Content, Models, and Prospects of Kindergarten Teacher Training in Developed Countries: A Case Study of the United States, United Kingdom, Japan, South Korea, and Singapore

Zifu Lin

Hangzhou Normal University, Hangzhou, China Linzifu4379@163.com

Abstract: As a key component of educational modernization, the core of enhancing preschool education quality lies in the professional development of teachers. Although the current kindergarten teacher training system in China plays an important role in building the teaching workforce, its theoretical framework still lags behind practical exploration. In contrast, developed countries, with their mature education systems and advanced educational philosophies, have accumulated rich experience in kindergarten teacher training. Therefore, this study uses the United States, United Kingdom, Japan, South Korea, and Singapore as case studies and applies grounded theory methods along with Nvivo 11 Plus software to code and analyze literature, systematically deconstructing the content system and organizational models of kindergarten teacher training in developed countries. The study finds that the five countries generally construct curriculum frameworks oriented around core competencies, emphasizing the deep integration of practical skills and theoretical knowledge. Additionally, they adopt phased, multi-subject collaborative training models that effectively meet the professional development needs of teachers. Based on these findings, the study proposes four recommendations: (1) constructing a "competency-based" content system; (2) promoting a "multi-cooperative" organizational model; (3) improving the "dynamic closed-loop" quality assurance mechanism; and (4) focusing on "special groups" and "emerging fields," to provide theoretical and practical paths for the systematic reform of kindergarten teacher training in China.

Keywords: Kindergarten teacher training, developed countries, training content, training models

1. Introduction

Teacher training, as an effective means of promoting professional development and a crucial part of teacher education, is a process in which accredited institutions, based on the intrinsic rules of teacher growth and the needs of educational reform, use specific content to promote professional development through effective organization and activities [1]. Since the implementation of the "National Preschool Teacher Training Program" in 2011, local governments at various levels have introduced a series of special training plans, forming a training system primarily based on the "government model" and "project model." This system, with the goal of teacher professional growth,

has built a continuous, dynamic, and multi-dimensional training system, laying a solid foundation for the sustainable development of teachers' professional careers[2].

At present, kindergarten teacher training in China still faces significant challenges, particularly in the lack of systematization in both content and models. In terms of content, there are two major issues: first, the training content is complex and deviates from teachers' actual needs. For example, practical content like "child observation and support" and "effective teacher-child interaction," which teachers urgently need, is absent[3]. Second, there is a disconnect between theoretical knowledge and teaching practice, making it difficult to solve the complex problems encountered in real educational settings. The training process overly focuses on the explanation and transfer of theoretical knowledge, while neglecting practical, applicable knowledge that can address issues like how to implement effective teacher-child interactions[4].

In terms of the model, the current approach mainly relies on lectures, workshops, and conferences, but these forms lack an inherent logical connection and organic integration, making it difficult to comprehensively and deeply assist teachers in solving complex problems faced in educational systems and classroom teaching[5]. Therefore, current kindergarten teacher training in China cannot achieve sustainable teacher professional development. The key reason is the lack of a comprehensive theoretical support for top-level design, resulting in fragmented and de-contextualized content and methods, with teaching strategies and objectives failing to connect effectively, severely impacting training outcomes and the long-term professional growth of teachers.

In contrast, developed countries have accumulated extensive practical experience in the field of kindergarten teacher training. This study focuses on the United States, United Kingdom, Japan, South Korea, and Singapore for the following reasons:

First, from the perspective of the completeness of their educational systems, these five countries all possess mature and distinctive education systems. The U.S. has abundant educational resources, cutting-edge educational research, and a diversified education system; the U.K. has a long educational history with a rigorous and standardized system; Japan's education system places high importance on regulatory protection and professional development for teachers; South Korea emphasizes the integration of tradition and modernity in its educational system; and Singapore's education system efficiently adapts to a multicultural environment, providing a solid foundation for kindergarten teacher training. Second, in terms of the advancement of educational philosophies, these five countries' educational philosophies are at the international forefront. These nations are actively exploring innovation, focusing on the holistic development of children, emphasizing the cultivation of practical abilities, and promoting the professional growth of teachers, all of which have significant guiding implications for preschool teacher training practices. Third, regarding the impact of their educational achievements, these countries have made significant contributions in the field of early childhood education. They have cultivated kindergarten teachers with high professional quality and excellent teaching outcomes. Their training models, curricula, and other experiences are widely shared internationally, providing valuable reference points for other countries. Lastly, given the relevance to China's educational system, these five countries' educational practices in different areas can provide useful lessons for localized reforms. The U.S.'s diversified development could broaden China's teacher training approach; the U.K.'s standardization can assist China in improving its training system; Japan's meticulous management and legal protections could offer useful references for China; South Korea's cultural similarities with China make its educational experiences particularly relevant and adaptable; and Singapore's successful practice in multicultural education has valuable implications for preschool education in China's multi-ethnic regions.

Therefore, an in-depth study of the content and models of kindergarten teacher training in these five countries is of great significance for addressing the existing problems in China's kindergarten

teacher training, promoting the continuous professional development of teachers, and exploring more scientific and effective training pathways.

2. Research Design and Data Analysis

To systematically explore the content and model characteristics of kindergarten teacher training across five countries, this study constructs an analytical framework based on grounded theory methodology and utilizes Nvivo 11 Plus software for the structural coding and theoretical refinement of data. By combining qualitative research and quantitative analysis, the study ensures both theoretical depth and practical validity. The following section will elaborate on the research methods and tools, as well as the research process.

2.1. Research Methods and Tools

Grounded theory is a qualitative research method in which the researcher gathers raw textual data through interviews, literature reviews, and observations, and then builds a thematic theoretical model through systematic analysis, comparison, coding, and induction of the original data in a bottom-up approach. Nvivo 11 Plus enables qualitative analysis by linking research themes with related concepts, employing three levels of coding—open coding, associative coding, and selective coding—on textual data.

This study adopts grounded theory and uses Nvivo 11 Plus to conduct an in-depth analysis of the literature. In qualitative analysis, two primary coding methods are commonly used: first, the bottom-up grounded theory coding, which generates and constructs theory gradually during text analysis; and second, top-down coding, where coding nodes are set based on research themes, constructing the research framework and further refining nodes to create more detailed codes [6]. In the study of kindergarten teacher training, traditional research often organizes training content and models based on time or developmental context but lacks in-depth analysis. Grounded theory, however, has clear advantages in content exploration.

A review of the literature shows that while many studies on kindergarten teacher training exist, systematic comparative studies of the training content and models in developed countries are rare. For example, scholars Wang Xiaolan and Ding Bangping conducted an in-depth analysis of the kindergarten teacher training model in the U.S., exploring its "competency-based" phased training system, but did not address cross-national comparisons or the extraction of commonalities [7]. Liu Cuirong focused on the regulatory features of kindergarten teacher training in Japan, systematically reviewing the role of the "Education Staff Licensing Law" in curriculum design, but the study was limited to a single country, lacking a cross-cultural comparative perspective [8]. Scholar Qiao Yawen's research on higher education teacher training has widely adopted an international perspective, drawing from the experiences of developed countries to improve training quality [9]. However, existing research on kindergarten teacher training often focuses on case studies or localized experience summaries, and international comparative studies remain insufficient. As a result, these studies have limited practical guiding significance.

Therefore, this study takes the U.S., U.K., Japan, South Korea, and Singapore as examples to systematically deconstruct the content and models of their kindergarten teacher training. By importing related literature into Nvivo 11 Plus software, the study extracts and compares the features and differences in the training content and models across the five countries, filling the gap in existing research and providing more globally relevant and adaptable references for the reform of kindergarten teacher training systems in China.

2.2. Research Process

2.2.1. Literature Collection

This study follows the principles of systematicity, representativeness, and operability, employing a multi-stage screening strategy to collect the target literature. The specific process is outlined as follows. Firstly, in terms of data sources, this study is based on international authoritative academic databases such as Web of Science, CNKI (China National Knowledge Infrastructure), and Google Scholar, supplemented by policy documents and reports from the official education websites of the Ministry of Education of the United States, the Department for Education of the United Kingdom, the Ministry of Education, Culture, Sports, Science and Technology of Japan, the Korea Institute for Curriculum and Evaluation, and the Ministry of Education of Singapore. The literature was retrieved using a combination of keywords: in Chinese, the search terms were "preschool teacher training" "early childhood teacher training", which include the subtopics "content," "model," and "policy"; in English, the search terms were "preschool teacher training" and "early childhood teacher education," including the subtopics "content," "model," and "policy." The time frame focused on literature from the last 15 years (2010-2025) to reflect the latest practical trends, while also incorporating a small number of classic references, such as key policy documents, to ensure historical continuity.

The inclusion criteria for literature were as follows: the research must clearly involve preschool teacher training in the United States, the United Kingdom, Japan, South Korea, and Singapore; the literature types must include journal articles, government reports, theses, and white papers published by authoritative institutions; and the content must cover at least one dimension of training content, models, policies, or quality assurance mechanisms. A preliminary search in the database yielded 586 articles, and after filtering by title and abstract, 133 articles were retained. After full-text reading, 50 articles were ultimately included, numbered 1-50. The screening process was conducted independently by two researchers, with any disagreements resolved through negotiation or third-party arbitration. The Kappa consistency coefficient was 0.82, indicating that the screening results are reliable.

2.2.2. Literature Coding

This study adopts a three-level coding method based on grounded theory (open coding → axial coding → selective coding), combined with the Nvivoll plus software for systematic analysis of the literature. The coding process follows the principles of "gradual abstraction, logical correlation, and theoretical saturation," and ultimately constructs a theoretical model centered on the "comprehensive curriculum content training system" and the "flexible and diverse training organizational model."

(1) Open Coding: Concept Extraction and Initial Label Generation

The full texts of the 50 articles were imported into Nvivol1 plus, and each sentence was labeled with the original statements related to "preschool teacher training content and models." Using the "free nodes" function, these labeled statements were initially named to form preliminary concepts. For example, "pre-service training focuses on the learning and mastery of general knowledge, educational professionalism, skills, and practical abilities" was named "pre-service training." After repeated analysis and refinement, duplicate semantic labels were merged, resulting in 105 free nodes, such as "diverse teaching practices," "observing and assessing children," and "ideal and belief education."

(2) Axial Coding: Category Clustering and Logical Integration

Based on the logical relationships of the free nodes, they were clustered. For example, "pre-service training," "onboarding training," and "in-service training" were grouped into the main category

"training stages." In total, 12 main categories were identified, including "training stages," "training models," "training courses," "training systems," and "training policies" (see Table 1).

Table 1: Axial Coding Results

No.	Main Category	Concepts
1	Training Stages	Pre-service training, onboarding training, in-service training, etc.
2	Training Policies	Early Childhood Education Professional Competency Standards, Preschool Teacher Training Course Certification Standards, School Education Law, Educational Staff Licensing Act, etc.
3	Training Projects	CDA Training Program, DISE Training Plan, EYPS Training, etc.
4	Training System	Pre-service training institutions, post-service training system, etc.
5	Teacher Qualities	Active study, educator's sense of mission, good moral qualities, love for education, broad knowledge, etc.
6	Training Courses	Health and Physical Education, Foreign Language Courses, General Education, Specialized Education, etc.
7	Training Qualifications	Qualifications for nursery workers, ways to obtain qualification certificates
8	Training Methods	Preschool education institutions, government-led training, voluntary training by teachers, higher education institutions and training organizations, etc.
9	Training Types	Qualification training, business training, general training, etc.
10	Training Institutions	Graduate schools, early education colleges, human development colleges, 2-year community colleges, 4-year colleges and universities, etc.
11	Teacher Professional Development	Personal effectiveness, planning projects, skill requirements, theoretical knowledge level, professional practice, etc.
12	Training Models	Centralized model, family child-rearing model, home-visit model, school-based training, classroom teaching, etc.

(3) Selective Coding: Core Category Refinement and Model Construction

Based on the hierarchical relationships of the main categories, core logical threads were identified. From the axial coding, the "core categories" that can govern and cover other categories were further excavated and summarized. For example, the "training content system" encompasses the "training system," "training projects," and other categories. Ultimately, two core categories were identified: "Comprehensive Curriculum Content Training System" and "Flexible and Diverse Training Organizational Model" (see Table 2).

Table 2: Selective Coding Results

No.	Core Category	Main Categories
1	Comprehensive Curriculum Content Training System	Training Stages, Training System, Training Projects, Teacher Qualities, Training Courses, Teacher Professional Development
2	Flexible and Diverse Training Organizational Model	Training Policies, Training Qualifications, Training Models, Training Methods, Training Types, Training Institutions

Based on the above analysis, this study, according to grounded theory's three-level coding, identifies two core categories for the construction of preschool teacher teams in developed countries: the Comprehensive Curriculum Content Training System and the Flexible and Diverse Training Organizational Model. These categories form the basis for the "Content-Model Dual-Core Driven

Preschool Teacher Training Model" (see Figure 3). The Comprehensive Curriculum Content Training System is competency-based, constructing a phased, multi-dimensional curriculum framework that includes pre-service training, onboarding training, and in-service training. It emphasizes the deep integration of theory and practice, ensuring the training content aligns with children's developmental needs and the professional growth of teachers through cross-series training projects and courses. The Flexible and Diverse Training Organizational Model relies on collaborative governance by multiple stakeholders to create flexible and varied training forms that meet teachers' differentiated needs and enhance training effectiveness.

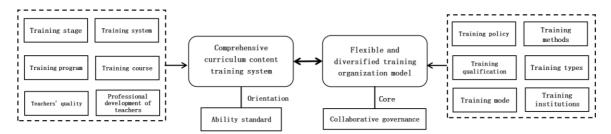


Figure 1: Content-Model Dual-Core Driven Kindergarten Teacher Training Model

3. Analysis of the Content, Models, and Experiences of Preschool Teacher Training in Five Countries

In order to further explore the correlation between the content and models of preschool teacher training in the five countries, this study conducted a systematic content analysis of 50 articles using Nvivo11 plus software. Through the grounded theory's three-level coding method, combined with word frequency analysis and coding features in Nvivo software, two core points were extracted from the literature: "Comprehensive Curriculum Content Training System" and "Flexible and Diverse Training Organizational Models." These core points were then comparatively analyzed in terms of their importance and the differences across countries.

3.1. Constructing a Comprehensive Curriculum Content Training System to Meet the Needs of Child Development

The coding analysis of the literature shows that the 112 codes under the "training content" node cover various sub-nodes such as "pre-service training," "onboarding training," and "in-service training." This suggests that the five countries place a strong emphasis on the integration of theory and practice in the design of preschool teacher training content, and the content systems are generally comprehensive. Developed countries typically prioritize the professional capabilities of preschool teachers, and each of the five countries has formulated detailed professional competency standards for preschool teachers based on their respective educational systems and social needs, designing training content accordingly. These standards not only cover basic teaching skills but also emphasize comprehensive literacy and practical abilities, ensuring that the training content meets the actual developmental needs of children.

3.1.1. United States: A Core Competency-Oriented, Staged Training System

The United States constructs a staged curriculum system based on the five core competencies of the NAEYC framework [10]. In the Nvivo coding analysis, the "core competencies" node has 21 codes, indicating that the U.S. emphasizes the development of core skills such as caregiving ability, evaluation skills, and curriculum development abilities in the design of training content. A

distinguishing feature is the division of teacher professional development into three stages: preservice, onboarding, and in-service, with differentiated training content and implementation paths designed for each stage.

The pre-service stage emphasizes interdisciplinary integration and the development of practical skills through a three-stage internship model ("observe-assist-lead") (16 codes). Psychological, special education, and other theoretical knowledge are integrated into teaching methodology courses. The onboarding stage uses a mentoring system, with experienced teachers guiding new teachers in mastering teacher-child interaction and communication with parents [7]. The in-service stage encourages ongoing professional development through platforms such as the National Association for the Education of Young Children (NAEYC) Annual Conference, promoting the continuous update of teachers' knowledge. A key feature is the competency-based progression across the entire career cycle, strengthening the bidirectional integration of theory and practice.

3.1.2. United Kingdom: Professional Development Path Integration Driven by EYPS Certification

The United Kingdom uses the 27 professional skill standards of the Early Years Foundation Stage (EYFS) as the core framework, integrating pre-service, onboarding, and in-service training through EYPS certification. The pre-service curriculum includes modules on classroom management, child assessment, and other subjects, with embedded simulated teaching and case studies. According to this framework, the content of preschool teacher training focuses not only on the systematic teaching of theoretical knowledge but also on the targeted development of practical skills, especially in core areas such as classroom management, student assessment, and parent communication. By employing simulated teaching, case analysis, and situational exercises, the training content ensures that teachers are well-equipped to meet the practical demands of their work.

In terms of quality assurance, the EYPS certification operates on a "dual-track supervision system," with university mentors and industry experts jointly overseeing the training process to ensure the alignment of training content with job requirements. The in-service stage requires teachers to complete 30 hours of "Continuous Professional Development" (CPD) every three years, which may include participation in special seminars or school-based research projects. Its strength lies in the certification system that links various collaborative training networks, ensuring the dynamic updating of teacher competencies [11].

3.1.3. Japan: A Legislation-Driven, Refined Training System

Japan strictly adheres to the "Educational Personnel Licensing Act." The coding analysis reveals that the "legislation-oriented" node has 17 codes, indicating that Japan places significant emphasis on the protective role of legislation in the design of training content. Teachers are required to complete four types of course credits: specialized education subjects (including specialized subjects, educational profession courses, elective courses); general education subjects (basic knowledge in the humanities, social sciences, and natural sciences); foreign language subjects; and health and physical education subjects. These mandatory courses and credits serve as the basis for issuing teacher certification.

The training content in Japan emphasizes "comprehensive guidance abilities," with 14 codes under the "comprehensive guidance abilities" node. This highlights Japan's focus not only on understanding children's psychology and activities but also on developing teachers' comprehensive guidance abilities and specific caregiving and practical skills. The pre-service stage reinforces contextualized skills through a staged internship model (observation, partial internships, etc.). The in-service stage utilizes short-term training and school-based research activities to enhance teachers' ability to address complex educational issues. A distinguishing feature is the use of legislation as a safeguard, ensuring

the standardization and sustainability of teacher professional abilities through refined curriculum design and multi-stakeholder collaboration (universities, educational centers, and kindergartens). Japan actively develops targeted training programs to address gaps in preschool teachers' professional abilities, ensuring the training content remains updated in line with societal and educational needs.

3.1.4. South Korea: Integration of Cultivation Courses and Professional Training

Influenced by Confucian culture, both China and South Korea face similar challenges in preschool education, such as a teacher- and curriculum-centered approach, a neglect of children's autonomy and creativity, and the undervaluation of play [12]. However, South Korea's preschool education development is at a leading level within Asia, and its development provides valuable lessons for China's preschool education system.

The training content in South Korea is diverse. Coding analysis shows that the "cultivation courses" node has 9 codes, and the "practical skills" node has 12 codes, indicating that South Korea constructs a three-dimensional content framework of "cultivation courses + teacher education courses + professional courses," with a focus on both humanistic literacy and practical skills. Cultivation courses cover traditional etiquette and social responsibility education. Teacher education courses focus on preschool education guidelines and special education support. Professional courses strengthen play guidance and behavioral observation skills. Government-led qualification training is combined with business training by private organizations, using both remote education platforms and in-person teaching to meet the differentiated needs of teachers. Its strength lies in integrating Confucian cultural traditions with modern educational concepts, forming a curriculum system that blends local features with an international perspective.

3.1.5. Singapore: Practical-Oriented Training in a Multicultural Context

Singapore's "Preschool Teacher Professional Development Plan" serves as the guide for constructing a practical-oriented curriculum system [13]. This plan clearly defines the requirements for preschool teacher professional development, specifying a development model in which teachers can engage in self-planning, self-reflection, and self-positioning, identifying their professional weaknesses and actively seeking development opportunities. Kindergartens can also make unified training arrangements based on the personal development plans of teachers to promote their growth [14].

The training content in Singapore is comprehensive and specific, helping teachers develop different professional competencies through differentiated training [14]. Additionally, the curriculum covers modules such as cross-cultural communication and multicultural classroom management. Coding analysis shows that the "multicultural education" node has 13 codes, indicating that Singapore places a strong emphasis on teachers' cross-cultural communication abilities. Bilingual teacher training and workshops enhance teachers' situational teaching skills, addressing practical teaching challenges in multicultural environments, such as how to conduct effective teacher-child interactions and design curricula suitable for diverse cultural backgrounds.

3.1.6. Summary of Preschool Teacher Training Content in the Five Countries

(1) Common Features

The design of preschool teacher training content in the five countries shows significant common characteristics. First, all countries focus on professional competency development, constructing curriculum frameworks that deeply integrate theory and practice. For example, the United States clarifies core competency requirements such as caregiving, evaluation, and curriculum construction through the NAEYC standards; Japan relies on the "Educational Personnel Licensing Act" to regulate course credits; and South Korea combines cultivation and professional courses to enhance teachers'

overall literacy. Second, all countries place emphasis on the application of practical knowledge, using diverse internships, simulated teaching, and case studies to strengthen teachers' practical skills. For example, the UK strengthens classroom management skills through 27 professional skill standards, and Japan enhances caregiving skills through a staged internship model. Additionally, the content design in each country responds fully to the national context and cultural needs, such as Singapore's focus on cross-cultural communication and Japan's attention to preschool-primary school transitions, reflecting a combination of differentiation and localization.

(2) Implications for China

In China, the preschool teacher training content system has long suffered from issues such as a disconnect between theory and practice and vague core competency standards. Compared to the "core competency-oriented" curriculum frameworks of the five countries, China's "Preschool Teacher Professional Standards" are still vague, lacking phased and hierarchical competency indicators. The training content tends to focus on general theoretical knowledge, with insufficient emphasis on practical modules such as child observation, play guidance, and home-school cooperation, and there is a lack of unified competency certification standards. China should learn from the experiences of the five countries, refine core competency standards, increase the proportion of practical courses, and incorporate local cultural elements. For example, China could adopt the U.S. "three-stage internship" model, develop customized training programs based on Singapore's workshop format, and design specialized course modules integrating traditional culture to enhance content adaptability.

3.2. Creating a Flexible and Diverse Training Organization Model to Meet the Diverse Needs of Teachers

Through the coding analysis of the literature, it is found that the "training model" node includes 98 codes, covering sub-nodes such as "stage-based training," "multilateral collaboration," and "technology integration." This indicates that the five countries commonly adopt flexible and diverse formats in the design of kindergarten teacher training models to meet the different needs of teachers. A comparative analysis of the literature also reveals that developed countries have fully considered the professional development stages of teachers, individual needs, and regional cultural backgrounds when organizing teacher training, thus adopting flexible and varied training formats. The training models of these countries not only align with their economic, cultural, and early childhood education development levels but also ensure that teachers receive targeted support and guidance at different stages through diverse training methods.

3.2.1. United States: Stage-based and Multi-form Training Model

In the U.S., kindergarten teacher training adopts a stage-based model based on teachers' different career stages. This "Pre-service - Onboarding - In-service" layered training model (with 13 coding nodes) integrates resources from universities, community colleges, and early childhood education institutions. This reflects the U.S.'s focus on meeting the stage-specific needs of teacher professional development in the design of their training model. During the onboarding stage, the teaching mentor system and goal-oriented intervention training are implemented. In the mentor system, formal mentors are assigned by kindergartens or school districts, with clear responsibilities, and they provide guidance in areas such as teacher-child interactions and social communication skills. Goal-oriented intervention training is designed based on daily teaching needs and consists of short-term training content. Regular evaluations and feedback are provided to help new teachers identify and address deficiencies in their work [7].

In the in-service stage, inquiry-based training and observation-evaluation models are used, with on-site supervision by principals and experienced colleagues to help teachers improve their teaching

abilities. Teachers are also encouraged to solve practical problems through action research. The advantage of this system lies in its multi-party collaboration (government, universities, institutions) and the integration of technology (online resource platforms), which adapt to teachers' career development needs.

3.2.2. United Kingdom: Diversified Training Paths Under EYPS Guidance

In the UK, four EYPS certification paths—referred to as "diversified training paths" (with 11 coding nodes)—cover early childhood educators, non-early childhood educators, and university students studying early childhood education. This approach effectively promotes the academic upgrading of the early childhood education workforce and significantly improves the quality of early childhood education in the country [15].

In addition, the UK's kindergarten teacher training model is diversified, with teachers having the opportunity to attend university training or participate in various association activities every year, supported by funding from their institutions. Early childhood education institutions also attach great importance to in-house training, often inviting experts to give lectures and organizing visits for teachers to learn from others. [16] Some teachers even self-finance university courses to further enhance their professional skills. The UK government has designed diversified learning paths for different teacher groups with varying educational backgrounds. The coding analysis shows that the "quality assurance mechanism" node includes 7 coding entries, indicating that the UK has established a well-structured project quality assurance and supervision mechanism to ensure the effectiveness and relevance of the training.

3.2.3. Japan: Flexible Training Forms with Multi-party and Multi-phase Involvement

Japan's kindergarten teacher training is highly flexible, with the "multi-party training" node containing 14 coding entries, showing that Japan places great emphasis on multi-party collaboration in its training model. Short-term training is conducted outside the institution, lasting from half a day to a month; medium-term training is carried out by universities or local education centers, lasting one month to one year; long-term training primarily takes place at newly established educational universities, with excellent teachers also given the opportunity to undergo training abroad for one to two years. Training forms include self-study, joint training, full-time training, part-time training, inperson and correspondence courses, with organizations such as the Ministry of Education, local education authorities, research institutions, social organizations, teacher training institutions, and large kindergartens serving as the hosts.

The coding analysis shows that the "in-house training" node has 9 coding entries, indicating that in-house training is well-established in Japan's kindergartens, with diverse research and training activities being a major method for teacher development. Internship formats include observation internships, participation observation internships, partial internships, and one-day internships. [17] In addition, various kindergarten teacher associations frequently organize training activities, such as lectures, guidance, observation, and exchange sessions, to help teachers improve their teaching and care abilities.

3.2.4. South Korea: Government-led and Private-sector Involvement in Training

In South Korea, in-service training for kindergarten teachers is divided into qualification training and professional training. Qualification training includes courses for Level 2 or Level 1 certified teachers, principals, and vice-principals, typically lasting 30 days with 180 hours of instruction. These courses are generally conducted during holidays and are held in training institutes in local cities or provinces. Business training, which usually lasts 10 days with 60 hours of instruction, is designed by

kindergartens and is primarily conducted in local training institutes, with forms such as seminars and lectures.

South Korea's government-led qualification training (with 12 coding nodes) is combined with private sector professional training, and the use of remote education platforms helps broaden access. The training forms include concentrated classes during holidays, seminars, and on-site guidance, highlighting a combination of "standardization + personalization." The distinctive feature of this model is its policy-driven approach and technological empowerment (such as remote education), which help reduce regional teacher disparities and promote educational equity.

3.2.5. Singapore: Multi-cultural-driven Hybrid Training Model

The "2013 Kindergarten Teacher Professional Development Plan" outlines that the teacher training model should be diverse, with methods such as teacher seminars, workshops, school group or inhouse teacher experience-sharing activities, and teacher internships. [13] Among these, teacher workshops are a signature feature of Singapore's training efforts, providing a platform for teachers to connect, communicate, and share experiences. The goal is to create an environment where teachers from different schools can exchange ideas and learn new educational techniques and methods.

In addition, Singapore's kindergarten teacher training model is closely linked to its multi-racial cultural background. The coding analysis shows that the "diverse training model" node includes 15 coding entries, indicating that Singapore places special emphasis on diverse training formats. These include government-led training projects as well as collaborative courses involving universities and social organizations, focusing on the integration of theory and practice. By utilizing practical, mentorguided, and hybrid (online and offline) approaches, Singapore offers an immersive and personalized training experience for teachers. The country also establishes a comprehensive quality assurance and supervision mechanism to ensure the quality of training.

3.2.6. Experience Summary of Kindergarten Teacher Training Models in Five Countries

(1) Common Features

The five countries exhibit common features in the design of their training models, such as staged, layered, and categorized training, multi-party collaboration, and the integration of technology and quality assurance mechanisms. All countries divide training into stages according to teachers' professional development needs, such as Japan's short-, medium-, and long-term training to meet different stage requirements, and the UK's EYPS certification providing a clear career path for teachers. At the same time, all five countries have constructed a resource network involving the government, universities, social institutions, and kindergartens, such as South Korea's government-led training policies and the UK's university and industry collaboration. Moreover, they emphasize the integration of technology and quality assurance mechanisms, with South Korea using remote education to expand coverage, Japan regulating training standards through legislation, and the UK establishing a dual-track supervision system to ensure training effectiveness.

(2) Implications for China

In China, kindergarten teacher training models still rely on government-led centralized lectures, which are single in form and lack sufficient collaboration, making it difficult to meet the differentiated needs of teachers. The experience of the five countries suggests that flexible and diverse training models should rely on multi-party collaboration and technological integration. China needs to break free from a single training model and establish a multi-party collaboration mechanism. For example, the government could coordinate resources to create a national online platform, universities could provide theoretical support, kindergartens would serve as practical bases, and social institutions could

offer customized services, forming a "government-led + university-supported + kindergarten-based + social supplement" collaborative system.

4. Optimizing the Pathways and Implementation Suggestions for Kindergarten Teacher Training in China

Based on a systematic analysis of the teacher training experiences from five countries and considering the current issues in China's kindergarten teacher training, such as "fragmented content," "monolithic training models," and "weak quality assurance,"[18] this study proposes the following four specific and actionable optimization pathways, aiming to provide practical guidance for the systematic reform of kindergarten teacher training in China:

4.1. Constructing a "Competency-Based" Training Content System

The content of China's kindergarten teacher training has long been plagued by the disconnection between theory and practice, as well as vague core competency standards. Drawing from the experiences of the five countries, it is recommended to base the content structure on the "Professional Standards for Kindergarten Teachers" and reconstruct the content system from the following three aspects:

4.1.1. Refining Core Competency Modules in Phases

Referencing the U.S. NAEYC competency framework and the UK's EYFS professional skill standards, teacher professional development is divided into three stages: pre-service, entry-level, and in-service. Differentiated competency indicators should be formulated for each stage. For example, during the pre-service stage, the focus should be on basic skills such as "child observation and documentation" and "basic game design" (coding node count: 13). The entry-level stage should emphasize practical abilities such as "teacher-child interaction strategies" and "parent communication skills" (coding node count: 11). The in-service stage should concentrate on advanced skills such as "curriculum innovation design" and "support for special needs children" (coding node count: 12). Additionally, referencing Japan's "Education Staff Certification Law," core competency indicators should be linked to teacher certification to ensure that training content is closely integrated with career advancement paths.

4.1.2. Increasing the Proportion of Practical Courses and Contextualized Design

In response to the current situation of training courses being "theory-heavy and practice-light," it is suggested to increase the proportion of practical courses and introduce diverse contextual teaching models. For example, during teacher training, embed the U.S. "observe-assist-lead" three-stage internship model, requiring students to complete no less than 600 hours of practice in kindergartens. For in-service teachers, reference Singapore's workshop model to develop case study courses such as "multicultural classroom management simulation" and "STEM activity design drills." Through case analysis, field observation, and simulated teaching, teachers can understand and apply theoretical knowledge in real or simulated teaching environments. Additionally, encourage preschool teachers to actively seize informal learning opportunities, continuously update their existing knowledge framework through collaborative work, and explore creative solutions to address practical teaching challenges [19].

4.1.3. Integrating Local Cultural Elements and Emerging Content Areas

Drawing from South Korea's curriculum enhancement courses and Singapore's cross-cultural training experience, it is recommended to add modules on "Integrating Traditional Culture with Early Childhood Education," such as "Designing Activities for Traditional Holidays" and "Innovative Applications of Folk Games." In response to the development trends of artificial intelligence and STEM education, new content such as "Introduction to Early Childhood Programming" and "Guidelines for Ecological Education Practices" should be included, along with the development of online micro-courses and training toolkits to help teachers acquire the skills for applying new technologies.

4.2. Implementing a "Diverse and Collaborative" Training Organizational Model

The current training model in China overly relies on government-led centralized lectures, which lack collaboration and flexibility. Based on the experiences of the five countries, it is necessary to establish a "four-dimensional collaborative" mechanism of "government leadership + university support + kindergarten practice + social supplementation":

4.2.1. Government Planning and Resource Integration

The Ministry of Education can take the lead in formulating a "Coordinated Development Outline for Kindergarten Teacher Training," clearly defining the responsibilities of the government, universities, kindergartens, and social organizations. For example, the government should establish special funds (such as the "Rural Teacher Training Fund") and build a national online platform, similar to South Korea's distance education system, to integrate high-quality university courses, kindergarten practical cases, and customized projects from social organizations. At the same time, regional training centers could be established, referencing the UK's EYPS certification system, to coordinate resource distribution and cross-institution collaboration.

4.2.2. University and Kindergarten Collaborative Practice

Teacher training institutions should establish a "dual mentor system" with kindergartens, where university professors and frontline kindergarten principals jointly guide student practice. Universities should also take responsibility for in-service teacher professional development and can develop diversified programs such as "Master's Degree in Education (Early Childhood Education)" and "Short-term Certification Courses." Additionally, each provincial-level demonstration kindergarten could be designated as a "Teacher Training Practice Base" to provide immersive on-the-job learning and establish a "feedback-optimization" closed-loop mechanism for curriculum development.

4.2.3. Social Organizations Supplementing Customized Services

Encourage industry associations and educational technology companies to develop targeted training products. For example, they could jointly develop an "AI Teacher-Child Interaction Analysis System" that collects classroom data and generates personalized improvement suggestions. Alternatively, similar to Singapore's Teacher Contact Centers, "Early Childhood Education Innovation Workshops" could be established to regularly hold cross-regional teaching competitions and result exhibitions to inspire teacher participation.

4.3. Perfecting the "Dynamic Closed-Loop" Quality Assurance Mechanism

To address the issue of superficial training quality assessment in China, it is necessary to construct a "standard-monitoring-feedback" full-process assurance system:

4.3.1. Establishing a Three-Level Certification Standard System

Drawing from the UK's EYPS certification and Japan's standardized regulations, develop "Kindergarten Teacher Training Course Certification Standards," with differentiated certification indicators at the national, provincial, and municipal levels. National-level certification should focus on general courses, such as "Child Development Psychology," ensuring course objectives align closely with the "Guidelines for Kindergarten Education." Provincial-level certification should emphasize region-specific content, such as "Bilingual Teaching in Minority Areas," while municipal-level certification should focus on practical courses, such as "Game Observation and Documentation," requiring at least 10 real teaching cases to support the certification.

4.3.2. Implementing a Dual-Track Quality Monitoring System

Adopt a dual-track system of "administrative supervision + professional evaluation." Educational administrative departments should monitor compliance through spot checks, document reviews, and other means. Third-party evaluation agencies, such as the Preschool Education Association, should assess training effectiveness based on the "Teacher Training Effectiveness Evaluation Scale," which measures three dimensions: knowledge mastery (written tests), skill application (practical assessments), and behavioral improvement (classroom observation). The evaluation results should be directly linked to the renewal of training institutions' qualifications and their financial allocations. Additionally, focus on the development of a scientifically-based teacher competence evaluation system. For example, England's teacher evaluation standards span various aspects, including values, role positioning, and job content, which helps accurately assess a teacher's professional development level and provides targeted developmental suggestions.

4.3.3. Constructing a Digital Feedback Platform

Develop an "Intelligent Teacher Training Management System" to achieve three key functions: First, automatically track teacher training data (e.g., completion rate, assessment scores) and generate individual development radar charts. Second, use natural language processing technology to analyze teacher course feedback, extracting common suggestions for improvement. Third, employ machine learning to predict regional teacher shortages and provide data support for adjusting training plans. This platform should be integrated with the national online resource library, forming an "intelligent closed-loop" of "needs diagnosis – resource push – effect tracking."

4.4. Paying Attention to "Special Groups" and "Emerging Fields"

4.4.1. Establishing a Long-Term Support Mechanism for Special Groups

For rural teachers and kindergartens in remote areas, special support plans should be designed. Implement a "Teaching Assistance to the Countryside" program, where experts and outstanding teachers are sent to rural kindergartens for on-site demonstrations and guidance, providing rural teachers with face-to-face learning and exchange opportunities. Referring to the U.S. "Rural Education Support Program," require top urban teachers to complete 40 hours of rural teaching support each year and include this as a criterion in professional title evaluations. Establish a preschool teacher education policy system for rural areas to improve training conditions, provide more training

opportunities, reduce regional disparities in teacher quality, and promote balanced development in preschool education [20].

4.4.2. Constructing a Training Resource Network for Emerging Fields

With the development of the times, new concepts and technologies are continuously emerging in early childhood education. In response to these demands, new fields such as artificial intelligence education, STEM education, and ecological education should be incorporated into teacher training content. In the field of artificial intelligence education, teachers should be trained to understand the application of AI in early childhood education. In STEM education training, teachers should learn to integrate science, technology, engineering, and mathematics knowledge to design engaging STEM activities that inspire children's exploration and innovative thinking, fostering their overall literacy. Ecological education should guide teachers to integrate environmental protection concepts and ecological knowledge into daily teaching. By continuously updating training content, the professional development of teachers can be sustained, enabling them to meet the new requirements of future early childhood education development.

5. Conclusion

This study systematically deconstructs the core content and innovative models of kindergarten teacher training in five countries— the United States, the United Kingdom, Japan, South Korea, and Singapore— as examples, revealing the key pathways for promoting teacher professional development. The core findings of the study focus on two points: first, all five countries have built a "competency-based" training content system at the core, achieving dynamic improvement of teacher professional competencies through courses that deeply integrate theory and practice, phased competency advancement frameworks, and localized modules; second, in terms of model innovation, the five countries rely on a "diverse collaborative" mechanism and technological empowerment to form training pathways that flexibly meet teacher needs, while ensuring effectiveness through legal safeguards and quality supervision.

Compared with international experience, the prominent issues in China's kindergarten teacher training are fragmented content, a monolithic training model, and the lack of a quality closed-loop mechanism. Based on these issues, this study proposes four optimization pathways: "competency-based content system," "diverse and collaborative organizational model," "dynamic closed-loop quality assurance," and "attention to special groups and emerging fields." These suggestions not only provide actionable solutions to bridge the gap between theory and practice in China, but also inject new momentum into the high-quality development of preschool education through localization. Future research can further deepen international comparisons, explore the innovative potential of technologies such as artificial intelligence and big data in teacher training models, and empirically verify the effectiveness of these optimization pathways. Only by rooting in local context while integrating international experiences can we construct a scientific and adaptable kindergarten teacher training system, contributing China's experience to global early childhood education.

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