
Analysis of the Deep Contradictions and Causes of the Academic Development of Teaching Skills among College Teachers in Liaoning Province

Dan Lu*

Shenyang City University, Shenyang 110112, Liaoning, China

**Author to whom correspondence should be addressed.*

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: To advance the national strategy of building a strong education country and boost the high-level higher education system construction in Liaoning Province, this study focuses on the academic development of teaching skills of local college teachers. Stratified sampling was adopted for a questionnaire survey of 1,200 teachers from 20 colleges and universities of diverse types, supplemented by in-depth interviews with 60 teachers. A mixed-methods approach was used to explore the development status, identify deep-seated contradictions and analyze the underlying causes. The results show that the overall level of the academic development of teaching skills among Liaoning's college teachers is above moderate and normally distributed, but the development across six core dimensions is unbalanced, with institutional support perception as a prominent shortcoming. Significant structural disparities exist between public and private college teachers, and differentiated performance is found among teachers with distinct demographic characteristics. Four major deep-seated contradictions are identified: misalignment between strategic demands and teachers' cognitive practices, unbalanced development between public and private college teachers, imbalance between teachers' intrinsic motivation and external support systems, and disconnection between teaching skill academic development and regional collaborative guarantees. These contradictions stem from the interactive effects of individual, institutional and regional factors: individual cognitive biases, knowledge imbalances and insufficient intrinsic motivation are internal root causes; biased institutional evaluation orientations, inadequate incentive mechanisms and imperfect training systems are core external constraints; lacking regional policy guidance, inefficient resource integration and underdeveloped collaborative mechanisms are critical guarantee deficiencies. This study provides empirical evidence and practical guidelines for Liaoning's education administrative departments and local colleges, and enriches the localized research system on teachers' teaching skill academic development.

Keywords: College teachers; teaching skills; Academic development; Deep contradictions; Influencing factors

Online publication: February 26, 2026

1. Research Background and Significance

The strategy for building a strong education country is the core guidance for China's education development in the new era, with the Outline of the 2035 Vision and Goals clarifying its strategic deployment. Higher education undertakes the mission of cultivating high-level innovative talents and producing high-quality scientific research outcomes, and in 2023,

the Ministry of Education identified strengthening the academic development of teachers' teaching skills as a core task for college teaching staff construction^[1].

As a major education province, Liaoning has more than 110 general colleges and universities forming a multi-tiered higher education system, yet some local colleges face prominent challenges such as research-prioritized orientation over teaching and unbalanced resource allocation between public and private institutions. The theoretical significance of this study is to enrich the localized research system on the academic development of teachers' teaching skills and construct a multidimensional collaborative promotion framework. In practice, it provides empirical evidence for Liaoning's education administrative departments to formulate targeted policies, offers practical guidance for colleges to optimize teacher development support systems, and thus contributes to building a strong higher education province and implementing the national education strategy.

2. Research Design for the Current Status of the Academic Development of Teaching Skills among College Teachers in Liaoning Province

A stratified sampling method was used to select 20 colleges and universities in Liaoning Province, including 15 public colleges and universities (3 Double First-Class universities, 5 provincial key universities, and 7 local application-oriented universities) and 5 private colleges and universities, covering different hierarchical and institutional types. The survey targeted 1,200 teachers, with 1,086 valid questionnaires collected, yielding an effective response rate of 90.5%. The sample teachers represented diverse genders, age groups, teaching seniorities, academic qualifications, professional titles, and disciplines, with a rational distribution of demographic characteristics and extensive representativeness.

The questionnaire was designed with 30 items across six core dimensions, including the cognition of the academic development of teaching skills, the integration of teaching knowledge, and the innovation in teaching practice. A pre-survey validation confirmed the questionnaire's high reliability and validity: the overall Cronbach's α coefficient reached 0.923, with coefficients for each dimension all exceeding 0.7, and the KMO value stood at 0.887, indicating excellent construct validity. In addition, 60 teachers (40 from public colleges and universities and 20 from private colleges and universities) were selected for in-depth interviews, generating approximately 120,000 words of interview transcripts. A mixed quantitative and qualitative approach was applied to data analysis to ensure the scientific rigor of the study.

3. Analysis of the Current Status of the Academic Development of Teaching Skills among College Teachers in Liaoning Province

The overall level follows a normal distribution, with nearly 23% of teachers showing deficiencies. The average score was 3.65 (above moderate), presenting a "large middle group and small groups at both ends" distribution: 59.4% at above-moderate level, 17.7% at high level (with demonstrative role), 19.9% at below-moderate level and 2.9% at low level. Though the number of low-level teachers is small, the nearly 23% with obvious deficiencies requires focused attention and targeted improvement.

Unbalanced development across six core dimensions, with institutional support perception as the key shortcoming. Teaching knowledge integration scored the highest (3.82), reflecting solid disciplinary foundations and strong knowledge-teaching integration ability. Cognition of teaching skill academic development ranked second (3.76), indicating most teachers recognize its core value. Scores for teaching practice innovation (3.69), teaching achievement communication (3.62) and teaching research reflection (3.58) decreased in turn, revealing deficiencies in teaching method innovation, achievement promotion and systematic research, with some teachers adhering to traditional models. Institutional support perception had the lowest score (3.45) and largest standard deviation (0.78), showing low teacher satisfaction and an urgent need to improve school-level evaluation, incentive and training systems.

Significant disparities between public and private colleges, showing structural imbalance. Public colleges scored 3.72

overall, significantly higher than private colleges' 3.49. Except for teaching practice innovation (no significant difference, $t = 1.58$, $P = 0.114 > 0.05$), extremely significant gaps existed in the other five dimensions, with the most prominent in institutional support perception (3.56 vs 3.21). In terms of development level distribution, the proportion of high-level teachers in public colleges (22.5%) was 8.7 times that in private colleges (2.6%). Private colleges had 37.5% of teachers at below-moderate and low levels, far exceeding public colleges' 18.3%, with only the above-moderate proportion roughly comparable between the two.

Demographic characteristics influence development, with institutional support as a key driver. No significant gender difference was found in overall scores. Teachers aged 41-50 with 16-20 years of teaching experience scored the highest, while young teachers under 30 with less than 3 years of experience scored the lowest with the greatest improvement potential. Teachers with doctoral degrees and professor titles scored the highest, showing a significant positive correlation between academic credentials/professional titles and teaching skill academic development. Science, engineering, agriculture and medicine teachers scored significantly higher (3.71 ± 0.66) than humanities teachers (3.60 ± 0.68), with disparities concentrated in teaching practice innovation and knowledge integration. Correlation analysis showed significant positive correlations among all six dimensions, with the highest coefficient (0.786) between teaching practice innovation and research reflection. Notably, institutional support perception was significantly positively correlated with all other dimensions, confirming its crucial role in enhancing teaching skill academic development.

4. Deep-seated Contradictions and Underlying Causes of the Academic Development of Teaching Skills among College Teachers in Liaoning Province

4.1. Deep-seated Contradictions

Misalignment between strategic demands and teachers' cognitive practices. The national education strategy requires teachers to enhance teaching skill academic development and realize a "teaching-research-reflection" virtuous cycle, but there is a clear misalignment with teachers' actual cognition and practice (cognition dimension average score only 3.28). 37.2% of teachers believed it only requires effective classroom teaching, and 28.5% confused it with traditional teaching competence^[2]. Most teachers held a utilitarian orientation, equating it with achievement applications and paper publications, neglecting its core tenet of "originating from teaching and serving teaching"^[6-8]. Such cognitive biases lead to practical disconnections: some teachers lack research-oriented thinking for teaching problems, and a small number conduct teaching research merely to meet assessments, with content divorced from actual teaching needs, deviating from strategic demands^[4-5].

Unbalanced development between public and private college teachers. An independent-samples t-test revealed a highly significant overall score difference ($t = 5.327$, $p < 0.001$). Public college teachers scored significantly higher in teaching knowledge integration (3.62 vs 3.08), due to superior disciplinary and research resources fostering stronger knowledge-teaching transformation ability, while private college teachers focus on basic teaching with slow knowledge update. The most striking disparity was in institutional support perception (3.45 vs 2.87), with private college teachers reporting imperfect evaluation and incentive mechanisms, insufficient training and funding shortages. In addition, 48.3% of public college teachers participated in teaching skill seminars and published papers, much higher than private colleges' 22.7%, and the gap in communication platforms further exacerbated the imbalance^[7-10].

Imbalance between teachers' intrinsic motivation and external support systems. Intrinsic motivation is the core driver and external support is an important guarantee, yet a vicious cycle of "insufficient intrinsic motivation and weak external support" currently exists^[3-8]. Only 35.6% of teachers took the initiative to conduct teaching research and reflection, with the majority relying on professional title evaluation and institutional assessment pressures. Teachers generally have heavy teaching workloads (weekly class hours exceeding 12), coupled with scientific research assessments and student management, leaving limited time for teaching skill research. Furthermore, teaching skill achievements account for only 15.2% in professional title and performance assessments, far lower than scientific research achievements, resulting in a low input-output ratio that seriously weakens intrinsic motivation^[11-12]. In terms of external support, colleges adopt a research-

prioritized evaluation orientation, with unified and mismatched training content; some colleges, especially private ones, face funding shortages and limited communication platforms, further dampening teachers' enthusiasm^[6-9].

Disconnection between teaching skill academic development and regional collaborative guarantees. The improvement of teaching skill academic development relies on robust regional collaboration, yet the current development features "insufficient regional collaboration despite individual college efforts". Only 27.9% of teachers have participated in cross-college exchanges, with most activities confined within individual institutions and rare inter-institutional case and resource sharing. University-enterprise cooperation is mostly concentrated on student internships, lacking teacher development-oriented initiatives and failing to transform enterprise resources into teaching skill support. Liaoning's education administrative department has not issued special regional policies for teaching skill academic development, lacking unified planning and guidance. Regional education resources are scattered, and a "policy guidance, resource integration, collaborative advancement" development pattern has not yet been formed.

4.2. Underlying Cause Analysis

Individual level: cognitive biases, knowledge imbalances, and insufficient intrinsic motivation as internal root causes^[13]. Most teachers understand teaching skill academic development through passive acceptance, with vague comprehension of its connotation and value due to insufficient college publicity, and the deep-rooted "prioritizing scientific research over teaching" concept is still prevalent. 42.8% of teachers have insufficient educational theoretical knowledge and 38.5% struggle to translate disciplinary frontiers into teaching content, due to training programs overemphasizing disciplinary expertise and neglecting educational theory, with limited on-the-job knowledge update channels (a more prominent problem in private and local application-oriented colleges). The dual pressures of teaching and scientific research occupy most teachers' time; teaching skill research has a long cycle, slow achievement transformation and low professional returns. In addition, some teachers lack clear professional development plans and weak active improvement awareness.

Institutional level: biased evaluation orientations, inadequate incentive and support mechanisms, and an imperfect training system as core external constraints. Most colleges adhere to a "research-prioritized over teaching" evaluation model, with indicators focusing on scientific research achievements, low weight of teaching skill achievements and no unified evaluation standards, guiding teachers to neglect its improvement^[11-12]. Incentive methods are single and weak, with material rewards as the main form and teaching skill rewards far lower than scientific research ones. Some private colleges have no special research funds for teaching skills, forcing teachers to bear expenses on their own, and lack dedicated communication platforms. The training system features overly unified and non-pertinent content, offline lecture-dominated methods with insufficient interactivity, and trainers mostly being administrators or theoretical researchers without frontline teaching experience, resulting in poor guidance effectiveness.

Regional level: lack of targeted policy guidance, inefficient resource integration, and underdeveloped collaborative mechanisms as critical guarantee deficiencies. Liaoning has not issued special regional policies for teaching skill academic development, lacking unified planning, implementation paths and assessment standards, leading to colleges "acting on its own"; existing policies are overly general with poor implementation effects due to no detailed rules. Liaoning has abundant higher education resources but they are highly scattered, with high-quality resources concentrated in public colleges, making it difficult for private and local application-oriented colleges to access them; there is no unified regional resource sharing platform, with unsmooth sharing channels and low utilization efficiency among colleges, enterprises and governments. Collaborative frameworks among colleges, enterprises and governments are underdeveloped: cross-college exchanges and joint research are rare, university-enterprise cooperation does not cover teacher development, and colleges have insufficient collaboration with local administrative departments and research institutions. Thus, a "government guidance, university leadership, enterprise participation, research support" collaborative pattern has not yet been established^[11].

5. Conclusion

The overall level of the academic development of teaching skills among Liaoning's college teachers is above moderate, but the development across core dimensions is unbalanced, with insufficient institutional support perception as a prominent shortcoming. Significant disparities exist between public and private college teachers and among teachers with different demographic characteristics. Four major deep-seated contradictions are identified: misalignment between strategic demands and teachers' cognitive practices, unbalanced development between public and private college teachers, imbalance between teachers' intrinsic motivation and external support systems, and disconnection between teaching skill academic development and regional collaborative guarantees.

These contradictions result from the interactive effects of individual, institutional and regional factors: individual cognitive biases, knowledge imbalances and insufficient intrinsic motivation are internal root causes; biased institutional evaluation orientations, inadequate incentive mechanisms and imperfect training systems are core external constraints; lacking regional policy guidance, inefficient resource integration and underdeveloped collaborative mechanisms are critical guarantee deficiencies. These three levels of factors interact and form a closed-loop constraint on teaching skill academic development.

To resolve these contradictions, it is necessary to base on the national education strategy, combine the actual development of Liaoning's colleges and the differentiated characteristics of public and private institutions, and make joint efforts from individual, institutional and regional levels. A systematic and operable multidimensional collaborative promotion path should be constructed to provide all-round support for improving teaching skill academic development, further boost the construction of a strong higher education province and ensure the effective implementation of the national education strategy in Liaoning.

Funding

In August 2024, the Liaoning Provincial Office of the Leading Group for Educational Science Planning issued the research project titled "Research on the Paths to Improving University Teachers' Teaching and Academic Competence under the Strategy of Building a Strong Educational Country" (Project No.: JG24JS037).

Disclosure statement

The author declares no conflict of interest.

References

- [1] Central Committee of the Communist Party of China, State Council, 2026, Outline of the Plan for Building a Strong Education Country (2024-2035).
- [2] Zhong QQ, 2022, The Theoretical Connotation and Practical Path of the Academic Development of Teaching Skills. Educational Science Press.
- [3] Ye L, 2021, The Theory and Practice of Teachers' Professional Development. East China Normal University Press.
- [4] Li BD, 2020, The Theory of Teaching. People's Education Press.
- [5] Zhang TD, 2023, Realistic Dilemmas and Solution Strategies for Improving the Academic Development of Teaching Skills among College Teachers. Educational Research, 44(05): 112-123.
- [6] Liu XJ, 2022, The Value Return and Path Reconstruction of the Academic Development of Teaching Skills in Colleges and Universities under the Strategy of Building a Strong Education Country. Journal of Higher Education, 43(08): 78-86.
- [7] Liu JA, 2023, A Study on the Promotion Mechanism of the Academic Development of Teaching Skills among College

- Teachers from the Perspective of Regional Collaboration. *China Higher Education Research*, (07): 90-96.
- [8] Wang TX, 2023, A Study on the Mechanism for the Collaborative Development of Teaching and Scientific Research among College Teachers. *China Higher Education*, (09): 45-47.
- [9] Li M, 2023, The Structure and Promotion Path of College Teachers' Teaching Practice Innovation Competence. *Educational Research and Experiment*, (02): 78-83.
- [10] Department of Education of Liaoning Province, 2024, Development Report of Higher Education in Liaoning Province (2024).
- [11] Sun MT, 2020, Educational Management. People's Education Press.
- [12] Zhou GL, 2023, The Theory and Practice of the Reform of College Teacher Evaluation System. *Journal of Higher Education*, 44(03): 87-95.
- [13] Zhao JM, 2022, The Academic Development of Teaching Skills: Theoretical Connotation and Practical Boundary. *Journal of Higher Education*, 43(05): 56-65.

Publisher's note

Whioce Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.