Research on the Operational Status and Strategies of Primary and Secondary School Physical Education Master Teacher Studios

Qing Chong^{1, 2, a,*}, Bujun Tan^{3, b}

- ¹ China Student Sports Federation, Beijing, China
- ² China School Physical Education Magazine Co., Ltd, Beijing, China
- ³ Southwest University, Chongging, China
- ^a Chong qing ok@126.com, ^b83622197@qq.com
- *Corresponding author

Abstract: This study examines Physical Education Master Teacher Studios (PEMTS) in Zhejiang, Jiangsu, Beijing, and Shanghai, analyzing operations, objectives, management, and challenges across provincial, municipal, district, and school-level studios. Using interviews with 31 hosts and member surveys, findings indicated: (1) PEMTS operations show regional commonalities and localized cultural traits. (2) Core objectives emphasize team development, cultivating teaching/research leaders, resource provision, and amplifying studio influence, reflecting integrated educational functions. (3) Administrative oversight at each level prioritizes ethics, teaching outcomes, research output, and host influence in evaluations. While assessment dimensions remain consistent, quantitative requirements decrease from provincial to district levels, with school-level studios lacking formal standards. (4) Shared challenges include insufficient administrative guidance, lax member management, ambiguous regulations, unquantified evaluation criteria, and failure to align institutional branding with cultural contexts. Additionally, misalignment between collective goals and individual growth limits intrinsic motivation for teacher development. The study highlights systemic gaps in PEMTS operational frameworks and proposes standardized evaluation systems and goal integration strategies to enhance sustainability.

Keywords: School Physical Education, Master PE Teachers, Physical Education Master Teacher Studios, Operational Status

1. Introduction

In 2002, the Ministry of Education issued the "Tenth Five-Year Plan for the Development of the Primary and Secondary School Teaching Staff," explicitly stating the goal of "cultivating master teachers, fully leveraging their role as models and influencers, promoting their research findings and successful experiences, and driving the overall improvement of the teaching quality in primary and secondary schools." In 2010, the National Outline for Medium- and Long-Term Educational Reform and Development (2010–2020), issued by the Ministry of Education, proposed to "improve the teacher training system, and foster a group of distinguished teachers and leading scholars in various disciplines through training programs, academic exchanges, and the cultivation of core educators and teachers." [1] Guided by policies that emphasize teacher professional development under the mentorship of master educators, several regions, including Zhejiang, Jiangsu, Beijing, and Shanghai, have successively established "Master Teacher Studios" (or learning communities) aimed at enhancing the overall quality of the teaching workforce.

To examine the operational status, characteristics, promotable successful experiences, and pressing issues of PEMTS, a literature review was conducted, revealing that research in this area is relatively scarce. Most existing studies focus on case analyses of practical experiences, with limited research addressing their internal operations, external operations, and overall operational effectiveness.

Beijing, Shanghai, Zhejiang, and Jiangsu—pioneers in China's basic education reform—established Physical Education Master Teacher Studios (PEMTS) early, serving as hubs for PE teacher development, professional exchange, and high-quality teaching models. This study examines PEMTS across provincial, municipal, district, and school levels in these regions, analyzing their operational

frameworks, challenges, and improvement strategies. Using in-depth interviews, questionnaires, and policy document analysis, the research investigates studio leaders and members, focusing on internal/external operations and systemic issues. By synthesizing interview transcripts and evaluation criteria, it identifies common characteristics, diagnoses operational shortcomings, and proposes solutions to enhance teacher training systems. The findings aim to optimize PEMTS functionality, strengthen mentorship frameworks, and cultivate distinguished PE educators and subject leaders, contributing to sustainable advancements in China's physical education reform.

2. Research Design and Methods

2.1. Interviews

Interviews were designed to provide supplementary information on the operational status of PEMTS in primary and secondary schools across Beijing, Jiangsu, Zhejiang, and Shanghai.

2.1.1. Participants and Sampling

Based on purposive sampling, preliminary interviews were conducted to select participants, who were willing to share information, well-informed and experienced. [1] During the preliminary interviews, the researcher interviewed PE teaching researchers at the provincial, municipal, and district levels to gain insights into the activities and operation of PEMTS at different levels. The goal was to refine the interview outline and accumulate interviewing experience. For the formal interviews, 34 studio leaders were initially selected as interviewees. However, by the time of the actual interviews, three studios had ceased operations, resulting in a final sample of 31 studio leaders for the interviews.

2.1.2. Development of Interview Questions

First, a preliminary interview outline was drafted based on a review of relevant literature. Next, preliminary interviews were conducted with PE teaching researchers at the provincial, municipal, and district levels, along with four studio leaders, to gather feedback on the initial draft and refine the outline accordingly. Finally, the revised interview outline was reviewed and discussed with two Distinguished PE Teachers—one from Zhejiang Province and one from Jiangsu Province—before being finalized.

2.1.3. Data Collection

Before the formal interviews, the researcher collected basic information about the participants and established personal privacy boundaries to protect their privacy and rights. One week before the interview, the interview outline was provided to participants through both online and offline methods, the interview format was determined, and appointments were scheduled. During the formal interviews, audio recordings were made with participants' consent. Considering the characteristics of the interviewees, each interview was kept within 60 minutes. Immediately after each interview, the researcher transcribed the recordings and carefully reviewed the transcripts word by word. In total, 90,132 words of interview transcripts were obtained.

2.2. Questionnaires

2.2.1. Questionnaire on the External Operations of PEMTS

A self-developed survey questionnaire titled Survey on the External Operations of PEMTS was designed through a review of relevant literature, expert consultations, and group discussions. The purpose of the questionnaire was to assess the operational status of PEMTS in Beijing, Jiangsu, Zhejiang, and Shanghai. The questionnaire consists of three sections: (1) Basic Information; (2) Single-choice questions (24 items), categorized into three dimensions: Shared Vision (Items 1–9); Shared Leadership (Items 10–16); Collaborative Learning (Items 17–24). The content of this section was adapted from A Practical Study on Master Teacher Studios from the Perspective of Teacher Learning Communities. To better align with the objectives of this study, the questionnaire dimensions were adjusted, and corresponding statements were modified. (3) Multiple-choice questions (3 items), designed to explore the participants' initial motivations for joining a PEMTS, the types of activities organized in the studios, and the ways in which learning and research outcomes are presented. The internal consistency reliability of the Shared Vision, Shared Leadership, and Collaborative Learning dimensions was tested using homogeneity reliability. Internal consistency reliability measures the degree of consistency among all items within the questionnaire, with results expressed using

Cronbach's α coefficient. A Cronbach's $\alpha > 0.7$ indicates a high level of internal consistency. The data analysis results showed that the overall scale and all sub-dimensions had Cronbach's α values greater than 0.98 (see Table 1), demonstrating that the questionnaire has high reliability.

Table 1: Internal Consistency Reliability of Survey on the External Operations of PEMTS.

Dimensions	Number of Items	Chronbach α
Overall Scale	24	.995
Shared Vision	9	.986
Shared Leadership	7	.989
Collaborative Learning	8	.992

2.2.2. Survey on the Internal Operations of PEMTS

A self-developed survey questionnaire titled "Survey on the Internal Operations of PEMTS" was designed based on a review of relevant literature, expert consultations, and group discussions^[2]. The purpose is to provide supplementary information on the operational status of PEMTS in primary and secondary schools, identify challenges in their operations, and explore improvement strategies. The questionnaire consists of three sections: (1) Basic Information; (2) Single-choice questions (19 items), categorized into two dimensions: Teacher Development Support (Items 1–10) and Learning Performance (Items 11–19). The content of this section was adapted from A Practical Study on Master Teacher Studios from the Perspective of Teacher Learning Communities.^[4]To meet the needs of this study and achieve the intended research outcomes, the questionnaire dimensions were adjusted, and corresponding statements were modified. (3) Multiple-choice questions (3 items), designed to learn about the progress made by participants after engaging in PEMST activities, existing issues within their respective studios, and future improvement directions. The internal consistency reliability of the Teacher Development Support and Learning Performance dimensions was tested for homogeneity. As shown in Table 2, the Cronbach's α for the overall scale was 0.891, for Teacher Development Support, 0.955, and for Learning Performance, 0.866, indicating that the questionnaire has high reliability.

Table 2: Internal Consistency Reliability of Survey on the Internal Operations of PEMTS.

Dimension	Number of Iterms	Chronbach α
Overall Scale	19	.891
Teacher Development Support	10	.955
Learning Performance	9	.866

2.2.3. Survey Procedure

Before officially distributing the three questionnaires, researchers conducted a pilot survey using convenience sampling. Ten members from the selected PEMTS were invited to complete all three questionnaires. Their feedback helped identify potential shortcomings in the existing items, enabling further revisions and refinements.

During the preliminary survey, three questionnaires were distributed simultaneously, and respondents generally reported that the content was overwhelming and time-consuming, potentially leading to inattentive responses. To ensure data validity, the three questionnaires were distributed separately between February 21, 2020, and May 28, 2021.A total of 496 responses were collected for the Survey on the External Operations of PEMTS. After removing questionnaires with identical responses for all items, 470 valid questionnaires remained, resulting in a valid response rate of 94.8%. For the Survey on the Internal Operations of PEMTS, 403 responses were collected, with 395 valid questionnaires, yielding a valid response rate of 98%.

2.2.4. Data Analysis

An analysis of variance (ANOVA) was conducted using SPSS 19.0.

3. Results and Discussion

Research on Master Teacher Studios has primarily focused on case-based experience summaries and descriptions of their work content. Existing studies on their operation can be categorized into two dimensions: internal and external. The external operational status refers to measures implemented to ensure the smooth functioning of the studios, particularly the oversight provided by higher-level education administrative departments. This includes admission standards for studio leaders,

development goals, resource allocation, management systems, and evaluation mechanisms. The internal operational status pertains to the core activities and structures within the studios that support their effective operation. This includes member selection, institutional support, methods of professional development, and organizational management.

3.1. External Operational Status of PEMTS in Primary and Secondary Schools

Before the establishment of PEMTS in primary and secondary schools, higher-level education administrative departments are responsible for reviewing and approving their applications. Once established, these departments provide policy support and financial resources to facilitate their development. Throughout the development cycle, regular evaluations are conducted to assess the operational status of the studios.^[5] Based on this, the external operational status will be analyzed through key aspects such as admission standards for studio leaders, development goals, and evaluation mechanisms, offering insights into the current external operations and distinctive characteristics of the studios.

3.1.1. Admission Standards

Previous studies have identified the common characteristics of selection criteria for studio leaders, which include: a strong commitment to professional ethics and a spirit of selfless dedication; advanced educational philosophies, deep subject knowledge, and strong teaching competencies; excellence in collaboration, communication, and research; and the ability to foster the professional growth of fellow teachers.

Admission criteria for Master Teacher Studios in Zhejiang and Jiangsu emphasize professional titles, ethics, and teaching proficiency but lack quantitative metrics. Provincial/municipal studios typically require municipal-level honors or professional recognition, with research capability prioritized as the "gold standard" due to its role in mentoring and academic activities. Both provinces set an age limit of 55 for applicants. Across levels, master teachers are expected to demonstrate high ethics, strong theoretical knowledge, exceptional teaching skills, and research competence—aligning with prior studies on essential qualities. These findings highlight a focus on holistic excellence over measurable benchmarks.

3.1.2. Development Goals

The establishment of Physical Education Master Teacher Studios (PEMTS) aims to create learning platforms, provide resources for skill enhancement, guide members' professional development, and improve teaching/research capabilities. Interviews with 31 studio leaders reveal four primary objectives: guiding team development (emphasized by 93.5% of studios), cultivating lead teachers, establishing resource-sharing platforms, and enhancing institutional influence. Most studios prioritize collective professional growth, though individual growth objectives often lack quantifiable criteria.

Nearly half of PEMTS focus on cultivating lead teachers—typically distinguished educators or subject leaders—with district-level or higher studios setting clearer targets, such as developing provincial-level specialists or helping teachers win city/county teaching awards within 3–5 years. Platform-building goals aim to offer members access to expert exchanges and training resources, exemplified by objectives like creating "research platforms and growth pathways for young PE teachers." While team development is universally prioritized, higher-level studios integrate measurable outcomes (e.g., awards, leadership titles), whereas individual growth metrics remain vague. The findings highlight a gap between collective developmental aspirations and the need for structured, personalized evaluation frameworks to align institutional goals with teachers' career advancement.

3.1.3. Evaluation Mechanism

This study examines the evaluation mechanisms of Master Teacher Studios (MTS) in China, focusing on provincial, municipal, and district levels, while school-level studios lack formal assessment systems. Through interviews with 31 studio leaders and content analysis, the research reveals a structured evaluation framework. Provincial, municipal, and district-level studios adhere to a three-year development cycle with annual assessments and a final review. Education administrative departments oversee evaluations, forming expert teams to assess studio performance, leader competency, and task completion. Studios failing annual evaluations for two consecutive years or final criteria face termination, with leaders barred from re-establishing studios. Funding is contingent on passing annual reviews. Evaluations combine document reviews (e.g., activity records, research outputs) and on-site presentations.

Provincial-level evaluations are the most rigorous. For example, Zhejiang's criteria prioritize professional ethics, teaching achievements, research outcomes, and leadership impact, with equal emphasis on teaching and research, reflecting its research-driven education system. Disqualifiers include political/scientific errors, conducting fewer than three teaching-research activities annually, or completing less than 50% of tasks. Municipal-level evaluations focus on work performance, team development, and project research, requiring studios to fulfill annual plans, establish management mechanisms, conduct at least 10 peer-reviewed lesson observations, execute research projects, publish academic works, and organize large-scale demonstrations, seminars, rural outreach, and conferences. While assessment dimensions mirror provincial standards, quantitative thresholds (e.g., activity frequency, output expectations) are reduced.

District-level evaluations emphasize member development. In Zhejiang, criteria include common indicators (minimum requirements for all members) and individualized goals tailored to members' expertise. Beijing mandates annual work plans, activity documentation, and effectiveness metrics (awards, regional impact, public classes). Shanghai categorizes evaluations into project research, team activities, and member development. Disqualification criteria across levels highlight political integrity and engagement. For instance, Jiangsu and Zhejiang disqualify studios for political/scientific errors, insufficient teaching-research activities (e.g., fewer than two sessions in Zhejiang), or incomplete annual tasks.

The study underscores systemic gaps: school-level studios lack evaluation frameworks, and higher-level mechanisms prioritize administrative compliance over pedagogical innovation. While provincial evaluations integrate research and teaching, municipal and district standards reduce rigor, focusing on procedural compliance. Disqualification rules emphasize political alignment and task completion, reflecting centralized oversight. However, the absence of standardized metrics for member development and over-reliance on quantitative thresholds limit adaptability to local contexts. These findings highlight the need for balanced evaluation systems that harmonize administrative accountability with educational autonomy.

3.2. Internal Operational Status

Research on the internal operational status of PEMTS primarily examines the content and processes of their activities. This includes member selection criteria, the establishment of management systems, methods and approaches for professional development, studio operations and management, and the attitudes and experiences of studio members following their participation in activities. Through interviews with 31 studio leaders and questionnaire surveys conducted among studio members, this study analyzes the internal operations of Master Teacher Studios to identify challenges in their development and provide insights for their future construction and advancement.

3.2.1. Selection of studio members

As a learning-oriented organization for the continuous professional development of physical education teachers in the new era, PEMTS aim to enhance teachers' professional competencies and cultivate a high-quality, specialized, and innovative team of physical education educators. PEMTS are established autonomously and voluntarily by physical education teachers, and studio leaders do not hold administrative authority over members. Based on interviews with 31 Master Teacher Studios, the selection criteria for participating members can be categorized into three dimensions: basic qualifications, professional ethics, and professional competence.^[6]

- (1)Personal Motivation and Willingness. Although there is no unified standard for member selection across Master Teacher Studios, all studios set basic requirements, including age, years of teaching experience, professional title, personal willingness, and professional competence. Among these, motivation and willingness to participate are particularly emphasized as key selection criteria.
- (2)Professional ethics. "Cultivating virtue and nurturing talent" is the core mission of education, and teachers are expected to serve as role models for students. Since Master Teacher Studios aim to develop future distinguished educators, professional ethics must be a top priority in member selection criteria. More than one-third of Master Teacher Studios explicitly incorporate professional ethics into their selection standards, emphasizing qualities such as "dedication and commitment," "selfless contribution," and "passion for physical education." As Master Teacher Studios function as learning-oriented communities, members are expected not only to actively engage with one another but also to offer mutual support. Therefore, "strong teamwork" is particularly emphasized in the selection criteria.

(3)Professional Competence. The selection criteria place equal importance on teaching ability and research competence. 12.9% of studios require applicants to demonstrate "expertise in sports" and "a solid theoretical foundation in the subject and professional knowledge." 38.7% of PEMTS consider awards for research projects or published papers as key indicators of research ability. 35.5% of studios prioritize teaching ability as a critical selection criterion, with qualifications such as "outstanding young teacher," "second prize or above in teaching competitions," and "award-winning demonstration lessons" serving as indicators of applicants' teaching competence.

3.2.2. Policy Support

Master Teacher Studios are primarily self-organized learning communities, and establishing clear and structured regulations is essential for ensuring organized operations and facilitating professional development. Without a well-defined institutional framework, it becomes challenging to motivate members to enhance their teaching and research capabilities.^[7]

(1)Management System. A well-defined management system is essential for the effective operation of primary and secondary school PEMTS. The absence of such regulations can directly impact operational effectiveness and may even cause the studio to become inactive. However, survey results indicate that one-third of the studios lack a clear management system, relying primarily on members' self-discipline for their regular functioning.

First, among the 21 Master Teacher Studios with established management systems, 13 studios have implemented internal assessment systems for their members, accounting for 61.9% of the total.

Second, 42.9% of Master Teacher Studios divide their members into various groups with distinct responsibilities, such as "Teaching Group, Research Project Group, Administrative Group, Lesson Planning Group, Teaching Writing Group, Research Collaboration Group, Outreach and Promotion Group, Logistics Group, and Community Management Group." This grouping system is not established from the perspective of studio administrators but is designed based on the actual needs of the studio. Its purpose is to ensure active participation from all members while fostering collaboration, mutual support, supervision, and responsibility.

Third, 42.9% of Master Teacher Studios have established meeting and activity regulations alongside professional development systems. Studio leaders noted that "meetings and activities are closely integrated with both collective and individual professional development. The process of these gatherings itself serves as a form of professional learning. If they fail to yield meaningful outcomes, they become ineffective and fail to motivate members to actively engage."

Fourth, 28.6% of Master Teacher Studios have established an attendance system. Since members come from different schools with varying work schedules, coordinating a unified activity time presents a challenge. As a result, most studios do not implement a formal attendance system, but attendance is still considered a factor in evaluations. For example, "Although attendance is not mandatory, members with low participation rates may find it difficult to achieve high scores in the final assessment."

Fifth, 23.8% of Master Teacher Studios have established a reward and punishment system. While such a system may not fully motivate members, it serves as a regulatory mechanism to some extent. However, inappropriate rewards and penalties could deviate from the original mission and purpose of the Master Teacher Studios.

Sixth, only a few studios have established systems for job responsibilities, financial management, or project management.

(2)Evaluation Mechanism. Although the primary goal of Master Teacher Studios is to provide a platform for learning, development, and growth, the absence of necessary evaluation mechanisms can hinder member motivation and disrupt the structured operation of the studios. The assessment of members is overseen by the studio leader, with a primary focus on self-evaluation by members. The assessment consists of three forms: formative assessment, annual assessment, and a three-year cycle assessment. The key evaluation criteria can be categorized into four dimensions: ethics, competence, diligence, and performance.

First, the "ethics" dimension appears least frequent among the evaluation criteria, likely due to the subjective nature of its assessment methods, which makes quantifying results challenging. Among the indicators in this dimension, moral education has the top frequency, highlighting that strong professional ethics remains central to ethical evaluations.

Second, in the evaluation of "competence," demonstration lessons are universally regarded as a key

assessment indicator, making them the primary evaluation method.

Third, regarding "diligence," "participation in activities (including online) and reporting" is the most frequently mentioned indicator. This suggests that the primary approach studios use for member development is organizing activities through which members are expected to consolidate their knowledge and skills, reflect on their learning, and document their insights.

Fourth, in the evaluation of "performance," 70% of Master Teacher Studios consider the publication of articles / case studies / instructional videos as a key criterion. This indicates that studios place equal emphasis on teaching and research capabilities, requiring members to be proficient not only in teaching and coaching but also in conducting research. 42% of Master Teacher Studios include research projects as an indicator. As one studio leader noted, "Completing a research project earns higher scores than other areas. Although research projects are not mandatory, they are among the highest-scoring criteria for member assessment."

It is worth noting that among the 31 Master Teacher Studios, eight studios have explicitly stated that they do not implement an evaluation mechanism, asserting that "the selection of members itself already demonstrates their competency. Given their expertise, members exhibit a high level of self-motivation and self-discipline, making formal evaluation unnecessary, as they can achieve professional growth independently."

3.3. Problems and Improvement Strategies

3.3.1. Education administration departments should balance oversight and autonomy for continuous development of studio leaders

It is essential for education administration departments to establish policies and regulations for the development of Master Teacher Studios. However, they should balance oversight and autonomy—allowing PEMTS the space for independent growth while ensuring effective supervision and guidance.

It is recommended that education administration departments, universities, and the schools where teachers work should actively support the activities of the studios and provide practical assistance.

3.3.2. Studios should expand research and training methods through collaboration with members' schools

The research and training methods of Master Teacher Studios are relatively limited, impacting the professional development of their members. Studios should strengthen collaboration with the schools and teaching research offices where their members work, secure institutional support, and effectively coordinate teachers' responsibilities with studio activities to maintain a balanced schedule.

3.3.3. Studios should align overall objectives with individual goals

Over time, growing work and life pressures may create conflicts between studio goals and personal development goals, leading to burnout and even member attrition. To address this, PEMTS should align overall objectives with individual goals, fostering intrinsic motivation and empowering members to take charge of their own growth.

3.3.4. Studios should diversify and refresh training methods and content

The training methods lack diversity, and the content is not varied. While enhancing their professional leadership skills, studio leaders should actively engage with subject experts and university faculty to organize thematic lectures, ensuring that members stay informed about latest educational concepts and teaching methodologies.

3.3.5. Studios should refine selection criteria to enhance vitality

The selection of PEMTS members currently prioritizes basic qualifications, professional ethics, and competence but overlooks intrinsic motivation, which should be given greater emphasis as a selection criterion. By doing so, individuals with a stronger drive for professional growth will have greater opportunities for selection, contributing to the studio's development and vitality.

3.3.6. Studios should implement flexible evaluation systems to support sustainable development

Many of the challenges currently observed in the operation of PEMTS arise from the absence of effective evaluation during the establishment and development of the studios. In addition to external

assessments by supervising departments, greater emphasis should be placed on internal management. This includes developing a comprehensive evaluation and reward mechanism, incorporating process-based assessment, review, and reflection, and enhancing the relevance and effectiveness of studio activities.

4. Conclusion

Due to different social contexts, PEMTS in the four regions exhibit both common characteristics and region-specific features in their external operations (admission standards, development goals, resource allocation, evaluation mechanisms) and internal operations (member selection, institutional support, assessment systems, methods of professional development, and organizational management).

The goal setting of PEMTS reflects its underlying value orientation. Across all four regions, there is a strong emphasis on guiding the development of teaching teams, cultivating key personnel in teaching and research, establishing platforms to facilitate resource sharing, and enhancing the studio's influence and outreach. These efforts underscore the multifaceted role of master teacher studios in integrating teaching, research, and talent development.

The management and evaluation of PEMTS are overseen by the respective education administrative departments. Key assessment criteria include teachers' professional ethics, teaching performance, research achievements, and the effectiveness of studio directors' leadership. While the evaluation dimensions remain consistent across all studio levels, the quantitative requirements are progressively reduced, with no formal assessment standards at the school level.

The common challenges faced by PEMTS across the four regions are as follows. There is a lack of professional guidance and oversight from education administrative departments at all levels. The management of studios is relatively loose, marked by the absence of clear regulations and quantifiable assessment criteria, as well as the failure to establish studio policies from a cultural development perspective, all of which hinder the formation of a strong brand identity for master teacher studios. Additionally, the overall development goals of the studios are not effectively aligned with individual professional growth, making it difficult to foster teachers' intrinsic motivation for self-development.

References

- [1] Wang, Y. (2020). A case study on the operation of famous teachers' studio in kindergarten—A case study of a famous teacher studio in Jinzhou City (Master's thesis). Bohai University.
- [2] Peng, X. (2005). A review of interview methods in qualitative research. Social Scientist, S1, 534–535.
- [3] Rao, X. (2017). The operation of master studios from the perspective of teachers' learning community: A survey in Z City of Guizhou (Master's thesis). Southwest University.
- [4] Li,Y. (2005). Master teacher studios: Expanding access to high-quality educational resources. Primary and Secondary School Management, 2005(01), 16–17.
- [5] Du, F. (2021). Research on the operation and development of Suzhou primary school sports teacher studio (Master's thesis). Suzhou University.
- [6] Li, Y., & Yu, G. (2021). Multiple forms of regional modeling in the training community of famous teachers' studios. Theory and Practice of Education, 41 (11), 42-45.
- [7] Dong, S. (2019). Research on the operating mechanism of workshops for primary and secondary school teachers from the perspective of teacher professional development. Teaching and Management, (12), 48-50.