

Geographical Experience of Master Teacher Studio Practice: Scoping Review

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Abstract

Objective To analyze domestic regional studies on master teacher studio practice, summarize their universal experiences or commonalities in practice, and provide references for further improving master teacher studio development planning and enhancing the quality of teacher education. **Methods** Using the research method of scoping review, a search was conducted in electronic databases (CNKI, WANFANG DATA and WEIPU) using master teacher studio as the basic search term to screen master teacher studio-related literature that met the inclusion criteria, extract the basic information and content of the literature, and conduct a summary analysis. **Results** Ten dissertations met the screening criteria, covering a total of 10 provinces with geographical practical experiences, mainly focusing on research on teachers' professional development, learning communities and studio operation models. **Conclusion** The review and theoretical studies of master teacher studio practice research are insufficient and need to be further deepened; the research subjects are incomplete and lack the subjectivity of participating teachers; the online master teacher studio will be the supplement and future development direction of master teacher studio practice research.

Keywords

Master teacher studio; Geographical experience; Scope review.

1. Introduction

The Master Teacher Studio is a new type of teacher learning vehicle in the field of teacher education [1], borrowing and developing from the "studios" in science and technology and literature [2]. In 2002, 18 master teacher studios were established in Baoshan District, Shanghai, and since then, different types of master teacher studios have gradually emerged across the country, playing a role in the field of teacher education. Master teacher studios can stimulate teachers' motivation to learn, create a democratic and egalitarian atmosphere, give teachers a strong sense of identity and belonging, and highlight the value of the teacher community [3], with the triple goal of "making ordinary teachers talented, making core teachers famous, and making master teachers more famous"[4].

In the new era, China is paying more and more attention to the improvement of the quality of the teaching force. The introduction of the Opinions on Comprehensively Deepening the Reform of the Teaching Force in the New Era is a major strategic decision made by the Party Central Committee based on the new era, which provides an action guide and a fundamental guideline for creating a highly qualified, professional and innovative teaching force to the satisfaction of the Party and the people [5]. The National Medium and Long-Term Education Reform and Development Plan (2010-2020) states that "efforts will be made to create educators, train the backbone of education and teaching, dual-teacher teachers, academic leaders and principals

through training, academic exchanges and project funding, and create a number of teaching masters and subject leaders"[6]. The establishment of the "Master Teacher Studio" is an active response to the policy of cultivating a high-quality teaching force in China [7].

Since the birth of the master teacher studio, the relevant research results are rich and show a rising trend year by year (Fig.1), and the research subjects involve front-line teachers, master teachers, experts and scholars, etc. Especially, there are more practical results about the master teacher studio. Therefore, this study compares and analyzes the published master teacher studio practice research in the field of pedagogy in China, aiming to understand the current situation, research methods and contents of research in this field, clarify the current research progress and problems, and make suggestions for promoting the deepening of master teacher studio practice research in China.

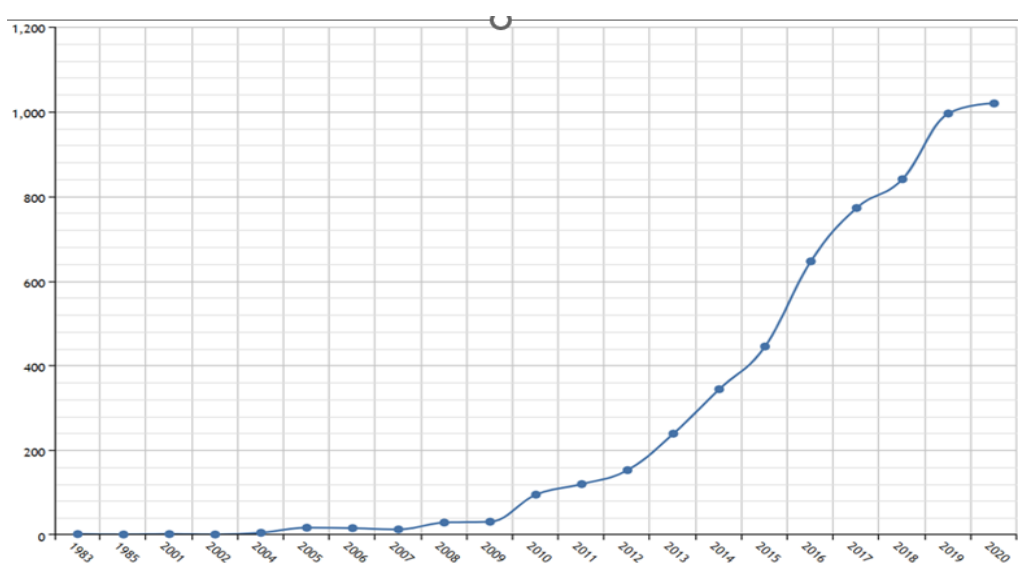


Figure 1. Annual Trend of Master teacher studio Literature Publication (CNKI)

2. Methods

Scoping Review is a method of summarizing evidence based on the concept of evidence-based practice and is often synonymous with the preliminary literature survey process. It is a research preparation exercise in which the researcher identifies the progress of research, the scope and nature of the evidence in a field of knowledge, and helps to clarify the research questions and justify the feasibility and innovation of the research plan. A researcher uses a scoping review to describe the scope of knowledge on a research topic, to outline the core concepts of that knowledge area, to assess the possibility of conducting a systematic evaluation, to discover the plurality of existing knowledge, and to identify directions for subsequent research.

2.1. Defining the Research Question

This scoping review intends to address the following questions: What are the main areas of research on master teacher studio practice? What are the commonalities of the geographical experiences of master teacher studio practice? What are the gaps or future directions for research on master teacher studio practice?

2.2. Identify Relevant Studies

In order to obtain more literature, the search route was defined as a keyword search on electronic databases, and information was searched for the keywords of master teacher studio/master teacher project, master teacher studio practice, master teacher studio in primary and secondary schools, regional master teacher studio, and regional master teacher studio in

primary and secondary schools, respectively. The inclusion and exclusion criteria for the literature of this study were developed through preliminary statistics and review of the titles and types of retrieved materials, as shown in Table 1.

Table 1. Inclusion/exclusion criteria

Inclusion Criteria	exclusion criteria
Literature published in the field of pedagogy in China in the category of master teacher studio practice research, specifically referring to literature written by scholars and students engaged in relevant educational teaching work, involved in master teacher studio practice and related professions in the field of education.	Theoretical or methodological literature on master teacher studios
Research aimed at specific master teacher studio practice problems, using typical cases or research evidence from a particular region as an entry point to guide master teacher studio practice problem solving and promote master teacher studio practice improvement.	Overview literature
Literature published in Chinese journals	Literature published in foreign language journals
Literature published by May 31, 2022	Unavailability of full-text conference abstracts or duplicate publications

2.3. Research Selection

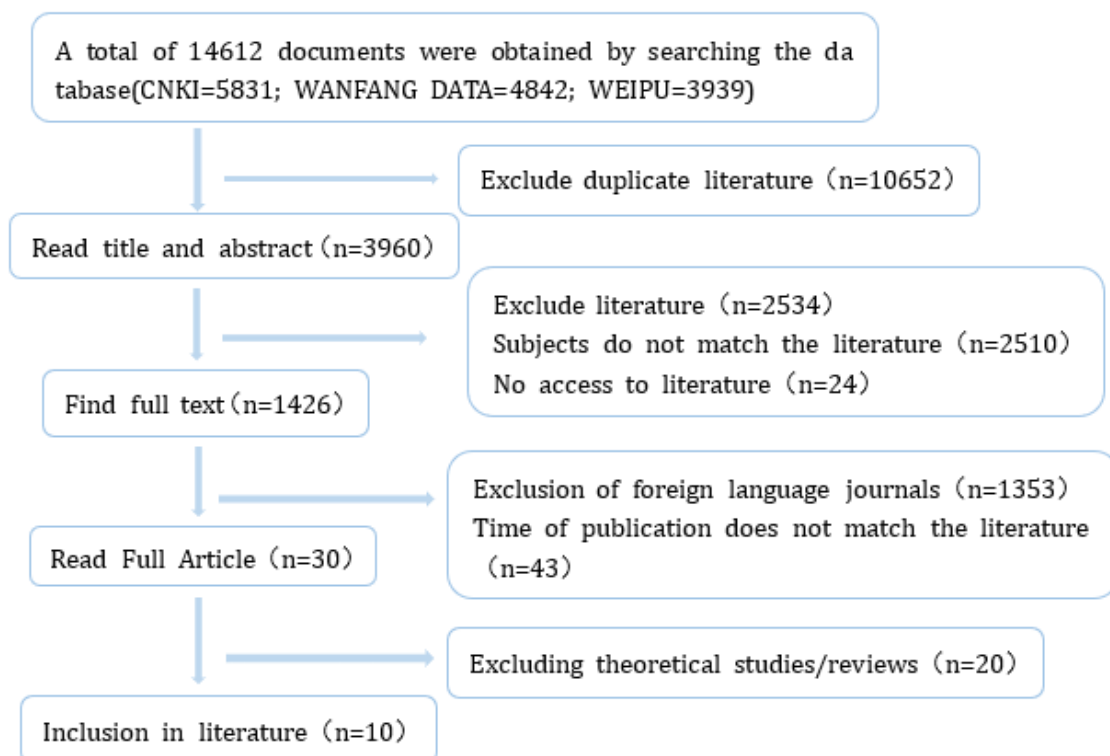


Figure 2. Flow chart of literature screening

The electronic database search yielded an original set of 14612 papers, and after removing duplicates, 3960 papers remained. An initial screening of titles and abstracts was conducted, and papers were considered relevant if the literature was about master teacher studio practices and the study was on the master teacher studio itself. Using the inclusion and exclusion criteria as a guide (Table 1), 2534 papers were excluded from the title and abstract review, of which 30

papers were reviewed in full. The authors read and reviewed the full text of the screened papers, and in the process screened the reference list of each paper for additional relevant literature to ensure the comprehensiveness of the data collection. The specific study selection process is shown in Fig.2, and ultimately, after applying the inclusion/exclusion criteria, 10 papers met the criteria for this evaluation.

2.4. Plotting Data

The purpose of the scoping review was to map the existing literature based on volume, nature, characteristics, and sources of evidence. Therefore, all papers that met the inclusion criteria were included. The data mapping phase i.e., the papers (n=10) identified based on study selection, extracted from each paper a summary related to the following: author, year, title; graduation institution, education; study population; study methods; study objectives; realistic problems; and responses. Details of the extracted data are included in Table 2.

Table 2. Literature data extraction table

Author, Year, Title	Graduation Institution, Education	Research Subjects	Research Methodology	Research Objectives	Realistic problems	Response measures
Chen, C. Q. (2014) Research on Master Teacher Workshop Training Model and its Improvement Strategy	Northwest Normal University, M.S.	Lanzhou "L Master Teacher Studio" (the sample was purposive). all subjects taught were primary language	Qualitative research (interview method, observation method)	To explore the basic model of master workshop training, and the factors that affect its effective operation, and the corresponding improvement strategies.	The lack of a linkage mechanism for cooperation among master teachers' workshops, the phenomenon of "plateau" in the professional development of the leading master teachers, the superficiality of members' learning about the experience of master teachers, and the contradiction of work affecting the continuity of team learning. The research activities lack the necessary support from the school administration and the attention to the students' needs.	The "partnership" training model. The training model with the participation of multiple subjects. The "open-interactive" training model. Network training model.
Wang, Jingwen (2015) A study on the current status of the operation of U-S learning communities that support the growth of master teachers	Xinjiang Normal University, Master	Xinjiang W City J District Primary and Secondary School Master Teacher	Literature method. Questionnaire method (SPSS 16.0). Educational design research (EDR) method.	Establishing U-S Learning Communities to Support Master Teacher Growth	There are temporal and spatial limitations between U and S cooperation, identity imbalance, and low motivation to cooperate.	To promote the value recognition of university-primary and secondary school cooperation. Guiding master teachers to raise their awareness of independent learning and form self-organizing behaviors. Using the network platform to expand the operation mode of U-S learning community. To establish the necessary operational mechanisms according to the operational status.
Han Shuang (2015) A study on the operation of master teacher studios with a view to teachers' professional development	Northeast Normal University, Ph.	Jilin Province 19 primary and secondary school master teacher studio	The interview method. Case study method. The literature method. Participant observation.	Research on the current situation, dilemmas and improvement strategies of master teacher studio operation	Unclear positioning of master teacher studios, conflicting schedules, weak evaluation, and insufficient funding. Master teacher studio hosts are far from front-line teaching, difficult to form radiation effect, weak sense of cooperation.	Establishing an effective operating mechanism with full participation, full monitoring, full coordination and full management. Reconstruction of the role of the master teacher studio presenter to generate subjective interventional thinking, dynamic generative thinking, and overall comprehensive thinking
Ji Yin (2016) Operation status and reflection of master teacher studio in Dafeng District primary and secondary schools	Soochow University, Master	3 master teacher studios for primary and secondary schools in Dafeng District.	Literature research method. Questionnaires and interviews. Case study analysis method	Understand the present situation, sum up experience, reflect on influencing factors, and put forward methods and strategies.	The administrative departments and schools have insufficient support for studio activities. Studio management is not standardized enough, and there is a lack of certain incentive mechanism. The famous teacher's own professional theory is lacking, and the famous teacher effect needs to be improved. The effectiveness of studio activities still needs to be strengthened, and more confusion of students should be solved.	Universities, educational administrative departments and schools should form a joint force to effectively support the work of studios; Strengthen the construction of famous teacher studio alliance and studio management norms, and improve the effectiveness of activities; And members of famous teachers' studios should constantly strengthen their study and improve their professional quality.
Qiu, Jing (2017) A case study of a master teacher studio leading the professional development of	Southwestern University, M.S.	T Master Teacher Studio, Y District, Chongqing	The literature method. The interview method. Observation method. Physical	Clarifying the operational mechanism of the T Master Teacher Studio for the professional	Superficiality of learning content. The limitations of the study activities due to time conflicts, which make it difficult to include all early childhood teachers in the region. Lack of developmental	Establishing a development orientation Reinforcing teacher development motivation Strengthen communication among participants Establishing assessment mechanism

early childhood teachers in the region			collection method	development of early childhood teachers	effectiveness assessment.	
Rao Xi (2017)A Practical Study of Master Teacher Studio from the Perspective of Teachers' Learning Community	Southwestern University, M.S.	Z City, Guizhou Province, Primary and Secondary School Master Teacher Studio	Questionnaire method (SPSS 23.0). Interview method. Content analysis method.	Constructing theoretical analysis framework of teacher learning community; Summarize its practice, find its existing problems, and put forward targeted countermeasures and suggestions.	In practice, members can't attend studio activities on time, and there are few opportunities to participate in important discussions and decisions; There are few communication activities between studios, lack of expert guidance, limited funds and strict restrictions on the right to use.	Enhance the host's authorization consciousness, cultivate members' leadership and enhance their subjective consciousness; Improve the studio system, find the right position, and improve its own operation and management mechanism; The school gives active support in time and material, providing a strong guarantee for the construction of famous teacher studios;
Huang Man (2019)A study on the enhancement of teacher training based on "Master Teacher Studio	Zhejiang Normal University, Master	Zhejiang F Course Master Teacher Studio and C Subject Master Teacher Studio	The literature method. The observation method. Case study method	This paper analyzes the value of famous teacher studio in promoting teacher training, summarizes its operation mode, and provides suggestions for improving teacher training policy.	Training objectives can't fully take into account the target demands of trained teachers, and the radiation range is narrow; Teachers' training implementation is rigid; Lack of evaluation of teachers' core literacy	Further refining the training objectives. Enriching and enriching the content and form of training and exploring the mode of operation of the network Master Teacher Studio. Further clarifying the responsibilities of all parties and constructing a reasonable training system. Improve the scientific and diversified evaluation criteria.
Yuan Xiaohan (2019)A study on the construction of master teacher studios in primary and secondary schools led by professional development	Qufu Normal University, Master	Master teacher studios in primary and secondary schools in Linyi	The literature research method. Survey research method. Case study analysis method.	Grasp the construction process of famous teachers' studios in primary and secondary schools, including the achievements and problems, and put forward feasible countermeasures.	Relative lack of relevance of research activities. The leading master teachers' own abilities need to be improved. The internal management mechanism needs to be improved urgently. External support urgently needs to be enhanced.	Meeting the individual learning needs of the participants. Achieving facilitator role transformation. Establishing motivational internal management mechanisms. Providing external support for the effective operation of the Master Teacher Studio. Establishing a master teacher studio expert mentoring team.
Zhang Peijia (2020)A Study on the Current Situation and Strategies of Master Teacher Studio Leading Young Teachers' Professional Development in Primary and Secondary Schools	Huazhong Normal University, Master	8 Master Teacher Studios in P City, Henan Province	Literature analysis method. Survey method. Participant observation method. Physical analysis method.	Analyze the running status of the famous teacher's studio, summarize the main problems, and put forward some reference suggestions.	Weakness of some of the operational mechanisms. Conflicting schedules of study activities. Single content and form of learning. Unequal opportunities for teachers to participate.	Raising away from subject awareness and establishing internal orientation. Rational planning of activities and implementation of member orientation. Cultivating a common vision and creating a good atmosphere. Improve the operation mechanism and lead efficient development.
Liu Yuetong (2020)Research on the Operation of Famous Teachers' Studio in Hainan Primary and Secondary Schools from the Perspective of Professional Community Development	Hainan Normal University, Master	Hainan Primary and Secondary School Master Teacher Studio	Literature method; Interview method; Case analysis method	Put forward the operation mode of the famous teacher studio with practical significance, and promote the perfection of the famous teacher studio mode in Hainan Province.	Lack of clarity in the purpose of members' own development. Poorly staffed collective activities. Reluctance to offer different opinions. Low team activity and high pressure.	Strengthen the cohesion of common vision and share the wisdom of individuals and groups; Flexible coordination of time and space, innovative activities; Create an open and cooperative atmosphere and promote the exchange of different ideas; Optimize rules and regulations, and establish complete guarantee.

2.5. Arranging, Summarizing and Communicating Results

The final stage summarized and communicated the findings: the scope review generated 10 papers from three electronic databases, covering ten provinces, including Lanzhou, Gansu, Xinjiang, Jilin, Jiangsu, Chongqing, Guizhou, Zhejiang, Linyi, Shandong, Henan, and Hainan. The remaining two papers talked about the operation of master teacher studios. In terms of researcher level, only one dissertation was a doctoral dissertation, and the remaining nine were master's dissertations. In terms of research methods, most of the 10 selected papers were based on qualitative research methods.

3. Discussion

3.1. General Characteristics of Master Teacher Studio Practice Research

In this scoping review, the research results are mostly summaries and generalizations of the researchers' regional practice experiences of master teacher studios, and the research purposes of the screened literature are mostly from and to practice. The research aims are all based on the specific master teacher studio practice situation, and through the collection and analysis of research evidence, they summarize and refine the problematic areas of master teacher studio practice, and put forward corresponding countermeasure suggestions, in order to promote further practice of master teacher studio and truly play the role of master teacher studio.

The methodologies of the Master Teacher Studio practice type of research are mainly qualitative, with few quantitative studies. This is related to the fact that the actual mode of operation of master teacher studios does not quite meet the requirements of quantitative research.

3.2. Content Features of Master Teacher Studio Practice Research

The research on master teacher studio practice focuses on the practice dilemmas of master teacher studios, specifically in terms of both institutional and subjective dilemmas. Even though the language used by the researchers is not the same, they all focus on the deficiencies of the master teacher studio leader and the institutional deficiencies in the support of the master teacher studio environment, and analyze the causes of the dilemma and propose some countermeasures.

The analysis revealed that the researchers did not pay enough attention to the master teacher studio comprehensively, did not take into account the willingness and subjectivity of the participating teachers, and more often focused their research objectives only on the construction of the master teacher studio, believing that it was enough to improve the construction of the master teacher studio, and studied the participating teachers only as passive participants, ignoring the subjectivity of the participating teachers.

4. Limitations

The quality of the screened literature was not assessed, and only the available information is described in this paper. However, this is in line with the scoping review, as the criticality assessment is not considered mandatory and its purpose is to provide an overview and to map the results.

The authors' own capacity limitations made it impossible to guarantee the accuracy of the literature screening process, especially the selection of duplicate literature for comparison between the three databases. However, the final literature topics identified by the screening process were of large co-word matrix, with a high degree of aggregation, which basically met the requirements of the scoping review research methodology.

In addition, among the screened literature, some of them adopt the principle of purposive sampling of the research subjects, and the typicality of the research subjects is better, such as Chen Zhizhi's selection of Lanzhou L Master Teacher Studio as a sample, but from another perspective, this will make the research not representative enough and reduce the value of the research results.

5. Conclusions

At present, the research results of master teacher studios are mostly case study-based summaries of practical experience, which basically reach the level of "each one is beautiful", but

the relevant research still lacks a certain theoretical height, is not very universal, and does not have much reference value for the development of other master teacher studios.

Most of the existing research results study master teacher studios from the researcher's point of view, but there is little literature on the development of master teacher studios by ordinary members of the studios or by members and educational researchers, and there is a disconnect between the online platform and traditional research methods.

Most of the studies are relatively fragmented, empirical and localized, and lack systematic and in-depth research results. Most of the literature is based on their own experiences or on a particular aspect of master teacher studios, especially on some "successful" master teacher studios, but just as master teachers cannot be replicated, it is also difficult to fully replicate the excellent master teacher studios, especially because each master teacher studio is located in a different geographical location and in a different educational environment. The educational environment is also different. The existing research results are more of a display of experiences and special case studies, but they do not summarize the theory of master teacher studios in a comprehensive way and do not form a complete theoretical system.

Therefore, the further deepening of master teacher studio practice research should start from theoretical research, focus on the commonality of experience between cases or regions, seek the commonality of master teacher studio practice in each region of China, focus on the refinement of universal experience, and strive to achieve the research level of "beauty and commonality" on the basis of "beauty of each".

In addition, almost all of the researchers in the papers in this scoping review placed the future development of master teacher studios on online master teacher studios or master teacher network studios, and all of them hoped to seek development support from the technology level. It can be seen that the trend of integrating education and technology in the future is already obvious, and master teacher studios as a powerful vehicle for teachers' professional development are no exception.

With the continuous development of the Internet and other technologies, online master teacher studios are bound to emerge. Network Master Teacher Studio can promote and drive a large number of young teachers to achieve professional development, thus promoting the balanced development of educational resources and lifelong development of teachers. It is a space for reflective dialogue that facilitates the transformation of the teacher professional development model from a "technical-rational model" to a "reflective-practice model". It can not only break the geographical limitation and promote the sharing of resources, but also help teachers improve their teaching practice and self-reflection.

Therefore, the further deepening of master teacher studio practice research will certainly cover the relevant contents of online master teacher studio practice research, which is also the future development direction of master teacher studio research.

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