JOURNAL OF MODERN SOCIAL SCIENCES
Vol. 1, No. 2, Dec. 2024, 212-230
https://doi.org/10.5281/zenodo.14541408

A visual analysis of the last two decades of evaluation research in physical education teaching

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Abstract

The objective of this study is to examine the evolution of research in the field of physical education teaching evaluation in China over the past two decades, with a view to providing a basis for future research in this area. The methodology employed in this study is as follows: The Citespace visual analysis tool was employed to analyse 178 research documents related to physical education evaluation in China over the past two decades (2004-2024) in the China Knowledge Network (CNKI) database. The annual publication volume, research authors, issuing institutions, keywords and other relevant data were analysed visually. The results of the analysis indicate that the annual publication volume in the field of physical education teaching evaluation in China has exhibited an overall declining trend over the past two decades. The author with the highest number of publications is Yu Sumei, with three, while the institution with the highest number of publications is the School of Sports Science of Nanjing Normal University, with six. The research hotspots primarily concentrate on the evaluation object and evaluation content. The primary areas of future research are projected to be physical education ideology, learning interest, and practical teaching.Conclusion: The field of physical education teaching evaluation has received extensive and continuous attention. An analysis of its research status, hotspots, and trends can provide references and lessons for the development of future related research as well as the reform and development of this field.

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Keywords: Physical education teaching evaluation; Citespace; Visual analysis; Knowledge graph

Introduction

The importance of school sports work is long-standing and widely acknowledged by the state. Significant progress has been made in terms of policy, historical background and current situation. However, new challenges and potential for further improvement have also emerged. On 15 October 2020, the General Office of the CPC Central Committee and the The General Office of the State

Council has published the Opinions on Comprehensive Strengthening and Improvement of School Sports in the New Era, which emphasises the indispensable and fundamental role of school sports in fulfilling the fundamental task of cultivating morality and education, as well as in improving the comprehensive quality of students. The Opinions emphasise that school sports play an indispensable and fundamental role in achieving the fundamental task of cultivating morality and enhancing the comprehensive quality of students. They put forward specific measures in terms of general requirements, main objectives, teaching reform, improvement of school conditions, improvement of evaluation mechanisms and organisational safeguards, among others (Xinhua News Agency, 2020). The opinion sets forth general requirements, principal objectives, pedagogical reform, enhancements to school administration, improvements to evaluation mechanisms, and organizational safeguards. In the context of physical education instruction in schools, the evaluation of physical education plays a pivotal role, facilitating the enhancement of teaching quality and the attainment of teaching objectives (Li Yan, 2007).

Physical education teaching evaluation can be defined as the objective and scientific assessment of the process and outcome of physical education teaching, encompassing the evaluation of teachers and students (Deng YaoKai, 2011). Prior research has demonstrated that the domain of physical education teaching evaluation has evolved from its nascent conceptualisation and classification (Li YanJun, 2009) to the development of an evaluation system (Fang Qiang, 2010; Shao Guoping & Wu Jialing, 2008; Yang Yufei & Duan Hongan, 2014) and the selection of an optimal trajectory (Tu Jinlong & Li Aiju, 2022; Zhang Wencai & Sun Zhanfeng, 2019). The level of research has gradually become more sophisticated. The current research emphasises the diversity of evaluation methods (Wang Zhanlong, 2008) and the individualisation of evaluation content. Furthermore, it highlights the importance of lifelong physical education (Yu Sumei, 2018) and the importance of lifelong physical education (Zhou Aidong, 2003). The current research emphasises the diversification of evaluation methods, the personalisation of evaluation contents, and the importance of lifelong physical education(Wang Ke, 2014) and other research.

As China's education system undergoes further reform, the significance of quality education is becoming increasingly apparent. The concepts of "health first" and "lifelong sports" are gaining traction in the public consciousness. However, alongside this reform, the shortcomings of traditional physical education teaching evaluation are becoming more evident. Consequently, the study of physical education teaching evaluation has emerged as a pivotal concern within the field of physical education.

In light of the aforementioned considerations, this paper employs the Citespase visual analysis tool to collate and enumerate the literature data pertaining to the evaluation of physical education teaching in China over the past two decades (2004-2024). The data has been retrieved from the China Knowledge Network (CNKI) database and subjected to in-depth exploration and analysis, with a particular focus on the annual publication volume and scientific research cooperation. The objective is to conduct a comprehensive and systematic exploration of the research status, focal points and development trends in the field of physical education teaching evaluation in China over the past two decades. This will facilitate the identification of the challenges and issues currently facing the field, while also providing a foundation for future research endeavours.

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Information and methodology

Data sources

In this study, the China Knowledge Network (CNKI) was employed as the principal search platform for the research data. The advanced search function of the CNKI platform was utilized to search for the term "evaluation of physical education teaching" through the subject search, with the search condition of "precise." The search period was from 6 July 2004 to 6 July 2024 (search date: 19 August 2024), and 1,422 research documents related to the evaluation of physical education were initially retrieved. The search period was from 6 July 2004 to 6 July 2024 (search date: 19 August 2024), and 1,422 items of research literature related to the evaluation of physical education teaching were initially retrieved. Following the refinement of the Peking University Core and CSSCI databases, as well as a meticulous manual screening process to remove invalid literature such as conference papers, newspaper articles, books, and so forth, we were able to obtain 178 pieces of valid literature that met the research criteria, which constituted the basic sample base for the data analysis of the study.

Research methodology

The Citespace software, version 6.3.R1 (64-bit), was employed for the processing of the research data. The 178 valid documents retrieved from the China Knowledge Network (CNKI) were exported in Reforks format and renamed in download_x.txt format. The time slicing was set to 2004-2024, with a year per slice, and the parameter threshold k=25. The node types were selected as author, institution and keyword. All parameters were set to draw the corresponding maps. The time period covered by the analysis was set to 2004-2024, with a time slice of one year and a parameter threshold of k=25. Node types were selected as author, institution, and keyword. All parameters were set, and the corresponding knowledge maps were drawn to provide a visual representation and facilitate analysis of the research literature on the evaluation of physical education teaching in China over the past two decades.

Results

Analysis of the annual volume of publications

The number of annual publications serves as a principal indicator of the significance of a specific research domain. It not only reflects the velocity of advancement and the intensity of research activity within the realms of physical education and teaching evaluation, but also mirrors the prevailing trajectory of the field (Wang Haiyun et al., 2024). Furthermore, it can serve as an indicator of the overall trend within the field.

Figure 1 illustrates the annual publications from 2004 to 2024. It demonstrates a notable decline in the overall trend of publications in the field of physical education teaching evaluation research in China over the past two decades. During this period, the average number of publications was 8.9 per year, with 2007 representing the peak of publications (19). A notable surge was observed in the

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period between 2004 and 2005, which can be attributed to the fact that the search commenced on 6 July 2004, and therefore, literature published prior to that date was not included in the search.

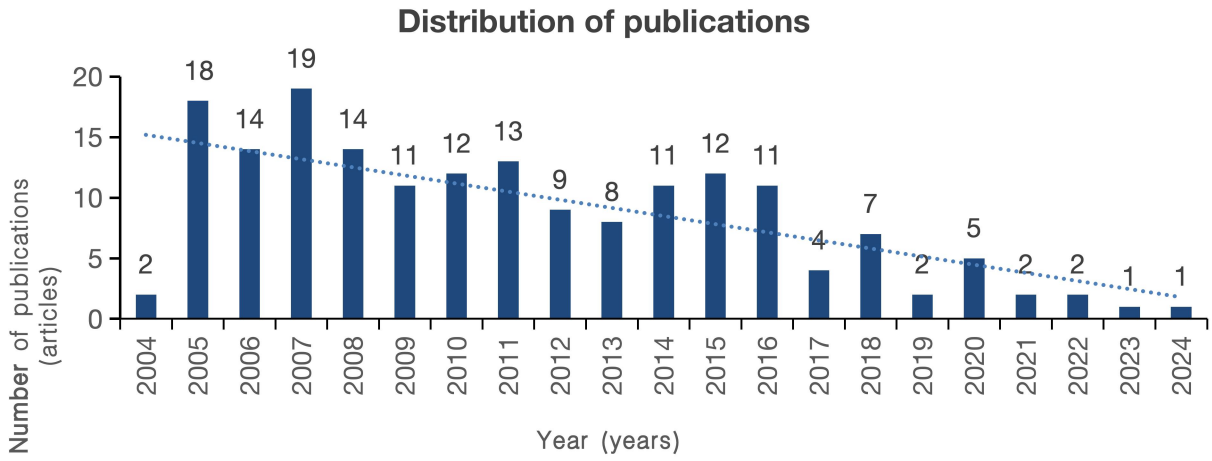

Fig. 1 Trend of annual publication volume of physical education teaching evaluation in China in the past 20 years

Analysis of research co-operation networks

Analysis of study authors

The authors of scientific literature are the subjects of scientific research activities, and the most prominent researchers in the field of physical education and teaching evaluation frequently spearhead the advancement of the field of research (Sun Haisheng, 2012). The node types were set to "Author", and the remaining parameters were left unchanged. The node types were set to "Author", and the remaining parameters were left unchanged, and a network map of research authors was created (Figure 2). This map comprises the top 12 authors in terms of the number of articles published (Table 1), with Yu Sumei having published the highest number of articles (3).

In author co-occurrence mapping, nodes serve as a crucial indicator. The number of nodes represents the number of research authors, the colour of nodes denotes the year of publication, and the connecting lines reflect the extent of collaboration between research authors. As can be observed from the mapping, there are 258 nodes, indicating that a total of 258 authors are involved in research in the field of physical education teaching evaluation. There are 140 instances of connectivity between nodes. A total of 140 instances of collaboration between authors are observed, with a network density of 0.0042. This indicates that, despite the large number of research authors, they are distributed in a relatively discrete manner, forming a small core group of authors with low levels of interconnectivity. Additionally, a considerable number of authors have published articles independently, contributing to the overall fragmentation of the network.

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Fig. 2 Knowledge map of the authors of our physical education teaching evaluation studies in the last 20 years

Table 1 The top 12 authors in terms of the number of articles published on physical education teaching evaluation in the past 20 years in China

arrange in order	author's name	volume of publications
1	Su Mei Yu	3
2	SunYouping	2
3	Jin Hongzhen	2
4	Yao Lei	2
5	Huang Baohong	2
6	Liu Yang	2
7	Wang Fang	2
8	Zhao Li	2

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9	Wei Deng Yun	2
10	Hu Yihai	2
11	Zhang Peng	2
12	Yu Xiaodong	1

Analysis of issuing bodies

The advancement of scientific research is contingent upon the backing of research institutions. A visual analysis of these institutions not only permits an understanding of the scientific strength of each in the domain of physical education teaching and learning evaluation, but also facilitates the examination of the core driving force behind the development of the field of physical education teaching and learning evaluation (Zhang Fan, 2023). The following is a list of the research organisations. The node types were set to "Institution," with all other parameters remaining unchanged, and the resulting network map of research institutions is presented in Figure 3. The map presents a summary of the top 10 research institutions in terms of the number of articles published, as outlined in Table 2. The School of Sports Science at Nanjing Normal University has the highest number of articles, with six publications.

As illustrated in the network mapping of research institutions, 195 nodes indicate that there are 195 research institutions engaged in the field of physical education teaching evaluation. The research institutions are primarily distributed in teacher training colleges, sports colleges, and universities. However, there are only 41 instances of connectivity between nodes, and the density of cooperation (Density) is 0.0022, indicating that the cooperation relationship between institutions is not particularly close and that most of the institutions are primarily focused on their own research. There is a paucity of communication and collaboration between the institutions.

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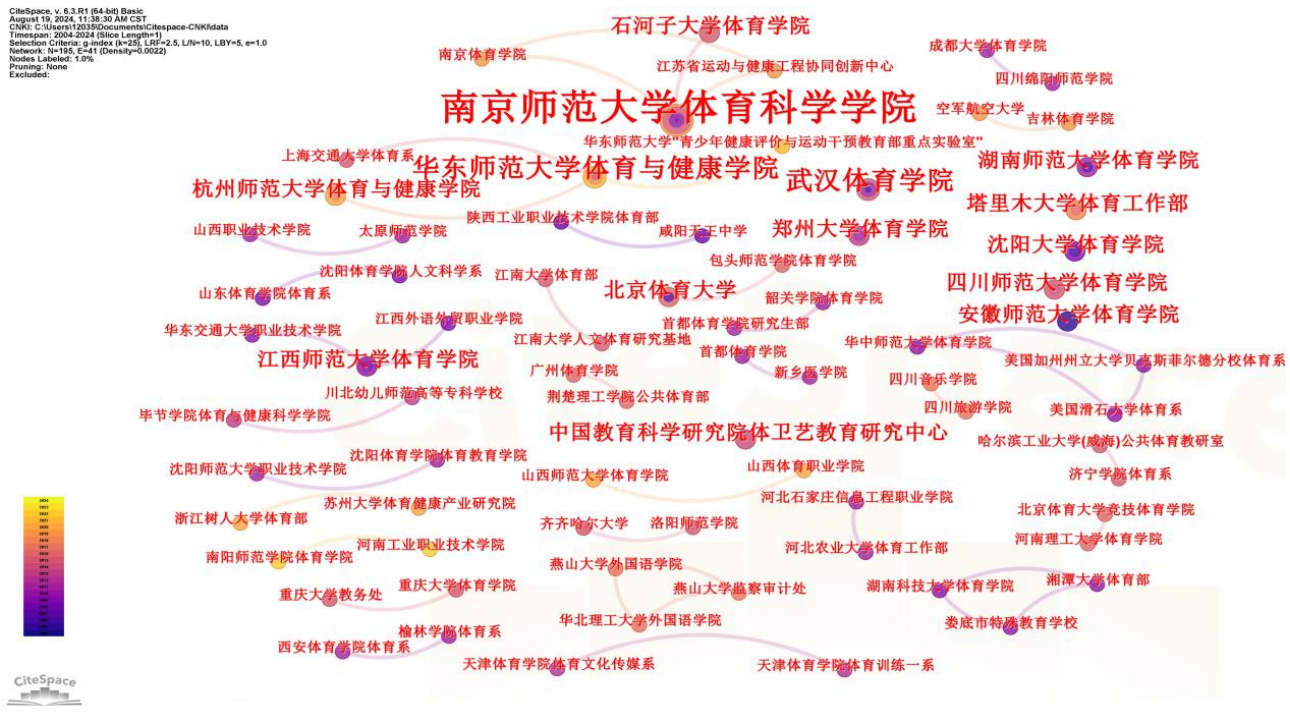

Fig. 3 Knowledge mapping of research institutes of physical education teaching evaluation in China in the past 20 years

Table 2 The top 10 research institutions in China in terms of the number of articles published on physical education teaching evaluation in the past 20 years

arrange in order	volume of publications	issuing body
1	6	College of Sports Science, Nanjing Normal University
2	3	School of Physical Education and Health, East China Normal University
3	3	Wuhan Sports Institute
4	2	Jiangxi Normal University School of Physical Education
5	2	Tarim University Athletic Department
6	2	College of Physical Education, Anhui Normal University
7	2	Beijing Sports University
8	2	Shenyang University School of Physical Education and Sport
9	2	College of Physical Education and Sport, Hunan Normal

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		University
10	2	School of Physical Education and Health, Hangzhou Normal University

Keyword analysis

Keyword co-occurrence analysis

Keywords represent the condensation and distillation of the core content of the research literature. The term 'co-occurrence' is used to describe the simultaneous appearance of specific keywords or key phrases within a given body of literature. By analysing the co-occurrence of these keywords, it is possible to gain insight into the primary focus of research within a particular field, as demonstrated by Wu Yonghua and colleagues (2024) in the context of physical education teaching evaluation. The analysis of keyword co-occurrence can be employed to gain insight into the research focus within the field of physical education evaluation. The Citespace software was used to set the node types to keyword, the K value to 25, and the Pathfinder (pathfinding network algorithm) and integrated network to draw the keyword co-occurrence mapping (Figure 4). In a keyword co-occurrence network mapping, a circle represents a keyword node, the size of which reflects the influence of the keyword in question. A line between two nodes indicates the number of times the two keywords appear together (Wang Xiwei et al., 2019). A total of 211 keyword nodes are represented in the mapping, with 354 lines connecting them. This is significantly higher than the number of nodes, indicating a high degree of interconnectivity between the keywords.

The data parameters obtained from the Citespace visual analysis were used to identify the keywords and centrality of the top 12 frequency rankings, which were then counted and plotted in a table (Table 3). The keyword centrality index is a measure of the prominence of a node in a network, with higher centrality values indicating greater influence. With the exception of the keywords 'sports' (0.06) and 'general colleges and universities' (0.01), the remaining ten high-frequency keywords all have a centrality value greater than 0.1. The top three in terms of centrality are 'teaching evaluation' (0.84), 'physical education teaching' (0.48), and 'colleges and universities' (0.40), indicating that they are situated at the core of the keyword co-occurrence network and possess a high degree of importance.

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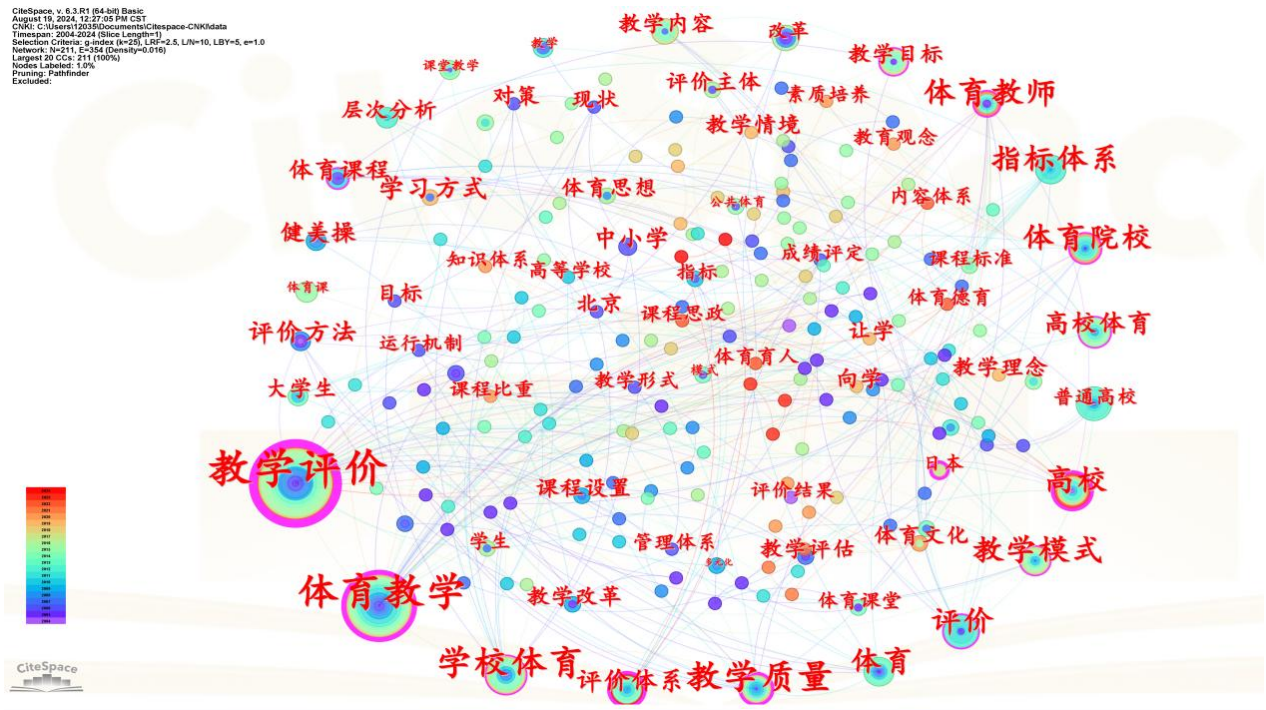

Fig. 4 Co-occurrence mapping of keywords in physical education teaching evaluation research in China in the past 20 years

Table 3 The top 12 keywords and centrality of the frequency of physical education teaching evaluation in China in the past 20 years

arrange in order	frequency	byword	centrality value
1	39	Evaluation of teaching and learning	0.84
2	32	Physical Education	0.48
3	11	school sports	0.20
4	9	rating system	0.23
5	8	Quality of Teaching and Learning	0.34
6	8	physical education	0.06
7	8	evaluations	0.14
8	8	educational model	0.13

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9	7	universities and colleges	0.40
10	7	regular high school	0.01
11	6	Physical education in higher education	0.15
12	6	sports college	0.11

Keyword clustering analysis

In order to gain further insight into the specific research content, knowledge structure and deepen the co-occurrence relationship in the field of physical education teaching evaluation, the keyword clustering labels were extracted using the log-likelihood rate, LLR (log-likelihood method), and the keyword clustering mapping was obtained (Fig. 5). In the atlas, the clustering modularity value (Q) and the weighted mean silhouette value (S) are used to assess the significance and homogeneity of the clustering atlas, respectively. Chen Yue, Chen Chaomei et al. (2015) posited that the Q value within the interval [0,1) indicates the significance of the clustering structure when Q > 0.3. Furthermore, when S > 0.5, it implies the reasonability of the clustering, while when S > 0.7, it signifies the efficiency and conviction of the clustering. In this study, the Q value was found to be 0.8237, while the S value was 0.9461. These figures indicate that all 11 clusters fall within the efficient and reasonable range and are significant. The mapping reveals the formation of 11 distinct clustering modules, exhibiting a high degree of concentration and overlap. This suggests that the research field of physical education teaching evaluation is characterised by a high level of specialisation and integration.

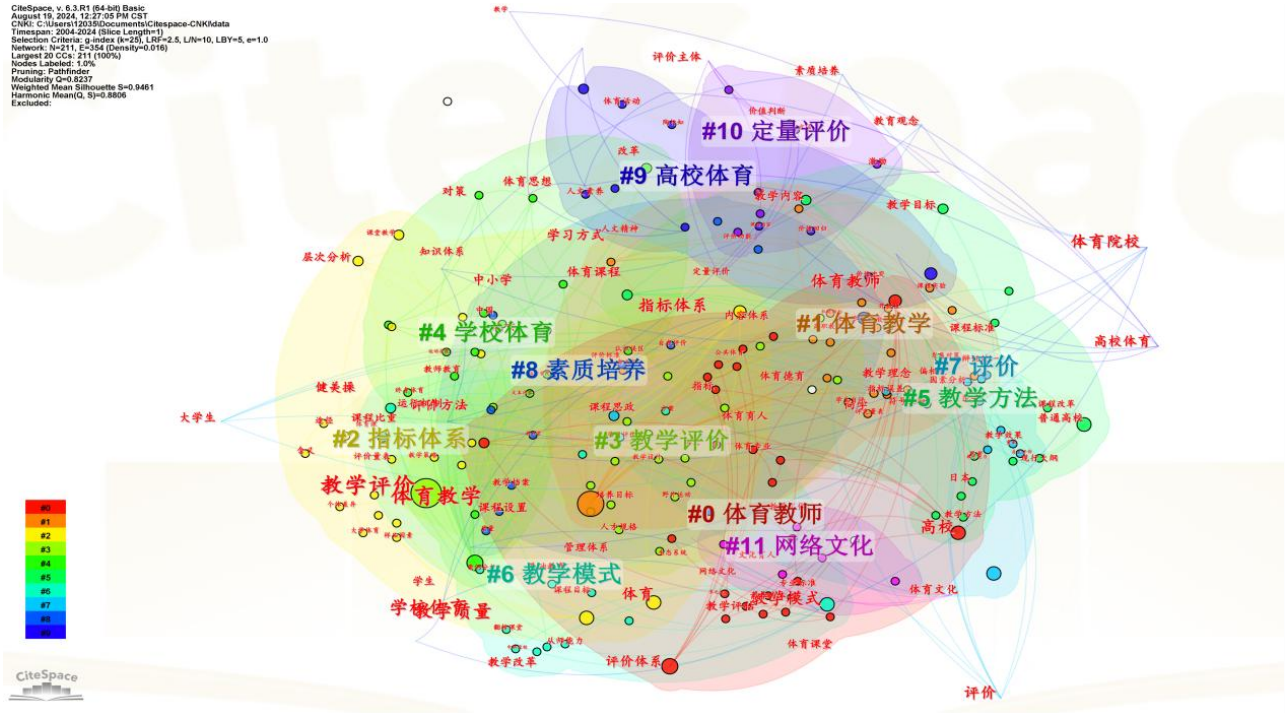

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Fig. 5 Clustering map of keywords of physical education teaching evaluation research in China in the past 20 years

Keyword emergence and timeline analysis

Emergent keywords are defined as words that manifest a greater frequency of occurrence at a specific point in time. They are more conducive to the identification of emerging trends and abrupt shifts in subject development than high-frequency keywords (Li Xiaohua & Cheng Xihui, 2023). In this paper, the Burst Term function is employed to construct keyword emergence maps based on the results of keyword co-occurrence mapping (see Fig. 6). A total of 10 emergent words were identified in 178 documents. The keyword with the strongest emergence intensity was "evaluation" (2.85), indicating that evaluation represents a significant frontier of research in this field and has a considerable influence. The earliest term to appear was "aerobics", which began to emerge in 2007, suggesting that it has been a subject of interest among scholars in China at an earlier stage.

The Timeline view is designed to facilitate an understanding of the relationships between keyword clusters and the historical span of literature within a given cluster (Chen Yue, et al., 2015). In order to analyse the research years of the keyword clusters in order to better clarify the thematic evolution of the research in the field of physical education teaching evaluation, the Timeline view module was selected, with all other parameters unchanged, to generate the timeline view (Figure 7). The Timeline view allows for the clear visualisation of the beginning and ending time nodes of each clustered theme, thus facilitating a more comprehensive understanding of the developmental time interval of the research field of physical education and teaching evaluation. This, in turn, enables the summarisation of the evolutionary path of the research content (Chen Shiji, et al., 2022). Additionally, the figure comprises 11 clusters, each of which is labelled with keywords from the co-occurrence network. These keywords are distributed across the clusters according to the year in which they first appeared in the corresponding time period, thereby illustrating the evolution of keywords within each cluster. By combining the keyword emergence mapping with the timeline view, it is possible to gain a more intuitive understanding of the development of research hotspots in the field of physical education teaching evaluation. This allows for a more accurate prediction of the future development trend in this field.

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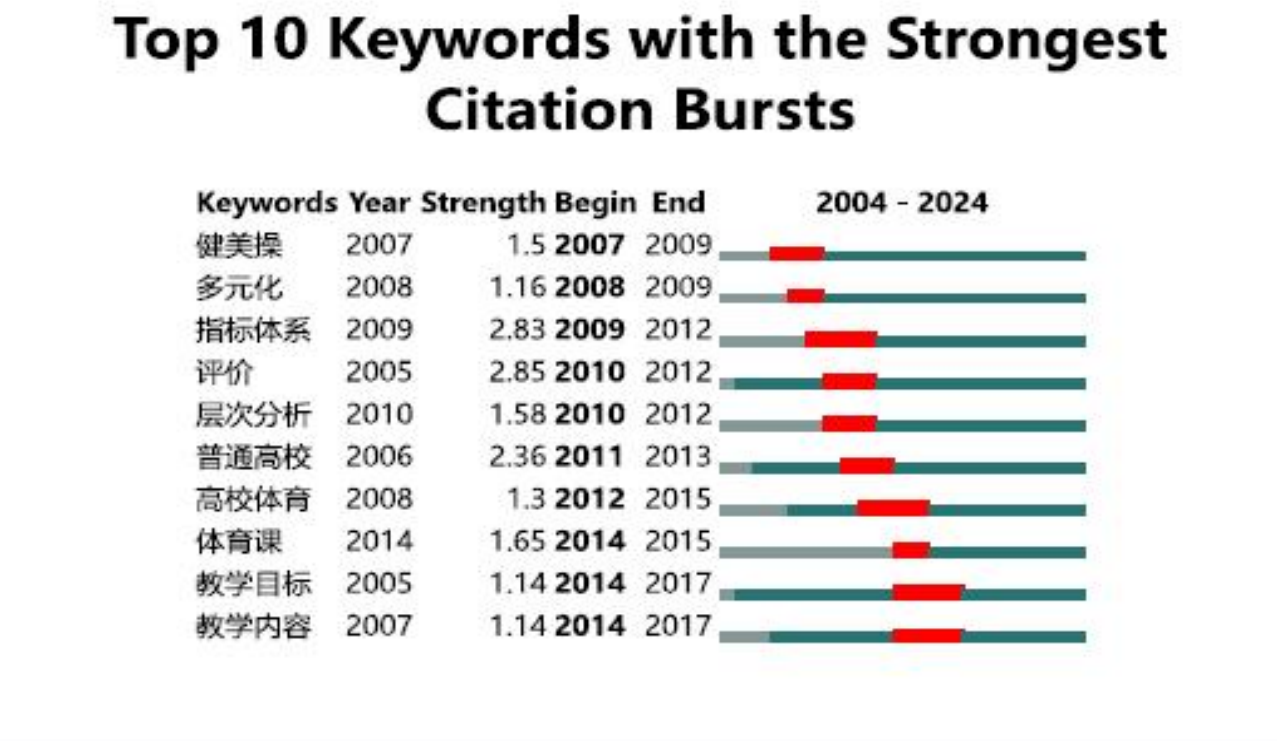

Fig. 6 The emergent keywords (top 10) of physical education teaching evaluation research in China in the past 20 years

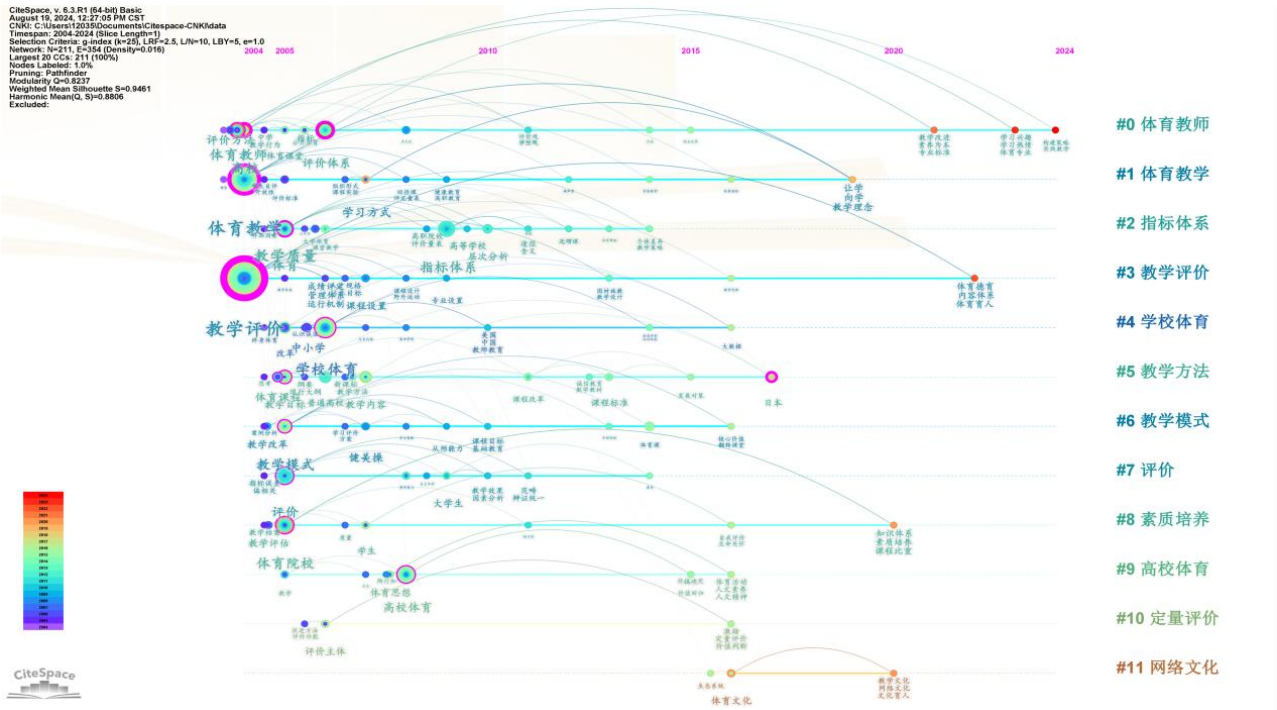

Fig. 7 Time line mapping of physical education teaching evaluation research in China in the past 20 years

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Discussion

Analysis of publications, authors and institutions

A review of the number of articles published annually revealed a downward trend in the field of physical education evaluation research in China over the past two decades, with a peak of 19 articles in 2007. This may be related to the endorsement by the State Council of the Ministry of Education's formulation of the "Eleventh Five-Year Plan for the Development of the National Educational Programme", a policy that calls for the prioritisation of education in order to facilitate the construction of a well-off society. The comprehensive construction of a moderately prosperous society necessitates the prioritisation of educational development. The release of this policy has consequently garnered considerable attention within the academic community (Government portal of the Ministry of Education of the People's Republic of China). Read on 12 November 2024. Since 2019, the average number of articles published has been 2.16 per year. This may be attributed to the outbreak of the Xinguancun epidemic, which made it challenging for educational and teaching activities to resume normal operations. Additionally, the work of "teaching, learning, and evaluation" was hindered, leading to a reduction in related scientific research, which in turn contributed to the observed decline in the number of articles published. With regard to the scientific research cooperation network, the author with the highest number of articles in the China Knowledge Network (CNKI) database is Yu Sumei from the China Academy of Educational Sciences (3 articles). Of these, three relate to physical education teaching evaluation and have not been co-operated with other authors. Instead, they have all been published alone, with the focus on the evaluation system, quality of teaching, and evaluation standards. The research team, comprising Hu Yihai, Li Chen and Zhu Jianzhu, is engaged in the investigation of evaluation indices and the development of an evaluation system.A small collaborative team was formed by Huang Baohong, Wei Dengyun and Sun Jian from the College of Physical Education and Sports of Anhui Normal University. The team's focus was on evaluation indicators and practical applications (Hu Yihai, Zhang Shengkang, Liu Shuzhi, Qu Jianhua, Li Chen, Zhu Jianli, 2005; Huang Banhong, et al., (Huang Baohong & Wei Dengyun, 2005; Wei Xubo et al., 2011; Yu Sumei, 2014a, 2014b, 2018). The research was conducted by a small collaborative team comprising three individuals from Anhui Normal University. A review of the China Knowledge Network (CNKI) database reveals that the College of Sports Science of Nanjing Normal University has published the highest number of articles (6 articles), forming a cooperative network with three institutions, including the College of Physical Education and Sports of Shihezi University. The second highest number of articles is that of the College of Physical Education and Health of East China Normal University and the Wuhan Institute of Physical Education and Sport, with a total of three articles. The second largest group of contributing institutions is that of the College of Physical Education and Health of East China Normal University, the College of Physical Education and Health of Hangzhou Normal University and the Department of Physical Education of Shanghai Jiaotong University, etc. The College of Physical Education and Health of East China Normal University and the Physical Education and

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Health Department of Hangzhou Normal University, Shanghai Jiaotong University, etc., have engaged in collaborative research activities, whereas the Wuhan Institute of Physical Education and Sports has not established such partnerships with other academic institutions.This demonstrates that over the past two decades, scholars in the field of physical education teaching evaluation in China have concentrated their efforts on evaluation indexes, evaluation systems, teaching quality and other aspects. Research institutions are primarily located in teacher training colleges and physical education colleges. However, there is a lack of close and efficient collaboration between authors and institutions, with only a limited number of small groups engaged in cooperation. There is a need to strengthen collaboration and exchanges among multi-regions, multi-institutions and even multi-nationals in the future.

Analysis of research hotspots

A keyword analysis reveals that the most prevalent keywords in the field of physical education teaching evaluation pertain to two key areas: the evaluation object and the evaluation content. With regard to the evaluation object, research encompasses a range of institutions, including school sports, colleges and universities, colleges and universities sports, general colleges and universities, sports colleges and universities. This indicates that the majority of research in this field is focused on colleges and universities. On 6 August 2002, the Ministry of Education published the Guideline for the Teaching of Physical Education Curriculum in National Ordinary Colleges and Universities. This document explicitly states that a diversified and comprehensive evaluation should be adopted, and that the evaluation process should pay attention to the students' learning effects and reactions, as well as to the evaluation opinions of relevant societal aspects (Government portal website of the Ministry of Education of the People's Republic of China). (Read on 12 November 2024). The issuance of policies and documents has resulted in a notable increase in the frequency of relevant keywords and the number of scientific research results pertaining to them. (2) In contrast, the study of evaluation content encompasses a range of factors, including the quality of teaching, the mode of teaching, the objectives of teaching, the content of teaching, and so forth. Fu Sen (2018) posits that physical education teaching equipment, physical education teaching methods, and the comprehensive quality of physical education teachers are significant factors influencing the quality of physical education teaching. Similarly, Wu Shengtao (2015) asserts that we should draw upon the exemplary practices of foreign physical education programmes and integrate the efficacious outcomes of foreign physical education teaching methodologies. Dai Xianpeng (2018) identifies the lack of clarity regarding educational objectives as the primary challenge in physical education teaching at the college and university level. Additionally, he asserts that the curriculum is characterised by a lack of variety and engagement, and that the scheduling of courses is not optimally structured. A synthesis of the keywords reveals a trajectory of expansion and transformation in the field of physical education teaching evaluation in China over the past two decades. The research domain has witnessed a shift in focus, with a notable evolution in the direction of in-depth exploration of evaluation content, physical education ideology, physical education interest, passion for physical education, and practical teaching. These emerging avenues of inquiry may emerge as the focal points of future research and development.

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Analysis of research trends

By employing clustering, emergence, and timeline view analysis of keywords, the evolution of research hotspots can be accurately grasped, and the future development trend can be further predicted. A 10-year period was selected for analysis, spanning from 2004 to 2014. During this time, research in the field of physical education teaching evaluation primarily focused on physical education teachers, physical education teaching, index systems, teaching evaluation, and related topics. It is evident that scholars in this period are dedicated to exploring a range of evaluation approaches, striving to develop a systematic and practical teaching evaluation framework, and placing a greater emphasis on the fundamental aspects of physical education teaching evaluation. The research comprises the following elements: In the subsequent phase, a number of new research themes emerged, including the introduction of ordinary colleges and universities, teaching reform, and classroom reform. On 9 July 2010, the Central Committee of the Communist Party of China and the State Council published the Outline of the National Medium- and Long-Term Plan for Education Reform and Development (2010-2020). This outlines an action programme for educational evaluation reform, indicating the direction of the reform and emphasising that the process of perfecting the evaluation of physical education teaching is the process of constantly discovering and resolving problems. Read on 12 November 2024. The process of improving the evaluation of physical education is an ongoing endeavour, characterised by the identification and resolution of persistent challenges. The reinforcement of educational evaluation reform is not only an intrinsic necessity for the development of an innovative country and the cultivation of innovative talents, but also an urgent requirement for the resolution of the accumulated shortcomings in educational evaluation (Qiu Junping & Wang Shanshan, 2011). The reform of education evaluation is not only an intrinsic necessity for the development of an innovative country and the cultivation of innovative talent, but also an urgent requirement for the resolution of the issues pertaining to the evaluation of education. Those engaged in the field of physical education evaluation would be well advised to adopt a practice-oriented approach, with a particular focus on the improvement of the evaluation index system. This would facilitate the resolution of issues that have arisen as a result of the reform process, the formulation of appropriate countermeasures and their subsequent implementation. In addition, there is a need to increase the output of scientific research results in order to promote the development of the field of physical education evaluation. From 2015 to 2024, as the teaching reform deepened and modern science and technology developed, research in the field of physical education teaching evaluation gradually transitioned to a more modernised approach. This involved the emergence of new research themes, including teaching mode, network culture, big data and the flipped classroom, among others.The relocation of the research centre may be associated with the emergence of the novel coronavirus (2019-nCoV) epidemic in 2019, the inauguration of the academic year and the influx of students returning to school. Such a significant population movement poses considerable epidemiological risks. In response to the novel coronavirus epidemic, the educational institution has implemented measures to enhance the methodology and technological utilisation of teaching, and has adopted an integrated approach to education and teaching that combines online and offline modalities. Furthermore, in the digital age, the advent of big data and digital technology has provided a significant impetus for the development

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of a comprehensive school sports teaching evaluation system (Wang Zipu et al., 2024). The utilisation of digital technology for the assessment of physical education is aligned with the evolving landscape of physical education evaluation in the contemporary era (Han Qiu & Miao Wenzhuang, 2005). In the context of the new era, it is possible to innovate the evaluation method in order to meet the realistic needs of the evaluation of physical education teaching, thereby improving the evaluation effect of physical education teaching and accelerating the reform and high-quality development of physical education teaching evaluation in the new era. The focus of research is subject to change in accordance with the progression of time. In recent years, the key terms that have emerged include sports thinking, learning interest, learning enthusiasm, constructing strategy, practical teaching and so on. These may prove to be of interest to scholars in the field of physical education teaching evaluation in the near future and may well become the focus of new research.

In conclusion, the Citespace visual analysis tool was employed to conduct a comprehensive examination of the literature on physical education evaluation within the China Knowledge Network (CNKI) database over the past two decades (2004-2024). This analysis can serve as a valuable reference point for future research, reform, and development within this field. The analysis demonstrates a decline in the annual publication volume within the field of physical education evaluation. Additionally, the degree of collaboration between authors and institutions is relatively low and dispersed. There is a clear need for enhanced communication and cooperation in this field. Research on physical education evaluation primarily focuses on the evaluation object and content. However, future research may shift towards exploring new areas such as physical education ideology, interest in learning, and practical teaching.

Acknowledgment

All contributions of the third parties can be acknowledged in this section.

Conflict of Interest

The authors declare no conflict of interest.

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