

CASE REPORT

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From 'Cinderella' to 'Beloved Princess': The Evolution of Early Childhood Education Policy in China

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Abstract

Early childhood education (ECE) in China has been relegated to the role of 'Cinderella' by its educational authorities since 1980s, due to the policy of 'marketizing and privatizing non-compulsory pre-school education'. In 2010, dramatically and suddenly, 'Cinderella' emerged as the 'beloved princess' as the central government of China decided to pay more attention to ECE. This paper aims to understand why and how the Chinese government changed its attitude and policies, by conducting a critical analysis of the evolution of ECE policies in the past century with a particular focus on the post-2010 development. On the basis of this analysis, we offer our outlook on what the Chinese government should do to better deal with the future development of its ECE. Our results revealed three vertical and horizontal trends. First, from a vertical perspective, the top-down reform has been the most prevalent during the evolution of ECE policy in China. Second, from a horizontal perspective, the significance of public and private kindergartens can be ascertained by their numbers: the number of public kindergartens has decreased sharply since 1980s, while that of private kindergartens increased substantially as a supplement. Last but not the least, combining the vertical and horizontal perspectives, we found that accessibility, affordability and accountability problems, and the social justice and sustainability of the ECE system, are all realistic challenges imposed on the inevitable evolution of ECE reform in China. Yet, they also present equally considerable opportunities for establishing more efficient funding and monitoring reforms and policies.

Background

Early childhood education (ECE) in China has gone through many dramatic changes during the past century, associated intricately with the fall and rise of the Chinese economy, politics, culture, and society (Li and Wang 2008; Zhu and Zhang 2008). Strongly influenced by its neighboring Japan, former partner Soviet Union, and the powerful United States, China has been learning from other countries to find its unique way to develop ECE (Zhu and Wang 2005). Since its 'Open Door Policy' in 1978 to the outside world, ECE in China has become more diverse in forms and educational approaches, paralleling an increasingly accessible and diversified Chinese society, one that has resulted from a hybrid of traditional, communist and Western cultures (Zhu and Wang 2005; Zhu and Zhang 2008). ECE had gone through two rounds of 'Dark Age' due to the

political turbulence and the irresponsibility of government. It was only in 2010 when the Chinese government suddenly decided to attend and devote greater efforts to the development of ECE, thereby donning 'Cinderella' as the 'beloved princess.' Such a sudden change in ECE policy has provoked public interest and curiosity, both nationally and internationally. Although there have been plenty of reviews on China's ECE policies (e.g., Gentry 1981; Sidel 1982; Spodek 1989; Ming and Abbott 1992; Vaughan 1993; Wang and Spodek 2000; Zhu and Wang 2005; Pang and Richey 2007; Zhao and Hu 2008; Zhu and Zhang 2008; Zhu 2009), none has critically and comprehensively analyzed all the reforms in the past century, especially during the post-2010 period. This paper is dedicated to addressing this research gap by understanding why there were changes in China ECE policies and how these changed policies were implemented since 2010, based on a critical review of the evolution of ECE reforms and policies in the past century. Specifically, we first provided a brief review of the historical development of ECE in China to contextualize our inquiry, then offered our critical analysis of the current development since 2010, from which we assess the challenges facing ECE reform in China.

The Evolution of Early Childhood Education Policy in China before 2010

Early childhood education (ECE) is officially titled 'preschool education' in China, which involves the education and care of young children, aged 0 through 6 years. As kindergarten serving for children between 3 and 6 years is the major ECE institution in China, we narrow the scope of this review to the historical development of kindergarten education in China, which is broadly defined as ECE. To begin, we devote the very first section as follows to the birth and development of kindergarten (and its associated ECE) before 2010.

A historical review (1903–1993)

The birth of ECE in China

The first kindergarten was established in 1903 in *Wuhan*, the capital of Hubei Province, by the government during the Qing dynasty (1644–1912) (Zhu and Wang 2005). However, its curriculum and instruction were borrowed from Japan, and the kindergarten principal and teachers were Japanese. The Chinese term for kindergarten, *youzhiyuan* (幼稚园), was taken from the Japanese term *yochien* (幼稚園), as both are written with the same Chinese characters (there are many 'borrowed' Chinese characters in the written form of Japanese) (Li 2009). In 1904, the government of Hubei Province established the *Guimao School System*, and formally integrated kindergarten into the education system, indicating that kindergarten is recognized as part of the Chinese schooling system. This is the beginning of a center-based ECE system in China (Zhu and Wang 2005).

In the beginning years, however, Chinese ECE was strongly influenced by Japanese culture and the kindergarten teachers were either directly imported from Japan or trained by Japanese educators. This is because it was very stylish and politically correct to learn from Japan, the very successful neighbor who had just been westernized and civilized, and thus was considered a role model for China to follow. Advocates of the westernization movement, the governors of Hubei Province launched a series of reforms in the economic and educational systems. When the *Guimao School System* was launched and the first kindergarten was established, they jointly marked the beginning of public

ECE in China. In fact, it became an integrated part of education reform efforts associated with the westernization movement. The reform leaders believed that a westernized school system would help civilize the nation and save the country by cultivating modern talents. Given this belief, other provinces in China began to follow suit, and kindergartens became popular in the major cities. However, we must note that all of these early kindergartens primarily enrolled children from rich families who could afford to experience such luxurious service then. The birth history of ECE in China indicated that the country was destined to borrow, copy, or perhaps emulate practices from other countries (i.e., Japan) and follow the ‘public-kindergarten first’ strategy.

The early development of ECE in China

Kindergartens were more accessible to the public when the Republic of China (ROC) was founded in 1912, as the ‘new government’ encouraged women to join the workforce. Accordingly, the responsibility of caring for and educating young children gradually shifted from the home to kindergartens (Zhu and Wang 2005). Particularly in urban areas, many children tended to spend their whole day in nurseries and kindergartens while their parents worked. To promote ECE in rural and disadvantaged areas, pioneers such as *Tao Xingzhi*, *Chen Heqin*, and *Zhang Xuemen* led the movement to establish most-needed kindergartens for those children residing in factories and rural areas. Thus, many kindergartens for the children of workers and farmers were established in rural China.

A major political transition occurred when the ROC was replaced by the People’s Republic of China (PRC) in 1949. Meanwhile, the government of ROC retreated to Taiwan, continuing their governance there. In 1949, in terms of ECE development, there were about 1300 kindergartens in China, with an enrollment of 130,000 children (Tang and Zhong 1993). As political change evidently affects all aspects of society, including education, we will now analyze the post-1949 development of ECE in mainland China.

The post-1949 development of ECE in China

Right after the establishment of PRC, a rapid expansion of ECE occurred during 1949–1957, as the new socialist regime further encouraged women to join the workforce, and rapidly developed public kindergartens and nurseries in urban as well as some rural areas. The primary purpose of establishing kindergartens during this period was to provide child-care services for working parents. A group of Soviet Union ECE experts was posted to China to help plan and establish kindergartens, teacher training institutions, and the whole ECE system (Zhu and Wang 2005). We regard this period as the first ‘Golden Era’ of ECE in China.

However, a chaotic period was observed during 1958–1977 when the country went through a series of political turbulence, notably the ‘Great Leap Forward’ (1958–1960) and the ‘Cultural Revolution’ (1966–1976). During these periods, kindergartens were closed down along with other educational institutions. Children were sent home with no education provided, and qualified teachers were sent to rural or remote areas for re-education through laboring (Li and Wang 2008). This is the first ‘Dark Age’ of ECE in China with two decades being ‘lost’.

Fortunately, this very first Dark Age was followed by a period of renaissance (1978–1993) when the Central Government of China launched an ‘open-door’ policy, ‘market-economy’ reform, and ‘one-child’ policy. During this time, there was an unprecedented development in ECE with the number of kindergartens, kindergarteners, and their teachers increasing dramatically. More importantly, a series of recommendations, regulations, and guidelines were issued to ‘restore order’ in the field and to lay a solid foundation for the better development of ECE in China. Consequently, kindergartens became better regulated, and the focus of the programs changed from custodial childcare to a balance between care and education (Zhu and Wang 2005). We tend to regard this period as the second ‘Golden Era’ of ECE in China.

Two crucial trends (1994–2009)

The decline of public kindergartens

The ebb and flow of ECE in China is certainly a sight to behold. Right after the second ‘Golden Era’, is the second ‘Dark Age’ of ECE (1994–2009) when the privatization and marketization period and the market economy took hold in China. ECE was ruled out from the formal education system and accordingly lost public funding from the central government. Kindergartens were forced to become commercialized and privatized.

Public kindergartens were targeted for radical reform in the 1990s when the central government implemented a so-called “government retreats but private sector advances” (国退民进) policy. This means that the government would shift its responsibility of funding and monitoring ECE to the private sector or non-governmental organizations (NGOs). Accordingly, the policy of ‘walking with two legs’ (两条腿走路) has been implemented to encourage collaboration between government and NGOs. The government organizations (‘one leg’) and the NGOs and private sector (‘the other leg’) work (‘walk’) together to develop ECE in China. All social organizations, such as the units of enterprise, institutions, NGOs, and individuals are encouraged, in accordance with the law, to set up and run kindergartens (Pan and Liu 2008). Although the operating expenses are raised by their respective sponsors, the governments at various levels may still provide them with the necessary support but not necessarily financial assistance (Pan and Liu 2008; Zeng 2008).

As a result of the ‘walking with two legs’ policy, public kindergartens had to be closed down (关), suspended (停), merged (并), transformed (转), and sold (卖). Many kindergartens were transformed into market-driven and self-funded private ones. In 2005, the budget for ECE was drastically cut to zero in national financial planning, leaving local governments to sponsor public kindergartens with less than 1.3 % of the entire educational budget (Li 2009). Even worse, the Department of Early Childhood Education of the Ministry of Education (MoE), which is in charge of the planning, development, policy-making, and supervision of ECE in the State, has been significantly weakened during the ‘reorganization reform’ initiated by the former premier of China. Only two officials were designated in the Department of MoE to manage the education and care of 20 million young children in China. In addition, the ECE departments at different governmental levels were dismissed or simply eliminated. Consequently, the reform has placed public kindergartens in a very disadvantaged situation (Li and Wang 2008; Zhu and Wang 2005).

All of these reforms during the second ‘Dark Age’ period have contributed to the overall decline in the quantity and quality of ECE in China (Li and Wang 2008; Zhu and Wang 2005). Upon taking over the directorship of the Department of ECE in the MoE of China, Jiang (2005) listed the following major problems in her annual report:

1. The central government was reluctant to subsidize ECE and, as a result, its funding only accounted for an average of 1.3 % of the entire education budget. Such an extremely low proportion of funding has seriously impeded the development of ECE in China.
2. The change of the ECE system brought about changes in the status and benefits of teachers. For instance, incompetent and untrained teachers remained to teach in kindergartens, while many qualified teachers chose to leave the profession. Consequently, the professionalization of kindergarten teachers became worse.
3. The administrative units of ECE from the central to the local governments were eliminated or at least weakened, and the delineation of responsibilities was very vague to the different educational authorities.

Accordingly, China’s ECE system (and its financial sponsorship) were fundamentally restructured, and become more privatized and market-oriented before the launching of the new round of reform in 2010. Since then, many public kindergartens have been driven out of business due to the reformation of the financial system, whereas kindergartens owned by private and NGOs have expanded dramatically. Li and Wang (2008) regarded this reform as a ‘silent revolution’ of ECE in China, moving from a public kindergarten dominated system to a private kindergarten dominated one, and the so-called ‘government retreats but private sector advances’ policy was successfully implemented at the expense of both the quality and quantity of ECE in China (Cai 2008; Li and Wang 2008).

The “Great Leap” of private kindergartens

Private kindergartens became very popular during the years when ROC ruled China. As soon as PRC replaced ROC in 1949, however, private kindergartens were also suspended by the new socialist public kindergartens, which were the only provider of ECE in post-1949 China. When China opened its doors to heavy investment from overseas in 1978, it created a high demand for labor in major cities, attracting a huge number of young people including both the uneducated from the countryside and the educated from the cities. Moreover, many mega and super-mega cities emerged, attracting young migrants from other parts of the country. Accordingly, the ECE and its funding system could not keep up with the rapidly expanding needs and demands of kindergartens, and, therefore, had to face the challenge of allocating limited resources fairly and rationally all over the State (Li 2012a; Li and Wang 2008). Due to a lack of infrastructure and budget for public kindergarten, the central government had to accept the privatization of ECE as a workable solution (Li and Wang 2008). Many NGOs and personnel were encouraged to set up private kindergartens to ease the pressure and to meet the demands of the public (Pan and Liu 2008). This radical reform has, in turn, provoked queries and criticism from educators, scholars, and parents (Li and Wang 2008).

A case study of Shenzhen, a large coastal city neighboring Hong Kong, indicated that the average age of the city population was 31 and that this demographic structure of the city population placed enormous pressure on its ECE system (Li and Wang 2008). That is, the high population of young families and children led to high demands for kindergartens. Faced with these overwhelming challenges, the local government and educational authorities had difficulties in sourcing the funding and overseeing the development of ECE. Li and Wang (2008) concluded that Shenzhen might be a typical case to understand the dilemma facing the local educational authorities in China. For example, the city's total education budget in 2005 was RMB 7 billion, and only about RMB 50 million (0.7 % of education expenditure) was spent on ECE, which is far below the average level of 1.3 % in the country. For instance, there were around 147,700 children attending kindergartens in Shenzhen, and each child was only entitled to RMB 338.53 of the education fund per year (Li and Wang 2008). Without any funding support from the central government and with the 'government retreats but private sector advances' policy, the educational authorities in Shenzhen had no choice but encouraged private kindergartens.

Similarly, the number of private kindergartens in China has drastically increased since 1994, whereas public kindergartens owned by various levels of government suffered from a decreased annual budget during 1994–2009. Therefore, private kindergartens developed rapidly over the past two decades, and now the private sector has dominated the funding and management of ECE in China. This phenomenon has led the ECE system in China to be best characterized as the 'Cinderella' of the national education system and was left crying in the 'kitchen,' till the year of 2010 when the State Council decided to thoroughly transform the life of 'Cinderella.'

The Post-2010 Developments of ECE in China

It is worth noting that, since 2010, the educational authorities have realized that the healthy growth of ECE in China need to keep a balance between the public and private kindergartens. To stop China from being a laughing-stock in the world, the State Council issued two important policy documents in 2010 to give a thunderclap. As a solution, it is expected that more public kindergartens will be established by the year of 2020, so are the private ones (State Council of China 2010).

Two important documents

In July 2010, China announced the *Outline of China's National Plan for Medium and Long-term Education Reform and Development (2010–2020)* (hereinafter referred to as 'the Plan'). It is the blueprint for China's education reform and development for the next 10 years. Initially, the former President *Hu Jintao* gave the order, and the former Premier *Wen Jiabao* led a group of policy makers to oversee the formulation of the Plan (Liu and Pan 2013). A working group with 11 thematic panels was set up to draft the Plan, involving nearly 2000 people and more than 500 scholars and experts (Yue et al. 2010). All of the concerned political parties, politicians, schools at various levels, research institutions, enterprises, and overseas universities were consulted. The draft was completed in early 2009 and went through two rounds of public consultation and professional revision. In the first round, over 14,000 letters were received and more than 2.1

million proposals were collected within 1 year. In the second round, 27,855 comments were received within 1 month. The feedbacks involved issues such as the ECE development, funding increase for education, and teacher training. After a careful examination, the draft Plan was subsequently revised and finalized (Yue et al. 2010). This is the first time in Chinese history that the central government took such an open and participatory approach to develop the Plan, reflecting its confidence and determination to establish an education system to the satisfaction of its people. The nationwide open discussion has really made the Plan and its reform objectives better understood by the public. For example, in the Plan, the three development missions and strategic goals for ECE are confirmed as follows:

1. The basic universality of ECE: By 2020, gross enrollment rate (GER) for those taking 1-year ECE must be 95 %, GER for those taking 2-year ECE must be 80 %, and GER for those taking 3-year ECE must be 70 %.
2. Clarity of government responsibilities: even though a kind of non-compulsory education, ECE shall be mainly funded, planned, and managed by the government. It shall be financed by both government and non-governmental sponsors, with families sharing part of the burden. Furthermore, greater efforts should be made to develop public kindergartens and to support non-governmental ones. Teachers' social status, salaries, and benefits as well as the quality of ECE programs shall be guaranteed by relevant laws.
3. Strengthening of ECE in rural areas: All the children left behind by parents working away from their home villages shall be sent to kindergartens. Rural preschool education resources shall be replenished by all means.

To achieve these strategic goals, the central government (2010) issued *Several Views on the Development of Preschool Education by the State Council*, urging all the governments to facilitate the development of ECE through establishing a public service system jointly supported by both public and private systems. It asked local governments to solve the problem of inadequate and unfair distribution of public funding support in the development of ECE, suggesting four major strategies for action: (1) increase governmental financial input; (2) establish a funding mechanism; (3) subsidize the education of young children from poor and needy families, and (4) prioritize and promote the development of ECE in rural and western areas. Accordingly, the State Council convened all the concerned ministries to develop the national guidelines and to propose specific measures for promoting ECE. It was agreed upon that the educational authorities would jointly invest 50 billion RMB (around 8.3 billion USD) into ECE during 2011–2015, with a focus on the development of ECE in the rural areas of middle and western China. Table 1 presents a summary of the evolution of ECE policy in China from a historical perspective as a background for our analysis of the various challenges facing ECE reforms in China.

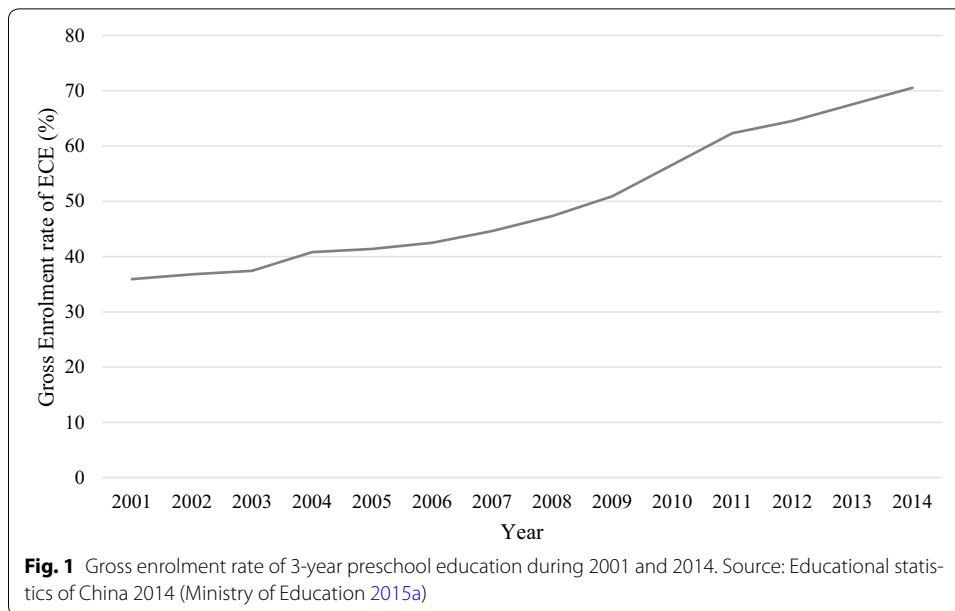
Increased provision and quality of ECE

In general, the provision of ECE service has increased since 1949, although there were two rounds of 'Dark Age' in ECE development. The enrollment of kindergarteners, for instance, grew from less than 8 million in 1978 to 40.51 million in 2014. Since 2000, the

Table 1 A Summary of the Evolution of ECE Policy in China over Time

Period/year	Event	Impact/implication
Qing dynasty 1903	The first kindergarten was established in Wuhan, Hubei, China (Zhu and Wang 2005)	The birth of kindergarten was an indicator of the establishment of a modern school system in China
1904–1911	Kindergartens became popular in the major cities of China	The system, program, curriculum, pedagogy, and even teachers were 'imported' from Japan
The Republic of China (ROC) 1912–1948	Kindergartens were more accessible to the public. Chinese scholars led social movements to establish kindergartens for children residing in factories and rural areas	There were about 1300 kindergartens in China, with an enrollment of 130,000 children in 1949 (Tang and Zhong 1993)
The People's Republic of China (PRC) 1949–1957	Soviet Union ECE experts were posted to China to help plan and establish the new socialism ECE system (Zhu and Wang 2005) A rapid expansion of ECE was observed	The 1st 'Golden Era' of ECE in China. The new socialist regime encouraged women to join the workforce, and rapidly developed public kindergartens and nurseries in urban and rural areas
1958–1977	The 'Great Leap Forward' and the 'Cultural Revolution' period. Kindergartens were closed down Children were sent home and teachers were sent to rural or remote areas for re-education through laboring (Li and Wang 2008)	The 1st 'Dark Age' of ECE in China. The political turbulence stopped the development of ECE
1978–1993	The 'Open door' policy, market-economy reform, and the one-child policy were launched. A series of regulations and guidelines were issued to 'restore order' and develop ECE in China. The number of kindergartens, kindergarteners, and kindergarten teachers increased dramatically (Zhu and Wang 2005)	The 2nd 'Golden Era' of ECE in China. Better regulation and development of ECE. Focus of kindergartens changed from custodial childcare to an integration of both care and education
1994–2009	The 'government retreats but private sector advances' and 'walking with two legs' policies were implemented. The government organizations ('one leg') and the non-governmental organizations ('the other leg') work ('walk') together to develop ECE in China (Pan and Liu 2008). The phenomenon of privatization and commercialization of ECE was subsequently observed. Public kindergartens had to be closed down, suspended, merged, transformed, and sold	The 2nd 'Dark Age' of ECE in China. It became 'Cinderella', working hard and whose outcry being neglected. The quantity and quality of ECE declined significantly
2010	Two important documents (the milestone and cornerstone) were issued to thoroughly reform the ECE system and to speed up the development of ECE: (1) <i>National Education Reform and Development of Long-Term Planning Programs (2010–2020)</i> ; (2) <i>Several Views on the Development of Preschool Education</i>	The 3rd 'Golden Era' of ECE in China. Important regulations and actions were put into place, such as funding and planning ECE at different levels and developing public kindergartens in needy areas. Now ECE has emerged as the 'beloved princess', embraced by both the government and the public

GER of 3-year preschool education also increased significantly from 35.9 % in 2001 to 70.5 % in 2014 (see Fig. 1). However, a decline was observed from the census of 2005 mainly due to the breaking out of the severe acute respiratory syndrome (SARS) in 2004



when there were only 124,400 kindergartens in operation with 21.8 million attending kindergarteners (Ministry of Education 2006). Since 2010, fortunately, ECE in China has gained rapid expansion, great governmental supports, and more social attention (Ministry of Education 2015a, b).

In fact, the Plan, a key policy document, has listed ECE as one of the six major tasks for education development before 2020. Universal coverage of 1-year preschool education was set as the target to reach by 2020. Furthermore, the policy of *Several Views on the Development of Preschool Education* has also been put into action in pushing ECE reform. Against the background of the launch of these two crucial policy documents, many “3-year Action Plan in Developing Early Childhood Education” have been issued by multi-level authorities across China in encouraging the establishment of public kindergartens and providing more financial supports for the development of local ECE enterprises. Nationwide interest and attention have been given to the development of ECE. Further yet, the focus was put on the development of ECE as much needed in rural areas, accompanied by huge financial support and national budget (Li 2012b).

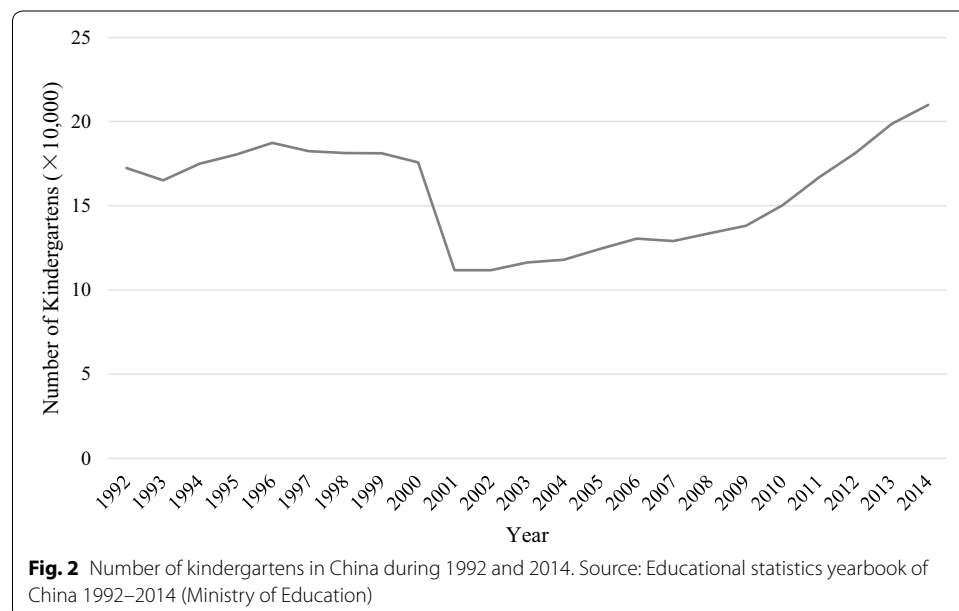
According to the most recent report of mid-stage assessment for the *National Education Reform and Development of Long-Term Planning Programs (2010–2020)* (2015b), several gains in the past 5 years were made: (1) GER has had an overall obvious increase since 2010; (2) resources of ECE service have become more accessible and sufficient, including the number of kindergartens and ECE classes in both urban and rural areas; (3) increasing resources of ECE service have become available in rural areas than urban ones, which is beneficial for achieving social justice; (4) the number of public kindergartens has increased since 2011 when the continual decrease was stopped successfully; (5) Governmental funding for ECE development has rapidly increased since 2010, with a 1011.5 % increasing rate during the past 5 years in the rural areas; (6) the number of kindergarten teachers has greatly increased to about 1844,000 in 2014 with 528,000 more

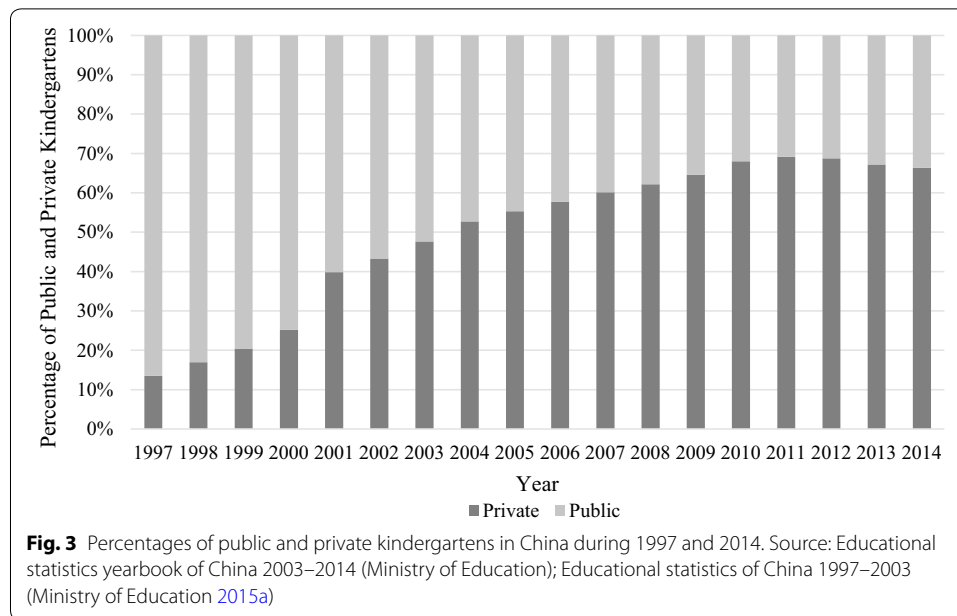
than those in 2011; and (7) more detailed regulations in monitoring ECE have been launched in diverse aspects from all levels of governments.

Moreover, according to the latest data reported by the MoE (Ministry of Education of the People's Republic of China 2015; Song 2016), positive changes during the post-2010 development of ECE in China should include but not limited to: (1) the increase of GER of 3-year preschool education; (2) the increase of kindergartens (see Fig. 2), kindergarten teachers, and kindergarteners; (3) the increase of percentage of public kindergartens (see Fig. 3); (4) the increase of governmental funding in ECE, especially those in the rural areas; (5) the increasing national training for kindergarten teachers, especially for those in the rural areas; (6) the substantial improvement of the kindergarten teachers' qualification; and (7) the slight increase of teacher-child ratio. All of these changes prove that ECE of China has gained unprecedented attention from the government. Indicators such as the teachers' qualification and the teacher-child ratio show that the structural quality of kindergartens has also improved since 2010 (Song 2016).

The Challenges Facing Future ECE Reform in China

Although progress has been evident in ECE in China since 2010, there are still many issues and problems facing early childhood educators, researchers, and policy-makers. First and foremost, with limited provision of ECE services, there is a rather large percentage of young children having difficulties in enrolling in kindergartens, which was well known as the '3A' problems facing ECE in China: (1) accessibility problem (入园难): it is very tough to get into a kindergarten; (2) affordability problem (入园贵): some kindergartens charge much higher than universities; and (3) accountability problem (入园差): most private kindergartens are terrible in quality with no necessary accountability. Furthermore, the lacking of a fair funding system and a scientific monitoring system is still a challenge despite the privatization, marketization, and commercialization of ECE in China. Moreover, the major long-standing problems (e.g., ECE in rural or remote





areas, cultural changes and their effects on ECE, appropriateness and localization of imported ideas and practices) and some significant policy changes (e.g., the new two-child policy and its effects on ECE, and teacher education and curriculum reform) are challenging the social justice and sustainability of ECE in China.

Enhancing the accessibility, affordability, and accountability of ECE

Accessibility of ECE

As reviewed above, the development of public kindergarten in China was suspended for two decades, which has intensified the conflict between supply and demand of ECE and accordingly has caused a serious ‘accessibility problem.’ On the one hand, Chinese parents have a strong desire to change their fate and achieve social advancement through ECE for their children. The importance of ECE in one’s life-long development has been widely recognized, and the slogan ‘win at the starting line’ has been echoed by many Chinese parents. Accordingly, the nation has focused much more on quality ECE than ever before. On the other hand, unprecedented economic growth and accelerating urbanization in China have jointly weakened the supply of ECE and complicated its development. For instance, the urbanization of China drives many young parents to migrate to the major cities and leave their children behind in the village. According to the Department of Rural Areas under the National Bureau of Statistics, among the 274 million rural workers in China in 2014, 168 million were migrant workers and only 36 million of them were migrants along with the whole family (National Bureau of Statistics 2015). This phenomenon has thus increased the demand for public kindergarten, yet it has not been met with parallel level of supply.

The short supply of ECE coupled with limited public kindergartens, as shown in Figs. 2 and 3, poses a serious problem. As shown in Fig. 2, the total number of kindergartens in China decreased from about 180,000 at the end of the 1990s to about 110,000 at the

beginning of the 21st century. The increased demand versus the decreased supply of ECE jointly caused the 'accessibility' problem.

Affordability of ECE

Before 1997, over 90 % of the kindergartens in China were publicly run by educational authorities, governmental organizations, state-owned and public enterprises, semi-government agencies, the army, educational institutions, street/district offices, and even villages in the rural areas (Zeng 2008). As those public kindergartens were either fully funded or partially sponsored by the government and its associates, parents would have to pay a nominal tuition fee. However, as stated before, the ECE reform in the past two decades has thoroughly reshaped the landscape of ECE, with public kindergartens being closed down and private ones being expanded.

As shown in Fig. 3, the percentage of public kindergartens dramatically decreased from 86 % in 1997 to 30 % in 2011, whereas that of private ones increased to nearly 70 % (Ministry of Education 2010, 2015a). This shift to privatization and marketization has led to a serious problem with the affordability of ECE in China, as private kindergartens received no funding support from the government and had to make a profit through charging higher tuition fees from parents. Although the percentage of public kindergartens has slightly increased since 2011, the serious problem of affordability remains. The tuition fee for attending private kindergartens in Shenzhen, for instance, was much higher than that of Hong Kong (Li and Wang 2008). Some private kindergartens in China even charged higher tuition than Chinese universities (Li 2012a). Understandably, parents in China have been highly concerned about the affordability of ECE for their children.

Accountability of ECE

The quality of ECE is now a hot issue for policy makers and the public in China. Many aspects should be considered, including teacher qualification and professionalization, curriculum and pedagogy, and early childhood environment. In fact, there are still many obstacles barring further improvement of ECE quality in China. For example, the teacher-child ratio is 1:22 on average, which is rather high (Song 2016). Moreover, there is a shortage of professional teachers for kindergartens, and about 30 % of current pre-school teachers do not possess eligible qualifications (Ministry of Education 2015b).

Poor management of private kindergartens, leading to the provision of low-quality early care and education services, is also an issue. For example, private kindergartens in China tend to make profits by understaffing and underpaying teachers (Li 2014). As a result, the quality of teachers and programs becomes 'compromised' or even sacrificed. Worse, under immense pressure to survive and profit, many private kindergartens cut down necessary expenses on teaching and learning, and some even went out of their way to attract parents by teaching reading and writing of Chinese and even English (which are desirable to parents) to 3-year-olds. Unfortunately, from a developmental perspective, such teaching practices are neither professional nor appropriate for young children (Li and Rao 2005; Liu and Feng 2005), because it is like the act of prematurely 'plucking a crop to help it grow', which ends up harming rather than facilitating these children's development and growth. Another related issue is that, as they get no funding support

from the educational authorities, private kindergartens are neither regulated nor monitored by the government.

Pursuing social justice and sustainability of ECE

The challenge of social justice

With affordable public kindergartens being vanished and replaced by private kindergartens, early childhood education is either too expensive (and of good quality), or too cheap (and of poor quality) in China. In fact, the remaining public kindergartens are tough for the general public to get into due to the short supply, and children from low-income families have an even harder time getting a quality early education. As reported by Song (2016), since 2010, more public finance has been allocated to public kindergartens; however, most of the limited supply of 'public kindergartens' are only accessible to those children from privileged households. In other words, the increasing construction of both public and private kindergartens has not solved the problem of accessibility for children from low-income households, as affordable public kindergartens are too scarce in relation to the high demand for them, while private kindergartens are hardly affordable for the low-income households (Song 2016). Meanwhile, the children of disadvantaged groups (e.g., children in the less developed areas, children of the migrant workers) can hardly enjoy quality ECE services. On the one hand, the quality of kindergartens in the countryside lags behind that of urban kindergartens (Song 2016). On the other hand, most migrant workers' children cannot afford or be admitted by quality kindergartens in cities. In this case, unfortunately, both public kindergartens and high-quality private kindergartens have become a luxury for those privileged children in China. Hence, there lies the huge problem concerning accessibility to kindergarten. Now, this problem does not only become a national concern and cause public panic in China (Li 2012a), but also exacerbates the issue of inequity in relation to the long-term development of ECE and the stability of the Chinese society.

The social justice issue is also affected by the status accorded to teachers and kindergartens. ECE is in the disadvantaged group when comparing to the 'formal education' in China. Theoretically, kindergarten teachers should enjoy the same social position and rights as do primary and secondary school teachers. However, primary and secondary education is compulsory, while ECE has been instead privatized and commercialized since the 1990s. Therefore, a large gap was observed between the compensation granted to kindergarten teachers and that offered to primary and secondary school teachers, which has further aggravated the phenomenon that kindergarten teachers in China tend to possess lower qualifications and salaries (Li 2014).

Sustainability matters

The brand new family planning policy— the 'two-child policy'—will possibly result in further worsening of the '3A' (accessibility, affordability, and accountability) problems in ECE. Since January 1, 2016, China has begun to allow all married couples to have two children, according to the newly revised *Law on Population and Family Planning* (Burkitt 2015). This new birth policy, replacing the country's controversial 35-year-old 'one-child policy', is aimed at 'mitigating a potential demographic crisis.' As a proactive response to the challenge of an aging population, China is in the process of fully

implement the policy of ‘one couple, two children’ policy, which will affect 100 million couples. The central government expects that there will be an increased (if not sharply) number of newborns in the following years. The questions then arise: Will the ECE system be ready in 3 years for such a sudden increase of young children? Will the ‘3A’ problems be worsened in the future? Will the quantity and quality of kindergarten teachers be high enough to meet the demand of a potentially increasing population of young children? Will the curriculum and instruction in kindergartens be effective in promoting young children’s early development and learning? These questions are closely related to the sustainability of ECE enterprise that is in need of adequate finance funding and quality-monitoring systems.

Establishing efficient funding and monitoring mechanisms and policies

The funding system needs to be improved

With a vast territory and significant variations in socio-economic development, China has no way of centralizing the funding and monitoring of ECE (Li 2012a). However, a decentralized system was indeed implemented, which means that local governments (usually at city or county/district level) would take the responsibility of funding and monitoring ECE (Li 2012b). This system gives more autonomy and empowers local governments with the responsibilities of exploring the best-fit funding and monitoring systems to meet local developmental needs and those of young children and their parents. In Shanghai, one of the most developed and the largest city in China, for example, the government has made it a policy to devote a large amount of funding from public finance to developing ECE. In 2009, the governmental input in ECE of Shanghai accounted for 7.93 % of its annual educational budget and accordingly, 72 % of the kindergartens are public ones. Shanghai thus has the highest GER in kindergarten education (between 3 and 6 years) in China, which has already reached 98 %. In the neighboring Zhejiang province, however, since the private economy there is much more advanced, about 80 % of the kindergartens are privately funded (Li 2012a). This sharp contrast between Shanghai (72 % public) and Zhejiang (80 % private) indicated that shifting funding and monitoring responsibilities to lower levels of government is a catalyst for alleviating educational inequalities and social differences.

As the central government’s fiscal budget has not included funding for ECE for many years, a large number of provincial governments do not plan anything for ECE in their annual educational budget. As a result, these underdeveloped provinces and underprivileged areas are lagged behind in the development of ECE. For example, there are noticeable disparities in GERs of three-year preschool education between the rural and urban areas as reported by a study on the ECE development of China by Liu and Yi in (2008), revealing that the GER of urban areas is 55.6 % compared to only 35.6 % in rural areas. To tackle this disparities problem, the Plan in 2010 has highly prioritized the development of ECE in rural China during the pre-2020 period.

Originally, rural ECE was previously funded by the lowest level of township government or farmers’ self-management organizations—the village committee, which put it in a very disadvantaged situation. Since 2011, the central government has prioritized its public finance on the following four major initiatives: (1) subsidizing the building and reconstruction of kindergartens in the middle and western regions (*accessibility*); (2)

providing special funds to support private kindergartens that charge low tuition fees and serve needy families (*affordability*); (3) launching the national training project (国培计划) for kindergarten teachers in the middle and western regions (*accountability*); and (4) supporting local governments in establishing a subsidy system for poor and needy families (*affordability*). Its principal objective is to help those disadvantaged areas to solve the '3A' problems, with a focus on the underprivileged children from needy families in rural and impoverished areas. Undoubtedly, ECE, emerged now as the 'beloved princess' of the Chinese government, is receiving increasing attention and financial support from policy-makers. It is the first time in Chinese history that the central government has provided special funding support to the development of ECE, but in reality (and unfortunately), most of the funding was used to build thousands of kindergartens in rural and poor areas, filled with neither teachers nor children. This is because the local governments and educational authorities were not ready, theoretically and practically, for such a sudden increase in ECE input from the central government. They chose to spend the money on building kindergartens and purchasing furniture and hardware, which are money consuming and easy to account for. It seems that the most urgent issue, perhaps, is to establish a fair funding and distribution system for ECE in China, rather than injecting easy money into ECE. The system should enable the central and provincial governments to increase the funding for ECE while ensuring a fair distribution among rural and financially needy areas and families. In our perspective, while the multi-level financing system of public finance on ECE will take some time to set up, it is likely that the public finance system needs to be further developed and improved.

A scientific monitoring system is in urgent need

With a large number of private kindergartens in place, ECE in China has been divided into two worlds: public versus private kindergartens. Public kindergartens were funded and monitored by the educational authorities, whereas private ones were neither funded nor monitored. The lack of a scientific monitoring system was very noticeable when Li and Wang (2008) compared the two ECE systems in Shenzhen and Hong Kong, the two neighboring cities under the umbrella of "One Country, Two Systems."

In Hong Kong, all kindergartens are privately owned but must undergo the same quality assurance inspection conducted by the educational authorities. Although they could be classified into non-profit-making and profit-making, their curricula, teacher qualifications, fee charging criteria, school administration, and performance still should go through the same inspection. In addition, non-profit-making kindergartens need to pass a quality review (QR) to be eligible to receive the funding support through the Pre-primary Education Voucher Scheme (PEVS) (Wong and Rao 2015). The government will publish every kindergarten QR report online to allow the public to observe the actual performance of kindergartens. Although it is a capitalist society and its ECE sector is privately owned, Hong Kong has several clear and reasonable fee assistance policies to provide partial or full financial subsidy to needy families (Li and Wang 2008). In this way, no child would be denied an early educational opportunity due to financial circumstances. Hence, the Hong Kong government has made significant achievements in promoting affordability, accountability, and accessibility of ECE (Li et al. 2010).

In Shenzhen, however, there is no inspection and monitoring mechanism for private kindergartens, and the municipal government has assumed a laissez-faire policy for decades, leaving ECE to be regulated by the market. The profit levels and the quality of these private kindergartens have not been well monitored. The decisive difference might be that the educational authorities of Hong Kong have implemented a quality assurance system and a tuition fee approbation system. Every year, the educational authorities verify the profit and the expenditure of each kindergarten and ensure that the profit does not exceed the maximum amount allowed (Li and Wang 2008). This system, however, has not been developed in Shenzhen for private kindergartens. In terms of the quality monitoring of kindergartens, nowadays, there are very few officials planning and managing ECE from the central to the local governments. The mechanisms of quality assurance and profit monitoring are urgently in need to achieve a reasonable level of fairness, school accountability, and transparency.

More specifically, we suggest that mostly and even all of the governmental financial supports should be provided for eligible children from low-income households. Moreover, the non-profit making public kindergartens should be encouraged to provide more schooling places for children from low-income families (lower than the average income in local areas), including those children of migrant workers in urban cities. Both the construction of adequate funding and monitoring systems and the emphasis on financial support for disadvantaged children will effectively cope with the '3A' (accessibility, affordability, and accountability) problems and the '2S' (sustainability and social justice) challenges. It is worth noting that, all the essential changes in the funding and monitoring system of ECE should be implemented through fully involving the public and experts in the policy-making process as did the central government with the formulation of the Plan as discussed earlier. We believe that ECE in China, now the 'beloved princess', will live a happy life in the future, if (and only if) guided by sound policies and scientifically proven strategies through democratic and participatory approaches. This is, perhaps, the fundamental solution for the healthy development of this Chinese society.

Authors' contributions

HL carried out the policy research and drafted the manuscript. WY participated in the policy research and helped to draft the manuscript. JJC helped to draft the manuscript. All authors read and approved the final manuscript.

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Competing interests

The authors declare that they have no competing interests.

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