

# Kindergarten Teacher Training System in China by IT Technology

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## ABSTRACT

The article briefly discusses the process of developing a teacher training system in China using IT-technologies, as well as examines the reforms and a number of results in the teacher training system in China. The Ministry of Education has published “Opinions on the implementation of Project 2.0, “Building Capacity in the Application of Information Technologies for Teachers of National Primary and Secondary Schools”, which focuses on promoting teachers in national primary and secondary schools (including kindergartens, regular primary and secondary schools and secondary vocational schools) in order to improve the application of information technology capacity. Further training of educators, improving the status of educators and the formation of a number of high-quality and stable teachers in the field of preschool education are the tasks to be solved. The active use of IT-technologies to promote the professional development of kindergarten teachers has become a new direction in the development of preschool education in China.

**Keywords:** *teacher training system, kindergarten, China, Educational Development Initiatives, IT technology*

## 1. INTRODUCTION

In the early days of the founding of the People's Republic of China, China's industry was awaiting changes, preschool education also faced a number of problems that needed to be addressed, one of which was the training of kindergarten teachers. In the 1950s and 1960s, China used the Soviet Union's model as a model for the initial construction of a kindergarten education system. However, in comparison with the teachers of Soviet kindergartens, the teachers of kindergartens in China are much weaker and the number of professional teachers is extremely small.

## 2. METHODOLOGY OF THE STUDY

Let's take a brief look at the process of developing a teacher training system in China.

To solve the problem of the shortage of teachers in kindergartens, in July 1952, the Ministry of Education published a “Temporary provision for teacher training institutions”, which states that teacher training institutions should have a department and accelerated courses for the training of teachers, and therefore provide short-term training for these teachers.

In the 1950s, separate pre-school pedagogical educational institutions were created, becoming the first institutions in mainland China to train teachers of that type. These

include the Tianjin Secondary School of Preschool (founded in 1951), the Jinan Secondary School of Preschool (founded in 1952), and the Beijing Secondary School of Preschool (founded in 1955). These pre-school teacher training schools are similar to the Russian college, accept 8th-grade graduates, are three-year courses, with characteristics of short periods of study and high professional training, which can quickly prepare specialists in the field of preschool education.

At the end of the 1950s, pre-school educational programs were opened at pedagogical universities (such as Beijing Pedagogical University, Nanjing Pedagogical University, etc.), but they trained teachers for preschool pedagogical educational institutions and administrative personnel of early childhood.

The cultural revolution of 1966-1976 caused serious damage to preschool education. Many educational institutions were closed, and secondary pre-school teacher schools were also forced to close, and pre-school education suffered serious damage.

After the end of the Cultural Revolution in 1978, education in China went the right way, gradually shaping and improving the rules for training teachers and standardizing training requirements. From 1978 to 1979, secondary preschool teacher schools resumed admission.

On October 31, 1993, the "Law on Teachers of the People's Republic of China" was promulgated, which says: "A person who has a grade of a secondary preschool teacher's school or higher can get a teacher's qualification certificate". According to the Teachers' Law of the People's Republic of China, on December 12, 1995, the Council of State promulgated the Teacher Qualification

Regulation, which states: "Citizens who do not have teaching qualifications, as required by the Teacher Law, must apply for this qualification. They will be recognized as teachers on the basis of qualification exams." The decree on the qualifications of teachers raises the social status of kindergarten teachers. In accordance with the temporary conditions, graduates of ordinary colleges and universities can receive qualification certificates of educators upon receipt of a diploma.

Since the beginning of the XXI century, with the development of the Chinese economy, pre-school education has achieved tremendous success. In the late 1990s, the Chinese government began to formally use the concept of "computerization of education" and attached great importance to the work on computerization of education. Informatization of education had a serious impact on education, including kindergarten teachers. It is noteworthy that in 2010 the Council of State published "Some Views on the Current Development of Preschool Education." Preschool education in China ushered in a period of historical development. The whole society attaches great importance to the development of preschool

education. Some scholars call this period "Spring of Preschool Education." With the development of preschool education, higher requirements are imposed on the quantity and quality of educators. The teacher training system in China has undergone reforms and achieved a number of results.

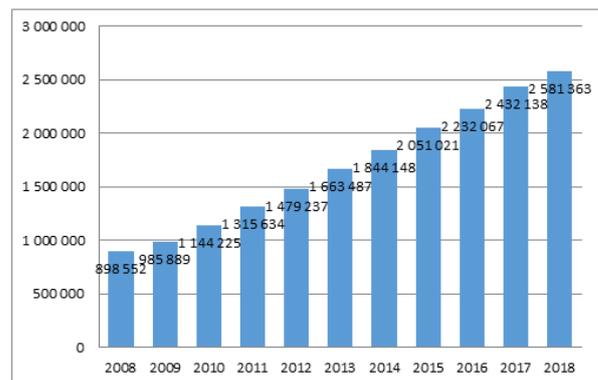
### 3. RESEARCH RESULTS

From the point of view of educational institutions, in China, a multiple system of training educators was formed, pedagogical universities as the main body: a preschool teacher's school, a teacher's university and a general education university (Table 1). Since 2001, the structure of teacher education has been adjusted. Some general education universities have gradually opened pre-school educational programs. Higher vocational colleges, which are not pedagogical, were also given the right to train educators.

**Table 1** Kindergarten teacher training institutions in China

Level Category	Secondary education	Higher education		
		Specialist	Bachelor	Master
General education	Secondary preschool pedagogical school (three-year system)	Higher preschool pedagogical school (three-year system)	Pedagogical university, comprehensive university (four-year system)	
Vocational education	Secondary vocational school (three-year system)	Higher vocational institute (three-year system)		
Type of education	Full-time (in person)	Full-time (in person) / distance		

The number of educators has grown significantly. The rapid development of preschool education has led to an increase in demand for kindergarten teachers. Various teaching methods have increased the number of kindergarten teachers. According to statistics from the Chinese Ministry of Education, the number of educators in China has grown significantly over the past decade. In 2008, the number of full-time educators in China was 59,552,000, and by 2018 it had grown to 258,133,000, an increase of 2.87 times. Due to the trend of rapid growth, growth rates were slower from 2008 to 2010 than growth rates after 2010. Significantly accelerated, the absolute number of annual growth, which is mainly about 180,000 (Figure 1).



**Figure 1** The number of preschool teachers in China in 2008-2018.

Not only the number of educators is increasing, but also the level of their education. Many kindergarten teachers want to improve their education through distance learning. Undergraduates grew the most in a decade, increasing 7.45 times in 2018 compared with 2008, followed by bachelors, which grew 7.03 times in ten years. We can say that the teacher's education has made the transition from

“specialist + high school” to “specialist + bachelor's degree” (see Figure 2).

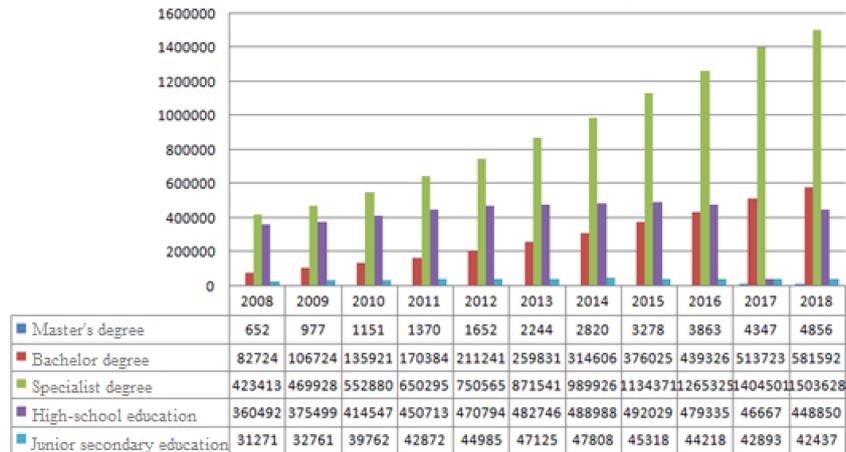


Figure 2 Education level of preschool teachers in China

Comparing the percentage of educators' education levels in 2008, 2013, and 2018, you can find that they are always based on specialist education; although the percentage of the master's degree is the smallest share, they tend to

increase; Bachelor's degree is increasing constantly. The share of secondary education and lower significantly decreased (see Figure 3).

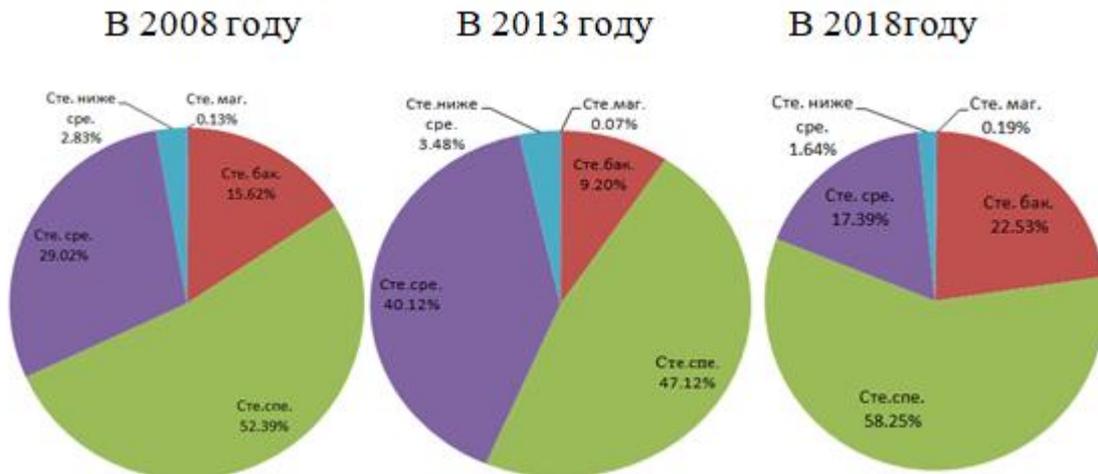


Figure 3 Degree percentage of preschool teachers in China

The curriculum of preschool education is more scientific, and the learning system is more advanced. China attaches great importance to the combination of education and training before taking office with education and training after taking office for educators. Education and training before assuming office is the education received at an educational institution. Program courses are generally divided into general courses (with compulsory courses and general elective courses) and professional courses (with professional compulsory courses and professional elective courses). General courses develop the basic qualities of students, including Marxist basic principles, etc. Special courses develop students' knowledge in the field of cultural studies, subject knowledge, and professional skills. Basically, they include general psychology, education, the psychology of early childhood, etc. (see Table 2). The last semester is an internship, usually 20 weeks.

After graduating from an institution, 1-2 months before entering work (usually in July-August of each year), the education bureau of each county organizes special training for new teachers to help new teachers understand the work of the kindergarten in advance, the characteristics of the new work, how can adapt faster. In addition to training new educators, each year local educational bureaus provide various forms of training for all educators in accordance with local needs.

In order to improve the quality of education, since 2010, the Ministry of Education and the Ministry of Finance of China launched the "National curriculum for teachers of primary and secondary schools and kindergartens", which is an important measure to improve the overall quality of teaching staff, especially rural ones. The central government allocates funds, and the regional departments of education hire and hire experts to train new educators, directors of kindergartens and advanced educators.

**Table 2** Preschool Education Curriculum in China

General courses		Special courses	
Mandatory courses	General elective courses	Mandatory Special Courses	Special elective courses
Marxist basic principles moral education and legal foundations, history and Chinese socialist theory, physical education, computer, foreign language	Open every institution	Common spoken language, General psychology, Pedagogy, Administrative science of preschool education, History of preschool education at home and abroad, Preschool hygiene Preschool Psychology, Preschool Education, Preschool Education Program, Theory of Preschool Games, Educational Scientific Method of Research, Preschool Education Policies and Regulations, Preschool Mathematical Education Language education of preschool children, Preschool scientific education of children, Preschool children's art education Early Childhood Health, Social Education for Preschool Children, Performing Arts, Music, Dance for Children, Piano	Open by every institution

**4. DISCUSSION OF RESULTS**

Despite all the achievements in this area, a lot of problems remain in the new era. Currently, there is a serious problem of “Two Children” (since 2016), which significantly increases the number of children who need to go to kindergarten in 2019. A research report from Southwestern University of China shows that due to the implementation of the “two children” policy, by 2020 the number of children in kindergartens will increase to 50 million. In addition, the level of many educators is based on the education of a specialist, the loss of teaching staff is serious.

Since 2013, China has implemented a national project to improve the skills of teachers in the field of information technology. The awareness and ability of teachers to use information technology to improve education and teaching as a whole have improved, but there is still a lack of innovative abilities in the field of information teaching, poor application capabilities of rural teachers and a support service system This is not sufficiently substantiated, and new technological changes, such as big data and artificial intelligence have put forward new requirements for teachers' information literacy.

On April 2, 2019, the Ministry of Education has published “Opinions on the implementation of Project 2.0, “Building Capacity in the Application of Information Technologies for Teachers of National Primary and Secondary Schools”, which focuses on promoting teachers in national primary and secondary schools (including kindergartens, regular primary and secondary schools and secondary vocational schools) in order to improve the application of information technology capacity.

In "Opinions" it was indicated that by 2022 a new mechanism for the development of teacher information literacy in schools will be created, based on classes, applied, innovative and accurate assessments, and demonstration projects will be used to stimulate the preparation of teachers for the use of information technologies throughout the country (for every person not less than 50 hours for 5 years, including at least 50% in practical applied hours), which, basically, allows us to achieve the common goals of the development of “three updates and one comprehensive”: leaders your basic information, the ability to educate teacher information and the ability to educate information learning teams to greatly promote and comprehensively promote the integration and innovation of information technology and education and training. Specific objectives are as follows:

General measures are as follows:

1. Conduct training on leadership in computerization for the school management team.

The school leader is the chief information officer (CIO) of the school, and a school information management team is formed consisting of school principals and school supervisory staff. First, a national teaching model is adopted, as well as the popularization of popularization in various places in order to popularize the management team for all schools. Special training to improve leadership. In accordance with the “Information Leadership Standards for Primary and Secondary School Directors (trial version)”, the development of a school information development plan is adopted as the main area of study, and the steering group is guided by the combination of reform and development goals of school education and training to formulate a development plan school information and digital campus promotion. Building smart schools, exploring the innovative development of education,

teaching, teaching and research, management, assessment and other areas, as well as identifying relevant information-based learning topics in schools and teacher training plans. Through a combination of an interactive and offline tracking guide, help the management team implement the school's information development plan, organize teacher training for the use of information technology, and effectively improve the management team's ability to manage the school's teachers in the application of information technology to implement learning innovations.

2. Promote teacher training by focusing on school information innovation.

In accordance with the plan for implementing the "National Demonstration, Coordination of Provinces and Municipalities, Responsibility of Districts and Districts, Autonomy of Schools and Full Participation", the theme of needs for education and training should be announced in units of schools. School-based training, regional training and research, and teacher selection should be adopted under the guidance of the teaching team. Various methods, such as teaching, combining centralized learning, online learning, and practical application, focusing on subject-specific information training, and facilitating teacher training for information technology at school. In accordance with the plan for the development of informatization in the school, form an educational community on the topic "Leadership in the highway, disciplinary communication, mutual assistance of the team and overall improvement". Focusing on curriculum standards and problem-oriented vocational training standards, with special training as a starting point, promoting appropriate teaching equipment using subject-based software, conduct information-based instruction in schools, such as class discussions and classroom analysis. Promote the use of interactive learning spaces, seminars for teachers, learning communities, etc. Teachers, using online resources and offline discussions to create "classrooms for technological innovation" and improve the use of information technology for academic analysis, educational design, pedagogical leadership, and academic assessment. The ability to solve the problems of education and training, meet the individual development needs of students, and help school innovation in teaching.

3. Improve the ability of leadership in the application of information technology in the training team

Educational administrations across the country choose key subject teachers with outstanding opportunities for applying first-level information technologies, create a strong team of trainers and create a training group for teachers and specialists in the application of high-level information technologies. Choose colleges, educational and research institutes and teacher training institutions that are well-known in the field of information-based teaching, adopt models of special training, classified education and community building, and also conduct special pieces of training for study groups focused on districts and districts, and encourage training teams to apply information technology to advance disciplines. Research in the field of education and teaching, the study of the organization of

training and research based on the "Internet +", increasing the ability of teachers to informatize the subject and the ability to use information technology for development, management, evaluation, Etc.

4. An innovative mechanism for the formation of a resource for learning information literacy

Focusing on the innovation of teaching methods based on information, and precisely orienting the individual development of students, the innovative mechanism creates educational resources for teachers' information literacy. Local administrative departments of education coordinate and direct the creation of educational resources on information literacy for teachers based on standards of applied abilities and the actual level of application of information technologies for local teachers. When turning to society to collect teacher's educational literacy resources, actively introduce learning resources such as physical scenarios and learning operations supported by advanced technologies such as big data, cloud computing, virtual reality, and artificial intelligence, especially the digitization of vocational training classes and classrooms. Learning-related resources as well as video courses such as micro-classes, mu-classes, and live-lesson classes that feature excellent front-line teachers. The combination of the innovative use of open educational resources with high-quality resource classes and projects, as well as the use of regional platforms for servicing educational resources through the use of resources and user ratings to create a high-quality mechanism for selecting educational resources to facilitate co-construction and resource sharing.

5. Create a result-oriented monitoring and evaluation system for the entire process

Provincial Administrative Departments of Education coordinate and facilitate the assessment of the development of teachers' potential for applying information technology in their provinces (autonomous regions and municipalities), create a model for assessing achievement-oriented abilities, and include activities such as teacher training, education and teaching practice in the category ratings for ratings and promotions. Make full use of various management and service platforms at all levels to advance the assessment process based on the use of interactive teaching space for teachers, collecting routine data from teachers and teaching research in districts and districts, conducting comprehensive data analysis, and effectively improving accurate diagnostics. Timely intervention and personalized service to enhance teachers' abilities. Create a multiple assessment mechanism, implement third-party assessment, conduct normalized monitoring through various channels, such as an assessment center and a monitoring network, and create a monitoring and evaluation system for teachers to apply information technology

## 5. CONCLUSION

Thus, further training of educators, improving the status of educators, and the formation of a number of high-quality and stable teachers in the field of preschool education are the tasks to be solved. The active use of IT-technologies to promote the professional development of kindergarten teachers has become a new direction in the development of preschool education in China.

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