance has increased. In a multicultural context, how to organically integrate national consciousness and patriotism into liberal arts or general education, preventing the phenomenon of “only understanding the profession but not the national conditions”, is a moral education challenge currently faced by cooperative education. Especially in cooperative institutions with a Hong Kong and Macao background, how to effectively resist the infiltration of external negative ideologies while respecting academic freedom is a security bottom line that must be confronted.

4. Practical exploration and dilemma reflection of two different models

The Hong Kong University of Science and Technology (Guangzhou), as a benchmark for educational integration in the Greater Bay Area, has achieved core breakthroughs by breaking down traditional departmental divisions and fully implementing a “hub” and “academic domain” structure. The university’s “de-administration” attempt at the governance level is a highlight, as it introduces an internationally recognized academic governance system, granting professors a high degree of autonomy in student enrollment and research fund usage, greatly stimulating scientific research vitality and attracting a large number of overseas top talents to return. However, at the operational level, the integration point between Hong Kong-style academic freedom and mainland university party building and ideological management is still being explored, especially in research ethics reviews involving sensitive technology fields, where dual standards of the mainland and Hong Kong must be met, increasing management complexity. Additionally, due to the different legal jurisdictions of the Nansha campus and the Hong Kong Clear Water Bay campus, the two universities still face challenges in the legal gray areas of financial consolidation and cross-border intellectual property rights confirmation.

Beijing Normal University-Hong Kong Baptist University United International College (UIC), as China’s first university jointly established by the Mainland and Hong Kong, has deeply cultivated liberal arts education for two decades (**Table 1**). UIC has successfully combined the concept of holistic education with traditional Chinese culture courses, establishing a four-dimensional model covering professional education, general education, holistic education, and national conditions education, effectively cultivating students’ cross-cultural communication abilities. Nevertheless, UIC encountered difficulties in academic credential recognition during its early development, reflecting a disconnect between top-level design and

grassroots practice. Simultaneously, although the all-English teaching environment enhanced students' language abilities, it also once placed some students at a disadvantage in mainland unified examinations for postgraduate studies, profoundly indicating that the talent cultivation goals of cooperative education must precisely match regional diversified demands, avoiding blind pursuit of "complete westernization."

Table 1. Comparison of Sino-foreign Cooperative Education Models between the Hong Kong University of Science and Technology (Guangzhou) and Beijing Normal University-Hong Kong Baptist University United International College (UIC)

Restructuring of Disciplines and Institutional Integration at HKUST (Guangzhou)	Liberal Arts Education and Localized Adaptation at BNU-HKBU United International College (UIC)
<p style="text-align: center;">Success Experiences</p> <ol style="list-style-type: none"> 1. Disciplinary restructuring: Breaking down traditional faculty divisions, implementing a "Hub" and "Thrust Area" architecture. 2. Institutional innovation: Introducing an internationally accepted academic governance system, granting professors high autonomy in admissions and research funding allocation. 3. Talent attraction: De-administration stimulating research vitality, attracting top overseas returnees. 	<p style="text-align: center;">Success Experiences</p> <ol style="list-style-type: none"> 1. Integration of holistic education concepts with traditional Chinese culture courses. 2. Establishment of a four-dimensional education model (specialized education, general education, holistic education, and national conditions education). 3. Cultivating students' cross-cultural communication skills.
<p style="text-align: center;">Practical Challenges</p> <ol style="list-style-type: none"> 1. Management adaptation: Balancing Hong Kong's academic freedom with mainland China's party building and ideological management; unresolved areas remain to be explored. 2. Ethical review: Sensitive technology fields must meet dual standards of both the mainland and Hong Kong, increasing management complexity. 3. Legal challenges: The Nansha campus and Clear Water Bay campus fall under different legal jurisdictions, leading to legal gray areas in financial consolidation and cross-border intellectual property rights verification. 	<p style="text-align: center;">Practical Challenges</p> <ol style="list-style-type: none"> 1. Early issues with academic degree authentication (disconnect between top-level design and grassroots implementation). 2. All-English instruction causing some students to be at a disadvantage in the national postgraduate entrance examination.

5. Path reconstruction and breakthrough strategies for institutional innovation and high-quality development

5.1. Building a legal system for higher education with Bay Area characteristics

The fundamental solution to legal conflicts lies in "good laws and effective governance."

Promote dedicated legislation. It is recommended that the Standing Committee of the National People's Congress authorize the formulation of the "Regulations on Promoting Higher Education Cooperation in the Guangdong-Hong Kong-Macao Greater Bay Area." This regulation should serve as special legislation, taking precedence over general administrative regulations. It should focus on resolving issues such as the legal entity status of cross-border educational institutions, property rights protection, tax incentives, and dispute resolution mechanisms, providing a unified and transparent legal framework for mainland universities moving south and Hong Kong-Macao universities moving north.

Establish a legal conflict coordination mechanism. Drawing on the EU's principle of "mutual recognition", explore the establishment of a coordination center for educational legal conflicts in the Greater Bay Area under the framework of "One Country, Two Systems." Resolve cross-border educational disputes through arbitration mechanisms to avoid direct confrontation over judicial jurisdiction.

5.2. Deepening “streamlining administration, delegating powers, and improving services” reforms and modernizing governance

Implement negative list management. For cooperative educational institutions within the Greater Bay Area, administrative approval items should be significantly reduced. Except for issues involving ideological security, public health, and other bottom-line concerns, all other matters should be independently decided by the schools in accordance with the law. Implement a “filing system” to shift from pre-approval to supervision during and after the event.

Establish a “green channel” for the cross-border flow of essential elements. In cooperation zones such as Qianhai, Nansha, and Hengqin, pilot the “Scientific Research Customs Clearance Facilitation” policy. Exempt scientific research equipment imported by cooperative educational institutions from customs duties, simplify the process for using cross-border scientific research funds, and allow universities to autonomously conduct foreign exchange settlements within specified limits. Simultaneously, accelerate the mutual recognition of professional qualifications to achieve “one test, multiple certificates” for talent in the Bay Area.

5.3. Strengthening connotative construction and fostering an ecosystem of industry-education integration

Develop localized international curricula. Oppose simple “copy-and-paste” approaches and support cooperative universities in forming joint curriculum development teams to integrate China’s development cases and excellent traditional Chinese culture into internationally recognized curriculum systems. Establish a curriculum-sharing alliance among universities in the Greater Bay Area to promote the transition of credit recognition from “formal recognition” to “substantive equivalence.”

Deepen the integration of science, education, and industry ^[3]. Encourage cooperative educational institutions to collaborate with leading enterprises in the Greater Bay Area, such as Huawei, Tencent, and BYD, to establish “Future Technology Colleges” or joint laboratories. Implement a “dual-mentor system” where corporate engineers and university professors jointly guide graduate students, transforming real-world technical challenges faced by enterprises into dissertation topics to effectively enhance the support of talent cultivation for industrial development.

5.4. Building a diversified co-governance quality assurance and ecosystem optimization

Introduce third-party evaluations and Bay Area certifications. Shift away from a single government evaluation model by introducing international authoritative engineering education accreditation and management system certifications to establish quality certification standards with Bay Area characteristics. Eliminate low-level and redundant construction projects through market mechanisms to maintain the value of the Bay Area’s international education brand. Foster an inclusive and symbiotic campus culture.

While strengthening education in the national common language and writing, respect the cultural differences of teachers and students from Hong Kong, Macao, and international backgrounds. Enhance the understanding of Hong Kong, Macao, and Taiwan students regarding the country’s development history and institutional advantages through in-depth social practices, historical investigations, and national conditions research, constructing a “harmonious but diverse” campus cultural ecosystem in the bay area.

6. Future prospects for becoming a world-class hub for science, education, and innovation

6.1. Digital transformation reshaping educational forms

With the explosion of generative AIGC technology, future cooperative education will accelerate its digital transformation. The Greater Bay Area should take the lead in building a “Digital Education Bay Area”, utilizing blockchain technology to establish an unalterable “Bay Area Credit Bank” to enable cross-regional and cross-institutional recognition of learning outcomes. Break down the physical walls of campuses through VR and augmented reality (AR) technologies to construct a borderless smart education ecosystem.

6.2. From a talent hub to an innovation source

Future cooperative educational institutions should not only focus on cultivating graduates but also on becoming sources of original innovation. Support cooperative universities in conducting interdisciplinary frontier explorations by establishing a Greater Bay Area Basic Research Fund. When cooperative universities in the Bay Area can produce Nobel Prize-level scientific research achievements and incubate globally influential technology enterprises, their status as a world-class hub for higher education will truly be established.

6.3. Exporting Chinese solutions for global education governance

The exploration of educational integration in the Greater Bay Area holds significant sample value for resolving transnational educational disputes worldwide^[4]. By summarizing the experiences and lessons learned from cross-border education under “One Country, Two Systems”, China can export Chinese standards and solutions for cross-border higher education governance to the world, particularly to countries along the “Belt and Road”, enhancing China’s voice in global education governance.

7. Conclusion

Sino-foreign cooperative education in the Guangdong-Hong Kong-Macao Greater Bay Area is an unprecedented experiment in institutional innovation. It operates on the unique track of “One Country, Two Systems”, requiring adherence to both educational laws and political logic; it must align with international standards while being rooted in Chinese soil.

Admittedly, the path ahead is still fraught with challenges. Legal barriers have not been completely dismantled, institutional frictions persist, and cultural integration is not an overnight achievement. However, it is precisely these challenges that endow cooperative education in the Bay Area with unique historical value. As long as people adhere to innovation while upholding the firm defense of the country’s core interests and maintaining an open and inclusive attitude toward international advanced experiences, cross-border higher education in the Bay Area will surely achieve integration through breaking barriers, elevate through integration, and ultimately grow into an “education aircraft carrier” carrying the dream of national rejuvenation forward amidst the waves.

Funding

2023 Annual Project of the “14th Five-Year Plan” of the Sino-Foreign Cooperative Education Research

Branch of the Guangdong Higher Education Society-Research on the Development Issues of Sino-Foreign Cooperative Education in the Guangdong-Hong Kong-Macao Greater Bay Area, Project Number: GAHE23CRS005

Disclosure statement

The authors declare no conflict of interest.

References

- [1] Peng J, Li Y, 2025, Development Achievements, Challenges, and Response Strategies of Sino-foreign Cooperative Education Programs in Higher Vocational Colleges in the Guangdong-Hong Kong-Macao Greater Bay Area from the Perspective of Digital Empowerment. *Modern Vocational Education*, 2025(10): 18–21.
- [2] Li Y, Chen HZ, 2024, A Comparative Study of Sino-foreign Cooperative Education in Higher Education in the Beijing-Tianjin-Hebei Region, Yangtze River Delta, and Guangdong-Hong Kong-Macao Greater Bay Area. *Higher Education Exploration*, 2024(4): 31–38.
- [3] Yang C, Wu LJ, 2024, Sino-foreign Cooperative Education in Higher Vocational Education in the Guangdong-Hong Kong-Macao Greater Bay Area: Practical Reflections and Path Explorations. *China Vocational and Technical Education*, 2024(18): 40–49 + 56.
- [4] Li YT, Fang LM, Shang XL, 2023, Current Situation and Suggestions for Sino-foreign Cooperative Education in Higher Education Institutions: Focusing on the Yangtze River Delta Region and the Guangdong-Hong Kong-Macao Greater Bay Area. *Scientific Consulting*, 2023(19): 10–12.

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.