

# *Research on the Transformation of Local Undergraduate Institutions into 'Double First-Class' Construction—Taking Xihang University as an Example*

Wu Zhensong

*Xihang University, No.259 West 2<sup>nd</sup> Ring Road, Lianhu District, Xi'an, 710077, China*

**Keywords:** Local undergraduate institutions; “Double First-Class” construction; transformation and development; applied type

**Abstract:** The transformation and development of local universities is of significant importance in the context of China's economic development and industrial structure adjustment. This transformation addresses the challenges faced by local universities and can be understood through three basic forms: categorized development, differentiated development, and collaborative development. In the process of transformation, the construction of first-class colleges and first-class majors, often referred to as the "Double First-Class" initiative, is a key goal. The specific content of building a "Double First-Class" institution includes eight aspects: first-class major construction, first-class applied talent cultivation, first-class course construction, first-class applied practice education platform construction, first-class teacher team construction, first-class campus culture construction, first-class internal management construction, and first-class social service capability construction. The demand for talent in national economic and social development is multi-level and diverse. Every industry requires top-notch talent. Local applied undergraduate institutions should seize opportunities to achieve the "Double First-Class" construction goals in their transformation and development.

The "Guiding Opinions on Guiding Some Local General Undergraduate Colleges and Universities to Transform into Applied Types" clearly defines the significant importance of the transformation and development of colleges and universities. In the "Suggestions of the Central Committee of the Communist Party of China on Formulating the 13th Five-Year Plan for National Economic and Social Development," it is proposed to "encourage general undergraduate colleges and universities that meet the conditions to transform into applied types," which has pointed out the direction for the reform and development of higher education in China.

The State Council issued the "Overall Plan for the Coordinated Advancement of World-Class Universities and Disciplines," with the overall goal of promoting a number of high-level universities and disciplines to enter the ranks or the forefront of the world. The "Implementation Opinions on Building 'World-Class Universities, World-Class Disciplines, First-Class Colleges, and First-Class Majors'" propose to "accelerate the transformation of some provincial undergraduate colleges and universities into applied institutions".

The national "Double First-Class" higher education strategy will be the future direction of

China's higher education development. Local applied undergraduate institutions in transition must aim for "first-class institutions and first-class majors," which is the goal of the "Double First-Class" construction. They must continuously innovate and reform, striving to be first-class in categorized development.

## **1. The Necessity of Transformation and Development in Local Undergraduate Institutions**

The transformation and development of local undergraduate institutions is necessary for several reasons. Firstly, it is a crucial part of deepening the supply-side reform in higher education, addressing structural challenges within the higher education system. Secondly, it is a practical necessity for the survival and development of these institutions themselves. Additionally, the transformation aligns with the urgent demands of the construction of an innovative nation, which calls for structural reforms in higher education, and represents an inevitable choice for the reform and development of higher education<sup>[1-2]</sup>. It is an urgent need to adapt to the development of China's economy and society and the transformation and upgrading of industrial structures. It is an inherent requirement for deepening the supply-side reform of higher education and resolving structural challenges within higher education. It is a practical need to address the survival and development of some local undergraduate institutions<sup>[3-5]</sup>.

## **2. The Strategic Choices for the Transformation and Development of Local Undergraduate Colleges**

### **2.1 Pursuing Excellence and Striving for First-Class Status in Categorized Development**

The applied transformation and development of local undergraduate colleges is a strong evidence that China's higher education has embarked on the path of categorized development. On the one hand, this indicates that the categorized development of higher education institutions has become an inevitable trend in the reform and development of China's higher education system. On the other hand, it puts forward new requirements for all levels and types of higher education institutions in China to find their own positioning and pursue excellence in categorized development. At present, local undergraduate colleges have become an important part of China's higher education. Their positioning should focus on cultivating applied talents, primarily training undergraduates, and serving local areas.

### **2.2 Laying a Solid Foundation and Highlighting Characteristics in Differentiated Development**

The differentiated development of local undergraduate colleges requires a scientific positioning and clear strategy. The connotation of this development must be continuously deepened during the process of transformation, and the level of differentiation should also be continuously improved. The connotation of differentiated development can be divided into three levels: First, differentiation among different types of universities. Second, differentiation of unique characteristics among similar universities. Third, differentiation in professional focus among universities with the same characteristics.

### **2.3 Enhancing Strength and Striving for Excellence in Collaborative Development**

The primary mode of collaborative development for local undergraduate colleges involves the joint participation and in-depth cooperation of industries, universities, and research institutions,

integrating production, teaching, and research organically. In this collaborative development, local undergraduate colleges should gradually establish an effective mechanism to attract industries, sectors, and employers to participate in the formulation of talent cultivation plans. They should leverage the synergistic role of industry-education integration and school-enterprise cooperation in talent cultivation and actively explore the co-construction and co-management of secondary colleges with industry enterprises and industrial clusters. This will achieve a deep integration of "industry," "academia," and "research," truly establishing a collaborative development and innovation relationship between universities and regional economies. Consequently, local undergraduate colleges can continuously enhance their capabilities during their transformation and development, effectively promoting the forward development of regional economies<sup>[6-7]</sup>.

### **3. Implementing the "Double First-Class" Initiative**

#### **3.1 Establishing Construction Goals**

XIANG UNIVERSITY, as a newly promoted local undergraduate institution, aims to become a high-level applied undergraduate institution with distinct aviation characteristics. The university strives to build itself into a first-class applied undergraduate institution in Shaanxi and a well-known one in China. The university's leading talents, advantageous disciplines, innovation platforms, service platforms, and social capabilities have all been significantly enhanced. The quality and level of education have greatly improved, achieving the goal of building a high-level applied undergraduate institution with a wide influence and distinct characteristics among similar universities in China.

#### **3.2 Main Construction Content**

##### **1) Strengthening the Construction of "First-Class Majors"**

With aviation manufacturing as the main body and transportation aviation and general aviation as the two wings, the "one body, two wings" layout of disciplines and majors has been established. Relying on the "China Aviation City" in Yanliang, the university has vigorously promoted collaborative innovation among government, industry, academia, and application, and has preliminarily established a cooperation mechanism of "shared resources, joint talent cultivation, joint process management, and shared outcomes."

##### **2) Promoting the Cultivation of "First-Class Applied Talents"**

The university encourages its colleges to involve industry enterprises in professional development, revision of talent training programs, curriculum building, talent quality evaluation, and the joint construction of internship bases, as well as inviting enterprise technicians to undertake teaching tasks. The university also encourages colleges to carry out reforms in applied talent training models, such as "Enterprises on Campus," "Enterprise-Branded Training," "Integrated Industry-Academia-Research-Application Training," and "Outstanding Engineers Education and Training," in an effort to develop open, flexible, and diverse talent training models. The goal is to cultivate first-class applied undergraduate talents that meet the needs of enterprises.

##### **3) Carrying out the Construction of "First-Class Courses"**

The university encourages colleges to align course construction with professional, industry, and job standards, closely integrating the actual work processes of positions. New knowledge, achievements, and technologies from industries and enterprises should be incorporated into the course content. The participation of industry and enterprise personnel in course development is encouraged, and the determination of course content should be jointly and reasonably made by the university and enterprises. Efforts should be made to promote the integration, modularization, and

project-based approach of courses. Exploration of teaching methods such as "simulation teaching," "project-based teaching," "on-site teaching," and "case-based teaching" is also encouraged. Colleges are encouraged to advance formative assessment, shifting from end-of-term evaluation to process evaluation, and from college-only evaluation to joint evaluation by the university and enterprises. The implementation of certificate-based and competition-based assessments is encouraged to highlight practical evaluation. The quality standards for course construction should be improved in a categorized manner, and a course evaluation system should be implemented. Teachers are encouraged to collaborate with enterprises to jointly develop a series of distinctive applied textbooks or lecture notes. Colleges are also encouraged to build platforms based on "Internet+" to jointly develop a range of online courses, series of lectures on the frontiers of disciplines, and seminar courses with enterprises.

#### 4) Implementing the Construction of a "First-Class Applied Practice Education Platform"

The university fully leverages the advantages of the Yanliang Aviation Industry Base, and adopts various methods to build first-class shared practice bases through cooperation between the university and enterprises. These methods include corporate investment or donations, university self-funding, and financial leasing. Colleges are encouraged to improve the innovation and entrepreneurship education curriculum system, offering required and elective courses such as entrepreneurship basics, entrepreneurship case studies, and entrepreneurship guidance to all students. The university also strongly supports students' participation in annual academic and skill competitions, including aeronautical modeling contests, electronic design contests, mathematical modeling contests, mechanical innovation competitions, and "Internet +" competitions. Within the university, a practice base for college students' innovation and entrepreneurship is established. Regular innovation and entrepreneurship forums are held, and platforms for entrepreneurial incubation, innovation and entrepreneurship associations, and entrepreneurship clubs are set up to conduct practical activities in innovation and entrepreneurship. These efforts aim to cultivate students' innovative spirit, entrepreneurial awareness, and capabilities in innovation and entrepreneurship.

#### 5) Building a "First-Class Team of Distinguished Teachers"

The university has fully launched the "Five Plans," including the Faculty Size Expansion Plan, High-Level Talent Recruitment Plan, Teacher Engineering Practice Capacity Enhancement Plan, Talent Cultivation Plan, and Support Plan for Backbone Teachers' Overseas Research. These initiatives aim to strengthen the faculty team comprehensively. Reforms in teacher appointment methods are being implemented to attract professionals with rich corporate experience, skilled craftsmen, managers, renowned experts, and academic leaders from both domestic and international fields. The university encourages distinguished teaching masters to establish "Master Teachers' Studios", regularly hosting "Master Teachers' Lecture Series" and "Demonstration Classes". Additionally, colleges are encouraged to invite well-known educators from within and outside the province to give lectures and hold regular academic seminars featuring renowned experts, industry elites, and master teachers. Efforts are being made to enhance the research atmosphere and improve the teaching capabilities of young teachers, encouraging them to actively engage in research alongside their teaching duties. The university aims to fully leverage team collaboration mechanisms, guiding academic leaders to form top-tier teaching teams through mentorship models such as "Passing on Experience" and the "Mentorship System for Young Teachers", where one academic leader cultivates an entire teaching team. Young teachers are encouraged to participate in corporate on-the-job practice, technology development, and scientific research to enhance their practical and industry-academia-research cooperation capabilities. The goal is to build a faculty team of "Dual-Competency" teachers, who are well-suited for applied undergraduate institutions.

#### 6) Cultivating the Construction of a "First-Class Campus Culture"

Guided by the establishment of correct worldviews, outlooks on life, and values, and with the construction of excellent school ethos, teaching style, and study atmosphere at its core, the development of a first-class campus culture with distinct aviation characteristics is strengthened through activities such as aviation popularization and college culture. Leveraging the aviation cultural resources within the school, it highlights the school's rich aviation education atmosphere, strong aviation cultural facilities, and unique value in enhancing the scientific literacy of young people. The university should fully exercise the functions of higher education institutions in social service and cultural inheritance, actively carry out aviation popularization work, and continuously meet the cultural needs of young people and the general public for aviation science and technology knowledge.

#### 7) Strengthening the Construction of "First-Class Internal Management"

Strengthening the construction of "first-class internal management" and enhancing the scientific level of internal management in applied undergraduate institutions is crucial for successfully transforming and building "double first-class" institutions. By focusing on the construction of first-class institutions and majors, it is essential to accelerate the establishment of internal management systems that are compatible with the construction of "double first-class" institutions. This includes developing a teaching quality assurance system, a scientific research evaluation system, a personnel distribution system, and a student management system. Improving the internal governance methods of first-class applied undergraduate institutions will continuously advance the connotative construction of "double first-class" institutions.

#### 8) Enhancing the Construction of "First-Class Social Service Capability"

Universities have four major functions: talent cultivation, scientific research, social service, and cultural inheritance. Applied undergraduate institutions should focus more on serving local areas and industries, achieving the social service function of cultivating urgently needed applied technical talents for regional economic and industrial development. The school adheres to the fine tradition of focusing on engineering and emphasizing the cultivation of practical abilities, and maintains the educational positioning of "industry-oriented, local-oriented, and applied-oriented," continuously enhancing its "first-class social service capability." In recent years, the school has continuously improved its teaching and research level as well as its social service capability, laying a solid foundation for building a high-level first-class applied undergraduate institution with distinct aviation characteristics.

## 4. Conclusion

Building applied universities, cultivating applied talents, conducting applied research, and comprehensively enhancing the ability and level of universities to serve society are essential choices for the development of local undergraduate colleges. The construction of applied universities requires that teaching and research always focus on "application," treating "application" as the concept, philosophy, and principle that we must always adhere to. Through educational reform, efforts should be made to align professional settings with industrial demands, course content with professional standards, teaching processes with production processes, and academic credentials with professional qualifications. This will cultivate applied talents who can truly meet the needs of economic and social development, and strive to form their own strengths and characteristics. The national economic and social development demands talents at multiple levels and of various types, and all industries require top-notch talents. Local applied undergraduate colleges should seize opportunities, deepen institutional reform and innovation, and based on the "Overall Plan for the Coordinated Advancement of World-Class Universities and Disciplines" issued by the State Council, the "Opinions on Guiding Some Local General Undergraduate Colleges

to Transform into Applied Universities" by the Ministry of Education and other ministries, and the Shaanxi Province's "First-Class University, First-Class Discipline, First-Class College, First-Class Major" construction plan, they should formulate a work plan for the construction of "first-class colleges and first-class majors." In the construction of applied universities, further liberate thought, change concepts, be pragmatic, work hard, boldly explore, and innovate. The university strives to be first-class in the construction of applied universities and aims to build the college into a high-level applied university with distinct characteristics and "Double First-Class" status.

## References

- [1] Zhang Chunquan. Construction of teaching quality management system for applied undergraduate universities based on OBE concept[J].*Journal of Jilin Agricultural Science and Technology University*,2024,33(6): 40-43, 63.
- [2] Zhu Jianxin. Institutional isomorphism and practical patterns of the local universities transforming into application-oriented ones[J].*Research in Higher Education of Engineering*, 2020(5):129-133,146.
- [3] Wang Jianhua. A research on faculty teaching input and its causal factors in application-oriented undergraduate colleges [J].*Journal of Changshu Institute of Technology(Philosophy & Social Sciences)*,2024, 38(6): 119-124.
- [4] Wang Jing. Research on the construction of first-class undergraduate majors in application-oriented universities based on EPAS certification[J].*Education and Teaching Forum*, 2024(42): 25-30.
- [5] HUANG Chengliang. Engineering ethics education in applied colleges from the perspective of new engineering disciplines [J].*Journal of Science and Education*, 2024(16): 91-94.
- [6] LI Bin, XIE Chengdong. Innovation model of industry and education integration in applied undergraduate industry colleges—based on Huang Yanpei's view of vocational education[J].*The Theory and Practice of Innovation and Entrepreneurship*,2024, 7(21)149-151.
- [7] TIAN Zhixiang. On the solutions to the problems in pushing on the transformation and development of local newly-built universities[J].*Journal of Heze University*, 2021,43(3): 27-33.