

Innovative Development Research on Postgraduate Talent Cultivation in Double First-Class Universities in Border Areas from the Whole-Person Education Perspective

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Abstract: This study aims to explore the innovative development of graduate student talent cultivation in frontier region's double first-class universities under the perspective of comprehensive education. Against the backdrop of globalization and national strategic needs, frontier universities bear the important task of cultivating high-quality talents, especially under the guidance of the double first-class construction strategy and the comprehensive education concept. This study firstly conducts a literature review, sorting out the development and application of the graduate cultivation model, the educational characteristics of frontier universities, and the concept of comprehensive education. Then, using a combination of qualitative and quantitative research methods, it analyzes the current status, challenges, and opportunities of graduate student cultivation in double first-class universities in the frontier areas. The study finds that, despite challenges such as resource limitations and regional characteristics, comprehensive development of students can be effectively promoted through innovative educational models and strategies. This research proposes targeted innovative development strategies to optimize and enhance the graduate student cultivation model in frontier universities, providing a reference for future educational reforms and talent cultivation.

1. Introduction

In the current era of globalization and the knowledge economy, higher education, especially graduate education, plays a crucial role[1]. China's higher education has undergone significant transformation and rapid development over the past few decades, particularly in the implementation of the double first-class construction strategy and deepening educational reforms. Universities in frontier regions, as an integral part of the national strategy, not only play a key role in promoting regional economic and social development but also bear significant responsibilities in cultivating high-quality talents suited to the demands of the new era. However, frontier universities face certain limitations in resource allocation, faculty strength, and educational models, posing challenges to the innovative development of graduate education[2].

The implementation of the double first-class construction strategy provides new opportunities for frontier universities to develop graduate education[3-4]. Concurrently, the concept of

comprehensive education (i.e., the all-around development in morality, intelligence, physique, aesthetics, and labor) offers guiding principles for the holistic development in higher education, emphasizing the importance of nurturing students' character, mental and physical health, aesthetic appreciation, and labor skills along with imparting knowledge. Under this concept, the graduate education in double first-class universities in frontier regions faces the crucial task of innovating talent cultivation models to meet societal and national development needs[5].

The importance of this study lies in its focus not only on the issues of graduate cultivation in frontier universities under the double first-class context but also on exploring how the comprehensive education concept plays a role in this process. The findings of this study will help understand the characteristics and challenges of talent cultivation in frontier universities, providing referential experiences for other universities in similar contexts. Moreover, the innovative strategies and recommendations proposed by this study aim to promote the enhancement of higher education quality, meeting the societal demand for high-quality talents, and are of significant importance for driving the continuous development of higher education[6].

2. Theoretical Background and Research Framework

Graduate education, as the core of the higher education system, has always been a focal point of global educational research. Particularly in China, with the deepening of higher education reforms, the model of graduate cultivation has gradually shifted from the traditional master-apprentice system to a more diversified and comprehensive model. This transformation is especially complex in the universities of frontier regions, as these institutions differ from inland universities in terms of resource allocation, geographical location, and cultural background.

Frontier universities play a unique role in China's higher education system. In addition to cultivating high-quality talents, these institutions also bear the responsibility of promoting regional cultural diversity and social stability. The double first-class construction strategy has brought new development opportunities to frontier universities, propelling them to improve in teaching quality, research capabilities, and international influence[7].

The concept of comprehensive education, which focuses on the all-around development in morality, intelligence, physique, aesthetics, and labor, has been at the core of China's higher education reforms in recent years. The implementation of this concept is significant for graduate education, demanding that education not only focus on students' academic achievements but also pay attention to their overall quality development. For frontier universities, how to integrate the comprehensive education concept with the specific needs of graduate cultivation has become an important research topic[8].

In terms of methodology, this study adopts a mixed-methods research design. By combining qualitative and quantitative research methods, it aims to comprehensively analyze the current situation, challenges, and opportunities of postgraduate talent cultivation in Double First-Class universities in border areas[9]. The qualitative research includes the analysis of relevant policy documents, historical materials, as well as interviews with university administrators, teachers, and students (figure 1). The quantitative research involves the collection and analysis of relevant educational statistical data to measure the effects of different training models.

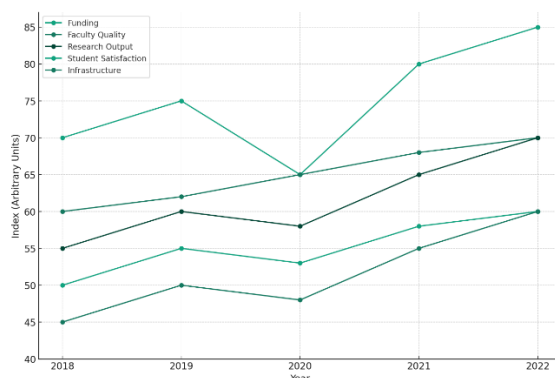


Figure 1: Multi-dimensional Analysis of Postgraduate Education at Frontier Universities (2018-2022)

3. The Innovation and Development of Postgraduate Training Models

3.1 Postgraduate Education in Double First-Class Universities in Border Areas

Double First-Class universities in border areas face unique challenges in postgraduate education. Firstly, the limitations of resources and remote geographical locations significantly affect their teaching and research capabilities. Due to relatively less funding and infrastructure constraints, these universities struggle to attract high-level teachers and researchers. Additionally, these conditions also impact collaboration and exchange with other academic institutions domestically and internationally, limiting the expansion of academic horizons and the improvement of research levels.

Secondly, the student composition of these border universities has unique multicultural characteristics, which is both a valuable resource and a challenge for education and research. The multicultural background requires universities to adopt more flexible and inclusive strategies in curriculum design, teaching methods, and academic research. However, this diversity can sometimes lead to uneven resource distribution and fluctuations in educational quality. Border universities need to ensure high-quality education and research opportunities for all students while maintaining cultural diversity.

Lastly, despite these challenges, Double First-Class universities in border areas also demonstrate unique strengths and potential. These universities are often located in regions rich in natural and cultural resources, providing excellent conditions for distinctive research projects. For example, some universities leverage their geographical advantages to conduct a series of research projects closely related to the regional economy, society, and environment. These projects not only enrich the learning and research experiences of students but also promote sustainable development in the region.

3.2 Case Study under the Concept of Whole-Person Education

In Double First-Class universities in border areas, the implementation of the whole-person education concept is beginning to bring about positive changes. Firstly, these universities are gradually integrating the comprehensive development concept of morality, intelligence, physical fitness, aesthetics, and labor into postgraduate education. For example, some universities have reformed their curriculum to include courses involving social practice, cultural diversity, and innovative thinking. These courses focus not only on imparting academic knowledge but also emphasize developing students' critical thinking, social responsibility, and innovation skills.

Secondly, border universities are exploring collaboration models with local communities and enterprises to enhance postgraduate students' practical skills and job readiness. Through these collaborations, students have the opportunity to participate in real social and economic projects, providing them with valuable practical experience and enhancing their ability to solve complex problems. For instance, some students are involved in research projects in cooperation with local businesses aimed at addressing region-specific social and environmental issues, such as water resource management and ethnic cultural preservation.

Finally, border universities are actively exploring how to promote students' comprehensive quality development through the whole-person education concept. In addition to traditional academic training, these universities also focus on students' physical and mental health, artistic cultivation, and labor skills. For example, some schools offer art workshops, sports competitions, and social service projects. These activities not only enrich students' campus life but also help cultivate their teamwork abilities, leadership skills, and sense of social responsibility (figure 2).

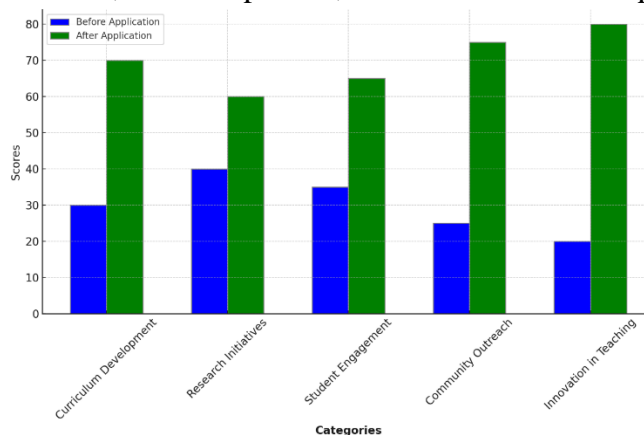


Figure 2: Impact of Whole-Person Education Concept on Frontier Universities: Before and After Comparison

4. Innovative Development Strategies

Double First-Class universities in border areas face a series of challenges in postgraduate education development. Resource scarcity, particularly in funding, facilities, and high-quality teachers, is a primary challenge. These limitations significantly impact the quality of teaching and research, hindering these universities' ability to attract and cultivate excellent postgraduates. Their remote geographic locations further limit opportunities for academic exchange and cooperation, affecting the expansion of academic perspectives.

However, these universities have unique advantages in conducting region-specific research, especially in fields like ethnic culture and frontier economic development. Their research enriches academic diversity and helps address regional practical issues. Some focus on local ecological protection and cultural heritage conservation, crucial for promoting sustainable regional development.

Continued national attention and investment in frontier education bring new opportunities for these universities. Increased financial support, infrastructure development, policy backing, and expanded academic exchange opportunities provide essential resources for improving educational quality and innovating postgraduate training models. With these resources, frontier universities have the potential to play a more significant role in the national and international academic community.

Considering these challenges and opportunities, frontier universities need innovative strategies to

promote postgraduate education development. This includes strengthening cooperation with academic institutions at home and abroad, utilizing region-specific resources for distinctive research, and improving teaching methods and curriculum design to better meet postgraduate academic and career needs.

5. Conclusion

This study focuses on the innovative development of postgraduate talent cultivation in Double First-Class universities in border areas, under the concept of whole-person education. Analysis of the current situation reveals that these universities face a series of challenges in postgraduate training, including resource constraints, remote geographical locations, and teaching challenges brought by cultural diversity. At the same time, they possess unique advantages, such as rich regional characteristics and cultural resources, offering unique opportunities for conducting region-specific research.

The research indicates that by adopting innovative strategies, such as strengthening industry-academia-research cooperation, encouraging interdisciplinary research, expanding international exchange and cooperation, and increasing investment in educational and research facilities, the quality and level of postgraduate education in border universities can be effectively improved. These strategies not only help overcome existing challenges but also fully leverage the unique strengths of the universities, promoting the comprehensive development and cultivation of students' innovative abilities.

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