



Feasibility, Difficulties and Countermeasures of Mixed-age Education in Coastal Cities

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Abstract: *One of the basic concepts of mixed-age education is that a kindergarten class is similar to a warm family. In such a family, there are children of different ages who live together like brothers and sisters, playing and learning together. Since each child is a member of this family, they also have their own living space and preferences. Against the specific regional background of China's coastal cities, it is of great practical significance to conduct in-depth exploration into the implementation of mixed-age education. It is necessary for us to systematically analyze the advantages and disadvantages of mixed-age education as well as its feasibility in coastal areas. From the perspective of advantages, coastal areas are often relatively developed economically, with relatively rich educational resources. Parents generally have a relatively high level of education and are more receptive to advanced educational concepts, which provides a good material foundation and conceptual support for the implementation of mixed-age education. The advantages of mixed-age education, such as cultivating children's social communication skills, enhancing empathy, and promoting the complementarity of knowledge among different age groups, are also expected to be brought into fuller play here. In China's coastal cities, we will analyze the advantages and disadvantages of mixed-age education, its feasibility in coastal areas, as well as the drawbacks in its application in coastal areas and the corresponding optimization methods. Combining the characteristics of the Minnan region, we will organically integrate them into the mixed-age education in kindergartens so that they can promote and grow with each other. We will analyze the factors of families, society and kindergartens, and strive to expand and deepen the reform of mixed-age education.*

Keywords: Preschool children; Mixed-age education; Eastern coastal cities; Class arrangement; Interaction among children of different ages.

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1. Introduction

1.1 Research Thought Process

Consult materials: Browse relevant knowledge in libraries and on CNKI, then integrate and conduct scientific analysis of the relevant materials.

1.2 Research Contents

The main research questions in this thesis are as follows:

What is mixed - age education?

What are the characteristics of mixed - age education?

Analysis of the necessity and feasibility of implementing mixed - age education in China's coastal cities.

1.3 Research Objects



The research objects of this study are the small classes of Xiamen North Station Kindergarten in Xiamen City, including teachers and children. I observed the class situations and interactions among children in the mixed - age classes to study the problems and advantages of mixed - age education.

1.4 Research Methods

Observation method: Record the daily activities in the kindergarten, the living habits and social interactions among children of different ages, and the measures taken by teachers to deal with the contradictions and problems among children of different ages for further research.

1.5 Recognition and Views of Mixed - age Education as a Normal University Student

Mixed - age education is an organizational form or a class arrangement that may occur in kindergarten classes. The so - called mixed - age education refers to arranging children with an age difference of more than 12 months in the same class, allowing children of different ages and different physical and mental development stages to conduct social interactions and knowledge learning in the same environment. Through the investigation of materials and literature related to mixed - age education and preschool education, such as CNKI and China After - school Education Newspaper, I learned that mixed - age education arranges children of different age stages in the same class, allowing them to learn knowledge and play games together. Compared with the same - age education chosen by most kindergartens, mixed - age education is a teaching method that is more conducive to the all - round development of children. Montessori believes that arranging young children in the same - age class will limit their development because they cannot experience the real social state. Therefore, it has many advantages that the same - age education cannot provide. As a preschool normal university student living in a coastal city, I want to stand on my own position to conduct a reasonable and scientific analysis of the implementation of mixed - age education in coastal cities. Teachers can macroscopically grasp the development layout of the class and can also meticulously observe different children of different ages and teach students in accordance with their aptitude. After understanding the individual differences of each child, they can conduct targeted education, which conforms to the concept of individualized education advocated at present. At the same time, the trade and economic development in coastal cities is relatively good. The economic base determines the superstructure. Therefore, the education level in coastal cities is also relatively high, and people have a higher degree of recognition and acceptance of higher - level education. From a broader perspective, mixed - age education makes up for the weaknesses of the same - age education and can also meet the needs of one - child families for social education of children of different age groups. I observed mixed - age education during my internship and became very interested in the knowledge related to mixed - age education. This also prompted me to study relevant knowledge hard, live up to the teacher's teachings, conduct further research on mixed - age education, and hope to make my own contribution.

2. Literature Review

Since 2020, some scholars at home and abroad have begun to pay attention to and strengthen the research on mixed - age education. For example, Gong Weixin and Shen Minghong conducted research on the significance and challenges of implementing Montessori mixed - age education in kindergartens in China in the "New Curriculum Research"; Zhang Jing (2022) conducted an in - depth analysis of people - centered mixed - age education and explored kindergarten mixed - age education and preschool education reform in the context of the "New Curriculum Reform Education Theory", which coincides with the inspiration of Li Xin's "Practical Exploration of American Preschool Mixed - age Education"; Xing Yu's "Research on the Strategies for Solving Peer Conflicts of Children in the Context of Mixed - age Education" carried out practical research on mixed - age education in Fujian Province with the focus on promoting the popularization of mixed - age education teaching through mechanism innovation.

These research achievements have played a good role in confirming the current situation of mixed - age education in China and improving the competitiveness of mixed - age education in China. However, there is still a need for further discussion on the existing basis: for example, the current research mainly focuses on the qualitative analysis of the competitiveness of mixed - age education in China from the perspective of education, and there is relatively little research on the families and teachers behind it. Multi - dimensional, multi - perspective, and multi - data research on mixed - age education in China is conducive to reasonably positioning the development level of mixed - age education in China, finding potential risks and the gap with developed countries, and formulating appropriate industrial development policies accordingly, promoting the optimization of the industry layout and structure of

mixed - age education in China, improving resource utilization efficiency, and maximizing the use of mixed - age education to promote the development of basic education in China.

3. Overview and Theoretical Basis of Mixed - age Education

3.1 Definition of Mixed - age Education

Mixed - age education arranges children with an age difference of more than 12 months in the same class, allowing children of different ages and development levels

3.2 Basic Concept of Mixed - age Education

The class in a kindergarten is like a warm - hearted small organization, with children of various ages living together like brothers and sisters, playing and learning together. Since each child is a part of this family, children also have their own living space and preferences.

3.3 Theoretical Basis of Mixed - age Education

In Piaget's cognitive development theory, Piaget believes that any cognitive process contains a certain cognitive development structure. They are schemas, assimilation, accommodation, and equilibrium respectively. Schemas initially come from congenital inheritance. When an individual begins to be exposed to the influencing factor of the environment, then the individual will continuously change and enrich the schemas in the process of adapting to the environment. With the increase of children's age and physical and mental development, the types and contents of schemas will inevitably become more abundant and diverse, and will change from simple to complex. Accommodation refers to the stage when the assimilative structure or schema changes due to the factors it assimilates. In other words, it is the process of adapting to the environment by changing the original schema or creating a new schema. From Piaget's cognitive theory, we can see that the role of the environment is crucial in the development stage of children. Children of different ages observe different things and are affected to different degrees, and their acceptance of knowledge in class is also different, which results in different degrees of mastery of the same lesson among children. However, because of the processes of schemas, assimilation, accommodation, and equilibrium, children can also form a teaching and learning relationship. This means that older children can assume the role of teachers. In the process of their mutual communication, younger children can acquire knowledge through repeated stimuli from different people and have a more profound memory of the knowledge.

In Bandura's social learning theory, Bandura believes that there are two different processes of behavior acquisition: one is the process of obtaining behavior response patterns, which is obtained through direct experience. Bandura calls this process of behavior acquisition "learning through the results of responses", that is, direct experience learning; the other is the process of learning behavior by observing the behavior of demonstrators. Bandura calls it "modeling learning", that is, indirect experience learning. Therefore, for things that teachers encourage, children are guided to do through the demonstration of older children.

4. Feasibility Analysis of Mixed - age Education in China's Coastal Cities

4.1 Internal Advantages of Mixed - age Education in China's Coastal Cities

Older children can help younger children and benefit from their activities. They have a happy experience in helping children. Research has found that peer teaching has a positive impact on children in the role of educators. They are more willing to help each other because they have helped others and received praise from adults. The setting of mixed - age classes with a large age span not only has the advantages of large and small scales but also solves the problem of children in some double - income families being unattended, eliminating the concerns of parents. It also allows students to have a place for collective activities after school. Mixed - age education expands the contact range of children and enables them to interact with children of different ages. The class is the prototype of society. In a class, there are children of different ages. They are like brothers and sisters. This family - like class arrangement can provide children with more role experiences and promote the development of role tolerance. With the development of society, there are more and more only children. It is a recognized problem that only children can adapt to society. This family - like class arrangement plays a very important role in overcoming the problem of poor social adaptability of only children. Through interaction and life with peers of different ages, children learn correct attitudes and communication skills with others, overcome egoism, cultivate good social behaviors, and lay

a good foundation for the formation of a positive and healthy personality.

4.2 Internal Disadvantages of Mixed - age Education in China's Coastal Cities

The design and implementation of educational plans are relatively complex. Teachers should master the different development stages of each child and be able to group children accurately and appropriately. Then we teach according to the characteristics of children: sometimes we group children according to their age or ability, and sometimes we put forward different requirements for the same content. This operation is very difficult, resulting in ordinary teachers being unable to conduct mixed - age education and easily wasting time. Some educational activities for the same age group only require one unit of time, while educational activities for mixed - age groups require several units of time to complete. Some children will never achieve anything without good organizational skills. Mixed - age education often makes older children competitive, affecting their development and self - confidence. On the contrary, teachers often pay more attention to children and have lower requirements for older children, which affects the development of older children to a certain extent.

4.3 External Opportunities of Mixed - age Education in China's Coastal Cities

The traditional form of collective education has obviously fallen behind. Mixed - age education requires more open and personalized education, allowing children to learn freely and think fully. The development direction conforms to the needs of the times. Mixed - age education for "only children" and "double - worker families" has great development potential. Mixed - age education is rare in China. In a diversified world, people of different ages have rich imagination and experimental space.

4.4 External Threats of Mixed - age Education in China's Coastal Cities

Compared with the pioneers of mixed - age education in Western Europe, China's economic development is unbalanced, and kindergartens have relatively low requirements for housing, teachers, and other conditions. Villages in towns are far apart, and villagers live scattered, making it impossible to enter kindergartens together. Under the influence of the national market economic policy, preschool education does not belong to the category of compulsory education. In addition, due to reasons such as laid - off workers, some kindergartens with poor conditions have insufficient enrollment or teachers. With the increase in the number of only children in China, the current situation of only children having no siblings has attracted the attention of many educational experts and parents. Therefore, under the guidance of some experts, positive research on mixed - age education has begun to emerge, but it is rarely put into practice.

5. Conclusions and Countermeasures

5.1 Comparison between Mixed - age Education and Traditional Same - age Education

The traditional concept of class arrangement is that children of different ages are like brothers and sisters. However, in an organization like brothers and sisters, the roles of children are fixed, that is, the elder brother or sister is always the elder brother or sister, and the younger brother or sister is always the younger brother or sister. If they are the elder brother or sister, they are always in a position to take care of others and are stronger; the younger brother or sister is always taken care of and is in a disadvantageous position. Mixed - age education believes that the roles of children in mixed - age classes are dynamic. From being cared for at the beginning to caring for others, from being "weak" to learning to be "strong" and then becoming "stronger". Their psychological and social roles develop and change with age and physical development. Education for mixed - age children provides favorable conditions for promoting the socialization process of children and makes the physical and mental development of children possible. To a certain extent, only children avoid the disadvantage of being fragile.

5.2 Problems that May Arise in the Implementation of Mixed - age Education in Coastal Cities

5.2.1 Lack of teachers

In China, the shortage of teachers is an important factor restricting the pace of mixed - age education. At present, as a new educational model, mixed - age education faces great challenges in some kindergartens with insufficient teaching staff. Most importantly, the requirements for teachers are higher, and the energy of preschool teachers is very limited. Teachers should have enough patience, be good at communicating with children, and be good at

observing and discovering.

5.2.2 Insufficient curriculum resources and complex curriculum design

For me, the most difficult part of the mixed curriculum is teaching. Because the mixed - age class does not have an independent curriculum system. The interviewed teachers told me that they are working hard to adjust the mixed class, but there is no curriculum system independent of the same - age class.

5.2.3 Insufficient positioning of mixed - age education

Although mixed - age education has not fully developed, some achievements have been made. The author found that in such a development state, there is a lack of local mixed - age education with Chinese characteristics. The mixed - age education advocated by Montessori is formulated and implemented according to the current situation of Chinese education. Due to differences in culture, representation, region, and culture between the East and the West, it cannot be directly transferred to preschool education, which will seriously hinder the development of Chinese education. According to the current situation of Chinese education, we should establish mixed educational content and carry out practical educational teaching. In the comprehensive implementation of mixed education, we should keep pace with the times, continuously innovate, and do a good job in mixed education suitable for China's national conditions.

5.2.4 Parents' lack of correct understanding of mixed - age education

Many parents of children hold a mistaken perception of education. They believe that kindergarten education ought to impart knowledge and skills to children, laying a solid foundation for primary school. Consequently, when confronted with mixed - age education, a new educational model, a multitude of problems may surface. Parents think that mixed - age education is an educational model of "older children guiding younger children", which can merely promote the development of younger children while being of no significance to older children and even impeding their progress.

5.3 Solutions to the Problems

5.3.1 Expand the Teaching Staff of Mixed - age Education in Kindergartens

Kindergarten teachers are scarce across China. Needless to say, mixed - age education teachers have even higher requirements compared to those for same - age education. This is an important reason why mixed - age education cannot be comprehensively developed in China. To address the issue of a shortage of mixed - age education teachers, the government needs to provide appropriate financial and policy support.

5.3.2 Enrich the Curriculum Resources of Mixed - age Teaching in Kindergartens and Improve the Comprehensive Quality of Teachers

The lack of curriculum resources and comprehensive qualities of teachers in mixed - age education directly impacts the teaching effectiveness of kindergarten mixed - age education. It is possible to enrich the curriculum resources of mixed - age education. Firstly, by vigorously promoting mixed - age education, the education administrative department can have the capacity and willingness to offer mixed - age courses or implement some mixed - age education programs in kindergartens and arrange appropriate evaluators to guide the implementation of mixed - age courses. By evaluating the measures and methods of the approval, implementation, and evaluation of mixed - age courses, pilot work of mixed - age courses can be carried out in different regions. Develop age - appropriate curricula and teaching materials and improve the comprehensive quality of teachers in mixed - age classes. The quality of mixed - age education largely depends on the low level of teachers. Teachers and kindergartens need to work together to better implement mixed - age education and improve the comprehensive quality of mixed - age education teachers.

5.3.3 Vigorously Promote the Localization of Mixed - age Education

To promote the localization process of mixed - age education, it is first necessary to fully understand mixed - age education and firmly grasp its essence, and then explore a mixed - age education model suitable for the specific conditions of our country. Only in this way can we correctly take the first step in promoting the localization of

mixed - age education. Change parents' mindsets and guide them to actively participate. Mixed - age education, as a new educational model, has emerged in people's vision. People should first understand it and then gradually accept it. Kindergartens should promote mixed - age education in various ways so that parents truly understand the benefits of the mixed - age education concept for children.

6. Future Prospects

Education is the wellspring of social progress. A clear spring leads to a clear torrent, while a deep spring leads to a long - term trickle. Only when education is advanced can society truly progress. On the other hand, in China's education, the cart is put before the horse, emphasizing morality over practice and preaching over setting examples. Therefore, well - trained young people severely lack the perception and feeling of the beauty of humanity, compassion, and love - their faces are gorgeous, but their hearts are withered. As a student of the Teacher Education College of Jimei University, I believe that the heavy burden of imparting knowledge and educating people on our shoulders is both a responsibility and a driving force. Preschool mixed - age education is an important factor in improving children's all - round qualities, including physical and mental development and knowledge absorption. Preschool mixed - age education aims to cultivate students and combine their potential with qualities to achieve the goals of preschool mixed - age education. Preschool mixed - age education cultivates outstanding successors for the next generation and enables students to achieve comprehensive personality development. In real life, what we need is the combination of wisdom and quality. Only such people can lead our country to prosperity. Therefore, preschool mixed - age education is of great significance. We should attach importance to preschool mixed - age education and cultivate outstanding talents for us from generation to generation

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