

Research Status and Hot Trends of Preschool Education Practicum at Home and Abroad Visual Analysis Based on Cite Space

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Abstract

The practicum in preschool education is an essential component of teacher training, which has garnered significant attention from scholars in the field both domestically and internationally. By comparing and contrasting research in preschool education practices between the two spheres, this paper identifies gaps in related studies and speculates on potential future research directions based on changing trends in research focus. In this paper, CNKI and Web of Science were selected as data sources to statistically analyze the literature of preschool educational practicum from 2003 to 2023 through the visualization software Cite Space, including "chronological distribution", "author", "publishing organization", "keywords", and "research hotspots". The findings suggest that domestic research in the field of preschool education falls slightly behind that of foreign countries in terms of both breadth and depth. To catch up and move ahead, future research on educational practicum in preschool should focus on strengthening exchanges and cooperation, as well as expanding research content. Specifically, research should prioritize improving the quality of educational practicum from the perspective of interns, which will be a critical research trend in the future.

Keywords: Preschool Education, Practicum, Cite Space, Visual Analysis

Introduction

The practicum holds immense significance in pre-service teacher training, offering a practical segue into the teaching profession (Gray et al., 2017). Tisher (1990) underscores its pivotal role, with interns considering it the most practical part of their training, fostering teaching skills and alleviating anxieties about future teaching endeavors (Kumar, 2015). While numerous researchers have contributed significantly Jing (2019); Fei (2018); Feng (2022); Weber et al (2018); Mumford & Dikilitas (2020); Abualrub (2022), comparative analyses reveal both similarities and differences in preschool educational practicum content, predominantly through subjective content interpretation or empirical research methods. Notably, there's a dearth of metrological analyses in this domain, with

existing studies providing fragmented insights. While domestic researchers Chun (2007); Jia (2013) conducted commendable literature reviews, they lacked a comprehensive exploration of preschool educational practicum. Conversely, foreign researcher Matengu (2020) conducted a literature review on Early Childhood Teacher Education Practicums, albeit with limited methodological diversity and systematic comparative analysis. The purpose of this study is to conduct a systematic analysis and synthesis of theoretical research on preschool educational practicum published between 2003 and 2023, both domestically and internationally. By using visual analysis software to construct a knowledge map, this study aims to identify research hotspots and trace the evolution of this field.

The significance of this study lies in its systematic analysis of theoretical research on preschool educational practicum, domestically and internationally, from 2003 to 2023. Employing visual analysis through Cite Space, the study constructs a knowledge map to identify research hotspots and trace field evolution, offering new ideas and references for future research and enriching existing literature. This paper aims to underscore the utility and effectiveness of preschool educational practicum research, crucial for enhancing teacher training practices, fostering educational quality, and addressing evolving pedagogical needs. As such, this study is imperative for educators, policymakers, and researchers invested in advancing preschool education globally, ensuring effective teacher preparation and, consequently, improved educational outcomes.

Method

For this study, we utilized the Cite Space software version V.6.2.R2 (64bit), which was jointly developed by Dr. Chen from DREXEL University and WISE Laboratory of Dalian University of Technology.

Data Sources

The data for this study were collected from the academic journal publishing library named China National Knowledge Infrastructure (CNKI) and the Web of Science database.

Design

The home data for this study considered factors such as quality, quantity, and coverage, and used the following search terms for fuzzy search: "educational practicum", "on-the-job practicum", "concentrated practicum", "pro-service practicum", which resulted in 8,941 journal literature, we further refined our search by including themes such as "preschool education" or "early childhood education" or "preschool teacher education" or "early childhood education," and limited the research to the years between "2003-2023". After conducting an accurate and matching search (as of (2023), we obtained 422 original literatures, which were manually screened to eliminate conference reviews, journal directories, book reviews, filling notices, column introductions, non-academic literature, and fewer relevant items. Finally, we obtained 390 effective literatures published between 2003-2023, which served as the basis for our data analysis using the domestic database.

The abroad data for this study was restricted to the following conditions: TP=Early childhood education practicum OR Pre-service teacher education practicum OR Early childhood education internship OR Teacher preparation practicum, which yielded 635

documents. After removing book chapters, review papers, meeting summaries, editorial material, and papers that were published online, we detected a total of 618 papers.

The above articles from home and abroad constitute the basis for data analysis in our study. The study measures specific field literature, extracts and analyzes authors, institutions, and keywords. We used the clustering characteristics of the evolution trend to understand the hot spots and frontiers and fully revealed the development of scientific knowledge in the field.

Results

Annual Distribution of the Literature

The number of published documents is an indicator of a field's development and can also provide insights into future research trends. For this study, we used time slicing in Cite Space to partition the data from 2003 to 2024 into yearly intervals, allowing us to analyze the temporal trends in the field more comprehensively. To better understand the annual distribution of literature, we created an annual distribution map based on the number of documents. Figure 1 depicts the distribution of research literature on educational practicum for preschool normal university students in both domestic and international contexts.



Figure 1 A Review and Visualization of the Annual Distribution

Over the past two decades, there has been a general upward trend in the number of studies conducted on preschool education and educational practicum both in China and abroad. However, the number of foreign studies is significantly more than that of domestic studies. From 2003 to 2008, generally fewer than 10 articles were published on this topic each year.

Figure 1 illustrates the publication trend in the research field over the past 20 years, with a total of 390 relevant documents published in China from 2003 to 2023. Overall, the trend shows steady growth. From 2003 to 2008, the number of publications was relatively low, with less than 10 articles published each year, indicating the initial stage of the related research fields. This may be attributed to the limited research methods and lack of high-quality literature during this period. However, with the continuous development and enrichment of research methods and content, the number of

published articles has been increasing annually since 2010 and reached a peak of 46 articles in 2021.

The number of Chinese-related studies has increased rapidly in certain years, notably in 2010, 2012, 2016, and 2021. This trend may be attributed to the implementation of the Outline of the National Medium and Long-term Education Reform and Development Plan (2010-2020), which proposed measures for strengthening teacher training, reforming the college entrance examination system, and promoting the balanced development of compulsory education. This policy has likely spurred researchers to focus on teacher education. Furthermore, in 2011, a global surge of interest in education reform research and practice significantly impacted China's educational landscape, leading to an increased focus on educational practicum research. The promulgation of the Professional Standards for Preschool Teachers by the state in 2012 further reinforced attention to the training of normal university students. Similarly, in 2016, the state's promulgation of the three-year Action Plan for Preschool Education aimed to strengthen the construction of preschool education teachers and realize the supply-side structural reform of education, which undoubtedly furthered research and practice in preschool education practicum. Finally, due to the impact of COVID-19, some Chinese universities and educational institutions began to explore online preschool educational practicum around 2021 to improve the quality of teachers, leading to more attention paid to research in preschool education practice.

The number of foreign academic research studies on preschool educational practicum has exhibited an overall upward trend since 2009, with steady growth from 2013 to 2016, followed by a short period of decline and a rapid growth period from 2016 to 2019, culminating in exponential growth. This growth can be attributed to the increasing emphasis on and development of preschool educational practicum under the influence of information technology reform and international educational exchanges. However, from 2021 to 2023, the overall volume of research experienced a decline, likely due to the COVID-19 pandemic that began in 2020. The pandemic has had a significant impact on preschool education internship programs in many countries, leading to changes in the duration, environment, and content of internships. Consequently, certain research programs on preschool internships might have faced delays or cancellations.

The distribution of research literature on preschool education practicum reflects not only the research focus and policy orientation but also the attitudes of researchers toward new developments. As Chen Yue et al (2008) noted, researchers tend to go through a process of "wait and see, follow, fanatical, calm, return to reason" when approaching new topics. This can be observed in the time distribution of literature on educational practicum for preschool normal university students, where the number of publications initially grew slowly from 2003 to 2008, likely due to a lack of research methods and high-quality literature. However, with the continuous enrichment of research methods and content, the number of publications has steadily increased since 2009, and experienced a period of rapid growth from 2016 to 2019, influenced by information technology reform and international educational exchanges. The outbreak of the COVID-19 pandemic in 2020 has led to a decline in research output, as the pandemic has affected preschool education internship programs in many countries.

Authors

In this study, Cite Space was utilized to analyze the author cooperation network, which provides important indicators and network attributes for each author in the network (Yue et al., 2014). The parameter settings for the analysis were as follows: Time Slicing was set to "2003- 2023", Time slice was set to 1, Node Types selected Author, and Top N was set to 50 to simplify the network map. The analysis revealed 534 nodes and 265 edges in the author network of Chinese papers, with a density of 0.0019, while the English paper author network had 434 nodes and 870 edges, with a density of 0.0093. The number of nodes represents the number of articles published by each author, while the edges represent the collaborations between authors, indicating the level of cooperation within the network. The connection represents the connection established in different periods, which describes the degree of institutional cooperation (Yue et al., 2014). The notable authors with three or more Chinese paper publications include Dan Fei, Xue Jing, and Luo Xiangdong. The statistics are as follows:

Table 1

Author of 3 or more Chinese papers

Ordinal number	Author	Publication count	First Publication Year
1	Dan Fei	4	2017
2	Xue ping	4	2009
3	Luo Xiangdong	3	2020
4	Li Juan	3	2015
5	Wang Xiaohe	3	2013
6	Wang Jing	3	2021
7	Li Jieping	3	2018
9	Zhang Jie	3	2018
10	Wang ping	3	2018
11	Qin Dongfang	3	2016
12	Liu Guiyun	3	2021

The network map revealed a significant node of scholars who authored 3 or more papers, with collaboration patterns analyzed from 2003-2023. L.Li and Yukiya formed a cooperative relationship in 2004, followed by Wong and F.D.Ling, D.Fei and S.C.Qing; J.J.Mei and W.B.Yong in 2009, L.N.Nan and L.Jing, W.Jing and Z.W.Xiao; F.X.Jie and Z.Z.Qiang in 2020, Y.K.Lian, Z.Hui, C.Lei, and S.P.Yan in 2022. Notably, Y.K. Lian from the School of Preschool Education of Capital Normal University has been actively involved in research on the educational practicum of normal university students in preschool education, forming cooperative relationships with other scholars in 2009 and 2022. She is a professor and doctoral supervisor, with research interests in kindergarten education management, education evaluation, and preschool teacher education. Her article on the construction of evaluation standards for undergraduate educational practicum has been highly cited, with more than 3,077 total citations. Despite the significant nodes in the network, the number of research groups is limited and many scholars in the network do not have strong collaborative ties with other researchers.

According to the statistical analysis, the top prolific authors in English language papers with three or more publications include Thi Mai Nguyen Hoa 、 Rosie Le cornu 、 Knut Andreas Christophersen 、 Eyvind Elstad 、 Anthony Clarke 、 Doris Choy 、 Erin E. Barton 、 Aijing Jin 、 Sandra Baroudi 、 Zeina Hojeij 、 Malba Barahona and Icy Lee.

From 2003 to 2023, The most obvious cooperative relations between scholars are as follows: In 2007, Erin E. Barton collaborated with mark wolery, and Anthony Clarke collaborated with Joce Nutall; In 2009, Rohaida mohd Saat worked with Juliana Othman, Erin E. Barton collaborated with Marisa Macy, Mary Ryan collaborated with Annah healy, and Kim Chuan Goh collaborated with Tan Justina Puay Inn , Angela F.L.Wong, and Doris Choy、 Keith Walker collaborated with Edwin Ralph; In 2012, mania Jose Gilguilez collaborated with Javier Adegui de pablos, Calvo Hernandez Jose Miguel, Maria Begona Martinze Pena, Angel Luis Cortes Gracia, and Julia Ibarra Murillo; In 2018 Eyvind Elstad collaborated with Trond Solhaug, Knu Andreas Christophersen, and Lise vikan Sandvik ; In 2020, Graham Parr collaborated with Dean Cooley, Aijing Jin, Irem Comoslu collaborated with Kenan Dikilitas, Marc Kleinknecht collaborated with kira Elena Weber and Christopher Neil Prilop, Cynthia H.Brock collaborated with Fenice B. Boyd. The above data shows that four groups of research cooperation networks of three or more people have been formed.

The network density index among foreign authors is 4.8 times higher than that of China. Moreover, the cooperation density among foreign authors is also higher than that of China. However, no continuous collaborators over a longer period have been found. In general, domestic and foreign researchers are still relatively scattered.

Institution

The Institutional Analysis function in Cite Space generates institutional cooperation networks, which help reveal the distribution of research efforts across various fields (Yue et al., 2014). By selecting "Institution" as the node type and keeping other parameters unchanged, we obtained Chinese and English paper networks comprising 278 and 323 nodes, respectively. The density of the Chinese paper network was 0.0011, while the English paper network had a density of 0.0039, indicating a higher level of cooperation among English-language researchers.

From 2003 to 2023, the largest domestic institutions are Shenyang Normal University pre-school and elementary education school, Changzhou preschool normal school, Xuzhou preschool teachers college, Beijing normal university department of education, Hengshui college education college, Quanzhou Hua Guang vocational college, Shanghai normal university school of education post more than three. Additionally, the school of Education of Hebei University, the School of Education Science of Nanjing Normal University, and the Department of Education of Luliang University followed closely, and have become the representative institutions for educational practicum research among preschool normal university students.

Numerous Chinese institutions have engaged in collaborative educational practicum research, demonstrating the growing recognition of the importance of early childhood education. Noteworthy partnerships have been established between the Department of Education of Beijing Normal University and Shanghai Song Qing Ling Kindergarten, the Department of Education of Shandong Normal University, Changzhou Preschool Normal School and Changzhou Preschool Education Branch of Jiangsu Vocational and Technical College, the San Ming College and the San Ming Women's Federation Kindergarten. In 2016,

novel collaborations emerged between Hefei University of Technology and Hefei Preschool Teachers College, and between the College of Taiwan Donghua University and the School of Education Science of Hubei Normal University. Further collaborations were established in 2017, including those between the School of Education Science of Shandong Qufu Normal University and Affiliated Kindergarten of Qufu Normal University, the Business School of Yunnan Honghe University, and the School of Teacher Education of Yunnan Honghe University. In 2018, the Department of Education of Beijing Normal University, Florida School of Education, and Changzhou Preschool Normal School entered into partnerships, and in 2019, Shangrao Normal University and Jingdezhen University, Longnan Normal College, and Sichuan Normal College also collaborated. In 2021, the School of Education and School of Education of Hebei University, the Third Affiliated Kindergarten of Jilin University, and Si Wangfu Primary School in Hai Dian District, Beijing, the Art Department of Hefei Preschool Teachers College, and the Development Center of Hefei Preschool Teachers College, as well as the Teacher Development Center of Hefei Preschool Teachers College, Miao Daoshan Kindergarten, Wuhe Town, Yuexi County, Anqing, and Art Department of Hefei Preschool Teachers College formed partnerships.

While there has been a marked increase in collaborations since 2015, it appears that such partnerships are predominantly regional, with limited cross-regional cooperation. Furthermore, collaborations between universities and kindergartens are less frequent than those between universities. Additionally, partnerships tend to be one-time, with few repeated collaborations. The exception to this trend is the Department of Education of Beijing Normal University and the Department of Education of Shandong Normal University, which have collaborated multiple times. Overall, research institutions in this field appear to operate independently, with limited cooperation and academic exchange.

Based on our data and statistical findings, the top ten English papers were produced by several institutions, including Education University of Hong Kong (EDUHK), Monash University, Universiti Malaya, Chinese University of Hong Kong, Edith Cowan University, Federation University Australia, and California. Our research and analysis maps of State University System, University of New South Wales Sydney, Deakin University, and University of Hong Kong are as follows:



Figure 2 Research map of foreign institutions

The thickness of the rings corresponds to the number of institutions, and the colour indicates the time. Node size indicates the frequency of occurrence of the home organization. Active research and close collaboration with other institutions are the University of British Columbia (2007 and 2011); Australian Catholic University (2012 and 2013); Charles Sturt University (2013 and 2016); Kent State University (2013 and 2017); La Trobe University (2015 and 2017); Deakin University (2015 and 2019); Monash University (2017 and 2019); Education University of Hong Kong (2019 and 2022) Federation University Australia (2012 and 2020).

In terms of publication frequency, the total number of research papers from the Education University of Hong Kong (EDUHK) leads among the high-yielding institutions both domestically and internationally, with 16 papers. Foreign institutions collaborate more frequently, as evidenced by higher network density. In contrast, inter-regional cooperation in China is limited, with many institutions working alone or engaging in internal collaboration.

Colleges and universities, both domestic and foreign, play a crucial role in educational practice research for preschool normal university students. There is a clear geographical correlation in the distribution of research institutions, with three of the top 10 institutions in China located in Jiangsu province. This reflects the attention of scholars in Jiangsu Province to hot spots and focuses on issues in preschool education practice. Among the top 10 foreign institutions, five belong to Australia, which has invested in teacher education through relevant policies and regulations, such as the 2011 "National Standards for Teachers." Additionally, the Australian government provides various scholarships and grants to support professional training and refresher courses for teachers to improve their skills and knowledge (Mutch & White, 2018).

Keywords

Cite Space keywords serve the purpose of co-occurrence analysis, which is a key method in co-word analysis. By extracting citation keywords, abstracts, and other topic information, Cite Space can generate an intuitive knowledge map. By studying high-frequency keywords, we can identify the hot research areas of a given field during a certain period.

Furthermore, Cite Space's mutation word detection function identifies words that experience a significant increase in frequency or usage within a short period. By using the burst detection function, Cite Space can analyze these mutation words and show the duration of their relevance. This approach enables researchers to evaluate the frontiers and trends in the research field.

Keyword collinear analysis

The keyword co-occurrence network graph, a crucial tool in keyword collinear analysis, is measured by two key indicators: "keyword frequency" and "keyword centrality." Nodes in the graph represent keywords, with larger nodes indicating more frequent occurrences of the keyword in the literature. Keyword frequency is a simple indicator of the importance of a keyword, as the frequency of its occurrence correlates with the level of research activity in the field (Wang et al., 2016).

Node centrality is another essential measure in the keyword co-occurrence network graph, positively correlated with the number of links to other keywords in the network. Nodes with higher centrality have more keywords associated with them and play a more significant role in the network. To generate a keyword co-occurrence map of domestic preschool education practicum, researchers performed co-occurrence analysis with a top N=50 and K value=25 in the g-index, including only the top 25 most cited papers. The analysis resulted in 309 nodes with 639 edges and a co-occurrence network density of 0.0134. To provide an accurate and intuitive understanding of the distribution of high-frequency keywords in domestic preschool education practicum from 2003 to 2023, this study presents the keyword frequency, node centrality, and other values of preschool educational practicum in China in a table format (Table 2).

Table 2

High-frequency keywords in Chinese preschool education practicum

Ordinal number	Keyword	Frequency	Centrality	Ordinal number	Keyword	Frequency	Centrality
1	Preschool education	126	0.87	16	Inspiration	6	0.01
2	Educational practicum	101	0.58	17	Current situation	6	0.02
3	On-the-job training	43	0.27	18	Internship supervision	5	0.01
4	Preschool teacher	21	0.16	19	Curriculum design	5	0.03
5	Internship	18	0.10	20	Kindergarten	5	0.07

6	Practical teaching	18	0.05	21	Inspiration	5	0.01
7	Vocational colleges	16	0.06	22	Professional certification	5	0.02
8	Countermeasures	14	0.11	23	Practicum course	5	0.01
9	Normal university	13	0.04	24	Satisfaction	5	0.00
<hr/>							
	students.						
1	Issues	1	0.04	2	Professional	5	0.
0	Interns	2	0.06	5	growth	4	00
1	Pre-service	1	0.02	2	Practicum	4	0.
1	cultivation	1		6	teaching		00
1		9		2	Teacher		0.
2				7	education		01
1	Practical	8	0.03	2	Undergradu	4	0.00
3	abilities			8	ate		
					students		
1	Zhang Xuemen	6	0.03	2	Teaching	4	0.
4	Professional	7	0.01	9	internship	4	01
1	identity			3	Teacher		0.
5				0	training		01

Table 2 provides insight into the research topics and hotspots within Chinese preschool educational practicum from 2003 to 2023 through high-frequency keywords. It is apparent that "preschool education" is the most prominent node, with "education practicum" and "on- the-job training " following closely behind. Notably, the keywords such as "preschool teacher", "internship", "practical teaching", "vocational colleges", "countermeasures", "normal university students", and "issues" appear frequently and serve as significant labels in this field. The study of educational practicum has formed complex and interconnected networks.

Furthermore, we conducted keyword analysis on foreign data, using Keyword as the Node Type and a threshold of T 50(T50 is relatively high and the keywords selected are more representative and important), with the remaining settings set to default. The resulting knowledge map of research hotspots is presented in Figure 2.



Figure 3 High-Frequency Keywords in Preschool Practicum Abroad

The co-occurrence map of foreign keywords reveals a comprehensive range of literature on preschool education practices. Covering "teacher education", "pre-service teachers", "teaching practicum", "student teachers", "experiences", "perceptions", "knowledge", "beliefs", "early childhood education", and "professional development". Notably, this differs from the focus of domestic research, which tends to focus on the perspectives of student teachers. Furthermore, this study also delves into topics such as "identity construction", "self-efficacy", "field experiences", "teacher identity", "cooperating teachers", "modelling", and "rethinking". Overall, the study provides a comprehensive and in-depth exploration of preschool education practices.

Hot Keyword Mutation

Cite Space's burst button was used to generate mutation themes for preschool education internships abroad and at home in the "keywords" analysis. From the point of the time span of software statistics, the domestic earlier keywords include "Zhang Xue men", "interns", "issues", "Inspiration", and "curriculum design". "Professional certification", "professional identity", "practice teaching", "vocational colleges" and other keywords have emerged as new directions for research in recent years. Among these, "internship" has the highest burst value, with the first article dating back to 2005 and a total of 18 articles with a burst value of 3 between 2013-2016. Fen and Hua (2013), set the researchers' understanding of internship (Fen, 2013; Hua, 2013).

In the past three years, the mutation word with a large burst value is higher vocational colleges, the first document was in 2010, and by 2023, a total of 16 papers, burst value is 2.54, the burst year 2022-2023, Wei, Feng, Geng, Na these articles (2022) mainly involve the educational practicum of preschool education in higher vocational colleges. It includes the influence of educational practicum on students' professional identity, the current situation and existing problems of educational practicum, and the dilemma and

breakthrough of educational practicum. Through the investigation and study of the actual situation, these articles put forward some solutions and suggestions to promote the professional development of higher vocational preschool education majors and improve the quality of talent training. The reason might also be related to the state's promulgation of the Vocational Education Law and Harmony as well as the Regulation on the Management of Internships for Vocational School Students in 2022.

In terms of the abrupt words used in domestic research, early research primarily focused on internship preparation and curriculum development. In recent years, the research hotspot of teacher education has begun to shift to professional certification, professional identity, practice teaching, higher vocational colleges, and other directions, reflecting the pursuit of cultivating higher quality teachers and teacher education that better meets the needs of society. The term "pre-service teacher education", "model" and other terms have a long history in foreign countries. Since 2017, new research hotspots, such as "rethinking", "mentoring", "achievement", "initial teacher education" and other keywords began to appear. Research is beginning to recognize the important role of intern reflection in practicum, as well as the important role of practicum supervisors. In the past 20 years, the largest breakthrough word of burst value is "pre-service teacher education". The first article was in 2007. By 2023, there are 39 related papers with a burst value of 5, and the burst year is from 2007 to 2014, which shows that this keyword has been attracting the attention of researchers. A study with the highest citation rate examined the evolution of 37 practice teachers' beliefs about effective teaching throughout the completion of a school practice (Nicholas & Williams, 2010).

In recent three years, "pedagogical practicum", "teacher preparation" and other research hotspots, the mutation words with a large burst value in the last three years is "pre-service teachers". The first article is in 2008, as of the year 2023, A total of 124 papers exist, The Burst value is 3.61, with a Burst vintage of 2022-2023. One of the most cited papers examined the change and understanding of teachers' leadership concepts during an internship in Qatar, focusing on educating students. According to this study, teacher preparation programs need to provide appropriate leadership development opportunities to educate students that their contributions and practices are relevant to teacher leadership (Sawalhi & Chaaban, 2022). Based on the above research, it can be concluded that researchers are gradually changing from macro to micro research and that the research objects are gradually becoming more detailed, such as the support of interns (Tiainen & Lutovac, 2022).

In contrast to the domestic research hotspot in recent years, research related to professional certification is not common in foreign literature. However, both domestically and internationally, there is a constant focus on the quality of educational practicum, which is expected to remain a prominent trend in preschool educational practicum. As research continues to evolve, the areas of pre-service training, internship management, internship assurance, internship guidance, and internship evaluation, from the perspective of interns, will continue to shape the research direction and impact the quality of internships.

General Discussion

With the help of Cite Space bibliometric tools, this paper presents the research status, research hot spots, and development trend in the field of preschool educational practicum at home and abroad from 2003 to 2023, including the time distribution of literature

output, research strength, research hot spot, and frontier and evolution trends. The conclusions are as follows.

1. The characteristics of the issuing time and stage are obvious. In general, educational practice research has gone through two stages: exploration (2003-2008) and in-depth (2009- 2022), with fewer research results in the exploration stage, but steady growth in the in-depth stage. Academic exploration, national policies, and the real needs for internship quality all contribute to the sustainable development of educational practicum research. The stage of foreign research publication is roughly the same, but the overall achievements of foreign research are more abundant than those in China.

2. The research forces are independent and dispersed. Most scholars are still independent researchers and lack communication. In terms of research institutions, there are mainly universities and Research institutions scattered and concentrated in small numbers. A majority of collaborative research in China is conducted in Jiangsu Province and abroad in Australia, but collaboration needs to be strengthened in general because research institutions are scattered and independent.

3. Research hotspots, relatively concentrated. In the past three years, the research on preschool educational practicum in China has been centred on "pre-service training", "professional certification" and "higher vocational colleges", and a relatively close research network has been formed around "pedagogical practicum", "pre-service teachers and" teacher preparation ". The research priorities and methods are different for each of them, but they are all focused on improving internship quality. Domestic research is closely related to national policy orientation. In terms of research methods, qualitative and quantitative research methods such as questionnaire surveys, interviews, and case analyses are mostly adopted. Foreign research content is more detailed, paying more attention to the micro level and individual level in the internship process. In terms of research methods, qualitative research methods such as case studies and action research are mostly adopted.

After a careful review and synthesis of the current state, hotspots, and trends in preschool educational practicum research, it is evident that the research in this field is fruitful, expanding in breadth and depth, and providing valuable insights. However, it also has some deficiencies that require attention. Future research should consider the following two topics.

1. Strengthening exchanges and cooperation educational practicum among multiple communities of interest. University internship supervisors, kindergarten internship supervisors, university internship managers, kindergarten internship managers, interns, etc. To improve the overall level of preschool education research, different countries, regions, and institutions should carry out cooperation and exchanges as much as possible, for example, enhancing the cooperation between higher vocational colleges and kindergartens, building a collaborative management network, and jointly promoting the quality of preschool educational practicum.

2. The research content should be continuously expanded. How to offer preschool educational practicum in the future to meet the needs of the development of future preschool talents, how to promote preschool teacher training, how to foster the professional identity of preschool education interns, reduce intern burnout, improve intern self-efficacy, address the above problems can deepen preschool education practice's

cognitive foundations, and bringing new ideas to preschool education practicum based on quality. For example, the establishment of the internship quality evaluation mechanism. The internship quality evaluation mechanism is an important guarantee to promote the development of preschool educational practicum. The future holds the possibility of developing a set of perfect mechanisms to evaluate internship quality so that a comprehensive and scientific evaluation of the quality of internships can be conducted in the future.

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