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Research Article

Challenges and Strategies for High-Quality Development of Local Application-Oriented Universities Under the Background of Building a Leading Country in Education

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Abstract

Under the context of the in-depth implementation of the strategy to build China into a leading country in education, local application-oriented universities, as critical nodes in regional innovation ecosystems, directly influence the organic integration of education chains, talent chains, and industry chains. Currently, these institutions face multiple structural contradictions in serving regional economic transformation and upgrading. In evaluation orientation, traditional academic assessment systems conflict with application-oriented positioning, resulting in low commercialization rates for research achievements. Regarding discipline development, there is insufficient alignment between academic programs and regional strategic emerging industries, with notable gaps in cutting-edge fields like artificial intelligence and digital economy. In talent cultivation, curriculum systems mismatch industry competency standards, compounded by persistent weaknesses in practical teaching. At the industry-education integration level, university-enterprise collaborations predominantly remain symbolic agreements without substantive corporate participation in talent development processes. Additionally, the proportion of "dual-qualified and dual-capable" faculty members (with both academic and industrial expertise) remains low, coupled with widespread deficiencies in industrial practical experience. Through analyzing national policy evolution and regional case studies, this paper reveals the current status and challenges of local application-oriented universities, proposing systematic reform pathways. Guided by policy innovations and institutional mechanisms, such universities can transition from "passive adaptation" to "value co-creation", offering replicable practical models for advancing China's education power strategy.

Keywords

Leading Country in Education, Local Application-Oriented University, High-Quality Development

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1. Introduction

Local application-oriented universities occupy a significant position in China's higher education system. According to publicly available data, as of 2025, there are over 600 local application-oriented universities in China, accounting for more than half of all ordinary undergraduate institutions nationwide and covering all 31 provincial-level administrative regions (excluding Hong Kong, Macao, and Taiwan). Since 2015, when the Ministry of Education, the National Development and Reform Commission, and the Ministry of Finance jointly issued "the Guidance on Guiding Some Local Ordinary Undergraduate Universities to Transform into Application-Oriented Institutions" (No. 7 [2015] of the Ministry of Education), the number of local application-oriented universities has grown rapidly. However, regional distribution remains highly uneven, characterized by concentrated growth in eastern provinces and major education hubs, gradual coverage in central and western regions with lingering gaps, and low overall coverage in non-provincial capital cities. Public statistics indicate that provinces such as Henan, Jiangsu, Guangdong, and Shandong have a relatively large number of application-oriented universities, yet 70 prefecture-level cities nationwide still lack independent undergraduate institutions, primarily in the northeast, northwest, and southwest regions.

2. Policy and Institutional Documents Related to Local Application-Oriented Universities

The Communist Party of China (CPC) Central Committee, the Ministry of Education, local governments, and provincial education authorities all attach great importance to the development of local application-oriented universities, issuing a series of guiding policy documents.

At the national level:

1) In 2015, the Guidance on Guiding Some Local Ordinary Undergraduate Universities to Transform into Application-Oriented Institutions (No. 7 (2015) of the Ministry of Education) outlined pathways for transforming ordinary undergraduate universities into application-oriented institutions, emphasizing regional economic service orientation, industry-education integration, and industry-academia collaboration to cultivate applied talent, focusing on adjusting the professional system, curriculum and teaching staff structure.
2) In 2017, the State Council's 13th Five-Year Plan for National Education Development (No. 4 (2017) of the State Council) identified application-oriented university transformation as a core measure for higher education restructuring, mandating systemic reforms in governance, disciplines, and teaching methods. By the end of the 13th Five-Year Plan, a number of high-level application-oriented universities with Chinese characteristics will be established to directly serve regional development and industrial revitalization.
3) In 2019, the National Vocational Education Reform Implementation Plan (No. 4 (2019) of the State Council) issued by the State Council required the integration of application-oriented universities into the modern vocational education system. It emphasized improving the training system for high-level applied talents, promoting the transformation of qualified regular undergraduate universities into application-oriented institutions, and initiating pilot programs for undergraduate-level vocational education. The plan also advocated exploring long-term academic programs to cultivate high-end technical and skilled professionals while aligning talent development with industrial needs. In the same year, the China Education Modernization 2035 jointly issued by the CPC Central Committee and the State Council proposed establishing and improving a comprehensive classification-based development policy system for higher education institutions, and continuously advancing the transformation and development of local undergraduate universities.
4) In 2020, the Overall Plan for Deepening Educational Evaluation Reform in the New Era issued by the CPC Central Committee and the State Council proposed improving the evaluation of higher education institutions, implementing differentiated assessments for application-oriented universities, and exploring the establishment of evaluation standards for application-oriented undergraduate programs, with a focus on cultivating professional competencies and practical application skills.
5) In 2021, the Outline of the 14th Five-Year Plan for National Economic and Social Development and the Long-Range Objectives Through the Year 2035 of the People's Republic of China reaffirmed the need to advance the transformation of some regular undergraduate universities into application-oriented institutions, emphasizing that the structure of talent cultivation must align with the demands of industrial upgrading. It also called for supporting universities in cultivating versatile technical and skilled talents through industry-education integration, thereby enhancing the synergy between educational outputs and evolving socioeconomic needs.
6) In the 2024 Government Work Report, the phrase "strengthening the development of application-oriented undergraduate universities" reflects heightened expectations and requirements for these institutions. Notably, the Education Power Construction Plan Outline (2024–2035) issued in 2024 by the CPC Central Committee and the State Council systematically outlined the classified development of higher education, proposing to "accelerate the application-oriented transformation of local universities". It calls for institutions to deepen the

integration of science and education, industry-education collaboration, and university-local partnerships, aiming to build a talent cultivation system that serves new quality productive forces. This document marks the first time that the construction of application-oriented universities has been elevated to the strategic level of national education modernization, underscoring their critical role in aligning educational outputs with China's developmental priorities.

At the local government level, since the issuance of the Guiding Opinions on Guiding Some Local Ordinary Undergraduate Universities to Transform into Applied Universities, more than 20 provinces (autonomous regions and municipalities), including Guangdong, Henan and Shandong, have issued institutional documents to guide some ordinary undergraduate universities to transform into application-oriented universities, using project construction and pilot selection methods. Support will be given to pilot colleges and universities in streamlining administration, delegating power to lower levels, setting up specialties, enrollment planning, and faculty recruitment, so as to stimulate the internal impetus and vitality of colleges and universities in their application-oriented development. For example:

1) In 2016, Guangdong Province issued the Implementation Opinions on Guiding Some Regular Undergraduate Universities to Transform into Application-Oriented Universities, which clearly prioritized application-oriented universities as the development of undergraduate education, and required universities to establish a mechanism for integrating production and education based on the needs of industrial transformation and upgrading.
2) In 2016, Shanxi Province issued the Pilot Work Plan for the Transformation of Some ordinary Undergraduate Universities into Application-Oriented Universities, proposing that 6-8 universities should be piloted during the 13th Five-Year Plan period to promote the transformation of personnel training into application-oriented, technology-oriented.
3) In 2020, Shandong Province issued the Guiding Standards for the Construction of Application-oriented Undergraduate Universities (Trial), proposing construction standards from ten aspects, such as school-running positioning, integration mode of production and education, teaching staff, and teaching resources, to promote the transformation of colleges and universities into application-oriented universities.
4) In 2024, Sichuan Province issued the Guiding Opinions on Vigorously Promoting the Construction and Development of Application-Oriented Undergraduate Universities, proposing the principle of "Simultaneous promotion and Key support". It plans to build provincial-level application-oriented brand universities, professional groups, courses and textbooks within five years, and deepen the integration of production and education.

Over the past decade, national policies have gradually shifted from "transformation guidance" to "categorized development and distinctive strengthening" with a particular emphasis on:

1) Industry-Education Integration Mechanisms: Aligning academic disciplines with industrial chains through platforms like university-enterprise collaborations and industrial colleges;
2) Evaluation System Reform: Establishing assessment criteria exclusive to application-oriented universities, emphasizing practical capabilities and contributions to local services [1];
3) Resource Allocation Prioritization: Joint central and local fiscal support for high-level application-oriented universities, such as extending the "Double High-Tech Plan" (a national initiative for vocational education excellence) to the undergraduate level.

3. Challenges in the High-Quality Development of Local Application-Oriented Universities

The report to the 19th National Congress of the Communist Party of China (CPC) for the first time emphasized that "Construction of a powerful country in education constitutes a foundational project for the great rejuvenation of the Chinese nation", elevating it to the level of national strategy. The 20th National Congress of the Communist Party of China further specified the defined objective of building a powerful country in education by 2035, integrating it into a systematic strategic framework encompassing sci-tech innovation and talent development strategies. Local application-oriented universities serve as strategic levers for implementing the national education powerhouse strategy [2]. By advancing industry-education integration and aligning academic programs with regional industrial demands, they directly empower regional economic transformation and upgrading, constituting a critical implementation pathway for achieving this strategic vision. However, within the overarching context of construction of a powerful country in education, China's local application-oriented universities continue to encounter multiple structural constraints and multifaceted challenges in advancing high-quality development, as shown in Figure 1.

Figure 1. *Challenges in the High-Quality Development of Local Application-Oriented Universities.*

3.1. Evaluation Metrics and Institutional Orientation Dilemmas

A pronounced trend toward homogenization has emerged among Chinese universities, with the "thousand schools, one face" phenomenon drawing widespread criticism. The root cause of this tendency lies in the excessive uniformity of management models and evaluation criteria [3]. Currently, the assessment frameworks for most local application-oriented universities remain predominantly anchored in traditional academic metrics such as research publications and government-funded research projects. This creates a misalignment with their core functions as responsive actors to regional development needs, practitioners of industry-academia collaborative innovation, suppliers of application-oriented talent pools, and facilitators of technology transfer and commercialization. Under the "research-first, practice-second" policy orientation, teaching and innovative practice remain undervalued in faculty promotion evaluations, which are of paramount concern to academics. Consequently, university faculty continue to prioritize research outputs, while underinvesting in core responsibilities such as teaching innovation, industry-academic collaborative education, and mentoring student practical projects. The development of application-oriented universities must begin with clearly defined educational philosophies, strategic positioning, and operational roadmaps [4]. However, many regional application-oriented universities currently suffer from ambiguous self-positioning [5]. Situated between research-intensive universities and vocational colleges, some drift toward academic mimicry ("academic drift") or grapple with professionalization anxiety. To gain social recognition, certain regional application-oriented universities adopt the development models of research universities—blindly expanding graduate programs and academic disciplines—thereby diluting their applied characteristics and perpetuating homogenized growth, ultimately trapped in a "sandwich-layer dilemma" [6]. Meanwhile, resource allocation exhibits a pronounced Matthew Effect: top-tier universities dominate funding for industry-education integration projects and corporate partnerships. Regional application-oriented universities, lacking industry influence, face a vicious cycle of low corporate engagement → weak practical pedagogy → diminished student competitiveness.

3.2. Disciplinary and Programmatic Responsiveness Gap

Facilitating Synergistic Development between Undergraduate Program Optimization and Industrial Structural Upgrading constitutes a critical pathway for advancing high-quality higher education [7]. Nevertheless, some local application-oriented universities inadequately fulfill their role as "responsive actors to regional development needs", exhibiting deficiencies in region-specific adaptability. These institutions often fail to align disciplinary and programmatic configurations with local resource endowments and industrial characteristics [8], persisting in:

1) Outmoded disciplinary frameworks reliant on traditional academic architectures;
2) Rigid program adjustment cycles tied to fixed accreditation timelines;
3) Absence of real-time market responsiveness mechanisms.

Such institutional inertia renders them ill-equipped to meet the rapid iteration demands of strategic emerging industries including next-generation information technology, intelligent manufacturing, and new energy systems, consequently resulting in skills mismatch between graduate competencies and regional pillar industries. Furthermore, the advancement of new quality productive forces, characterized by the cross-convergence of technologies, demands higher education institutions to cultivate multidisciplinary talent pools by dismantling rigid disciplinary silos and prioritizing interdisciplinary integration in academic frameworks. However, at present, the overall quality of cross-disciplinary construction in Chinese universities is not high, and the contribution of cross-disciplinary integration to scientific and technological innovation is low [9]. In particular, many local application-oriented universities are still dominated by a single discipline, simply adding several cross-disciplinary courses to the talent training program, or setting up a few micro-majors. Teaching is still organized by a single discipline, and the mechanism of resource sharing and collaborative education between faculties is lacking. The existing practical projects mostly stay in the level of simulation scenarios or simple cases, and are disconnected from the complex problems of emerging industries; There are few or even no interdiscipli-

nary comprehensive practice projects to improve students' innovative practical ability training, and they fail to really break the subdivision barriers between departments and majors, and lack the resources and environment for cross-compound talent training.

3.3. Curriculum-Industry Alignment Deficit

The curriculum system serves as the core framework shaping students' professional competencies, innovative capacities, and comprehensive competitiveness, providing both intellectual foundations and sustainable momentum for individual growth and societal development. However, many regional application-oriented universities exhibit a structural misalignment between course offerings and industrial dynamics. During disciplinary planning, institutions frequently prioritize chasing "trendy disciplines" over deeply aligning with regional industrial chain demands or leveraging their unique academic strengths, reflecting a systemic bias toward quantity-driven program expansion rather than strategic relevance. Due to the blind pursuit of hot spots in some professional Settings, the lack of targeted research on the transformation and upgrading of local pillar industries, resulting in the mismatch between the curriculum system setting and the actual skill needs of the industry. The professional talent training program also lacks top-level design and fails to closely integrate with regional industries, resulting in insufficient adaptation of course content, talent training objectives and graduation requirements, excessive emphasis on the integrity of the theoretical system of the discipline, and insufficient proportion of practical knowledge modules. In the course development process, they often rely on the traditional discipline framework or imitate the model of research university, and have not established the normal docking mechanism with the regional industry main body. Course goal setting is biased towards theoretical integrity, ignoring the specific requirements of regional industry on technology application and job adaptability. The update of teaching content lags behind the development of industry technology, and the typical case base fails to integrate into emerging technology scenarios, resulting in insufficient complexity and innovation. The conversion rate of vocational standards and industry norms in course standards is low, and there is a certain gap between the skills mastered by students and the competency model of enterprises, resulting in a structural contradiction of "separation of learning and application" [10]. Practical teaching is decoupage from industrial scenarios and often adopts simulated cases or simplified projects, which is difficult to cultivate students' ability to solve complex engineering problems and fails to build a spiraling practical ability training system.

3.4. Superficial Industry-Academia Integration

Industry-Academia integration serves as a crucial pathway to bridge the gap between educational supply and industrial demands, enabling the implementation of a dual-education model. It provides practical support for cultivating high-quality applied talents and facilitating regional industrial upgrading. However, most local application-oriented universities currently maintain loose school-enterprise collaboration mechanisms lacking sustainability. The integration remains superficial, predominantly manifesting as agreement signings and base certifications, while failing to establish a collaborative, long-term talent development mechanism aligned with the needs of industrial chains. Current school-enterprise collaboration projects predominantly focus on short-term internships and guest lectures, with low integration of authentic enterprise projects into curricula, shallow dual-mentorship guidance, and inadequate alignment of equipment and technologies. They have failed to establish deeply embedded models such as joint curriculum development or collaborative technological innovation, let alone form an ecosystem featuring "joint talent cultivation, shared process management, and collaborative outcome sharing." Enterprises demonstrate insufficient engagement motivation due to imbalanced benefit-sharing mechanisms. Some partnerships exhibit a "college-driven but enterprise-passive" phenomenon, where companies lack sustained participation incentives owing to disproportionate input-output ratios. Structural contradictions persist between institutional and industrial stakeholders' expectations in industry-education integration. Higher education institutions prioritize long-term educational returns on talent cultivation, while enterprises emphasize short-term technological ROI from applied innovations. A critical disconnect exists in establishing effective coordination frameworks for intellectual property ownership, cost-sharing models, and benefit distribution mechanisms. The prevalent pattern of one-sided resource acquisitio - where institutions disproportionately utilize corporate assets (equipment, industry mentors) without reciprocating tangible benefits like technology transfer facilitation or workforce upskilling programs - significantly undermines partnership cohesion. Weak cross-sector resource integration capacity and underdeveloped value-chain alignment have constrained the realization of synergistic effects, leaving collaborative potential largely untapped. Institutional disciplinary configurations and research trajectories demonstrate insufficient alignment with regional industrial ecosystems, falling short of creating an organic integration that synergizes education chains, industry chains, and innovation chains into a cohesive trilateral loop. Furthermore, prevailing evaluation systems for industry-education integration disproportionately emphasize quantitative metrics (e.g., number of corporate partnerships, internship facility square footage) while undervaluing qualitative benchmarks (e.g., technology commercialization rates, graduate job-competency alignment). This imbalanced assessment paradigm perpetuates systemic challenges in objectively measuring and longitudinally tracking the efficacy of collaborative talent development initiatives.

3.5. Structural Imbalance in Faculty Composition

The high-quality development of local application-oriented universities cannot be achieved without a high-level teaching staff, especially those who possess both high theoretical levels and strong engineering practice capabilities, namely the "dual-qualified and dual-capable" teachers [11]. Currently, the majority of local application-oriented universities have a single source of teachers, and there is a severe shortage of teachers with industrial backgrounds [12]. Teacher recruitment still mainly focuses on academic masters and doctors, and the vast majority of teachers have grown through the path of "university to university", lacking practical experience in enterprises. There is a shortage of "dual-qualified and dual-capable" teachers, and their engineering practice capabilities are insufficient. Most teachers lack experience in enterprise technology research and development or production management. In some institutions, the recognition of "dual-qualified and dual-capable" teachers is merely formal, with the proportion of such teachers being increased only through short-term training and certificate examinations, without truly establishing a two-way flow mechanism between schools and enterprises. The proportion of teachers with actual industrial technology research and development or production management experience is insufficient. In addition, the teacher evaluation mechanism deviates from the positioning of local application-oriented universities. The promotion of professional titles and performance evaluations overly emphasize academic indicators such as the publication of papers and research projects, while neglecting the actual contributions of teachers in providing technical services to enterprises. This leads to a lack of willingness among teachers to participate in school-enterprise cooperation to enhance their engineering practice capabilities. Due to the development of the institutions themselves, many local application-oriented universities have an unbalanced age and professional title structure in their teaching staff, and their practical teaching strength is weak. The teaching staff shows a "dumbbell-shaped" structure feature: a high proportion of young teachers but lacking experience, and senior title teachers are mostly concentrated in theoretical disciplines. There is a lack of leading figures in key professional disciplines, and there is a shortage of leading talents with industrial influence, making it difficult for teaching teams to connect with industry frontiers. The disciplinary structure of the teaching staff is rigid, with redundant teachers in traditional disciplines and insufficient reserves of teachers in emerging interdisciplinary fields and areas related to regional key industries, making it difficult to meet the demands of industrial integration. The demand for compound technical talents in emerging industries forces teachers to possess interdisciplinary capabilities, but the current teaching staff is mostly confined to a single disciplinary background.

4. Countermeasures for the High-Quality Development of Application-oriented Universities

4.1. Construction of a Four-Dimensional Linkage and Ecological Symbiosis Mechanism

Establish a "multi-party governance evaluation system + industrial value feedback mechanism" to reposition universities in the form of an interest community, breaking the deadlock of "academic drift" and "resource islands". By establishing a four-dimensional linkage mechanism of "government guidance - industry empowerment - enterprise co-construction - university transformation", a closed-loop reform system of "classified development - dynamic adaptation - ecological feedback" is constructed to promote local application-oriented universities to shift from "passive adaptation" to "value co-creation". Rebuild the industry-education collaborative ecosystem and break the "Matthew effect" barrier. Build a "regional industry-education consortium", led by the superior administrative department, organizing local applied universities, regional leading enterprises in the industrial chain, and industry associations to jointly establish a non-profit industry-education consortium, implementing a council governance mechanism, and coordinating the allocation of university and enterprise resources. Within the consortium, set up a "technology breakthrough challenge" special project, where university teams undertake enterprise technology demands and share intellectual property rights. Streamline administration and delegate power, allowing universities to independently establish interdisciplinary subjects serving local pillar industries, operating under the "discipline + industry research institute" model, with separate enrollment plans and assessment standards, and research achievements evaluated based on solving practical problems rather than the number of research papers.

4.2. Reconstruction of a "Three-Dimensional Integration" Regional Adaptation-Type Discipline Ecological System

Combining the university's own disciplinary advantages and professional characteristics, align with regional industrial demands, and establish a "demand-oriented" dynamic adjustment mechanism, implementing the "dynamic reorganization plan for discipline clusters". Based on the dynamic regional industrial layout, transform traditional majors into a modular structure of "core major + micro-direction", and implement a "last-place elimination system" for backward directions. Build a "three horizontal and three vertical" inter-

disciplinary education ecosystem, as shown in Figure 2. Horizontally break disciplinary barriers: at the course level, develop "technology chain course modules", with each major embedding cross-disciplinary technology chain modules; at the faculty level, form cross-departmental "technology integration teaching teams", implementing mutual faculty appointments; at the resource level, establish a university-level "interdisciplinary resource sharing platform", opening up cross-disciplinary access to laboratory equipment, enterprise projects, and competition resources. Vertically integrate the training chain: at the basic level, offer a compulsory "Introduction to Technology Integration" course, incorporating regional industrial technology integration cases; at the intermediate level, design "Interdisciplinary Problem Workshops", releasing multiple real industrial complex problems each year, with multi-disciplinary teams of teachers and students working on them; at the practical level, jointly build "Industry-Technology Integration Research Institutes" with leading enterprises, undertaking enterprise technology pre-research projects.

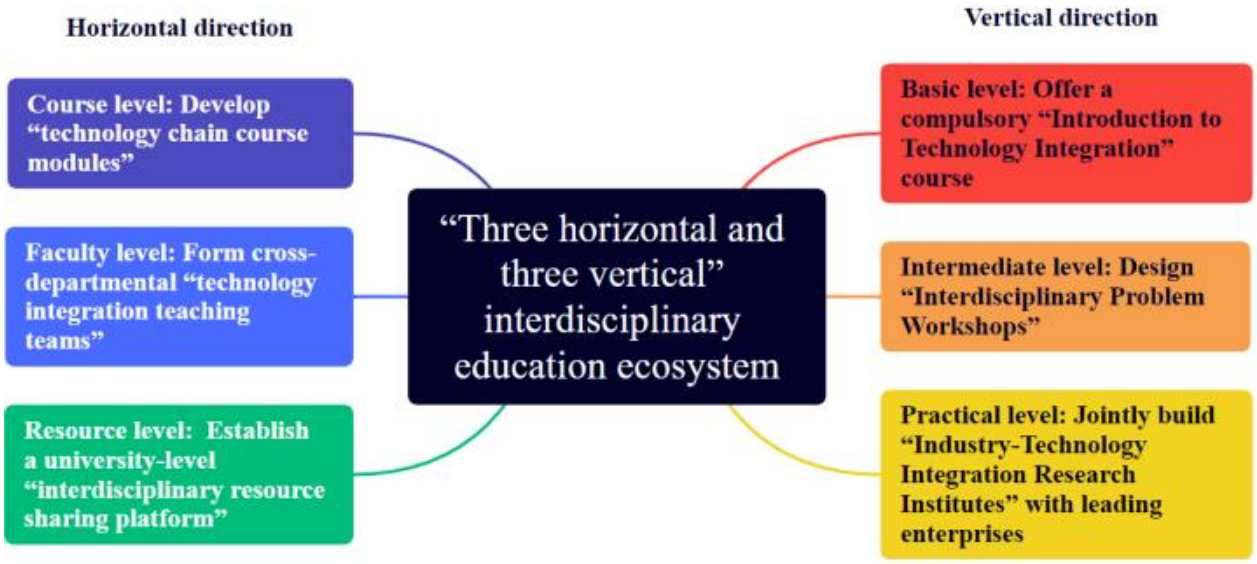

Figure 2. *"Three horizontal and three vertical" interdisciplinary education ecosystem.*

4.3. Construction of a "Three-Drive Four-Stage" Dynamic Adaptation System for Industry-Academia Integration Courses

Establish a dynamic adaptation mechanism to achieve precise alignment between courses and regional industrial demands. Build a course adjustment system driven by regional industrial demands, relying on the latest disciplinary knowledge and industrial technologies to develop and update the course system and content [13]. Pre-convert industrial standards, implement a "dual certification for course standards" system, embedding industry certification standards in core professional courses, and ensuring a certain proportion of enterprise technical norms in practical courses. Develop a "job competency-course module" conversion toolkit, breaking down enterprise competency models into quantifiable teaching units. Dynamically update teaching content, form university-enterprise joint course development teams, hold technical iteration analysis meetings each semester, and update teaching cases for professional courses based on technological iterations.

4.4. Construction of a Long-Term Mechanism for Industry-Academia Integration Driven by an Interest Community

Build an interest community between universities and enterprises to solve the problem of superficial cooperation. Innovate the cooperation model and implement the "wager agreement + result sharing" mechanism. Universities and enterprises invest resources in proportion and set technical transformation goals, sharing the benefits of intellectual property rights. Establish a dynamic matching mechanism. Relying on the local regional industrial map and combining with the disciplines and specialties of universities, form a "professional cluster - enterprise alliance" matching matrix according to the industrial chain links to achieve dynamic matching of course modules and job ability requirements. Regularly organize joint revision of talent training plans by schools and enterprises to ensure that teaching content is synchronized with the iteration of industry technology. Build a resource sharing platform to enhance the efficiency of resource integration. Build a "industry technology demand - scientific research breakthrough - teaching trans-

formation" three-chain connection platform and implement a closed-loop mechanism of "enterprise sets the question - school solves the question - market verifies the question". Establish a two-way matching system between the enterprise technology demand database and the teacher's scientific research achievement database, requiring each major in universities to undertake a certain amount of real enterprise projects every year and including the project transformation rate in the assessment indicators of departments and colleges. At the same time, for projects that solve enterprise technical problems, distribute the benefits according to the market mechanism to stimulate the participation enthusiasm of university teachers. Optimize the industry-education integration ecosystem and activate the energy of multiple subjects. Jointly build industry colleges with leading enterprises, implement the "dual dean system" (co-management by the enterprise's technical director and the college dean of the university), develop an integrated product of "course package + technology package + service package", and directly serve regional industrial clusters. Reconstruct the quality evaluation system and strengthen the closed-loop feedback mechanism. Build a three-dimensional evaluation system of "process - quality - benefit", where the process dimension assesses the project implementation rate, the quality dimension focuses on the job competence of graduates, and the benefit dimension tracks the income from technology transformation. Introduce third-party institutions to conduct tracking of graduate employment quality and establish a system for releasing industry-education integration indices.

4.5. Optimization of the Teacher Structure Driven by Industry-Academia Integration

Build a linked early warning mechanism of "industry demand - professional setting - teacher allocation", carry out diversified teacher recruitment, and dynamically adjust the teacher structure based on the upgrading direction of the local regional industrial chain. Through the "existing transformation + new recruitment" dual-track system, implement the "digital technology empowerment plan" for traditional discipline teachers, set up "flexible recruitment positions" for emerging industries, and hire technical experts from national (provincial) high-tech enterprises, experts from industry associations (societies), and experts from national (provincial) master studios as part-time industrial teachers to deeply participate in the talent cultivation of universities and actively collaborate with full-time teachers in universities to enhance their ability to cultivate high-quality applied talents and serve the local economy and society. Innovate the "dual-qualified and dual-capable" teacher training model and implement the "seedling - backbone - leading" hierarchical training project. For young teachers, implement the "school-enterprise dual-mentor system" to accumulate engineering experience by participating in actual enterprise projects; select backbone teachers to form "industry service innovation teams" to meet the technical demands of regional industrial clusters; and introduce experienced enterprise technical experts to form cross-disciplinary research teams. At the same time, improve the evaluation mechanism for "representative achievements", and recognize non-paper achievements such as production process optimization plans and technical consulting service reports.

5. Conclusions and Prospects

The high-quality development of local application-oriented universities needs to be guided by the strategy of building a leading country in education. Through deepening the integration of industry and education and the reform of systems and mechanisms, the core function of universities in serving the regional economy should be reshaped. Policy and institutional innovation is the key to promoting the transformation of universities. It is necessary to further strengthen the classification evaluation, resource inclination and the mechanism of shared interests between universities and enterprises. Local application-oriented universities should leverage their disciplinary and professional advantages, and explore customized reform paths in combination with regional differences, providing more diverse practical samples for the modernization of higher education under the goal of building a leading country in education.

Abbreviations

CPC Communist Party of China

Author Contributions

Leian Liu: Conceptualization, Writing – original draft
Jieqiong Han: Writing – review & editing
Ting Wu: Resources, Investigation
Ling Yang: Formal Analysis, Methodology

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Conflicts of Interest

The authors declare no conflicts of interest.

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