

Curriculum Reform of Preschool Education Major in Universities: A Perspective from the Integration of Early Childhood Education and Care

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Abstract: *Under the background of the integration of early childhood education and care, there is an increasingly urgent demand for whole-cycle care and education for children aged 0-6. The cultivation of versatile professionals in “early childhood education and care” has become a key direction for the transformation of the preschool education major. Therefore, curriculum system reform serves as the critical approach for achieving this transformation. This study adopts a case study approach to analyze the talent training program and curriculum syllabi of the undergraduate preschool education major at N University, supplemented by interviews with faculty members. It aims to investigate the challenges encountered by the program in curriculum goal setting, curriculum structure design, the integration of childcare-related content, and the arrangements for practical courses. Finally, the study proposes a reform pathway for the curriculum system, which includes restructuring curriculum goals, adding childcare course modules, promoting the integration of childcare content, and strengthening practical courses.*

Keywords: Integration of early childhood education and care, Preschool education major, Curriculum reform.

1. Introduction

As the most fundamental and core element in socio-economic development, the size and structure of the population will have a significant impact on the basic pattern of educational development. (Hai and Gao, 2023). In recent years, with the continuous decline in China's birth rate, the population structure has undergone a historic shift from positive to negative growth. China has adopted a series of proactive countermeasures, such as formulating the three-child policy and optimizing the supply of childcare services. (Ye and Ren, 2026). With the full implementation of China's three-child policy, care services for children aged 0-6 have become a major concern for people's livelihood. In the face of the new situation of population structure changes in recent years, China has elevated the promotion of the integration of early childhood education and care to the level of a national development strategy (Yao and Liu, 2025). The integration of early childhood education and care refers to the integration of care for infants and toddlers aged 0-3 and education for children aged 3-6, providing a more scientific and systematic developmental environment for young children (Liu and Wang, 2026). China has issued multiple supportive policies to encourage qualified kindergartens to extend their services to include nursery classes for children aged 2-3, promoting integrated early childhood education and care. In 2024, the General Office of the State Council issued *Several Measures on Accelerating the Improvement of the Fertility Support Policy System and Promoting the Construction of a Childbirth-Friendly Society*, which proposed to vigorously develop integrated nursery and childcare services and optimize the targeted supply of childcare services. Also in 2024, the Preschool Education Law of the People's Republic of China proposed encouraging qualified kindergartens to establish nursery classes. In 2025, *China's Government Work Report* proposed vigorously promoting the integration of early childhood education and care services and increasing the supply of inclusive childcare services. There were 4.73 childcare slots per 1,000 residents in 2025, and 890,000 new

affordable slots were created, alleviating the problem of difficulty in accessing childcare services to some extent. However, there remains a significant gap between the quantity and quality of provision and the needs and expectations of the public. One of the core bottlenecks restricting the development of high-quality childcare services provided by childcare institutions or kindergartens is the shortage of qualified teachers. Although many vocational institutions have launched childcare programs to cultivate more professionals, it is still difficult to meet the demand for highly skilled childcare talents. In April 2025, only two universities in China were approved by the Ministry of Education to offer the undergraduate major of “Infant Development and Health Management”. In the coming period, the majority of childcare teachers will continue to be either graduates from preschool education majors or former kindergarten teachers who have transitioned into this role. Meanwhile, Kindergartens have established nursery classes and expanded the enrollment scope for children in these classes, which has raised higher requirements for the professional competence of nursery teachers (Hong et al., 2025).

2. Literature Review

The integration of early childhood education and care does not simply mean setting up nursery classes within kindergartens. It involves taking into account the physical and mental development characteristics of children aged 0-3 and children aged 3-6, as well as their inherent continuity and integrity, in both care and education (Yang and Zhang, 2025). Many Chinese scholars have begun to focus on the development of teachers for the integration of early childhood care and education. To develop a professional workforce proficient in spanning childcare, education, and family services, it is necessary to establish a set of qualification certification standards and training systems that integrate core skills and knowledge systems (Huo and Qi, 2010). Teachers for the integration of early childhood education and care are

professionals capable of providing both care and education for children aged 0-3 and children aged 3-6 (Li, 2025). Considering the medium and long-term overall planning and dynamic, flexible allocation of teachers in kindergartens and childcare institutions, it is recommended to actively explore the cultivation of professionals for children under 6. The integration of childcare and preschool services requires professionals to master core competencies such as infant nutrition, health, safety, responsive caregiving, early learning and education (Feng and Shan, 2025). As key institutions for cultivating professionals in the integration of early childhood care and education, universities should effectively integrate and reorient their training objectives, curriculum design, and teaching content. They should appropriately strengthen content related to the education of children aged 0-3, build an integrated curriculum system, and ensure that the educators trained have coherent knowledge and skills for the care and education of children aged 0-6 (Zhao, 2012). Curriculum integration can equip childcare workers with the specialized theoretical knowledge and practical skills necessary for the integration of early childhood education and care, ensuring their competency covering such a wide age range from 0 to 6 years old. For example, Sweden and New Zealand have established a set of teacher training standards with core skills and knowledge systems by integrating the pre-service training systems for childcare and early childhood education teachers, thereby improving the overall quality of the integration of early childhood education and care (Liu et al., 2022). Currently, preschool education major in some Chinese universities emphasize early childhood education while neglecting childcare, resulting in graduates lacking professional knowledge and practical abilities in the development patterns, caregiving skills, safety management, and family guidance for children aged 0-3. This makes it difficult for them to fulfill professional roles in infant and toddler care. China is facing a shortage of qualified teachers for the care of children aged 0-3. It is important for the preschool education major in universities to cultivate professionals who meet the demands of the integration of childcare and early childhood education (Xu and Chen, 2021). Therefore, it is essential to explore curriculum reforms for the cultivation of such integrated professionals.

3. Research Design

University N in China was selected as a case study to explore how the undergraduate preschool education curriculum is designed and implemented. A case study approach was adopted to analyze key documents, including the talent training program and the course syllabi. In addition, interviews were conducted with six faculty members specializing in preschool education at University N. They served dual roles in both course delivery and practicum supervision. During the interviews, participants' responses on various aspects of teaching were documented. This paper focuses on the analysis of the design and implementation of professional and practical courses in the preschool education major. It summarizes the problems in curriculum design and proposes directions for reform.

4. Current Status of the Curriculum

4.1 The Mismatch Between Professional Course

Objectives and Requirements for Childcare Talents

Through an analysis of the talent training program and professional course syllabi of the preschool education major, it was found that the course objectives outlined in the program's syllabi seldom address the knowledge and competencies required for childcare professionals. The current course objectives focus entirely on the professional competencies of kindergarten teachers, with knowledge, skills, and literacy requirements centered on the educational needs of children aged 3-6. It fails to systematically incorporate the professional demands of early care and development of infants and toddlers. The talent training program states that the program trains professional teachers who will engage in the care, education, research, and management work in childcare institutions, social service institutions for preschool children, and educational administrative departments. However, the course objectives outlined in the syllabi for both the foundational and elective professional courses offered by this program almost exclusively revolve around the fundamental knowledge and competencies required of kindergarten teachers, without clearly specifying the learning outcomes that childcare teachers should achieve in any particular course. Within the construction of the professional curriculum system, sufficient attention has not yet been paid to the professional characteristics and requirements of the care and education of children aged 0-3. Course objectives still predominantly adhere to traditional settings for early childhood education for children aged 3-6, lacking specific provisions tailored to developing the knowledge structure, skill sets, and practical abilities for childcare professionals. This disconnect not only leads to a mismatch between talent cultivation goals and the actual job requirements in the childcare industry, but also leaves graduates lacking the necessary professional preparation and core skills for childcare positions. It reflects that the curriculum system has yet to undergo reform in response to society's urgent need for professional childcare educators.

4.2 The Low Proportion of Childcare Courses in the Overall Curriculum

The curriculum of the preschool education major is relatively systematic and comprehensive within the traditional framework of preschool education. However, under the background of reforms toward the integration of early childhood education and care, the curriculum reveals a contradiction of "emphasizing the 3-6 age group while neglecting the 0-3 age group." The core issue is that the curriculum system remains essentially a "training program for kindergarten teachers" and has not undergone systematic reconstruction to meet the occupational demands of an integrated care and education approach for the 0-6 age group. From the perspective of talent cultivation programs, the current curriculum, particularly in professional compulsory courses and professional elective courses, remains predominantly centered on early childhood education for children aged 3-6. Courses related to infant and toddler care are only sporadically distributed and lack dedicated required coursework in this area, failing to address core professional competencies such as infant psychological development and daily caregiving. For instance, within the talent training program, there are only two specialized courses that explicitly

focus on the field of childcare for the 0-3 age group, accounting for approximately 3 percent of the total number of professional courses. An analysis of credit distribution reveals that childcare-related courses have a relatively low credit proportion, accounting for only 2.6 percent of the total credits required to be completed within the flexible academic system stipulated by the university. Moreover, these courses do not form a systematic curriculum module, and courses related to core childcare competencies have not been included among the compulsory requirements. This results in students having limited opportunities to acquire systematic childcare-related knowledge and skills, making it difficult for them to develop a comprehensive integrated competency set that integrates infant and toddler care with early childhood education.

Additionally, childcare courses are designated as electives in the official talent training program yet have not been offered. In the interviews, all interviewed faculty members indicated that no childcare-related electives had been offered in recent years. As a result, these childcare electives exist only on paper—they are listed in the talent training program but have never been taught.

4.3 The Limited Integration of Childcare Knowledge into Professional Courses

An analysis of professional course syllabi revealed that, among currently offered compulsory and elective courses, only two course syllabi explicitly include content on infant and toddler care; the rest lack any coverage of this area. In the interviews, some faculty members noted that they occasionally address childcare topics in their lectures. Typically, they integrate childcare content into their courses, primarily in the form of “knowledge elements” and “educational cases.” One instructor of a core course stated: *“I incorporate some childcare content into the course design, usually adding a short section when covering certain knowledge points, but it only accounts for a minimal portion of the overall course.”* However, the integration of childcare content in this manner is superficial and lacks systematic coherence. Such curriculum design fails to incorporate a coherent framework centered on the continuous development of children aged 0-6. The preschool education major’s official talent training program clearly states its objective as *“cultivating teachers for both kindergartens and childcare institutions.”* However, in practice, the program has long been oriented toward training kindergarten teachers. The development of professional competencies in childcare has not been incorporated into the core objectives of the program. Even where childcare content has been added, it remains scattered and unsystematic. Most faculty members primarily focus their research on children aged 3-6 and have limited knowledge of childcare theories for children aged 0-3. Their level of integrating childcare knowledge into course teaching is relatively limited.

4.4 The Inadequate Resources for Practical Childcare Training

The talent training program allocates educational observation, research, and practice within its practical training course modules. The practice bases provided by the university for students are mainly concentrated in kindergartens, with very

few in professional childcare institutions or integrated childcare and education kindergartens. Therefore, students’ practical training is limited to early childhood education for children aged 3-6, with insufficient exposure to caregiving practices for children aged 0-3, resulting in a significant competency gap. In particular, the educational observation, research, and practice sessions that students participate in are largely observation-based, lacking core hands-on tasks such as daily caregiving, health monitoring, and safety support for children aged 0-3. This form of practical training enables students to develop competencies only in educating children aged 3-6. Their knowledge of and practical competencies in infant and toddler care remain insufficient, leaving them unprepared to assume childcare roles upon graduation. Notably, internship supervisors interviewed mentioned that *“there are no specialized training facilities for infant and toddler care on campus.”* Most practical training faculty are more proficient in early childhood education than in delivering specialized instruction for children aged 0-3. It is difficult for them to provide systematic guidance to students. This practical training model, which emphasizes early childhood education while neglecting childcare practice, not only contradicts the trend toward the integration of childcare and early childhood education but also creates a mismatch between professional training and industry demands. Therefore, it is imperative to optimize practical training resources to bridge the gap between vocational skill requirements and curriculum implementation.

5. Suggestions

5.1 Constructing Curriculum Objectives Oriented Towards the Integration of Early Childhood Education and Care

The reform of the current curriculum objectives for the preschool education major at the university should be guided by the integration of early childhood education and care, aimed at moving beyond the traditional narrow focus on kindergarten education for children aged 3-6. This reform should systematically incorporate professional requirements for the care of infants and toddlers aged 0-3, and integrate childcare-related knowledge and skills into the curriculum objectives of professional courses. In the knowledge domain, relevant courses should include objectives such as mastering the physical development patterns and common health problems of children aged 0-3; being familiar with early education theories and curriculum design principles; grasping the common accidental injuries of children aged 0-3 and first-aid knowledge; understanding preventive measures for infectious diseases; being acquainted with the nutritional requirements for children aged 0-3; and comprehending the ethical norms in the childcare industry.

By doing so, a comprehensive knowledge and competency framework can be established, covering both children aged 0-3 and 3-6. In the dimension of ability objectives, students should master skills in daily care, behavior observation, and play guidance for children aged 0-3, as well as the ability to design and implement educational activities for them. The primary purpose of these courses is to equip students with knowledge of developmental patterns from birth to age 6 and the skills needed to support children’s healthy development.

The restructuring of the curriculum objective system also requires the establishment of a linkage mechanism with industry job standards. This will optimize the formulation and assessment methods of curriculum objectives for the preschool education major. To address the graduates' inadequate competency for childcare roles, typical job tasks from childcare institutions can be translated into specific requirements within the curriculum objectives. This will promote the deep integration of theoretical and practical courses, enabling students to acquire professional competencies in early childhood education for ages 3-6 while also developing specialized expertise in the care of children aged 0-3.

5.2 Adding and Structuring a Dedicated Childcare Curriculum Module

To adapt to the trend of the integration of early childhood education and care, the university should comprehensively optimize its professional curriculum, adding childcare curriculum modules and integrating some of these courses into the core curriculum. The foundational subjects module includes courses such as principles of pedagogy, general psychology, and educational psychology, laying a solid foundation for subsequent specialized studies. As the core of the curriculum system, the professional foundational course module retains the classic courses of preschool education while also incorporating specific childcare courses within it, for instance, early care and education for infants and toddlers. For the extended elective curriculum module, a variety of childcare courses can be added for flexible selection in different semesters, including psychological development of infants and toddlers, nutrition and feeding of infants and toddlers, hygiene and health care of infants and toddlers, and behavior observation and assessment of infants and toddlers. Meanwhile, it is important for the university to establish a dynamic curriculum adjustment mechanism, ensuring that course offerings align with industry demands. By regularly researching local childcare workforce needs and analyzing job competency requirements and skill gaps, the university can better balance credit allocation between early childhood education and childcare courses.

5.3 Promoting the Deep Integration of Childcare Content with Existing Specialized Courses

The faculty members of the professional courses can integrate infant and toddler care teaching content into existing professional courses, transcending the current narrow focus on children aged 3-6. This involves strategically embedding key aspects of infant and toddler care, such as infant disease prevention and nursing, emergency response and injury prevention, and responsive caregiving, into some professional course instruction. For theory-oriented courses, foundational knowledge related to infant and toddler care, such as the physiological and psychological characteristics of infants, should be supplemented. For application-oriented courses, practical methods tailored to infant and toddler care scenarios, such as caregiving skills and activity design, should be incorporated. This ensures that infant and toddler care content aligns deeply with the existing knowledge systems and competency objectives of the courses, fostering a fusion model that maintains the integrity of the original course

frameworks while precisely filling the gaps with infant and toddler care content.

Meanwhile, the university needs to strengthen faculty support by providing training on infant and toddler care policies, arranging for instructors to visit infant and toddler care institutions for learning, and collaborating with experts to develop teaching cases, which can enhance teachers' understanding of infant and toddler care content and their ability to deliver relevant instruction, thereby addressing the issue of teachers' insufficient capacity to integrate childcare content into courses effectively. Professional course faculty members also need to reorganize and integrate teaching resources by supplementing existing textbooks with chapters, cases, and practical guides related to infant and toddler care, and by developing scenario-based teaching materials tailored to infant and toddler care settings. These measures provide concrete materials for course integration, ensuring that infant and toddler care content can be systematically and effectively embedded into existing teaching sessions.

5.4 Establishing Diverse Practical Training Bases to Support Childcare Practice

A practical teaching platform integrating on-campus training venues, virtual simulation platforms, and off-campus practice bases can be constructed to underpin infant and toddler care training. On campus, a standardized integrated 0-6 early childhood education and care training center can be built, equipped with professional training equipment and scenario simulation facilities. Meanwhile, a VR simulation lab can be established to simulate integrated childcare and education scenarios, compensating for the limited opportunities of real-world practice. Off campus, the scope of practice bases can be expanded to include integrated nursery and preschool institutions, community nursery centers, and other relevant entities, where phased and post-specific internships are arranged to cover the full continuum of services of integrated early childhood education and care services. The university can sign cooperation agreements with inclusive nursery institutions and kindergartens with integrated programs to set up stable practice bases, which provide students with diversified practical scenarios such as nursery training, preschool education practice, and guidance on the connection between nursery and preschool education. The practical curriculum system should be optimized by increasing the proportion of infant and toddler care courses, and phased practical tasks can be designed in a hierarchical manner. Sophomores and juniors undertake observational placements and educational research in infant and toddler care centers and kindergartens, while seniors engage in hands-on care practice and role-based internships at integrated 0-6 institutions.

A joint mentorship team comprising university faculty and industry professionals should be established. Practitioners from infant and toddler care centers serve as co-instructors, collaborating with university faculty to design training programs and supervise students' hands-on practice. Meanwhile, university faculty receive specialized training in infant and toddler care to strengthen their capacity to provide effective practical guidance.

6. Conclusion

Under the background of the integration of early childhood education and care, curriculum reform of the preschool education major must move beyond the paradigm of emphasizing early education while neglecting childcare. This can be achieved by establishing the integration of early childhood education and care oriented curriculum objective system; designing a modular, interconnected course structure; aligning content with industry needs; and strengthening care-education integrated practical teaching. Such reforms will significantly improve the alignment between curriculum design and the talent development requirements of the integration of early childhood education and care framework, ultimately enhancing the quality of graduates' professional preparation. This can drive a fundamental transformation in the talent cultivation model for the preschool education major, shifting from a segmented approach to a holistic integration model. In doing so, it can ensure a steady supply of qualified teachers to support the development of an inclusive, high-quality early childhood education and care system—and, ultimately, promote children's healthy growth.

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