

Hotspots, Evolution, and Trends in the Research of High-quality Lessons-Based on Bibliometric Analysis with CiteSpace

Yunzhuo Yang

College of Teacher Education, Xinyang Normal University, Xinyang, Henan, China

**Corresponding Author*

Abstract: The development trend of high-quality lesson research shows three-stage characteristics of "fluctuating rise-peak stability-continuous decline", with insufficient inter-institutional collaboration. Research hotspots have gradually shifted from early resource construction such as "Excellent course" and "Demonstration lesson" to classroom practices of educational concepts like "Core literacy" and "Consistency of teaching, learning, and evaluation", and the research potential of technological empowerment including "Information Technology-Integrated Teaching" is prominent. These findings are derived from a study that took 723 Core journal literature published between 2005 and 2025 and indexed in China National Knowledge Infrastructure (CNKI) (CNKI) as the research object to explore the hotspots, evolution, and trends of high-quality lesson research. In this study, CiteSpace and Bibliometric method are employed to analyze external characteristics from dimensions such as publication characteristics, Author composition, and Institutional distribution. Meanwhile, Visualization analysis is carried out by constructing Literature keyword clustering map, Timeline spectrum, and Co-occurrence network. The research results show that moving forward, efforts should be made to strengthen cross-domain collaboration, further develop the competency-oriented evaluation system, and drive the meaningful integration of technology with educational objectives. These steps are necessary to achieve a theoretical and practical shift from "High-quality demonstration" to "Normal high-quality".

Keywords: High-Quality Lesson; CiteSpace; Research Trend

1. Introduction

Classroom teaching quality, as a core issue in education development, has always been in resonance with the National education strategy. In 2019, "China's Education Modernization 2035" explicitly proposed to "deepen classroom teaching reform and promote the 'Classroom revolution'", which elevates high-quality lesson construction to the strategic height of high-quality development of basic education. The revision of the Compulsory Education Curriculum Plan and Curriculum Standards (2022 Edition)[2] further emphasized the "Construction of Competency-oriented classroom ecosystem", injecting new connotations such as "Interdisciplinary integration" and "Consistency of teaching, learning and evaluation" into high-quality lesson research. However, current research still has three limitations. From the academic perspective, existing literature mostly focuses on static analysis of specific school stages or lesson types, lacking dynamic correlation studies on "Policy-practice-theory" over the 2005-2025 period.

Methodologically, most studies rely on experience summaries, with few using tools like CiteSpace for quantitative visualization analysis of literature, making it hard to reveal the law of knowledge evolution behind "Design-implementation-evaluation of high-quality lessons". In terms of interdisciplinary research, while topics such as "Empowerment of information technology" and "Integration of ideological and political education into courses" have become popular, collaborative research across pedagogy, psychology and technical sciences remains insufficient, resulting in a gap between theoretical construction and front-line teaching needs. To achieve this goal, the current status, Evolution of hotspots, and Frontier trends of high-quality lesson research are systematically analyzed in this study through the application of Bibliometric method and Visualization

technology. The research is intended to provide theoretical support for high-quality lesson research and teaching reform practice, as well as offer a rigorous and scientific reference to advance further studies on high-quality lessons.

2. Research Design

2.1 Research Sample

A total of 723 documents were identified as the analysis objects in this study, with a high-quality literature dataset established to ensure data accuracy and research relevance. The documents were retrieved using the advanced search function of China National Knowledge Infrastructure (CNKI), covering the period from January 1, 2005 to May 31, 2025. The source journals were limited to two major core databases: Peking University Core Journals and Chinese Social Sciences Citation Index. Keywords related to or similar to high-quality lessons were used as subject terms for the search, including Excellent lesson, Ministry-level excellent lesson, National-level excellent lesson, Excellent course, high-quality lesson, "One teacher, one excellent" course, and Demonstration lesson. Literature data with low or no relevance to the research topics "High-quality lesson", "Excellent lesson", and "Excellent course" were excluded through manual screening. The manual screening criterion is to retain only the literature whose core contents are teaching Teaching practice, innovation in teaching models, improvement in teaching effects, etc., and which directly focuses on the research of high-quality lesson.

2.2 Research Method

To conduct this Bibliometric research, CNKI's statistical analysis function and CiteSpace were used. The external characteristics of the research field were analyzed from the dimensions of number of published papers, author composition, and institutional distribution. A literature co-citation network was constructed to explore the relationships between keywords, authors, and institutions in high-quality lesson research. Additionally, keyword co-occurrence analysis and timeline spectrum were applied to identify the hot topics, Evolution path, and Development trend within this research area.

3. Bibliometric Analysis of High-Quality Lesson Research

3.1 Annual Analysis and Distribution of the Number of Published Documents

As shown in Figure 1, changes in the Number of published papers reflect the Hotspot changes and trends in the high-quality research field from 2005 to 2025, with the research situation demonstrating three distinct phases: "Fluctuating rise-stable peak-continuous decline".

The first phase is the Initial exploration period (2005-2012). During this time, the number of published papers on high-quality lesson research trended upward with fluctuations, growing steadily from 26 articles in 2005 to 52 by 2012. This growth was influenced by key policy developments: the Outline for Curriculum Reform in Basic Education (Trial)[3], first introduced in 2001, saw deeper implementation, highlighting that curriculum reform relies on classroom teaching practices. Additionally, the revised Compulsory Education Law of the People's Republic of China, enacted in 2006, strengthened the legal framework for compulsory education development and drove improvements in educational quality. As a central platform for innovating teaching practices and sharing experiences, high-quality lessons thus gained significant attention from both educational authorities and academic communities. The number of published papers has gradually increased with the growth of practical needs, reflecting the transition of high-quality lesson research from "scattered exploration" as teachers and researchers share teaching cases and discuss design logic through publishing papers in core journals.

The second stage is the Peak plateau period (2013-2017). During this stage, the Number of published papers maintained a high level, reaching a ten-year peak of 63 papers in 2013. Although there were fluctuations in the following years, the overall level stayed high. In 2014, the Opinions on Comprehensively Deepening Curriculum Reform and Implementing the Fundamental Task of Fostering Virtue and Cultivating People[5] pushed high-quality lesson research to deeply integrate with "Subject core literacy" and "Classroom transformation". At the same time, educational departments at all levels held a lot of "High-quality lesson selection" and "Teaching observation activities". Front-line teachers had to use academic papers to sum up

experience from high-quality lessons and develop teaching models, while university researchers worked on building theories about high-quality lessons. With both policy support and practical needs driving it, high-quality lesson research became a hot topic in academia, and the number of published papers kept staying at a high level.

The third stage Transformation and adjustment period (2018-2025). During this stage, the number of published papers has entered a phase of continuous decline and transformation, gradually dropping from 28 in 2018 to 5 in 2025 (Note: Data for 2025 only covers January to May). This decline can be attributed to two main factors. First, with the accumulation of early research, the basic theories and standard models of high-quality lessons have become more

mature. Second, in 2021, the Ministry of Education released the Opinions on Further Reducing the Homework Burden and Off-campus Training Burden of Students in Compulsory Education, which pushed classroom teaching to shift from "High-quality lesson demonstration" to "Normalized quality improvement". As a result, research focus has moved from "High-quality lesson design skills" to "Literacy-oriented classroom ecosystem construction", and the traditional high-quality lesson research framework now needs to adapt to new demands like "Reducing burdens and increasing efficiency" and "Interdisciplinary teaching". These changes have naturally led to the decrease in the Number of published papers during the transition period.

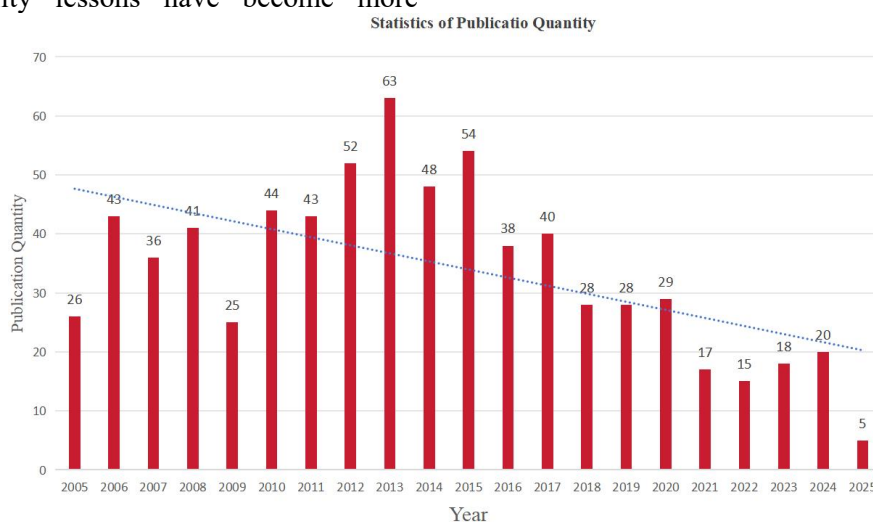


Figure 1. Statistics on the Number of Papers Published in Core Journals Related to High-Quality Lesson Research from 2005 to 2025

3.2 Research Institutions and Authors

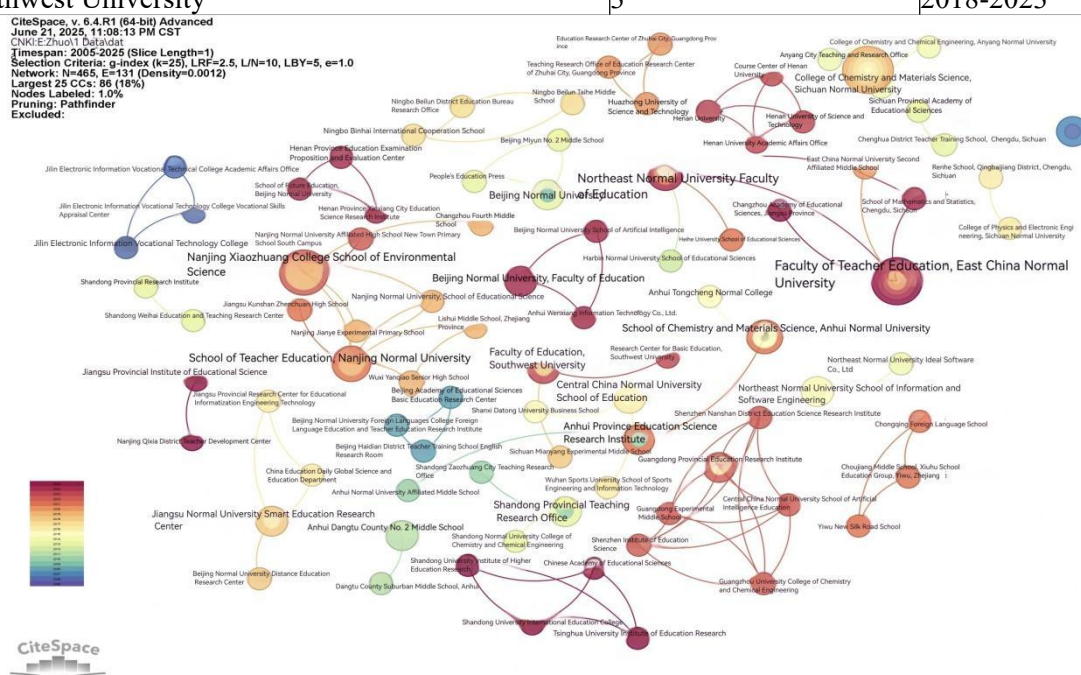
Research institutions are entities specialized in academic research within specific fields. The number of published papers can reflect the contribution of institutions at different levels and with varying natures to the field. Table 1 shows the statistics on the Number of published papers of high-quality research institutions from 2005 to 2025. Figure 2 displays the cooperation network map of high-quality lesson research institutions generated using CiteSpace, which aims to reveal the influential institutions and cooperation trends in high-quality lesson research. On the map, different names of the same institution in the data sources are merged, secondary units are omitted, and only the names of main institutions are retained.

The institutional contribution pattern in the

high-quality lesson research field can be clarified based on the statistics of number of published papers from each institution and the node characteristics of the research institution cooperation network map. Beijing Normal University, East China Normal University, and Northeast Normal University have emerged as the core forces in the field due to their high number of published papers and sustained research cycles. It is also shown that some institutions have staged research characteristics, as seen in cases like Nanjing Xiaozhuang University publishing only 4 papers in 2019 and Jilin Vocational College of Electronic Information publishing only 3 papers in 2006. The overall collaborative network still needs to be deepened to promote the cross-domain integration and innovative development of high-quality lesson research.

Table 1. Number of Published Papers of the Top 18 High-Quality Lesson Research Institutions from 2005 to 2025

Institution Name	Total Number of Publications / Article	Publication Time Period / Year
Beijing Normal University	14	2007-2024
East China Normal University	13	2010-2023
Northeast Normal University	10	2007-2024
South China Normal University	8	2005-2021
Central China Normal University	8	2006-2022
Nanjing Normal University	7	2013-2022
Tsinghua University	5	2005-2025
Anhui Normal University	4	2010-2012
Henan University	4	2005-2023
Nanjing Xiaozhuang University	4	2019-2019
Peking University	3	2006-2015
China University of Petroleum	3	2010-2017
Jiangxi Normal University	3	2008-2023
Sichuan Normal University	3	2010-2016
Huazhong University of Science and Technology	3	2014-2020
Jilin Vocational College of Electronic Information	3	2006-2006
Jiangsu Normal University	3	2016-2023
Southwest University	3	2018-2023

**Figure 2. Co-Authorship Network Map of Research Institutions**

The knowledge map of core journal authors' contribution was constructed using CiteSpace, as shown in Figure 3. The width of the connections between nodes can indicate how close the cooperation is, which helps analyze the strength of their collaboration[7]. Visual analysis of the map reveals that core author nodes like Chen Kai, Tuo Jianyong, and Liu Wenhua stand out and form small collaborative groups locally. However, the

overall connections are few and far between, showing that there is not enough cross-team collaboration in high-quality lesson research right now.

Looking at the statistical data in Table 2 Authors' publication volume, Chen Kai came first with 4 published papers. Authors including Jiang Ling, Wu Youcun, and Huang Houjiang each had 3 publications, while many scholars like Liu Xin and Li Xiu contributed 2 papers

each. It turns out that the authors split their research directions based on "Lesson type characteristics". Even though the whole network is not well-connected, two local groups clearly stand out: "High-quality lesson-Teaching practice" and "Excellent course-Curriculum construction". These groups show exactly what the authors focus on when it comes to teaching innovation and course improvement, and they also highlight the "Local aggregation and global dispersion" feature of knowledge connections.

Table 2. Statistics on the Number of Papers Published by Core Authors(Top33)

Total Number of Publications/Article	Publication Time/year	Core Author
4	2019	Chen Kai
3	2010	Jiangling
3	2007	Wu Youcun
3	2017	Huang Houjiang
2	2009	Liu Xin
2	2010	Jiang Jianchun
2	2017	Tu Jiawen
2	2008	Zhou Huibin
2	2006	Li Xiu

2	2010	Zhang Hong
2	2014	Fan Junzhao
2	2008	Sun Hong
2	2011	Xiang Xianguo
2	2015	Zhou Dongdai
2	2007	Liu Jiande
2	2011	Tao Xuebin
2	2005	Zhang Yuke
2	2016	Xu Liangbin
2	2006	Liu Wenhua
2	2006	Tuo Jianyong
2	2014	Li Ming
2	2009	Ye Jing
2	2011	Zhou Yunling
2	2016	Guo Chao
2	2008	Zhang Yan
2	2011	Wu Wangmin
2	2014	Fang Zeping
2	2005	Wu Qingcai
2	2007	Zu Xiaoyan
2	2006	Wang Song
2	2010	He Rutao
2	2015	Yang Fangqi
2	2019	Ma Hongjia

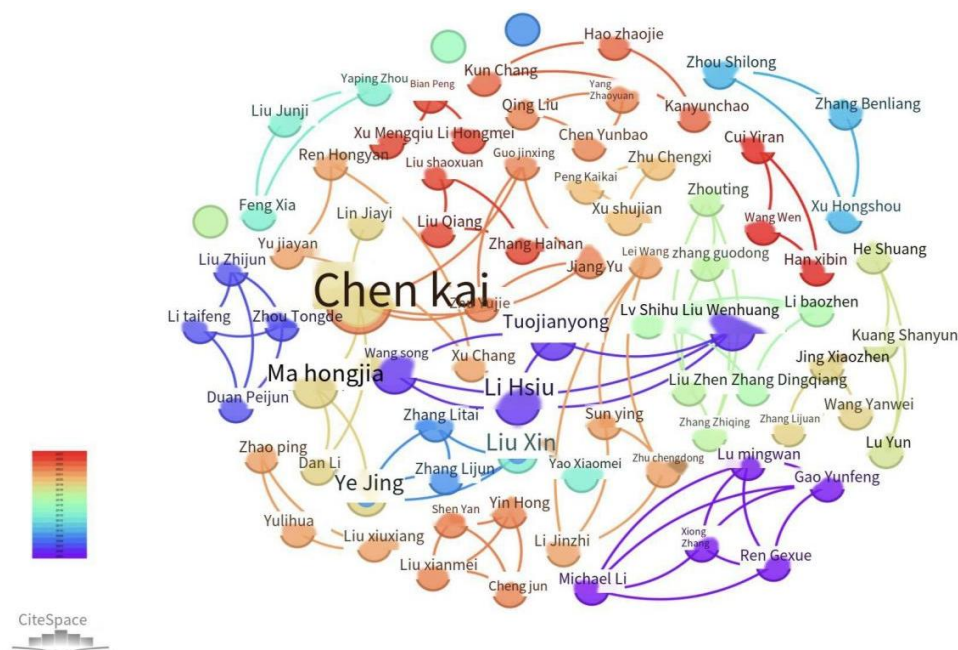


Figure 3. Knowledge Genealogy of Author Contribution Degrees in Core Journals

4. Analysis of Hotspots and Frontiers of High-Quality Lesson Research

4.1 Co-Occurrence of Keywords

Keywords are a highly concise and generalized expression of Literature Core viewpoints. Co-occurrence analysis of keywords from relevant literature in a specific research field helps researchers understand the research status

and hotspots in that area. Moreover, a higher keyword frequency indicates greater research interest in that topic within the field[8]. Using CiteSpace tool, during the statistical period, the software's Modification function was applied to merge Keywords with different names related to the research topic. For example, terms like "Excellent course", "national high-quality course" and "state-level high-quality course" were combined under the unified term

"Excellent course". After this merging process, Keyword co-occurrence analysis was conducted, generating the Keywords co-occurrence map for the high-quality lesson research field as shown

in Figure 4. Meanwhile, the top 15 keywords based on Keywords frequency and centrality are listed separately, as shown in Table 3.

Table 3. Keyword Frequency and Centrality Statistics

Keywords	Frequency(Top15)	Keywords	Centrality(Top15)
High-quality lesson	62	Excellent course	0.41
Excellent course	56	High-quality lesson	0.37
Curriculum construction	30	Regular lesson	0.26
Excellent resource-sharing course	17	Open class	0.17
Instructional design	12	Instructional design	0.16
Excellent lesson	11	Excellent lesson	0.16
Chemistry teaching	11	Curriculum construction	0.12
Construction	10	Teacher professional development	0.12
Core literacy	8	MOOC	0.12
Reflection	7	Experience	0.12
Teaching behavior	7	Excellent resource-sharing course	0.1
Higher vocational colleges	7	Construction	0.1
Heterogeneous lesson for the same course	6	Heterogeneous lesson for the same course	0.1
Teacher-student interaction	6	Core literacy	0.07
Teaching reform	6	Reflection	0.07

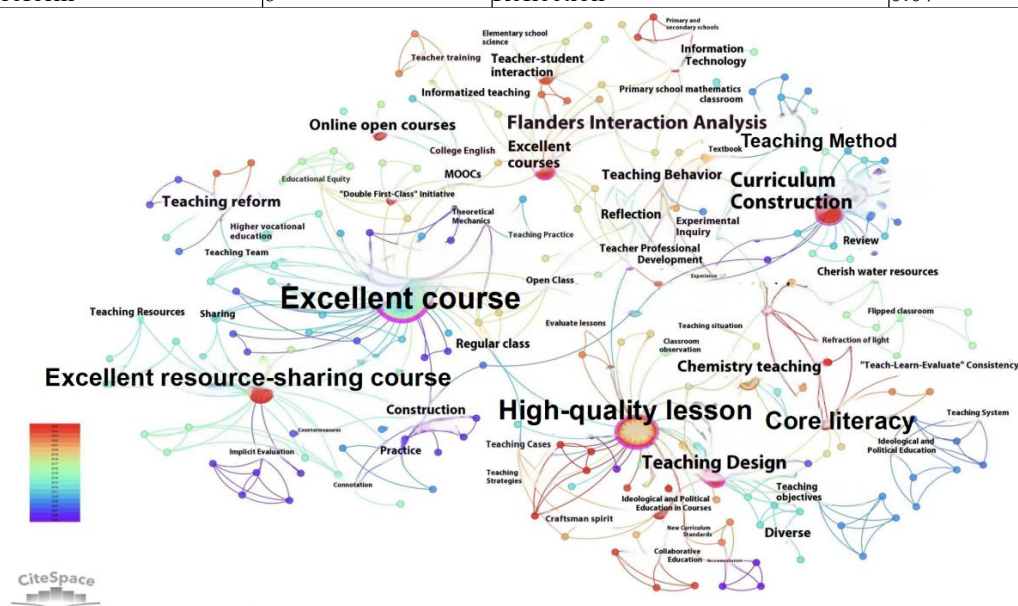


Figure 4. Keyword Co-Occurrence Map

Looking at keywords frequency, "High-quality lesson", "Excellent course", and "Course construction" are ranked at the top. This shows that research in the field of high-quality lessons focuses on the forms of high-quality courses and their construction methods. High-frequency words such as "High-quality resource sharing courses", "Teaching design", and "Excellent lesson" highlight the focus of the research direction on resource development, teaching link design, and high-quality lesson classroom construction. These high-frequency keywords form the basic language system of this field and are the core topics that scholars keep discussing.

The Centrality indicator is mainly used to measure how important a keyword is in the research network, and nodes with Centrality > 0.1 are considered key nodes. The data shows that "Excellent course", "High-quality lesson", and "Regular courses" have strong centrality values. They act as key connections that link the high-quality lesson research network together. Such key nodes accurately reveal the core relational logic of high-quality lesson research and anchor the critical pathways for knowledge interaction and theoretical transmission within the field.

High-frequency Keywords and high Centrality

Keywords are intertwined, centering around the research main line of "Course construction-teaching practice-quality improvement". Additionally, emerging keywords such as "Information Technology-Integrated Teaching" and "Core literacy" demonstrate strong connection potential.

From the perspective of the extension of the co-occurrence knowledge spectrum network, although "Information Technology-Integrated Teaching" and "Online open courses" do not rank among the Top 15, they are connected with core keywords. Furthermore, with technological advancement, the research potential of technology-empowered high-quality lesson teaching may gradually emerge. The centrality of "core literacy" is 0.07; although its current centrality is not high, as a core orientation of educational reform, it is expected to be deeply integrated into high-quality lesson research in the future, promoting research on "literacy-oriented" curriculum design, teaching implementation, and evaluation systems. In addition, the integration trend of high-quality lesson teaching with ideological and political education and multiple educational subjects is

reflected by the emergence of keywords such as "Course Ideological and Political education" and "Collaborative education", which offers a new direction for expanding research boundaries and enriching educational dimensions.

4.2 Keyword Clustering Analysis

To further clarify the research hotspots in the field of high-quality lessons, a knowledge pedigree consisting of 12 main clusters-including "High-quality lesson", "Excellent course" and "Information technology"-was derived through keyword co-occurrence analysis, as presented in Figure 5. The figure shows a clear clustering structure, good homogeneity within the clustering network, and a high level of matching between clusters. These findings indicate that the overall Clustering results are highly credible.

The Keyword clustering information of the high-quality lesson research field can be extracted by using the Clustering map, as shown in Table 4. After analyzing the 12 groups of Keyword clustering information in the table, we can summarize the research hotspots of high-quality lessons into the following four categories.

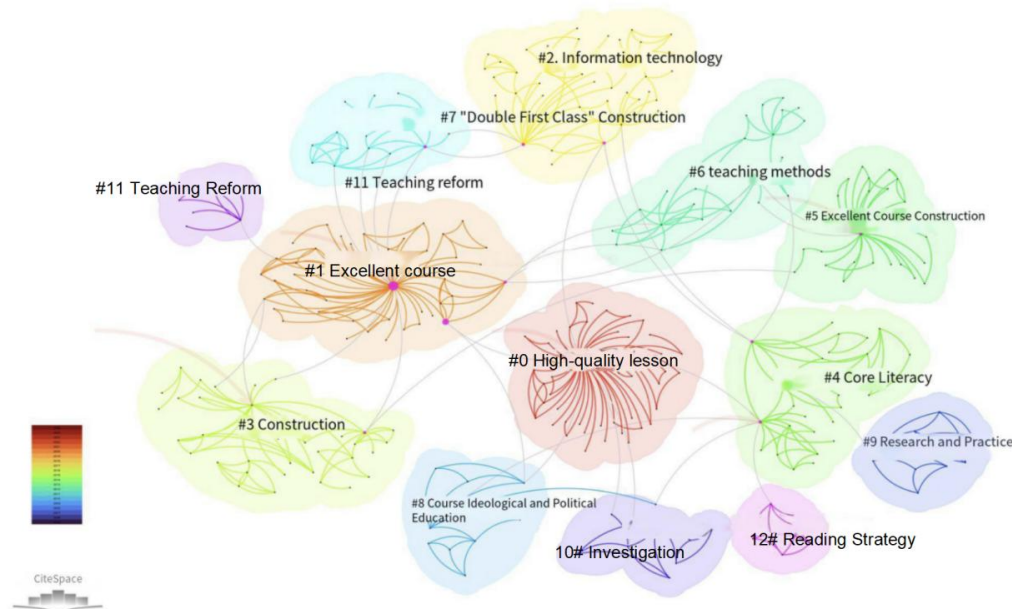


Figure 5. Keyword Clustering Map

Table 4. Table of Co-Occurrence Clustering Information of Keywords

Number	Cluster Name	Number of Keywords	Silhouette Value	Year with the Highest Keyword Frequency
#0	High-quality lesson	45	1	2016
#1	Excellent course	43	0.983	2010
#2	Information Technology	41	0.982	2017
#3	Construction	34	0.928	2010

#4	Core Literacy	27	0.972	2015
#5	Excellent course Construction	26	0.959	2010
#6	Teaching Methods	22	0.95	2010
#7	"Double First-class" Construction	16	0.985	2015
#8	Course Ideological and Political Education	10	0.991	2020
#9	Research and Practice	8	0.996	2008
#10	Investigation	8	0.98	2013
#11	Teaching Reform	7	0.996	2012
#12	Reading Strategy	5	1	2009

(1) Research on Path for constructing high-quality course system guided by Teaching resource construction (#0,#1,#5). This dimension centers on the resource foundation of the high-quality lesson system. Here, "Excellent course" and "High-quality model course construction" serve as the core carriers of high-quality lesson resources, responsible for developing high-quality course resources. Meanwhile, "High-quality lesson" defines the final aim of resource development and represents the advanced stage of high-quality model course construction. These three elements are interconnected, forming a logical path where "high-quality model course construction serves as the accumulation stage, progressing toward the systematic development of high-quality lessons". The research focuses on exploring how to use the experience gained from developing and building high-quality courses to create a high-quality lesson resource system. This, in turn, helps improve the entire process of course resources from development to finalization.

(2) Research on high-quality lesson Teaching practice driven by multiple implementation factors (#2,#4,#6). This area looks at the key factors that make high-quality lesson work in practice. "Teaching methods" act as the direct tools for teaching practice; "Core literacy" sets clear educational goals and guides the direction of teaching practice; and "Information technology" offers digital tools and resources to support teaching practice and encourage new teaching formats. Through their collaboration, the three elements form an implementation logic structured as "applying methods to teaching practice, defining directions based on literacy, and innovating forms through technology". The research focuses on effectively integrating multiple elements, addresses the coordination challenges of technology application, literacy integration, and method adaptation in high-quality courses Teaching practice, and enhances classroom practice efficiency.

(3) Research on how teaching development support system facilitates sustained optimization of high-quality courses (#3,#7,#11). This dimension examines the support mechanisms for the long-term development of high-quality courses. "Construction" serves as the fundamental safeguard, covering all aspects of course construction; "Teaching reform" acts as the internal driver for updating high-quality courses and resolving developmental issues; "'Double First-Class' Construction" offers resource backing and a favorable development environment for high-quality courses from a macro strategic perspective. A guarantee system characterized by "basic guarantee-reform promotion-strategic support" is formed by these three elements. The research focuses on integrating construction resources, leveraging the policy advantages of "Double First-Class" Construction, and breaking through development bottlenecks through teaching reform, so as to provide a solid guarantee for the continuous optimization of high-quality lessons.

(4) Research on integrating research and practice to promote the innovative development of high-quality lessons (#8,#9,#10,#12). This dimension centers on the logic of integrating research with application in the innovation of high-quality lesson. "Research and practice" serves as the core of high-quality lesson innovation, highlighting the combination of theory and practical teaching; "Course Ideological and Political education" represents a new direction for enriching the educational connotation of high-quality lesson innovation, ensuring that courses place emphasis on value cultivation while delivering knowledge. Investigation and reading strategy are specific research methods used to identify teaching problems and find ways to improve. The research focuses on exploring how to use these methods to integrate Course Ideological and Political education into teaching, and through the cycle of research and practice, the

continuous innovation of high-quality lessons is promoted.

4.3 Analysis of Development, Evolution and Frontier Trends

The frequency change of keywords reflects the evolution of research topic and serves as a key method for identifying Research trend[9]. Through the "Burst term" feature in CiteSpace, the top 25 keywords by burst strength were

extracted. These form a burst map containing two variables-strength and era-which shows how keywords evolve and develop over time[10], as shown in Figure 6. For the Keyword timeline map, the horizontal axis represents the first time keywords appear, the vertical axis shows Keyword node, and the size of each node indicates how often keywords turn up[11], as shown in Figure 7.

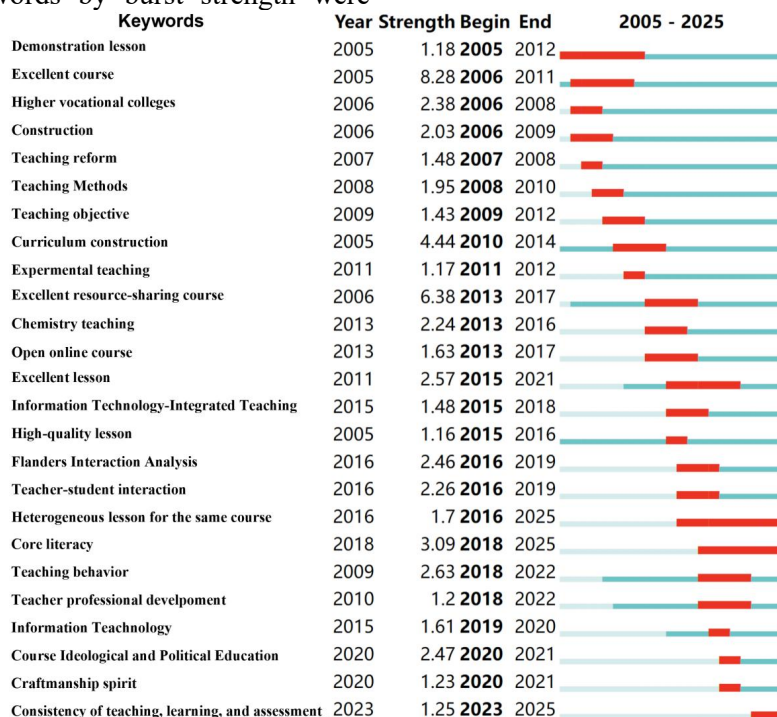


Figure 6. Keyword Emergence Map

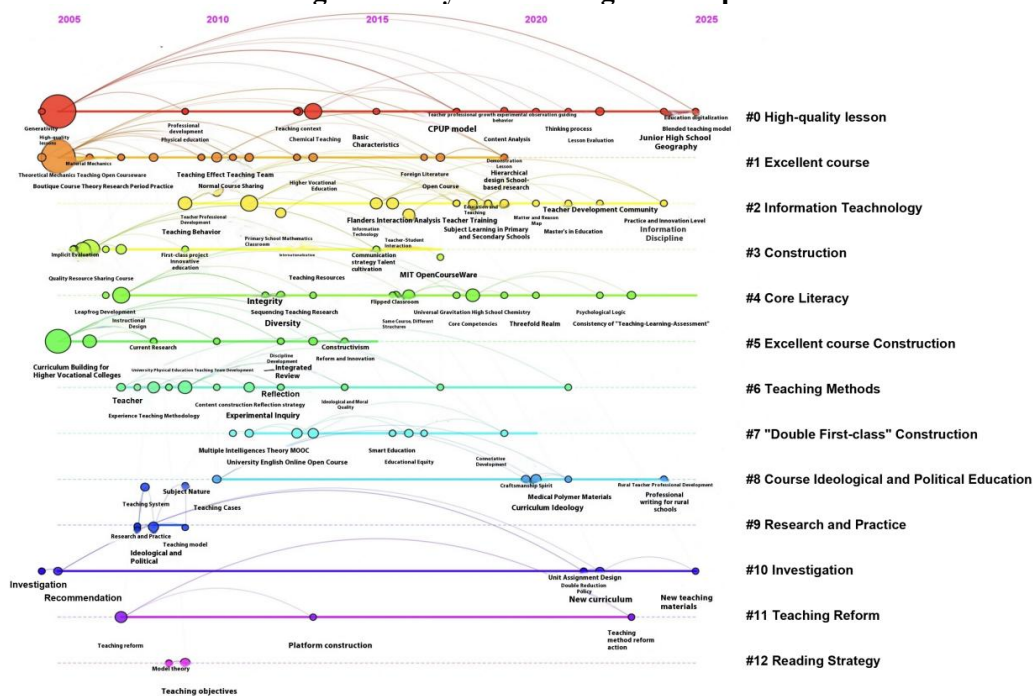


Figure 7. Keyword Timeline Map

The Keywords with the highest strength, as shown by the Burst strength value in Figure 6, is "Excellent course", which was a research focus from 2006 to 2011. "High-quality resource sharing courses" was a hot topic from 2013 to 2017. In recent years, "Core literacy" and "Teaching the same lesson with different approaches" have become frontiers, exploring how to put literacy into practice and innovate teaching models. Meanwhile, the consistency of "teaching-learning-assessment" has developed into a new research direction. By analyzing burst terms together with timeline mapping, the development of high-quality lesson research can be split into three stages according to time. This division objectively shows the development trend and latest hot topics in the high-quality lesson research field.

The first stage covers the period from 2005 to 2012. During this stage, research mainly focused on "Demonstration lesson" and "Excellent course". The mapping indicates that "High-quality lesson" acted as the central node, connecting with basic concepts like "Teaching situations" and "Physical education" to form a simple network. This phenomenon is closely linked to the "Project of Improving Teaching Quality and Teaching Reform in Higher Education Institutions" initiated by the Ministry of Education in 2003. Notably, the 2007 document "Opinions on Implementing the Project of Improving Teaching Quality and Teaching Reform in Undergraduate Education of Higher Education Institutions"[12] explicitly called for the Construction of National high-quality courses, directly steering early research toward the demonstrative Construction of courses. It is important to note, however, that during this phase, keywords generally showed low intensity, and research cycles were relatively short, with an average duration of 4 years. This indicates that research was still in a scattered, policy-driven exploration phase and had not yet developed into a systematic theoretical framework.

The second phase spans from 2013 to 2019. During this period, research expanded significantly. First, Keywords intensity rose, and new focal areas emerged, including "High-quality resource sharing courses" and "Core literacy". Second, research cycles lengthened; for instance, topics like "Teaching the same lesson with different approaches" and "Core literacy" have continued through 2025,

and the proportion of cross-year studies such as "Information Technology-Integrated Teaching" has increased. Policy influences were also clear: the "Ten-Year Development Plan for Educational Informatization (2011-2020)"[13], released in 2012, encouraged deeper integration between "Information technology" and "High-quality lesson", while the introduction of the "Core literacy" framework in 2014 shifted research toward educational outcomes. Secondary clusters are formed by nodes such as "Teacher professional development" and "Teaching behaviors" in the map. This confirms that the research has expanded from a single focus on course construction to the development of a multi-dimensional system covering teaching subjects, methods, and evaluations, which meets the requirements of documents like the "Several Opinions of the Ministry of Education on Deepening the Teaching Reform of Vocational Education and Comprehensively Improving the Quality of Talent Cultivation (2015)"[1] during this period.

The third stage spans from 2020 to 2025. Research in this stage shows three main features. First, political orientation: Bursty keywords such as "Course Ideological and Political Education" and "Craftsmanship spirit" have emerged, aligning with the requirements of the "Guiding Outline for the Construction of Ideological and Political Education in Courses in Higher Education Institutions"[4] issued in 2020. Second, methodological innovation: The use of quantitative tools like "Flanders Interaction Analysis" indicates a shift in research from experiential summaries to empirical analysis. Third, sustainable development: new concepts including "Consistency of teaching, learning, and assessment" have kept the research area active. It is worth noting that the quality of teacher-student interaction has been incorporated into the core indicators in the new version of the "Implementation Plan for the Audit and Evaluation of Undergraduate Education and Teaching in General Higher Education Institutions (2021-2025)"[6]. This forms a policy closed-loop with the earlier research on "Teacher-student interaction" (2016-2019), reflecting the growing maturity of the positive interaction mechanism known as "Academic research-policy making-practice improvement".

5. Conclusions and Outlook

The research hotspots, evolutionary paths, and development trend of high-quality lesson research from 2005 to 2025 were systematically analyzed in this study. The results show that research in this area has distinct stage-based characteristics: starting with initial policy-driven exploration, followed by a research peak formed by the combination of policies and practices, and finally entering a transition period focused on deepening connotations and adjusting structures. Research efforts are highly concentrated in normal universities, with Beijing Normal University, East China Normal University, and Northeast Normal University taking the lead. However, cross-institutional and cross-team collaboration is severely lacking, which holds back the in-depth integration of research and innovative breakthroughs. The focus of research has gradually shifted. Early work mainly looked at Construction and model examples of resources like "Excellent course" and "Demonstration lesson". Now, it has moved towards putting core educational ideas into classroom practice and improving their effectiveness. These ideas include "Core literacy", "Course Ideological and Political education", "Teacher-student interaction", and "Consistency of teaching, learning, and assessment". This shows a major change in research-from paying attention to external "high-quality forms" to digging deeper into internal "high-quality meanings".

Future research in the high-quality lesson research field could make progress in these ways:

We need to expedite the dismantling of collaboration barriers. Currently, high-quality lesson research is mostly characterized by in-depth exploration at individual sites and collaboration within the same institution. This makes it challenging to effectively address the complex requirements of "Reducing burdens and increasing efficiency, Interdisciplinary integration, and Normalized quality improvement" under the "Double reduction" policy. To address this, efforts should be focused on building a deeply collaborative research network that spans different schools and fields, including university researchers, educational research institutions, and front-line master teachers. By integrating diverse perspectives and expertise, high-quality lesson research can be advanced from fragmented practices to the

development of systematic theoretical and practical models.

Focus on the essence of education and achieving in-depth breakthroughs in evaluation reform. "Core literacy" and "Course Ideological and Political education" are current research priorities. Future studies should focus on how these concepts can be deeply integrated into classroom design, teaching behaviors, and teacher-student interaction, as well as on developing practical evaluation systems for "Consistency of teaching, learning, and assessment". The associative potential of such keywords has been revealed through graphs. Moving forward, empirical research needs to be strengthened to explore the scientific methods and evaluation standards for building classroom ecosystems under the literacy-oriented approach.

Embrace technology empowerment in a rational way. While keywords like "information technology" and "Online courses" have shown up in the co-occurrence network, how well they integrate with the core elements of high-quality lessons still requires further study. Technology application should serve the goal of educating people, avoid becoming just a formality, and truly bring about the substantial shift from "Information Technology-Integrated Teaching" to "Information technology-based education". Only by deepening cooperation, focusing on educating people, and using technology wisely can high-quality lesson research make the theoretical and practical leap from "high-quality demonstration" to "normal high-quality", offering strong support for the high-quality development of basic education in the new era.

References

- [1] Ministry of Education of the People's Republic of China. (2015) Several Opinions of the Ministry of Education on Deepening the Reform of Vocational Education and Teaching and Comprehensively Improving the Quality of Talent Cultivation. http://www.moe.gov.cn/srcsite/A07/moe_953/201508/t20150817_200583.html.
- [2] Ministry of Education of the People's Republic of China. (2022) Notice of the Ministry of Education on Issuing the Compulsory Education Curriculum Plan and Curriculum Standards (2022 Version). http://www.moe.gov.cn/srcsite/A26/s8001/202204/t20220420_619921.html.

- [3] Ministry of Education of the People's Republic of China. (2001) Notice of the Ministry of Education on Issuing the "Outline of Basic Education Curriculum Reform (Trial Implementation)". http://www.gov.cn/govweb/gongbao/content/2002/content_61386.htm.
- [4] Ministry of Education of the People's Republic of China. (2020) Notice of the Ministry of Education on Issuing the "Guidelines for the Construction of Curriculum Ideology and Politics in Colleges and Universities". http://www.gov.cn/zhengce/zhengceku/2020-06/06/content_5517606.htm.
- [5] Ministry of Education of the People's Republic of China. (2014) Opinions of the Ministry of Education on Comprehensively Deepening Curriculum Reform and Implementing the Fundamental Task of Establishing Morality and Cultivating People. http://www.moe.gov.cn/srcsite/A26/jcj_kcjcgh/201404/t20140408_167226.html.
- [6] Ministry of Education of the People's Republic of China. (2021) Notice of the Ministry of Education on Issuing the "Undergraduate Education and Teaching Audit and Evaluation Implementation Plan for Regular Institutions of Higher Education (2021-2025)". http://www.moe.gov.cn/srcsite/A11/s7057/202102/t20210205_512709.html.
- [7] Qin, Q.Y., Luo, C.Y., Wei, J.Y., et al. (2025) Bibliometric Analysis of Hospital Discipline Construction Research Based on CiteSpace. *Chinese Hospitals*, 29(4): 81-84.
- [8] Gao, J.T., Mo, Z.J., Chen, L., Chen, L., et al. (2024) Bibliometric and Visual Analysis of Molecular Biology Teaching Research Based on CNKI Journals. *Huaxia Medicine*, 37(2): 231-237.
- [9] Guan, W.D., Jin, M.L., Chen, L., et al., Li, R., et al. (2025) Analysis of Research Hotspots and Trends of Wheat Scab Based on CiteSpace. *Journal of Triticeae Crops*, 45(4): 510-520.
- [10] Wang, H.H. (2024) Analysis of Hotspots, Evolution and Trends in the Research of University Experimental Teaching Demonstration Centers-A Bibliometric Analysis Based on CiteSpace. *Research and Exploration in Laboratory*, 43(05): 129-134+139.
- [11] Zhao, X.D., Hou, S.H., Chen, H.L., et al. (2025) Analysis of Research Hotspots and Trends of Dry-Cured Ham Based on CiteSpace Knowledge Graph. *Meat Research*, 39(3): 70-78.
- [12] Ministry of Education of the People's Republic of China, Ministry of Finance of the People's Republic of China. (2007) Opinions on Implementing the Undergraduate Teaching Quality and Teaching Reform Project in Colleges and Universities. http://www.moe.gov.cn/srcsite/A08/s7056/200701/t20070122_162693.html.
- [13] Ministry of Education of the People's Republic of China. (2012) Ten-Year Development Plan for Education Informatization (2011-2020). http://www.moe.gov.cn/srcsite/A16/s3342/201203/t20120313_133322.html.