



A Study on the Training Strategies of Art and Design Talents in the Guangdong-Hong Kong-Macao Greater Bay Area Based on Industrial Demands

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Abstract. The article aims to explore the training strategies of art and design talents in the Guangdong-Hong Kong-Macao Greater Bay Area under innovation-driven development. Through literature research, case analysis and other research methods, the article analyzes the difficulties, needs, problems and challenges of art and design talent training in the Guangdong-Hong Kong-Macao Greater Bay Area, and puts forward corresponding strategic suggestions. The traditional training model has difficulty meeting the needs of innovation-driven development, and there are problems such as fragmented disciplinary structure, single teaching content, and lack of practical links. The article strives to improve the talent training strategy in combination with industrial needs under the trends of internationalization, digitization and diversification, so as to deliver innovative applied comprehensive talents to enterprises, thus effectively achieving the integration of industry and innovation. In the historical trend of rapid development and iteration of new media, the cultivation of design talents faces huge opportunities and challenges. With the strong macro-level support from the state government and the guarantee of the micro-level of schools and enterprises, as well as the rational adjustment and upgrading of talent training strategies, it can actively and effectively promote the steady improvement and development of art and design talent training in the entire Greater Bay Area.

Keywords: Guangdong-Hong Kong-Macao Greater Bay Area; Art and Design; Talent Training; Innovation-Driven; Strategic Support

1 Introduction

Since the 1990s, China's marine economy has developed promoted the national economy. [1] Since the Guangdong Provincial Party Committee and the Provincial Government released the "Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area" [2] In 2017, the Guangdong-Hong Kong-Macao Greater Bay Area has become a major highlight of China's economic development. [3] Subsequently, in February 2019, the Central Committee of the Communist Party of China and the State Council issued the "Outline Development Plan for the Guangdong-Hong

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M. F. b. Sedon et al. (eds.), *Proceedings of the 2024 3rd International Conference on Social Sciences and Humanities and Arts (SSHA 2024)*, Advances in Social Science, Education and Humanities Research 851, https://doi.org/10.2991/978-2-38476-259-0_27

Kong-Macao Greater Bay Area", proposing to "promote the cooperative development of education and create a highland of education and talents" [2] which pointed out the direction for the cooperation in higher education in the Greater Bay Area. Four years later, in the post-epidemic era, as the core region of the Chinese mainland and the two special administrative regions of Hong Kong and Macau, the Guangdong-Hong Kong-Macao Greater Bay Area holds huge development potential and opportunities. With the acceleration of regional integration and the upgrading of the economic structure, the development of the art and design field in the Guangdong-Hong Kong-Macao Greater Bay Area is of great significance.

Art and design, as a discipline that integrates culture, creativity, and technology, plays a crucial role in promoting economic development, creating new values, and showcasing cultural charm. The Guangdong-Hong Kong-Macao Greater Bay Area, with its unique geographical location and cultural heritage, has nurtured many art and design talents and creative enterprises. However, while pursuing innovation and international competitiveness, the Guangdong-Hong Kong-Macao Greater Bay Area also faces challenges in talent training, innovation-driven development, and strategic support. Therefore, it is imperative to study the development of art and design in the Guangdong-Hong Kong-Macao Greater Bay Area. The scale, development level, and innovative achievements of the art and design industry in the Guangdong-Hong Kong-Macao Greater Bay Area are significant. Focusing on talent training and innovation-driven development is worthy of research. It is equally important to explore the challenges, opportunities, and propose effective strategic support measures in the current context. The significance of this study lies in providing theoretical basis and policy recommendations for the development of the art and design industry in the Guangdong-Hong Kong-Macao Greater Bay Area, and promoting the prosperity and innovation capabilities of this region. It is hoped that this study will provide useful references for relevant practitioners, decision-makers, and academia, and contribute to the sustainable development of the art and design industry in the Guangdong-Hong Kong-Macao Greater Bay Area.

2 Dilemmas and needs in the training of art and design talents in the Guangdong-Hong Kong-Macao Greater Bay Area

2.1 Limiting factors of traditional training models

Although the number of higher education institutions in the Guangdong-Hong Kong-Macao Greater Bay Area is substantial, according to the QS World University Rankings (2019) results, the Bay Area has 8 world-class universities, the same as Beijing and Beijing-Tianjin-Hebei region, and leads the Yangtze River Delta with 7, ranking first among the four major bay areas in the world. [4] However, the traditional art and design talent training model in the Greater Bay Area faces challenges in the disciplinary structure division. The current training system often divides different art and design fields into independent disciplines, resulting in students having difficulty in

conducting cross-disciplinary exchanges and collaborations during their studies. This fragmentation makes it difficult for students to obtain a cross-disciplinary integration of multiple disciplines. In today's society, art and design are increasingly showing a trend of diversification and comprehensiveness. Therefore, it is necessary to adjust the training model to strengthen communication and cooperation between different disciplines, and build cross-disciplinary learning platforms so that students can have a broad professional vision and comprehensive ability quality.

Another problem plaguing the training of art and design talents in the Guangdong-Hong Kong-Macao Greater Bay Area is the singular nature of teaching content. At present, the course content of many art and design majors focuses too much on imparting theoretical knowledge, lacking the cultivation of practical skills and the exercise of application capabilities. This makes it difficult for students to adapt to the pressure of actual work and difficult to handle complex practical tasks. To address this issue, educational institutions should actively introduce practical teaching methods, encourage students to participate in design project practices, and improve their practical operation skills and problem-solving abilities. At the same time, it is necessary to strengthen cooperation with the industry, offer courses related to actual work, and cultivate students' professional quality and market competitiveness.

The training of art and design talents in the Guangdong-Hong Kong-Macao Greater Bay Area also faces the challenge of a lack of practical links. Due to various reasons, the current practical links in talent training are insufficient. Students lack opportunities to engage in real projects and cannot develop practical skills and teamwork spirit. In addition, the lack of practical links also leads to a disconnect between theoretical learning and practical application. To address this challenge, educational institutions should actively collaborate with the industry to provide practical opportunities for students, such as internships, project collaborations, etc. At the same time, establishing a platform for school-enterprise cooperation can promote close ties between students and enterprises, professional design institutions, allowing students to continuously improve themselves in practical work and realize the effective connection between learning and application. Therefore, only by addressing the challenges of disciplinary structure division, singular teaching content, and the lack of practical links can we better cultivate art and design talents in the Guangdong-Hong Kong-Macao Greater Bay Area to meet the needs of society for high-quality, comprehensive development of professionals. The motivation and needs of higher education cooperation can be classified into three categories: seeking to improve university finances, enhancing teaching quality and research standards, and attracting the quantity and quality of quality students. [3] In the digital age, global-oriented international talent training is of utmost importance.

2.2 Digital era international talent training needs

The inherent need for digital literacy training.

The rapid development of digital technology has triggered a revolutionary change in the field of art and design. The integration of digital technology and art design has provided new possibilities and perspectives for creative expression and artistic crea-

tion. Through digital technology, art designers can use virtual reality, augmented reality, interactive installations and other technologies to create immersive artworks, exploring new art forms and languages. Today, with the rapid development of AIGC, the integration of digital technology has also brought more efficient creative tools and media to the field of art and design. From digital painting software to 3D modeling tools, from video editing software to animation production software, these digital tools allow art designers to express their creativity more flexibly. The important role of digital tools in art and design practice is self-evident, and it also poses new challenges and opportunities for art and design education. Schools should strengthen the education of digital technology and new media skills, and cultivate students' cross-border thinking and innovative spirit.

External trends at the international competitiveness level.

In the context of globalization, international competitiveness has become an important indicator to measure the strength and influence of a country, region, or organization on the international stage. For the development of art and design talents in the Guangdong-Hong Kong-Macao Greater Bay Area, it is crucial to enhance international competitiveness. The art and design industry is highly competitive internationally, and creativity and design concepts play an important role in multinational companies and international markets. Therefore, cultivating art and design talents with international perspectives, global thinking, and international cooperation capabilities has become a top priority. To enhance international competitiveness, it is first necessary to strengthen students' language skills and cultural literacy. Students should learn English or other international languages to master the ability to communicate effectively with international partners. In addition, understanding and respecting different cultural backgrounds, values, and aesthetic concepts, and being able to communicate and understand across cultures is also crucial. By increasing cross-cultural education and cultural exchange activities, students' cross-cultural sensitivity and inclusiveness can be cultivated, and their adaptability in international communication can be improved.

The fundamental motivation for cross-cultural communication and cooperation.

In today's globalized society, the art and design industry face exchanges and collaborations from different cultural backgrounds and countries. The importance of cross-cultural communication and understanding has become increasingly prominent. Art and design talents should possess an open mindset, be able to transcend borders and cultural differences, and effectively communicate and collaborate with people from different backgrounds. Cross-cultural communication and understanding can not only broaden their horizons and enrich their creative inspiration, but also promote the diversity and innovation of art and design works. Through exchanges and dialogues with different cultures, art and design talents can draw inspiration and artistic elements from diverse cultures, and skillfully integrate them into their own design works to form a unique style and visual language. To cultivate the ability of cross-cultural communication and understanding, educational institutions should strengthen educa-

tion on multiculturalism, guiding students to actively understand and study the backgrounds, histories, and artistic expressions of different cultures. At the same time, students should also participate in cross-cultural communication and collaborative projects to personally experience the differences and commonalities between different cultures, and improve their cross-cultural communication skills and problem-solving abilities.

The ultimate goal of enhancing diversity skills.

Diversified capabilities refer to the ability to adapt and respond to different needs, environments, and challenges. In the field of art and design in the Guangdong-Hong Kong-Macao Greater Bay Area, cultivating students' diverse capabilities is crucial for meeting the rapidly changing social needs and diverse job requirements. From the strategic environment of the Greater Bay Area construction and the successful experience of other world-class bay areas, the integrated development of higher education in the Greater Bay Area should focus on building a global talent port and a global knowledge and innovation port, which reflects the three directions of integrated development. The cultivation of diverse capabilities involves multiple dimensions such as knowledge, skills, and attitudes. [5] Firstly, students should have extensive knowledge reserves, not only have a solid foundation in the field of art and design, but also understand the knowledge of related disciplines, such as business, technology, and social sciences, in order to carry out diversified cross-innovation. Secondly, they should be cultivated to have critical thinking and problem-solving skills, and at the same time possess teamwork and leadership skills. In real art design projects, teamwork is often required, and students need to learn to cooperate, communicate, and coordinate with others, giving full play to their respective strengths to achieve collaborative creation. At the same time, students' leadership potential should be cultivated so that they can play a positive role in driving and leading the team.[6] By focusing on the cultivation of diverse capabilities, art and design talents in the Guangdong-Hong Kong-Macao Greater Bay Area can adapt to rapidly changing social needs, create art and design works with international influence, and make positive contributions to the development and prosperity of the region. Innovation in art and design education models, strategic support, and innovation-driven development

3 Innovation in art and design education models, strategic support, and innovation-driven development

3.1 The importance of innovation and interdisciplinary thinking inspiration

In today's rapidly changing social and technological environment, stimulating creativity and cultivating innovation awareness is crucial for personal and organizational development. Creativity and innovation are key drivers of social progress and problem-solving. Therefore, in the process of teaching and talent cultivation, educators should emphasize how to stimulate creativity and cultivate innovation awareness,

helping individuals and organizations continuously innovate in the face of challenges and opportunities.

In the era of the knowledge economy, interdisciplinary collaboration and communication are crucial for achieving innovation. To establish an interdisciplinary collaboration and communication mechanism, the following measures can be taken. Firstly, promote close collaboration between different disciplines and establish open communication and collaboration mechanisms. This includes organizing interdisciplinary teams and projects, encouraging experts from different fields to conduct joint research and cooperation, and stimulating innovative thinking and collaboration skills through the exchange and collision of different fields. In addition, taking advantage of the convenience of technological development, an online platform and resource library can be established to facilitate interdisciplinary communication and collaboration. Through these platforms, experts can share knowledge, experience, and resources, strengthening the effectiveness of interdisciplinary collaboration and promoting the intersection and integration of innovation fields.

While advocating innovation, it is important to emphasize the cultivation of practical and practical application capabilities. In the process of talent cultivation, exploring how to organically combine theoretical knowledge with practical ability and cultivate students' ability to cope with practical problems and challenges is particularly important. During the cultivation process, students should be enabled to apply the knowledge they have learned in real situations. To emphasize the cultivation of practice and practical application capabilities, educational institutions should provide rich practical opportunities and actual projects. This can be achieved through internships, practical training, and participation in actual projects. By experiencing the process of actual projects, students can understand and apply the theoretical knowledge they have learned, developing their ability to solve problems and innovative thinking. At the same time, educational institutions should focus on cultivating students' practical skills and tool application capabilities. For example, in the field of digital technology and art design, students need to master relevant software and tools in order to translate their creativity into actual works. Therefore, relevant courses and training can be established to teach students the skills and methods of using these tools, cultivating their practical ability.

3.2 The necessity of support at the government and school levels

At the government level, policy support and investment are crucial for promoting innovation and creativity. The necessity of this is significant. The government should actively formulate relevant policies to encourage and support innovation activities. This includes providing tax incentives, research grants, and innovation funds, etc., to attract more investments and resources into the innovation field. In addition, the government can encourage cooperation between schools and enterprises to promote knowledge flow and technology transfer. At the government level, large-scale strategic support is also the key to effectively enhancing "industry-creation integration" and a fundamental motivation for improving the efficiency of talent training and the transformation of knowledge achievements.

According to the "2017 Global Innovation Index Report", the Guangdong-Hong Kong-Macao Greater Bay Area ranks second in the world in terms of innovation index. The abundant innovation resources in the Bay Area have laid a good foundation for creating a first-class "industry-university-research-innovation" platform.[7] Therefore, cooperation between education and industry is an important means of cultivating innovative talents and promoting innovation. To this end, teaching units need to create a good cooperation platform to promote close contact and communication between the education and industry sectors. Schools can establish partnerships with enterprises to jointly carry out innovation projects and practical activities. Enterprises can provide actual problems and resource support, while schools provide professional knowledge and technical support. Through this cooperation, students can be exposed to real business needs, while enterprises can also benefit from students' innovative thinking.

At the school level, the establishment of a mentor system and the enrichment of student internship opportunities play an important role in cultivating students' innovation and practical abilities. Schools and enterprises can cooperate to establish a mentor system to guide and mentor students in innovation projects. Mentors can share their experience and knowledge, guide students in solving practical problems, and provide feedback and suggestions. In addition, providing internship opportunities for students is also an important way to develop practical skills. Students can apply their knowledge in a real work environment, understand industry needs and practical operations.

4 Promotion, Opportunities, and Challenges of the Art and Design Industry in the Guangdong-Hong Kong-Macao Greater Bay Area

4.1 The Promoting Effect of the Greater Bay Area Construction on the Design Industry

With the development of globalization and the acceleration of economic integration, regional economic development and industrial upgrading have become the focus of attention for governments and enterprises around the world. Against this background, the establishment of an international exchange and exhibition platform has become one of the important means to promote regional economic development. Through the establishment of an international exchange and exhibition platform, it can promote the opening up of the regional economic system, attract more international resources and investments, promote technological innovation and industrial upgrading, and thereby promote the rapid development of the regional economy.

Regional culture and creative industries are an important part of regional economic development, and the integration of culture and industry is one of the key factors in promoting economic development and industrial upgrading. The establishment of an international exchange and exhibition platform provides a broader stage for the integration of regional culture and creative industries. This integration can not only pro-

mote the exploration and utilization of local cultural resources, but also stimulate the innovative development of cultural and creative industries, injecting new momentum into the transformation and upgrading of the local economy.

The establishment of an international exchange and exhibition platform is of great significance for promoting regional economic development and industrial upgrading. Through the international exchange and exhibition platform, various regions can more conveniently obtain international resources and opportunities and promote their own economic strength. At the same time, the international exchange and exhibition platform also provides favorable conditions for the integration of regional culture and creative industries, helping local economic transformation, upgrading and sustainable development. Therefore, the establishment of an international exchange and exhibition platform is an important path to promote regional economic development and industrial.

4.2 Opportunities and Challenges for Design Professionals Driven by Innovation

In the new era, art and design talents are facing unprecedented opportunities and challenges. With the continuous progress of technological innovation and the digital wave, emerging technologies such as artificial intelligence, big data analysis, and cloud computing are developing rapidly, bringing huge changes and new development opportunities to the field of art and design. [8] These technological advances provide more possibilities for the innovative development of art and design talents, while also providing a broader space for the upgrading of the art and design industry and the realization of new business models, providing unprecedented development opportunities for art and design talents.

In the new economic environment, the exploration of cross-sectoral cooperation and innovation models is also increasingly valued for the development of art and design talents. Collaboration and exchanges between different fields can promote the cross-border exchange of knowledge and technology, promote the collision and integration of art and design concepts and methods. Cross-sectoral cooperation can also accelerate the commercialization of art and design achievements, promote the industrialization of art and design innovation achievements, and provide new impetus for the upgrading of the art and design industry and economic development. At the same time, art and design talents are also facing challenges from changes in market demand and consumer psychology. During the marine economy development of the GBA, the industrial structure has been continuously optimized. [9] Consumer demand and preferences for art and design products and services have undergone huge changes, and traditional art and design enterprises are facing challenges such as declining market demand and intensified competition. [10] Art and design talents need to continuously adjust their market strategies, pay attention to changes in consumer psychology and behavior, actively carry out product innovation and market positioning adjustments, in order to adapt to new market demands, better meet consumer needs, and enhance market competitiveness, thereby coping with the challenges of the new era. These

opportunities and challenges not only have important significance for the personal development of art and design talents.

5 Conclusion

In the new era, art and design talents are facing unprecedented opportunities and challenges. With the continuous progress of technological innovation and the digital wave, emerging technologies such as artificial intelligence, big data analysis, and cloud computing are developing rapidly, bringing huge changes and new development opportunities to the field of art and design. In the future, with the continuous maturity of new technologies such as virtual reality and augmented reality, art and design will welcome more innovative applications and development opportunities. At the same time, cross-sectoral cooperation and the exploration of innovative models are becoming increasingly important for the development of art and design talents. In the future, with the integration of different fields such as industrial design, digital media, and bio-design, art and design talents will need to have cross-sectoral comprehensive capabilities and innovative thinking. Changes in market demand and consumer psychology also pose new challenges to art and design talents. Art and design talents will need to pay more attention to user experience and emotional resonance, and strive to create more personalized and emotionally resonant works to meet future market trends. These opportunities and challenges have important implications for the personal development of art and design talents and deserve in-depth research and discussion.

Authors' Contributions

Dr.Xu Tengfei is an associate professor in charge of scientific research at School of Future Design, Beijing Normal University. He teaches courses thesis writing and art history for undergraduates and graduate students of the entire university. In this thesis, he was responsible for writing, submission, translation and revision.

Professor Peng Gao is a design professor at the School of Future Design, Beijing Normal University. He teaches Design Thinking courses at Beijing Normal University and supervises doctoral students. In this study, Professor Peng Gao provided rich resources and guidance.

Acknowledgments

The work was supported by The Fundamental Research Funds for the Central Universities (1233200018); Zhuhai Philosophy and Social Science Planning Project (2023GJ103); Research Startup Project for Talents Introduction of Beijing Normal University (310432102); Beijing Normal University 2023 Teaching Construction and Reform Project (jx2023065).

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