

From “Increment” to “Improvement”: Research on the Optimization of Early Childhood Teacher Training Models under the Background of Low Fertility Rates

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Abstract: The seventh national census data show that China’s total fertility rate has dropped to 1.3, which is at an extremely low level. Over the past five years, the number of children in the early childhood age group has continued to decline, which has had a significant impact on the development of preschool education. Preschool education has shifted from the stage of scale expansion to the stage of quality improvement. Based on this, this study focuses on optimizing the training model for early childhood teachers under the background of low fertility rates, clarifying the necessity and urgency of teacher training in this context; analyzes the impact of population structure changes on preschool education and analyzes the existing problems in the current training model for early childhood teachers; points out the problems from three aspects: scale, curriculum, and assessment mechanism, and propose specific optimization countermeasures; strengthens scale regulation, rebuilds the curriculum system, and constructs a diversified assessment mechanism. These research results are helpful in establishing a teacher training system that adapts to the population development trend, improving the quality of preschool education. Promote the transformation of teachers towards a high-quality direction and promote the long-term healthy development of preschool education.

Keywords: Low fertility rate; Early childhood teachers; Training model; Teacher team

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1. Introduction

In recent years, China’s population development has entered a new stage. Low fertility has become a core background factor influencing education resource allocation. As the initial link of the national education system, preschool education development planning and teacher team construction must actively adapt to the trend of population structure change. Scholars have conducted a large number of studies on this issue, focusing on aspects such as the recruitment and training of preschool education teachers under the background of low birth rates. However, these studies are relatively scattered and lack systematicity^[1]. Based

on this, this paper discusses the influence structure of low fertility rate on the preschool education ecosystem, so as to optimize the construction of teachers, promote the transition from quantity growth to quality improvement of preschool education, and move toward high-quality development ^[2].

2. The necessity and urgency of optimizing the training model for early childhood educators in the context of low fertility rates

2.1. The impact of low fertility rates on the preschool education ecosystem

Data from the National Bureau of Statistics shows that from 2016 to 2023, China’s population size continued to decline, with the number of births dropping to 9.02 million in 2023 (Figure 1). The size of the school-age population has been on a downward trend since 2021, and by 2028, the preschool population is expected to be about 40% smaller than it was in 2020. This rapid change in the population structure has directly altered the overall supply and demand model of preschool education.

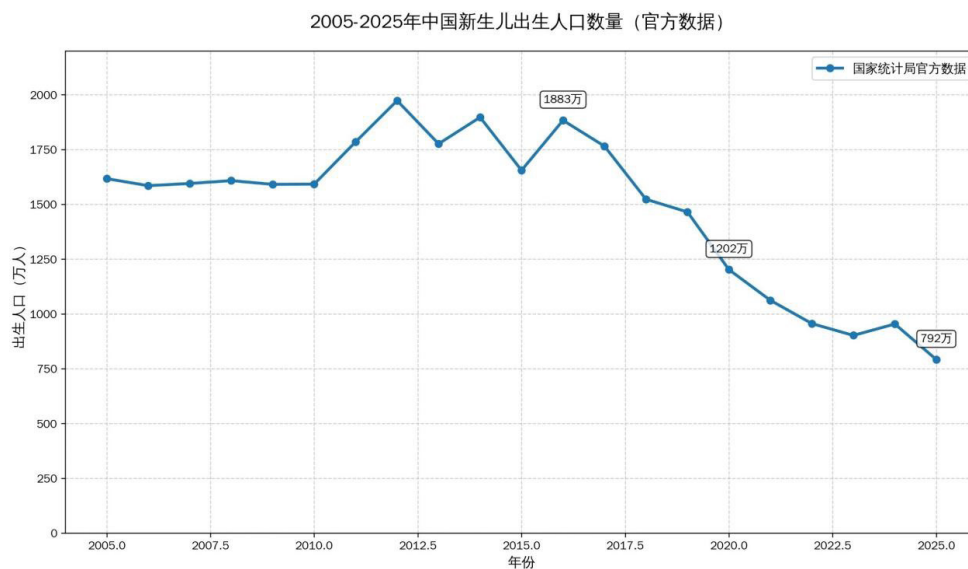


Figure 1. Number of newborn births in China

Before 2021, China’s preschool education was in a stage of rapid expansion, with obvious enrollment competition, and the competitive pressure between public and private kindergartens was relatively small. The industry development presented a state of overall expansion ^[3]. However, in the context of a rapidly changing population structure, the structure of preschool education has already differentiated. On the one hand, in some regions, the supply of kindergarten degrees exceeds the demand, and the competition between public and private kindergartens is becoming increasingly fierce. The original scale of teacher training based on the expectation of rapid population growth has raised the risk of structural excess. On the other hand, families’ demand for preschool education has shifted from “having a kindergarten” to “choosing a good kindergarten,” and the diversified demands for high-quality early education, professional early education, special care for children with special needs, and family education guidance have continued to grow. Under this change, the allocation logic of preschool education resources has changed, and the previously expansion-oriented model no longer dominates. Improving quality has become the mainstream direction of industry development. In this context, preschool teachers’ team

must first complete the transformation to adapt to the development trend of the industry^[4].

2.2. Improving the quality of the preschool teacher team is the foundation for the high-quality development of preschool education

The *Action Plan for Improving the Development of Preschool Education (2022–2025)* issued by the Ministry of Education in 2022 clearly requires that the quality of preschool education should be comprehensively enhanced to meet the people's aspiration for high-quality early childhood care. Building a high-quality teacher team is necessary to achieve the goals set by the policies and promote the high-quality development of the preschool education industry. Teachers' professional quality and teaching ability and children's cognitive development level and social formation are crucial. The high-quality construction of teachers will affect the lifelong development of children. However, for a long time, there is still a certain gap between the construction quality of the preschool teacher team and the requirements for high-quality development of preschool education. The proportion of full-time teachers in kindergartens is still relatively low. In some rural and underdeveloped areas, the professional qualification compliance rate of teachers is insufficient, the integrated teaching and care ability of the teacher team is insufficient, and in some regions, there is a lack of knowledge on special children's education, and teachers lack the ability to guide families and provide guidance. In the context of the industry's scale expansion, the main goal of teacher team construction in the early childhood education industry is to fill the quantity gap, but this goal is no longer applicable at present. In a new era under the background of low fertility, preschool education industry is bound to strengthen the requirements of high-quality teachers, so the industry needs to cultivate high-quality teachers. Focusing on team building and improving the quality of the teacher team from the source^[5].

2.3. Stable industry development promotes social progress

In the context of low birth rates, if the current scale of teacher training is maintained, it will cause great employment difficulties for graduates of preschool education and exacerbate the mobility of the teaching staff. Therefore, optimizing the training model for early childhood teachers is an inevitable requirement to address low birth rates and stabilize the teaching staff. The early childhood education industry should dynamically cultivate teachers, improve the quality of teacher training, achieve precise matching of teacher supply and demand, ensure the stability of the teaching staff, and enhance the teachers' sense of belonging to the industry. The optimized teacher training model can also meet the needs of families with diversified education and adapt to the concerns of parents for children's education under the background of low birth rates. A high-quality early childhood education industry can comprehensively assess children's development, provide mental health guidance, and provide children with more scientific and comprehensive care and education skills. Therefore, only by establishing a high-quality training model for early childhood teachers can more high-quality early childhood teachers who meet the current social needs be cultivated, thereby achieving the policy goals^[6].

3. Main problems existing in the current teacher education model for preschool education

The trend of declining birth rates is rapidly intensifying. Currently, many schools' training models for preschool education have exposed some issues, namely, the training goals do not align with the changes in the population. Moreover, there are numerous deficiencies in the curriculum system and assessment process.

3.1. The training goals and scale planning do not match the trend of population change

When many schools established preschool education programs, the birth rate was still on the rise. These colleges' and universities' response to the population change trend was sensitive enough, but failed to timely adjust the scale of talent training. As a result, when the birth rate dropped sharply, the adjustment of the training scale by the schools was significantly lagging behind. Some institutions still expanded the enrollment scale of preschool education programs and provided a large number of preschool education graduates to the market, which obviously did not match the market demand. The employment rate of preschool education graduates in some regions was insufficient, and there was a serious oversupply of talents. In addition, the existing preschool education programs mainly focused on the initial stage of scale expansion to supply talents to the market as soon as possible, without paying attention to the actual quality of the talents. Currently, the comprehensive talents cultivated by each school are relatively few. Most universities focus on imparting basic knowledge of child care and basic operational skills for kindergarten work to students. They failed to adapt to demographic change brought about by the new requirements of new talent. Some graduates lack the ability to assess children's development capabilities, care for special children, and provide family education guidance. This disconnect between students and the actual needs of kindergartens after graduation has also become a problem for the preschool industry to find jobs and for kindergartens to recruit staff^[7].

3.2. Incomplete curriculum design and insufficient practical content

Some preschool programs focus more on theoretical teaching, such as the explanation of traditional subjects such as education and psychology, and ignore the latest needs and changes in the landscape of preschool education. The current curriculum design lacks the proportion of interdisciplinary content such as pediatrics, special care, family education, and digital technology application. This curriculum design results in graduates having relatively insufficient practical task handling capabilities after graduation, such as in special child care and home-school cooperation. During the talent cultivation process, the practical part of some colleges is scattered, and the connection between practical methods and actual positions in kindergartens is not smooth enough. Practical teaching in most colleges focuses on students' final year and is mainly in the form of short-term internships. The duration of students' internships is less than 18 weeks, which makes it difficult for them to obtain sufficient opportunities to participate in kindergarten education and care work. Moreover, there is no effective mechanism for talent cultivation, connection, and cooperation between universities and kindergartens, and the actual work process of kindergarten guidance teachers does not fully meet the current talent cultivation requirements^[8]. The professionalism of practical guidance is insufficient, resulting in many students' practical abilities not meeting the requirements of modern early childhood education positions. Some universities even adopt a laissez-faire attitude in intern management, which is difficult to ensure the quality of students' internship time.

3.3. The quality assessment mechanism is not yet fully developed

Under the scale-oriented talent cultivation model, many preschool education programs focus more on theoretical examination when training teachers, but do not systematically evaluate practical content such as early childhood education practice and professionalism. In most institutions' assessment systems, the proportion of theoretical examination scores often exceeds two-thirds, while the assessment of practical aspects is relatively insufficient. The practical requirements mainly involve students submitting relevant written materials such as internship reports and lesson plans, but do not truly test students' abilities in

early childhood education, their interaction skills with children, and their emergency response capabilities. Students also pay more attention to theoretical learning and ignore practical learning in the process of self-development^[9]. The pre-service and in-service training for students are largely disconnected. Schools also fail to provide continuous growth support for students throughout their careers. The training content of this institution does not align with the requirements of kindergartens after enrollment, and lacks a progressive design. Teachers need to relearn the skills required for their positions after entry, and the training resources of schools are also in a relatively wasteful state. Most institutions also have no long-term tracking of the professional development of graduates, to optimize the talent training plan.

4. Enhancing quality: Optimization countermeasures for early childhood teacher training models in the context of low fertility rate

4.1. Establishing a dynamic training supervision mechanism adapted to population trends

The education administrative department should guide the preschool education college to dynamically adjust the industry training scale according to the relevant data of the population forecast. They should set the teaching scale in line with the number of births. The education administration should strengthen the monitoring of the number of births and the prediction of the demand for preschool education. They should regularly announce the number of preschool teachers needed in each region over the next 3 to 5 years to guide the colleges to reasonably adjust their enrollment scale. For regions where the employment rate of graduates from preschool education programs remains below 50%, the administrative department should appropriately reduce the enrollment plans of relevant colleges to avoid a situation of excessive supply of talents. Colleges should develop hierarchical and classified training objectives. For comprehensive early childhood education talents and specialized early childhood education talents, differentiated training methods should be adopted. For example, according to the job demand of integrated kindergarten, the college can set up professional courses at the junior college level to strengthen the basic teaching ability of talents and ensure that talents can fully adapt to the work requirements of kindergarten. For pre-school education courses at the undergraduate level and above, the college's training should focus on the comprehensive ability of talents, focusing on cultivating graduates' abilities in child development assessment, special education, curriculum development, and family education guidance, so as to meet the industry's demand for high-quality professionals. Education administrations should encourage qualified colleges to offer more specialized courses, such as infant and child care, special preschool education, and integrated kindergarten courses, to precisely match the needs of market segments^[10].

4.2. Reconstructing the curriculum and training system centered on practical abilities

Institutions should optimize the course design, adjust the course proportion, increase the practical teaching content, and increase the proportion of practical courses in the total credits to more than half. The construction of a diversified curriculum system should include basic education of general skills, strengthen students' professional foundation and practical ability, and carry out characteristic development courses to ensure students' all-round development. For example, add professional content such as child development assessment, special child care, family education guidance, preschool children's mental health, digital technology application, etc. Education administration departments should encourage colleges to cooperate with medical institutions, social work institutions, and family education guidance institutions to cultivate talents, jointly develop interdisciplinary courses, carry out industry-university-research training, and improve the comprehensive ability of graduates. Especially in the context of low birth rates, usually a family has

only one child, so parents have higher requirements for the quality of early education. Universities should strengthen cooperation with various social institutions, keep up with the latest industry trends, maintain contact with parents, and enhance students' comprehensive abilities.

4.3. Establishing a multidimensional talent quality assessment system based on capabilities

In the process of talent training, colleges and universities should establish a more diversified talent training mechanism, set up double-qualified teaching teams, strengthen the cultivation of students' practical ability, and explore industry-education integration models such as campus resource sharing, joint talent training, and curriculum joint development. A talent cultivation mechanism oriented towards capabilities should be formed, and a corresponding quality assessment system should be matched. For instance, schools can incorporate early childhood education practice into the existing core assessment, increase the assessment ratio, and raise the proportion of practical ability assessment to over 50% to conduct a comprehensive assessment of students' actual operations. Special emphasis should be placed on evaluating students' specific performance during the practical process, observing whether they can proficiently master the requirements of the position, such as completing infant observation records, activity design, communicating with parents, case explanation, emergency handling, etc. School mentors and kindergarten mentors should jointly score students' operations, objectively evaluate students' actual early childhood education abilities, and for students who fail the practical examination, the school should appropriately extend the internship period or reassign the internship, thereby improving students' practical skills. In terms of evaluation methods, schools should also innovate the multi-party evaluation mechanism, introducing the evaluation of education departments, kindergartens, social institutions, and families. Encourage industry associations, early childhood education institutions, and third-party institutions to participate in the cultivation of early childhood education talents and establish a longer-term result tracking mechanism. Regularly collect the evaluation opinions of units of choice and employ persons to graduate, to optimize the talent training plan, and guide the school to actively improve the quality of personnel training.

5. Conclusion

Low birth rate is the long-term trend of China's population development, and it is also the fundamental background that the preschool education sector must confront in its transformation and development. From "expansion by increasing quantity" to "improvement in quality," this is not only a transformation of the preschool education development model, but also a systematic reform of the preschool teacher education training system. This study shows that the existing problems in the current preschool teacher education training model, such as insufficient scale adaptation, disconnection of the curriculum system, and incomplete evaluation mechanism, have become the core bottleneck restricting the high-quality development of preschool education. Only active adaptation population change trend, the cultivation of the regulation and control mechanism, build dynamic adjustment practice oriented curriculum system, to participate in the quality of the evaluation system, and from three aspects: policy, resources, career development perfect the safeguard measures, can we truly achieve from preschool teachers training "sufficient" amount to "quality products," providing solid talent for the development of preschool education quality and better meeting the public's expectation that "babies have good role models."

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