

Research on Comprehensive Reform in Higher Education

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Abstract: Against the backdrop of higher education shifting from scale expansion to connotative development and the construction of an education powerhouse, comprehensive reform in universities faces problems such as fragmentation, insufficient coordination, and weak driving and support mechanisms. Following the logic of “situation analysis—model construction—practical verification—policy recommendations,” this paper systematically explores the mechanisms and pathways of comprehensive reform. It constructs a “one body, two wings, four-dimensional linkage” framework, with fostering virtue through education and high-quality development as the main thread, driving and support mechanisms as the two wings, and the coordination of talent cultivation, scientific research, social service, and governance system as the foundation. An evaluation model and a growth model for reform effectiveness are established for quantitative analysis. A comparative study at a university shows that systematic comprehensive reform significantly outperforms gradual reform, with the comprehensive effectiveness index rising from 53.0 to 87.0 and all core dimensions improving markedly. Finally, policy recommendations are proposed from the perspectives of top-level design, driving mechanisms, resource support, and evaluation-based governance.

Keywords: Higher Education; Comprehensive Reform; High-Quality Development; Modernization of Governance; Reform Effectiveness

1. Introduction

The 20th National Congress of the Communist Party of China called for accelerating the building of China into a leading country in education. With policies such as China Education Modernization 2035 and the Overall

Plan for Deepening the Reform of Educational Evaluation in the New Era, China’s higher education has entered a new stage of quality improvement and connotative development, making comprehensive reform a key path to improving university governance and promoting high-quality development. However, current reforms face problems including fragmented top-level design, weak cross-field integration, insufficient synergy between decentralization, evaluation reform and resource allocation, lacking endogenous motivation, and lagging institutional supply and governance capacity, indicating that single-item or gradual reforms are no longer sufficient. Following the logic of “current situation analysis—model construction—practical verification—policy recommendations,” this paper explores the mechanisms by which comprehensive reform drives high-quality development, constructs an operable systematic framework, analyzes practical effectiveness, and aims to provide references for universities to deepen comprehensive reform.

2. Theoretical Basis and Practical Analysis

2.1 The Connotation of Comprehensive Reform in Higher Education

Comprehensive reform in higher education refers to the systematic design, coordinated advancement, and continuous optimization of talent cultivation, scientific research, social service, and governance systems around the fundamental task of fostering virtue through education and the goal of high-quality development. It emphasizes systematic integration, coordinated linkage, problem orientation, and continuous improvement. Rather than a simple combination of separate reforms, comprehensive reform reshapes the goals, mechanisms, support systems, and evaluation logic of university development.

2.2 Practical Difficulties in Comprehensive

Reform in Higher Education

Based on a survey of a certain university, the practical difficulties of comprehensive reform are mainly reflected in four aspects: fragmented top-level design, insufficient reform momentum, inadequate resource and institutional support, and lagging governance mechanisms. These problems are interrelated and cannot be effectively solved through isolated policies or partial pilot programs. Therefore, a systematic framework is needed to promote overall coordination and implementation.

2.3 Mechanisms Through Which Comprehensive Reform Drives High-Quality Development

Comprehensive reform promotes high-quality development in higher education through three interrelated mechanisms. First, systematic integration strengthens top-level design and coordinated planning, transforming fragmented reforms into systematic ones. Second, motivation stimulation activates institutional vitality through decentralization and educational evaluation reform, shifting reform from passive response to proactive action. Third, support and guarantee mechanisms ensure implementation via resource investment, institutional supply, and governance optimization. Together, these three mechanisms form a closed loop of “goals—motivation—support—evaluation,” supporting both quality improvement and governance modernization.

3. Construction of a Systematic Framework for Comprehensive Reform in Higher Education

3.1 Design Philosophy and Principles

The framework follows four principles: taking fostering virtue through education and high-quality development as the core; adhering to systematic thinking and coordinated advancement; balancing reform motivation with institutional support; and emphasizing feasibility and replicability so that the reform can be implemented in stages under existing university conditions.

3.2 The “One Body, Two Wings, Four-Dimensional Linkage” Systematic Framework

Based on the above mechanisms and principles, this paper constructs a systematic framework for comprehensive reform in higher education, with “fostering virtue through education and high-

quality development” as the main thread (one body), the driving mechanism and support mechanism as the two wings, and the four-dimensional linkage of “talent cultivation—scientific research—social service—governance system” as the foundation. The driving mechanism stimulates vitality through streamlining administration, delegating power, and reforming evaluation, while the support mechanism consolidates the foundation through investment, institutional development, and governance. Under the guidance of the main thread and the impetus of the two wings, the four dimensions advance in coordination and achieve continuous improvement through evaluation feedback, thereby promoting a systematic leap in the high-quality development of higher education. The overall structure is shown in Figure 1.

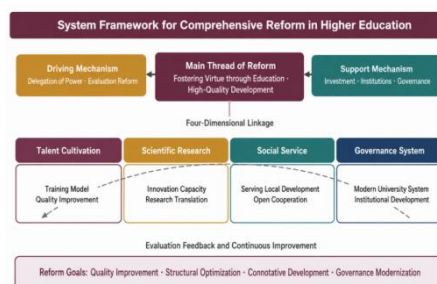


Figure 1. The “One Body, Two Wings-Four-Dimensional Linkage” System Framework for Comprehensive Reform in Higher Education

3.3 Key Supports and an Evaluation Model for Comprehensive Reform Effectiveness

To quantitatively evaluate reform effectiveness, this paper constructs a comprehensive evaluation model for the effectiveness of comprehensive reform in higher education. Let the comprehensive effectiveness index R be composed of the weighted sum of talent cultivation quality E , scientific research innovation capacity Q , social service contribution S , and governance system effectiveness G , expressed as

$$R = w^1 \cdot E + w^2 \cdot Q + w^3 \cdot S + w^4 \cdot G \quad (1)$$

In this formula, $w_1 \sim w_4$ are weight coefficients satisfying $w_1 + w_2 + w_3 + w_4 = 1$. Based on expert consultation and calibration using the entropy weight method, this study sets $w_1 = 0.35$, $w_2 = 0.25$, $w_3 = 0.20$, $w_4 = 0.20$. All sub-indicators are normalized to a scale of 0~100. Furthermore, the growth of comprehensive reform effectiveness across implementation

stages t can be characterized by the following growth curve

$$R(t) = R_{max} \cdot (1 - e^{-\lambda t}) \quad (2)$$

In this formula, R_{max} represents the upper limit of reform effectiveness, and λ represents the growth-rate coefficient of reform effectiveness. Systematic comprehensive reform increases the coefficient λ by improving reform coordination and support intensity. The value added by reform is measured by the difference between the post-reform and pre-reform comprehensive effectiveness scores, expressed as $\Delta R = R_{post} - R_{pre}$, which serves as the core indicator for evaluating the effectiveness of comprehensive reform.

4. Practice and Effectiveness Analysis

4.1 Practice Design and Data Sources

Taking a certain university’s comprehensive reform practice as the research object, this study draws on institutional statistics, reform task ledgers, and quality monitoring data. Five implementation stages are established (pre-reform, initiation, breakthrough, deepening, and maturity) to compare the effectiveness of the “one body, two wings—four-dimensional linkage” systematic framework against gradual single-item reforms during the same period. Under the premise of comparable institutional scale and resource investment, the analysis focuses on changes in effectiveness before and after the implementation of systematic comprehensive reform.

4.2 Analysis of Reform Effectiveness

The multidimensional comparison of reform effectiveness before and after the implementation of comprehensive reform is shown in Figure 2. The effectiveness indices of the five dimensions—talent cultivation quality, scientific research innovation capacity, social service contribution, governance system effectiveness, and faculty development level—all improved significantly. The increases generally ranged from 22 to 28 points, indicating that systematic comprehensive reform produced substantial effects across all core areas.

Figure 3 shows the changes in the effectiveness index of comprehensive reform in higher education in implementation stages, from the point of development over time. Through the initiation, breakthrough and deepening stages,

the comprehensive effectiveness index of the pilot university increased from 53.0 before reform to 87.0 in the maturity stage. However, at the same period, the index under gradual reform only rose from 53.0 to 62.7. The gap between the two continued to widen as the reform stages went on. That is, the systematic comprehensive reform has a big and sustainable effect on improving the reform effectiveness.

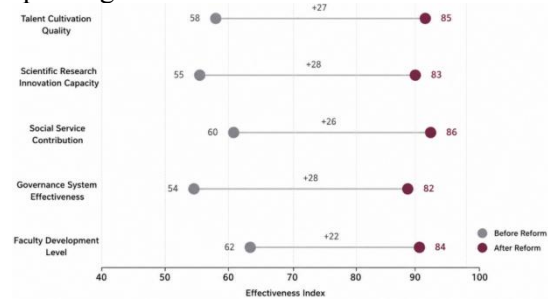


Figure 2. Multidimensional Comparison of Reform Effectiveness Before and After the Implementation of Comprehensive Reform

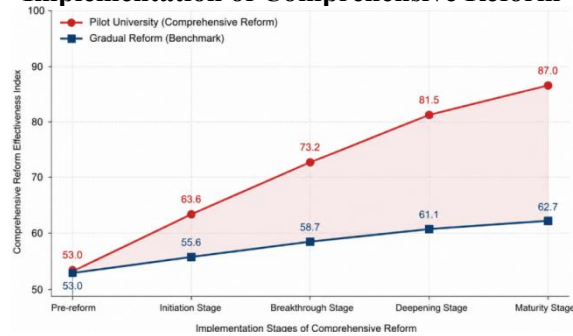


Figure 3. Evolution Curve of the Effectiveness Index of Comprehensive Reform in Higher Education Across Implementation Stages

The comparison of the key comprehensive indicators is shown in Table 1. The Verification of the effect and the superiority of the constructed systematic framework: Systematic comprehensive reform is much better than gradual reform in the dimension of talent cultivation, scientific research innovation, social service and governance effectiveness, etc.

Table 1. Comparison of Key Indicators Before and After the Implementation of Systematic Comprehensive Reform

| Evaluation Indicator | Before Reform | After Reform | Increase |
|--------------------------------------------|---------------|--------------|----------|
| Comprehensive Reform Effectiveness Index R | 53.0 | 87.0 | +34.0 |
| Talent Cultivation Quality | 58 | 85 | +27 |
| Scientific Research Innovation Capacity | 55 | 83 | +28 |
| Social Service Contribution | 60 | 86 | +26 |
| Governance System Effectiveness | 54 | 82 | +28 |

4.3 Comprehensive Evaluation

The analysis shows that the “one body, two wings—four-dimensional linkage” framework can coordinate reforms across different fields, stimulate institutional vitality, and strengthen reform support. It promotes systematic improvement in quality, innovation, service, and governance. However, the reform effect shows a marginal diminishing trend, especially from the deepening stage to the maturity stage. Therefore, later-stage reform should focus more on institutional consolidation, cultural development, and governance capacity building.

5. Policy Recommendations

Based on the analysis, four recommendations are proposed. First, universities should strengthen top-level design and systematic integration, formulating overall reform plans and task ledgers guided by fostering virtue through education and high-quality development. Second, they should improve mechanisms for stimulating reform momentum by deepening decentralization and educational evaluation reform, expanding institutional autonomy and encouraging active participation of all stakeholders. Third, universities should consolidate resource and institutional support through targeted investment, institutional supply, and governance mechanisms aligned with reform tasks. Fourth, they should improve evaluation feedback and governance loops, following the path of “pilot first—evaluation and optimization—phased promotion” and establishing a dynamic monitoring system to support data-driven decision-making and continuous improvement.

6. Conclusion and Prospects

This paper reaches three main conclusions. First, comprehensive reform can address fragmented reform, insufficient motivation, and weak support through systematic integration, motivation stimulation, and support guarantee mechanisms. Second, the “one body, two wings—four-dimensional linkage” framework provides a clear and operable pathway for

promoting high-quality development in higher education. Third, comparative analysis shows that systematic comprehensive reform is significantly more effective than gradual reform in improving the overall reform effectiveness index and core development dimensions. Future research should expand the sample scope to include more universities and regions, conduct long-term tracking of reform impacts on talent cultivation and institutional reputation, and integrate digital governance and big data into the reform process to improve evaluation models and governance capacity.

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References

- [1] Xi Jinping. Hold High the Great Banner of Socialism with Chinese Characteristics and Strive in Unity to Build a Modern Socialist Country in All Respects—Report to the 20th National Congress of the Communist Party of China [EB/OL]. Xinhuanet, 2022-10-25.
- [2] The CPC Central Committee and the State Council. China’s Education Modernization 2035 [EB/OL]. Xinhua News Agency, 2019-02-23.
- [3] The CPC Central Committee. Resolution of the CPC Central Committee on Further Deepening Reform Comprehensively to Advance Chinese Modernization [EB/OL]. Xinhuanet, 2024-07-21.
- [4] The CPC Central Committee and the State Council. Outline of the Plan for Building China into a Leading Country in Education (2024 - 2035) [EB/OL]. Xinhua News Agency, 2025-01-19.
- [5] The CPC Central Committee and the State Council. Overall Plan for Deepening the Reform of Educational Evaluation in the New Era [EB/OL]. 2020-10-13.
- [6] Ministry of Education of the People’s Republic of China. Several Opinions on Comprehensively Improving the Quality of Higher Education: Jiao Gao [2012] No. 4 [EB/OL]. 2012-03-16.