Teachers' Roles in China's Curriculum Reforms for Early Childhood Education

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Dedication

The author wishes to dedicate this thesis to her parents who have made significant sacrifices to help her develop and grow, and who have given her sufficient freedom to choose to learn and work on what she likes.

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Abstract of Thesis

Teachers' Roles in China's Curriculum Reforms in Early Childhood Education

The curriculum is at the center of education and educational reform, and it is also a critical dimension of education quality. This thesis aims to analyze how the curriculum is implemented in curriculum reforms, which is directly related to teachers that are at the heart of quality education. The administration of education matters to both the quantity and quality of teachers, and therefore how teachers are influenced by administration of education in the curriculum reforms would also be addressed. Utilizing the dearth of literature in conceptualization and analytical frameworks for analyzing China's curriculum reforms in early childhood education, this thesis put the analysis of curriculum reforms in China's education system for early-age children, guided by a conceptual model that tackles China's curriculum reform cycle. The following research questions were considered: 1) What are the history and the current status of curriculum reforms in China's early childhood education? 2) What are the relationships that involve teachers in China's curriculum reform cycle for early childhood education? 3) What are teachers' roles in China's curriculum reforms for early childhood education? After answering these questions, policy suggestions were added to offer some options to help empower teachers in China's curriculum reforms for early childhood education.

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Glossary of Terms

Early childhood education: Early childhood education in China today refers to education for children aged 0-6, which can be roughly divided into three categories by school type: nursery schools for children aged 0-3, kindergartens for children aged 3-6, and "preschool classes" offered in primary schools for children aged 5-6 (Zhu, 2002). As with the educational development, many kindergartens in some regions also enroll children aged 2-3 (Zhu, 2009, p. 51).

Teachers: Individuals in China who play a teaching role in educational institutions for children.

Preschool teachers: Individuals in China who play a teaching role in educational institutions for children aged 0-6.

Kindergarten teachers: Individuals in China who play a teaching role in educational institutions for children aged 3-6.

Administration of education: The country-level, region-level, and school-level educational authorities. The country-level or region-level educational authorities include the minister of education, educational researchers, planners and implementers in the Ministry of Education or lower-level administrative branches for education for each province, city, county or district. The school-level educational authorities include school principals, school-based heads of teaching-research groups, and head teachers in each class.

Intended curriculum: The official content standards documents (e.g. syllabus, curriculum plan) or teaching materials (e.g. textbooks, teachers' guides, exercise books)

produced by administration of education, i.e. the "content standard" (Schmidt et al., 2001).

Implemented curriculum: To help focus our analysis on the actual implementation of the "intended curriculum" through teachers, "implemented curriculum" here is intentionally defined in a narrow sense: not to holistically refer to what is being taught, but referring to the actual coverage of the intended curriculum in teachers' teaching.

Chapter 1: Introduction

The curriculum is the center of education and educational reform, and also a critical dimension of education quality. According to Bobbitt (1918), the curriculum is a foremost factor that pinpoints objectives and clarifies them. According to Taylor and Richards (1989), the curriculum is the heart of education itself, as no educational message would be transmitted and no educational outcome would be achieved without a curriculum. Today, when the quality of education is strongly advocated in educational movements around the world, UNESCO, the UN agency with a top priority in education, highly recognizes the curriculum as a critical dimension of education quality (as cited in UNESCO-IBE, n.d.a, para. 4). In China's context, in particular, the curriculum is at the center of educational reform (Yang, 2004, p. 1).

Teachers are at the heart of quality education as the direct implementers of the curriculum. The recruitment, assignment, compensation, and career development of teachers directly affect education quality, largely determining the general effectiveness of education strategies and individual-based learning outcomes. In this sense, "[t]he quality of an education system is only as good as the quality of its teachers" (UNESCO, 2014, p. 233). Additionally, teachers are in direct charge of implementation of the curriculum through textbook selection, lesson planning, and classroom teaching. To this extent, it is teachers that determine the outcome of curriculum reforms (Yin & Li, 2007; Qiu, 2012; Suo, 2014).

There is a dearth of literature in conceptualization and analytical frameworks for analyzing curriculum reforms in education in China, especially in China's early childhood education. It is paralleled by a scarcity of studies on how to potentially address

problems in delivering curriculums in a new round of curriculum reforms that are decentralized in China. It thus remains a challenge to see clearly how and by whom the new curriculums are implemented, what the problems are, and what should be done to address the problems to accomplish curricular changes in China's early childhood education. To bridge the existing literature gap and to diagnose the current conditions are becoming particularly imperative, as the Chinese government is paying great attention to early childhood education today whereas China's education system obviously lacks the capacity to cope with the new curriculum reforms calling for decentralization.

Focusing on teachers in curriculum reforms, this thesis aims to unfold teachers' roles in China's curriculum reform cycle for early childhood education, unveil the existing problems relating to teachers in delivering a new curriculum, and find solutions to the problems. Here are the research questions considered by the study: 1) What are the history and the status quo of curriculum reforms in China's early childhood education? 2) What are the relationships that involve teachers in China's curriculum reform cycle for early childhood education? 3) What are teachers' roles in China's curriculum reforms for early childhood education?

Utilizing the literature review method, this thesis first defined the curriculum in this thesis, then developed a conceptual model on China's curriculum reform cycle. Two relationships that involve teachers in the model were targeted in the further analysis, and an adapted operationalization list from Schmidt et al. and a UNESCO's framework were adopted to guide the analysis of the two relationships respectively. In this way, this thesis managed to present findings on the history, the status quo, the two relationships that involve teachers in China's curriculum reform cycle, and teachers' roles in China's

curriculum reforms for early childhood education. In the end, the existing problems, as having surfaced in the analysis of the two relationships, were pulled together, and policy alternatives were offered in the hope to enhance the current situation.

Chapter 2: Literature Review

Why Curriculum

The curriculum is at the center of educational development. In the first publication addressing curriculum as an independent section in education, *The Curriculum*, Bobbitt (1918) claims, the era of science demands "exactness and particularity." According to Bobbitt, in learning, it is the curriculum, "a primordial factor," that brings the "exactness and particularity" to objectives, and so the determination of the curriculum should be the educational factor proceeding all others (Bobbitt, 1918, p. 41). Meanwhile, the content of education, which is the curriculum, is "at the heart of the educational enterprise" (Taylor & Richards, 1989, p. 2), as no message could be transmitted, and, therefore, no outcomes would be achieved without a curriculum. In China, similarly, curriculum is put in a highly-regarded position. Curriculum is regarded as the center of educational reform (Yang, 2004, p. 1); as the carrier of key messages in education, the curriculum guarantees the messages to be transmitted for achieving education objectives at each education level (Meng, 2007, p. 1)

The discussion of the curriculum began early, but the rigorous study on it did not start until recently. Over 2000 years ago, Plato's *Republic* sketched an ideal society in which education plays a central role; it proposed a curriculum for people through an early age to age 50 (as cited in Walker, 2003, p. 61). The study on curriculum as an independent component in education did not start until the early 20th century when the first publication addressing the curriculum alone was released in the United States. However, it quickly turned into an established research field at the end of this century (Taylor & Richards, 1989, p. 14), through the efforts of many prominent U.S. curriculum

theorists, including John Franklin Bobbitt, Ralph W. Tyler, Joseph J. Schwab, Michael W. Apple, William M. Pinar and Elliot W. Eisner. John Dewy went to China in the 1920s and his thoughts deeply affected China's curriculum. Theories or frameworks on curriculum development from the United States, therefore, should and can offer some guidance in China's curriculum reforms, on condition that China's characteristics are given sufficient consideration.

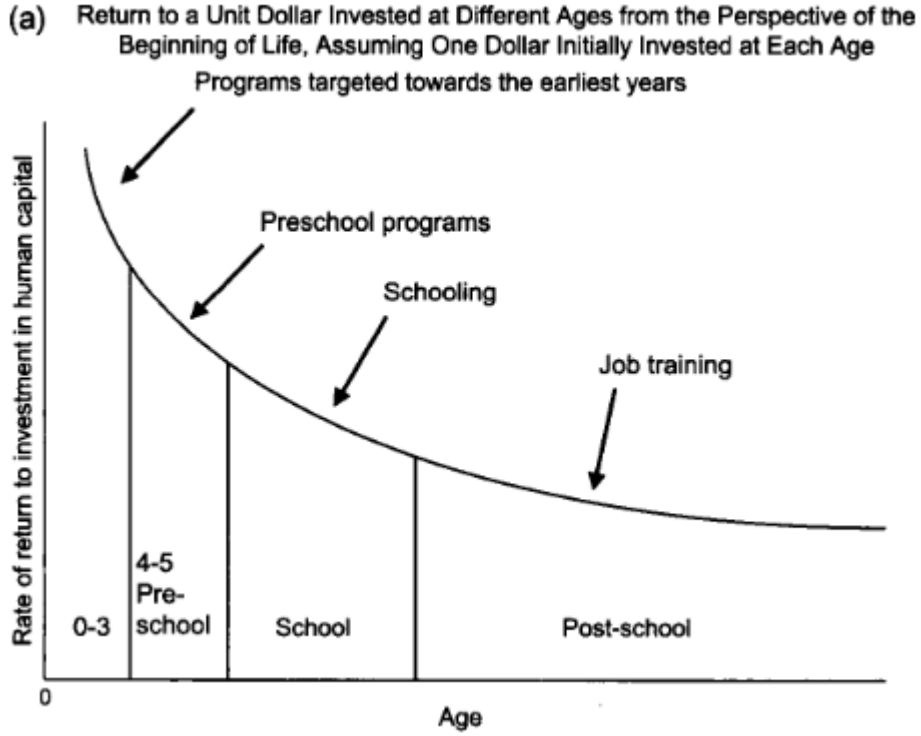
Why Early Childhood Education

Early childhood education is critical to an individual's life-long development. What happens to individuals in their earliest years shapes the outcomes of their lives. Skills developed through early childhood education compose the foundation for future learning and professional success, and failure to invest in these years can lead to long-term and often irreversible effects (as cited in Naudeau et al., 2010, p. 15). Not to mention, ripple effects over a lifespan across different beneficiaries would pass poverty down for generations (World Bank, 2015). Scientific studies have proved that during early childhood years, "brain cells grow in abundance," and "patterns of behavior, competency, and learning are initiated and established;" the early years affect children's literacy and mathematics skills, in particular, which would "have a long reach" to form the basis for future literacy and mathematic development (Young, 2002, p. 3).

Early childhood education is also a critical instrument to boost economic development outcomes. According to the Nobel Laureate Heckman and his colleagues, human capital investment in education programs in the early years is the most cost-effective as compared with that in the schooling at other stages (as cited in Alderman,

2011, p. 1). As shown in Heckman's graph below in Figure 1, the rate of return on investment in human capital decreases as age increases.

Figure 1 Returns to a unit dollar invested at each stage



Source: Heckman, J. (2008, p. 311).

Meanwhile, their research on the Perry Preschool program found a 7-10 percent yearly rate of return on investment, which was brought by increased learning and professional progress as well as reduced costs for remedial education, health and legal enforcement (Heckman et al., 2009).

Additionally, early childhood education is an intrinsic human right (UNESCO, 2007, p. 16). Several groundbreaking international commitments recognize children's right to access quality early childhood education. The *Convention on the Rights of the Child*, adopted by the UN General Assembly in 1989, guarantees the rights of the child to survive and develop with careful protection (OHCHR, n.d.); the World Declaration on Education for All, as released in Thailand in 1990, claims to address basic learning needs

of all, including the need for early childhood care and development opportunities, as specified in its framework for action (UNESCO, 1990, p. 4); the World Education Forum held in Dakar, Senegal in 2000 affirmed the importance of early childhood education as a vital beginning of each's life-long learning (UNESCO, 2000, p. 12).

Despite the significance of early childhood education, the attention paid to this field is relatively limited (Fiszbein, 2011, p. xi). Public investment in early childhood education remains low when compared to that in primary schooling or other education levels. In OECD countries, for example, public expenditure on education as a percentage of the national GDP is much higher in primary, secondary and tertiary education than in early childhood education. The public expenditure averages above one or two percent of the GDP for principal or secondary schools, but this proportion largely remains lower than one percent for early childhood education (OECD, 2014a; OECD, 2014b). Regarding international aid, almost all donor agencies devoted less than 10 percent of what they allocated to primary education into early childhood education; more than half of the donor agencies distribute less than two percent of their funding to this field (UNESCO, 2007, p. 4). This low financial support has been argued to be due to a lack of understanding of the significance of early childhood education, and also, because early childhood education indicators change "relatively slowly" (World Bank, 2015) whereas politicians usually look for a quick win (Wright, 2011).

Conceptualization of Curriculum Reforms

How to define and categorize "curriculum." The term "curriculum" does not have an agreed-upon meaning (Madaus & Kellaghan, 1992, p. 119). According to the first publication addressing major curriculum questions, written by Franklin Bobbitt,

"curriculum" can be defined in two ways: 1) "the entire range of experiences, both undirected and directed, concerned in unfolding the abilities of the individual," or 2) "the series of consciously directed training experiences that the schools use for completing and perfecting the unfoldment." Bobbitt added that the latter definition was the one usually used by education administrations and teachers (Bobbitt, 1918, p. 43). More recently, according to Schmidt et al. (2001), the term "curriculum" itself, etymologically, means "run a (race) course," which refers to a sequence of steps or stages to teach and learn; therefore, a proper definition of "curriculum" should be "a sequence of learning opportunities provided to students in their study of specific contents" (p. 2). Similarly, Walker (2003) proposes that a curriculum is "a particular way of ordering content and purposes for teaching and learning in schools" (p. 5). In fact, over 1100 curriculum books, as published since the turn of the 20th century, each gave a different version of what "curriculum" means, with many conflicting with each other. Such a diverse characterization anyhow mirrors disparate individual experiences with curriculum and individual values about what curriculum should be.

Meanwhile, the curriculum does not seem to have a widely agreed-upon categorization either. According to Schmidt et al. in 1997, a distinction has been made among "intended curriculum," "implemented curriculum"," and "attained curriculum." In this condition, an "intended curriculum" refers to an official set of expectations for learning as described in a regional or national curriculum framework, an "implemented curriculum" refers to the contents presented to students for learning by the teacher; an "attained curriculum" refers to the contents learned by the pupils (as cited in Tarr et al., 2008, p. 250). According to Porter and Smithson (2001), however, despite the "intended,"

"enacted," and "learned" curriculum, as initially distinguished by other researchers, Porter and Smithson went further to extract "intended" curriculum from "assessed" curriculum, and "enacted" curriculum from "learned" curriculum. Doing so helps reach a finer analysis in tracing the causality chain from educational legislation to students' learning outcomes (p. 2). According to UNESCO, when facing the system-wide education reform demand from the ministerial level in member countries, UNESCO's categorization takes a more holistic view to cover the curriculum both inside and outside the class. In UNESCO's version, except for "intended" / "specified" curriculum and "implemented" / "enacted" curriculum, there exists "experienced," "hidden" or "null" curriculum (UNESCO-IBE, n.d.b, para. 1). The several categorizations of "curriculum" do imply one common theme: the categorization should serve the particular research or development purposes for individual researchers or entities in their study.

To further explore various dimensions of the curriculum, Schmidt et al. (2001) addressed two critical aspects: 1) "content standards" (p. 31), as enforced through national and regional content standards or school content standards (p. 73); 2) "textbook coverage" (p. 31), as enforced by teachers. Each of the two aspects can be further explored through four key elements of the curriculum or curriculum-related educational practices: goals for students' learning, contents of instruction, methods of instruction, and examinations (p. 43). Considering the definition of "intended curriculum" and "implemented curriculum" as specified earlier, it is feasible to graft "intended curriculum" onto "content standards" (which defines the contents to be integrated into the curriculum in design). It works as well if grafting "implemented curriculum" onto "textbook coverage" (which defines the contents actually covered in class). Consequently, both

"intended curriculum" and "implemented curriculum" can be tackled by analyzing each of the four elements as mentioned above: goals for students' learning, contents of instruction, methods of instruction, and examinations. The specific operationalization for each of the four curricular elements is exhibited in Table 1 below.

Table 1 Operationalization of the implemented curriculum (original version)

GOALS FOR STUDENTS
The goals for students to be obtained by completing the course of learning in the overall educational system
The goals for students to be obtained by completing intermediate stages of the educational system
The goals for students in differentiated program types
The goals to be reached at a given grade
The goals that apply for a specific school
THE CONTENTS OF INSTRUCTION
The courses of study that are offered
The rules that determine which students are assigned to specific courses of study
The content of the syllabi for the courses of study
The auxiliary contents, if any, that would give students an opportunity to learn outside the syllabi through instruction
The textbook selection
METHODS OF INSTRUCTION
Planning individual lessons
Instructional methods and techniques
EXAMINATIONS
The content of examinations
The standards of successful student performance on examinations

Source: Schmidt et al. (2001, p. 43-44).

However, "in-class work" and "homework," two essential components also mentioned by Schmidt et al. as "part of instruction" (p. 74), are not included in "the contents of instruction" in this list. It seems that these two components should be integrated to enhance the operationalization.

How change occurs in curriculum reforms. The process by which curriculum reforms occur varies by the education system and by time, and there is no universally agreed model elucidatingdifferent stakeholders' roles in curriculum reforms across region

and time. In the meantime, little literature addresses curriculum reforms for early childhood education in China, as most curriculum reform studies concern basic education or the overall schooling system; even less analyzes the change process, i.e. how and by whom the curriculum is changed. Fortunately, existing patterns or terms in the literature can help form a comprehensive framework for guiding the analysis of curriculum reforms in a particular educational subsector for a different nation like China. Below, this thesis gave an overview of these patterns or terms relating to each stakeholder's roles and the connections among stakeholders in curriculum reforms, which were expected to help establish a conceptual model for China's curriculum reform cycle in the latter part of this thesis.

Schmidt et al. (2001) considered five possible sources of authority in the curricular decision-making: national centers, subnational centers, schools, departments within schools, and teachers. For these decision-making authorities, four possible roles were identified: 1) "no formal role in curricular decision making," 2) "giving advice and making recommendations about curricular decisions," 3) "constraining, vetoing, or modifying recommendations about curricular decisions," and 4) "having final authority or approval of curricular decisions." Among the countries surveyed in Schmidt and his colleagues' report, the national centers' role is typically strong in decision-making about curriculum, as national centers usually possess the final authority or approval of decisions regarding curricular goals and contents of instruction, and their final authority over performance standards in examinations is high; authorities at this level, however, do not play a formal role in terms of methods of instruction, and their final authority over the contents of examinations is low. For regional or subnational centers in the surveyed

education systems, nearly 90 percent of them had the final authority to specify the contents in course syllabi, while 80 percent of them had an advisory role or no formal role in the textbook selection. Schools mostly played some role in setting school-specific goals, but not in determining curricular goals; neither the departments within schools nor the teachers played an important role in determining curricular goals or contents of instruction in most systems. However, in about one-third of the systems, teachers had final authority on contents outside the syllabi to be covered and on textbook selection, and they maintained their greatest final authority in decision-making about instructional methods, which was "the only area of curriculum decision making dominated by individual teachers" (p. 58).

The general patterns reported by Schmidt et al. as mentioned above suit China. Despite that the Chinese government has been making an effort to decentralize the curricular decision-making, the national authorities largely dominate the curricular decision-making in terms of curricular goals, contents of instruction and performance standards in examinations. Schools are functional in setting school-specific goals, and teachers have the final authority over textbook selection and the coverage of the contents that are outside the syllabi. The fact is that, however, a variety of textbooks were piloted in China in the 1980s, which allowed for disparate interpretations of the national curriculum. Efforts were even more prominent in Shanghai which aimed to create a new curriculum for its own use (OECD, 2010, p. 86). Such a trend continues today in the hope that innovation will cultivate individuality and to drive China's further economic and social development. Nevertheless, the traditional governmental control has not changed much (Fang, 2005), and Chinese schools remain accustomed to the traditional centralized

scheme that enforces them to focus on classroom teaching instead of curricular innovation (Yang, 2004, p. 21). Consequently, the majority of Chinese teachers lack the essential capacity to make effective curricular decisions. It is worth noting, regardless, Chinese teachers maintain a crucial role in what is actually being delivered to students in the curricular implementation (p. 4). In this sense, although largely guided and also constrained by the intended curriculum, teachers instead largely determine the implemented curriculum.

Policy interventions can be effective though in changing teachers. According to UNESCO (2014), governments can improve teachers by effectively implementing four strategies: 1) recruit the best teachers, 2) train teachers through improved teacher education, 3) allocate teachers where they are needed, and 4) retain teachers by providing sufficient incentives. In this way, governments can achieve positive outcomes in teacher development for quality education (p. 232).

Conclusion

There is a shortage of literature systematically analyzing the exact relationships among change agents in China's curriculum reforms, particularly for early childhood education. Without a clear understanding of the relationships at the forefront, it would be hard to identify existing challenges holistically and bring about appropriate solutions. This thesis will create a rather comprehensive conceptual framework first to help understand the relationships among different educational stakeholders in curricular decision-making, and then use this framework to help identify existing problems in an analysis of the history, the status quo and institutional hurdles in China's curriculum

reforms for early childhood education. Teachers' roles in curriculum reforms are to be unfolded in this process.

Chapter 3: Methodology

Conceptual Framework

Considering the listed definitions and categorizations of "curriculum" as shown in the literature review section, this study would like to select some of them that would offer a comparatively simple interpretation of the curriculum to guide a focused analysis to display teachers' roles in curriculum reforms. To serve this purpose, in this study only two categories of the curriculum closely connected with teachers are targeted: "intended curriculum" and "implemented curriculum" as defined by Schmidt et al. (1997). To help focus our analysis on the actual implementation of the intended curriculum through teachers, the term "implemented curriculum" here is operationally defined in a narrow sense: it refers to teachers' actual coverage of contents in the "intended curriculum" instead of what is holistically being taught.

What was elucidated earlier on different levels of educational authorities in curriculum reforms can help build a conceptual model on China's curriculum reform cycle. The five possible sources of authority in curriculum decision-making—national centers, subnational centers, schools, departments within schools and teachers, as mentioned by Schmidt et al., can be categorized into two parts in this thesis: the administration of education and teachers. The administration of education, in this sense, consists of the country-level, region-level and school-level authorities, including national or subnational centers, schools, and department within schools, which are dominant in making decisions on curricular goals, contents of instruction, and performance standards of examinations. Meanwhile, teachers play a critical role in determining methods of instruction, contents outside of course syllabi, and selection of textbooks. Such an

understanding of the administration of education and teachers was integrated into the conceptual model as constructed later in this chapter.

Due to a dearth of literature on China's curriculum administration in early childhood education, it is hard to tell whether the patterns as identified by Schmidt et al. earlier would match with China's conditions. Nevertheless, given the existing literature on China's curriculum reforms overall, the government, composed by country-level, region-level and school-level decision-makers, has been charging the content standards (i.e. the intended curriculum). This means the administration of education in China, just as the patterns shown by Schmidt et al., also largely determines curricular goals, contents of instruction, contents and performance standards of examinations, and textbook selection; similarly, Chinese teachers intensely focus on classroom teaching, determining the implemented curriculum within the limit of the intended curriculum determined by the administration of education.

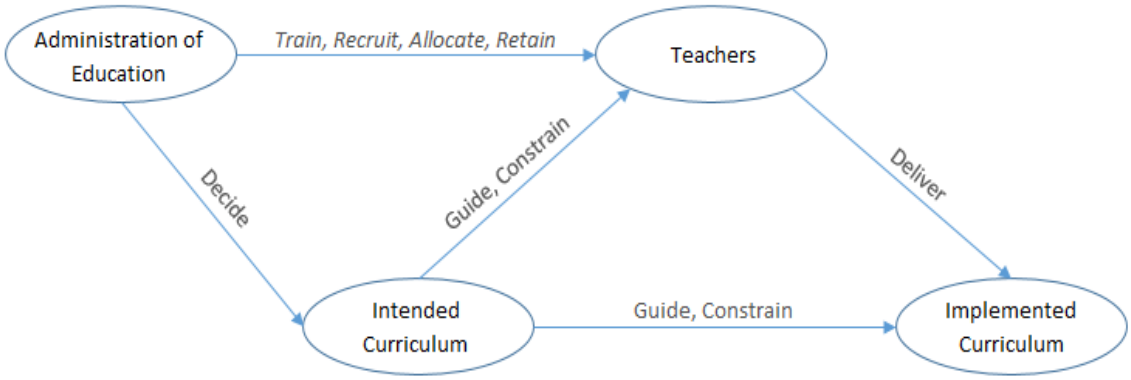
In China, from the post-war restoration in 1949 to the 1980s, the curriculum was in the firm control of the central government, and several curriculum reforms initiated over this period were largely dominated by the state (Huang, 2007, p. 101). In tandem with China's economic transition since 1985 from a planned economy to a market one (Guan & Meng, 2007, p. 580), a wholly new round of curriculum reforms was initiated, aiming to decentralize the education system by encouraging school-based decision making (Hawkins, 2000) in the curriculum. However, the decentralized scheme is still pretty nascent. Today, when the new curriculum reforms in China are calling for teachers' initiatives to select textbooks by themselves and get involved in the design of the

curriculum, the majority of teachers are not prepared enough to affect the intended curriculum.

It is worth noting that, according to a UNESCO's (2014) framework, the administration of education can change teachers through four strategies. They are: 1) recruit the best teachers; 2) train teachers through improved teacher training; 3) allocate teachers where they are needed; and 4) retain teachers by providing sufficient incentives. This framework can be adopted as a lens to recognize how the administration of education affects teachers.

Built upon the above understanding of the intended curriculum, the implemented curriculum, the administration of education and teachers, this study proposes a conceptual model of the change cycle in curriculum reforms in China as depicted in Figure 2 below.

Figure 2 A proposed conceptual model of China's curriculum reform cycle



Source: Adapted from Schmidt et al. (2001), UNESCO (2014), Huang (2007), Yang (2004), Qi and Zhang (2004).

In this conceptual model, the administration of education decides the intended curriculum, the intended curriculum guides or constrains the implemented curriculum, and teachers determine the implemented curriculum; the administration of education can change teachers through policy interventions in training, recruitment, allocation and retention of

teachers. There are two loops in the model involving teachers in the curriculum reform cycle: 1) teachers → implemented curriculum, and 2) administration of education → teachers → implemented curriculum.

This conceptual model was to guide the ensuing further analysis of the history, the status quo and institutional hurdles in China's curriculum reforms for early childhood education. Now that this study focused on teachers' roles in curriculum reforms, it was to analyze only the two relationships that involve teachers: 1) how teachers have affected the implemented curriculum, and 2) how the administration of education has affected teachers so as to change the implemented curriculum.

To tackle how the implemented curriculum gets changed in each of the two relationships mentioned overhead, an operationalization of the implemented curriculum is needed. The operationalization of the four key elements of curriculum given by Schmidt et al. (2001), as displayed in the table in the Literature Review section, is found useful to be adopted here. Considering "in-class work" and "homework" not included but claimed to be essential components of instruction according to Schmidt et al., the previous operationalization table was adapted as in Table 2 below, with the adapted part in italics—

Table 2 Operationalization of the implemented curriculum (adapted version)

GOALS FOR STUDENTS
The goals for students to be obtained by completing the course of learning in the overall educational system
The goals for students to be obtained by completing intermediate stages of the educational system
The goals for students in differentiated program types
The goals to be reached at a given grade
The goals that apply for a specific school
THE CONTENTS OF INSTRUCTION

	The courses of study that are offered
	The rules that determine which students are assigned to specific courses of study
	The content of the syllabi for the courses of study
	The auxiliary contents, if any, that would give students an opportunity to learn outside the syllabi through instruction
	The textbook selection
	The additional contents from in-class work and homework
METHODS OF INSTRUCTION	
	Planning individual lessons
	Instructional methods and techniques
EXAMINATIONS	
	The content of examinations
	The standards of successful student performance on examinations

In the Results chapter, this operationalization was used to guide the analysis of the two relationships to help examine teachers' roles in curriculum reforms.

Data Collection Methods

This paper conducted a literature review to offer an extensive review of the existing literature on reforms regarding curriculum reforms in early childhood education in China. The review focused on two relationships in the curriculum reform cycle: 1) how teachers have directly affected the implemented curriculum, and 2) how the administration of education has affected the implemented curriculum through teachers. Ideas and evidence were collected for analyzing the status quo of the two relationships, which were further specified along each of the four identified elements in the operationalization adapted from Schmidt et al., i.e. goals for students, the contents of instruction, methods of instruction, and examinations.

Databases used in this study consisted of Thesis Plus, JSTOR, EBSCO, and CNKI. Google Scholar was also used to identify cross-references that could be relevant to the study. Both the English and the Chinese literature were covered in the review. Only the published peer-reviewed journal articles or the reports from credible sources like the

national governments and international organizations were selected. The sources this study ended up with were sufficient enough to cover each of the four curricular elements in each of the two targeted relationships in China's curriculum reforms for early childhood education.

Several keywords were first identified to search for literature relating to curriculum reforms in China's early childhood education. Synonyms of these keywords were then used in the search process when necessary. The keywords as suggested by the title of this thesis, i.e. "early childhood education," "early childhood teachers," "curriculum," and "reform," wee used most frequently. Additionally, each of the four curricular terms identified in the adapted operationalization list as covered above was used along with their synonyms, i.e. "goal," "instruction content," "instruction method," and "examination." Considering the context in China, the names of certain strategies or programs, either in English or Chinese, were also part of the keywords used for the search for the changes going on in China. These names include "free tuition teacher education," "pre-service training," "in-service training," "merit pay," or so.

Chapter 4: Results

This study intends to answer the three research questions: 1) What are the history and the status quo of curriculum reforms in China's early childhood education? 2) What are the relationships that involve teachers in China's curriculum reform cycle for early childhood education? 3) What are teachers' roles in China's curriculum reforms for early childhood education? The results that would help answer each of the questions were presented below, addressing the history, the status quo, and the two relationships that involve teachers.

The History of China's Early Childhood Education Development

An educational change is often achieved through a blend of socio-economic movement and educational reform initiatives. According to the description from Huo (2015) and Cai (2005), four distinct stages can be identified in China's curriculum reforms in early childhood education; socio-economic changes essentially marked the beginning of each stage in this process.

Stage 1: After the Sino-Japan War in the Qing Dynasty. In the late Qing Dynasty, there were no official standards on how the kindergarten should be managed. Due to the defeat in the Sino-Japanese War in 1894-1895, the Qing government showed interests in Japan's development, and the Japanese influence was evident in the early childhood education development in China at this time. The first early childhood education institution in China, Hubei Kindergarten, was established in 1903 in Wuhan, Hubei Province, by the local governor Fang Duan; three Japanese teachers were hired and the Japanese style of early childhood education was practiced in this kindergarten (Huo, 2015, p. 3). In 1904, *Official School Regulations on Meng Yang Yuan and Home*

Education was issued by the Qing government, which named this kind of institutions with Japanese characteristics "Meng Yang Yuan" (蒙养院) and expanded it to large cities across the country (He, 2007, p. 85). The release of the official document marked the beginning of the governmental provision of early childhood education in China (Cai, 2005, p. 71). Despite the Japanese style, church style, John Dewey's philosophy, Montessori methods and other groups of thoughts coexisted in a hybrid system of China's early childhood education, as China's kindergartens in this period were simply copied from other countries, sticking to the original models without amelioration (as cited in Huo, 2015, p. 6).

The Japanese curricular model played an influential role in China at this stage while a variety of foreign curricular models were introduced, when no official curriculum standards were mandated to be applied nationwide by the government. The curriculum for individual early childhood institutions was therefore quite flexible, mainly centering on children's life experience and interests while remaining within the framework of some foreign models (Cai, 2005, p. 71).

Stage 2: After the May Fourth Movement. As with the rise of the May Fourth Movement in 1919, avant-garde like Shi Hu appealed for "Total Westernization," and consequently the European and U.S. models became popular in China's education system (p.4). John Dewey, Shi Hu's professor in the United States, was invited to give lectures across China, and gradually his methodologies became more widely applied in China's education (p. 5). Meanwhile, Heqin Chen and Xuemen Zhang were exploring a way to adapt the western methodologies to China's conditions, having established experimental colleges to pilot "unit instruction" curriculums. Adopting Dewey's principles, Chen's

model stressed the interaction between individuals and the natural or social environment (p. 7).

Curriculum Standards for Kindergartens was released in 1932 by the Qing government. It officially recognized "unit instruction" and established a relatively complete and independent early childhood curriculum that fit China, based upon Chen and Zhang's pioneering work (Tang, 1970, p. 139).

Stage 3: After People's Republic of China was established. At the beginning of the development of People's Republic of China from its establishment in 1949, China, adopting socialism, was facing challenges from both the Western blockade and lack of experience in socialism. In this period, China was trying to imitate the Soviet Union in its design of nearly every aspect of the society, including education. The reform in China's early childhood education started from the beginning of the 1950s, largely adopting the thoughts and notions from the Soviet Union (Huo, 2015, p. 8). Chen's early childhood education framework common in China in the 1920s-1930s was denounced as a critical element of the "corrupted capitalist society" which is regarded as something irreconcilable with the socialism (Cai, 2005, p. 72). Meanwhile, Kairov's teaching theory fundamentally impacted China's education in this period, which emphasized children's all-round development with a complete knowledge system (Huo, 2015, p.8). It introduced homework to China's early childhood sector, and its instruction was characterized by "direct instruction" and "subject instruction," instead of "unit instruction." It is worth noting that Kairov and other Soviet Union's educators, like Krupskaya and Usova, appealed for a collectivist education, which leads individuals always to see themselves as

part of a group (p. 9), which was not good regarding the cultivation of individuality and innovation.

Temporary Standards for Kindergartens (Draft) was released in 1952, which clarified the curricular goals for early childhood education. *Temporary Instruction Outline for Kindergartens (Draft)* was issued in the same year, which elucidated characteristics of the early-year children and identified key knowledge points in instruction and teaching plans by six subjects. In the mid-1950s, *Working Guidelines for Education in Kindergartens* was published to expound more precisely the key points in educational theories and curricular practices. "Direct instruction" and "subject instruction" replaced "unit instruction" in this period (Cai, 2005, p. 72).

Stage 4: After China established the "reform and opening up" policy. After the chaotic Cultural Revolution in the 1960-1970s, China was seeking to recover itself from the social and cultural catastrophe. The trend of learning from the West increased as with the continuous implementation of the "reform and opening up" policy at this time. Foreign curriculum models for early education swarmed into China. The foreign curricular models included Piaget's cognitive curriculum and Gardner's multiple intelligence from the United States as well as Montessori methods and the Reggio Emilia Approach from Italy, featuring "activity instruction" and "comprehensive instruction." In the meantime, Heqin Chen's theories and "unit instruction" model once again attracted the public attention and were adopted in the new policies as China's early education theorists and practitioners tried to learn from China's past in early childhood education development (Wang, 2003, p. 6).

Outline for Education in Kindergartens (Trial Draft) was issued in 1981, aiming to recover the educational order from the Cultural Revolution and to guarantee regular instructional work in kindergartens. While national documents at this stage did not change the "subject instruction" model as adopted from the 1950s, this model was widely denounced due to its segregation of contents for instruction by subject, which was not conducive to the learning of the cross-subject linkages. The calling for further reform triggered the release and implementation of *Working Standards for Kindergartens* in 1996 and *Educational Guidelines for Kindergartens* in 2001. Both the documents contributed to further curricular innovation: they redefined curriculums in early childhood education in a more holistic way and guided curricular designs to cover curricular goals, contents of instruction, curricular activities, and evaluation of the outcomes (Cai, 2005, p. 74).

Overall, China's history of early childhood education development can be summarized in this way: copying the Japanese model → establishing an independent system based upon China's own educators' pioneering work → learning from the Soviet Union models → embracing the western styles while reviving the domestic models. In addition, China's curriculum for early childhood education can be described as having gone through this process: being flexible while emphasizing children's life experience and interests → establishing the first official curriculum which recognized China's own "unit instruction" → replacing "unit instruction" with the Soviet Union's "direct

instruction" and "subject instruction" → redefining the curriculums in a more holistic way and building rather comprehensive curricular designs.

The Status Quo of China's Early Childhood Education

In the 21st century, *National outline for medium- and long-term education reform and development (2010-2020)*, a blueprint of China's educational development by 2020, highly prioritized early childhood education:

> By 2020, the one-year early childhood education would be universalized, the two-year early childhood education would be nearly universalized, and the three-year early childhood education would be universalized in relatively developed areas. Attention would be paid to early stimulation programs for young children aged zero to three. (Central People's Government of PRC, 2010, Chapter 3)

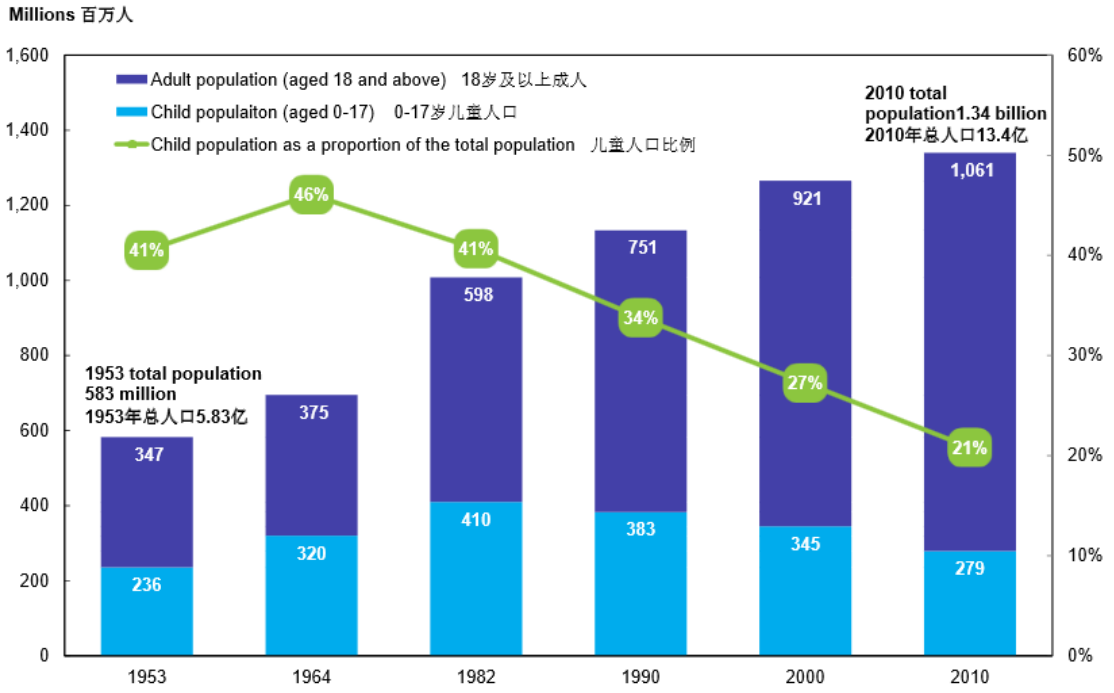
It specified the goals to be met for the one-year, two-year and three-year early childhood education programs and appealed for more attention to the education for children aged zero to three instead of those agreed three to six. It is the first time for a national policy document to have singled out early childhood education as one of the eight priorities in educational development, which reflects huge attention from the government and the society to this field (Qiu, 2012, p. 4). This claim suggests the beginning of a new chapter that is distinct from the past when early childhood education was like a Cinderella remaining in the kitchen when her two sisters, primary and secondary education, enjoyed the ball with the Ministry of Education (Huo, 2015, p. 14).

Considering the increasing attention to early childhood education, what is early childhood education like in today's China? According to Jiaxiong Zhu, early childhood education in China today refers to education for children aged 0-6, which can be roughly

divided into three types: nursery schools for children aged 0-3, kindergartens for children aged 3-6, and "preschool classes" offered in primary schools for children aged 5-6 (Zhu, 2002). As with the educational development, many kindergartens in some regions also enroll children aged 2-3 (Zhu, 2009, p. 51). Early childhood education in China today was specified below in two aspects: demand and supply of early childhood education.

Demand. Despite that there is a shortage of data on the exact number of the population of the preschool age, available data for some other indicators may give a glimpse of the scale of demand. China's population census tends to underreport young children (UNICEF, 2013, p. 2), and UNICEF can only count children aged 0-17 using the national census data (p. 3)– both do not provide data that are disaggregated enough to reflect the number of children demanding early childhood education. It is worth noting, nevertheless, the number of children aged 0-17 in China was 279 million in 2010, accounting for 21 percent of China's total population (p. 3)—it was the second largest child population in the world, only behind India (UNICEF, 2014, p. 14). Due to the one-child policy adopted since the 1970s, however, this number of children aged 0-17 keeps shrinking since the 1980s, and this decrease accelerated over 2000-2010, as shown in Figure 3.

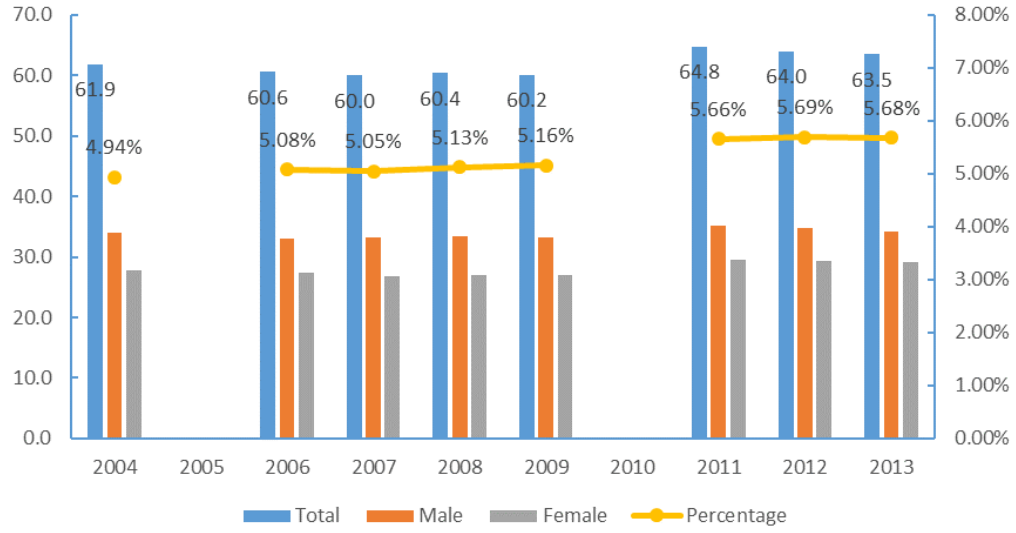
Figure 3 Child population aged 0-17, China (1953-2010)



Source: Population censuses, conducted by National Bureau of Statistics (as cited in UNICEF, 2013, p. 3).

Meanwhile, the data from sample surveys conducted by the Chinese government are found to have documented the population aged 0-4, as presented below in Figure 4. While the numbers here can only reflect the sampled population instead of the total population, they would give a closer look at the scale of the children in need of early

Figure 4 Population changes for the group aged 0-4 in sample surveys (thousand)



Data Source: China Statistical Year Book.

childhood education in China. According to Figure 4, the percentage of population aged 0-4 among the total sampled population increased from 4.94 percent to 5.68 percent, whereas the number of males remains several thousand higher than females. Considering this tendency, it may be feasible to claim that the demand for early childhood education, which targets the early-age children, has maintained its growth over the past decade.

Supply. The provision of early childhood education in China was tackled specifically below through the analysis of each of these four aspects: access, quality, equity and finance of early childhood education.

***Access*.** The past decade witnessed a significant expansion of early childhood education in China, which can be partly reflected by the accelerating increase in the gross enrollment rate in China's early childhood education. It was growing from 38 percent in 2002 to 50 percent in 2007 and to 70 percent in 2012, according to the World Bank (2014). However, this rate in China is relatively low when compared with Korea (119 percent), Thailand (99 percent), New Zealand (93 percent), Japan (88 percent), and Brunei Darussalam (88 percent) in the same Asia Pacific region. It is even lower than the OECD average of over 90 percent (Liang, Fu, & Zhang, 2014, p. 63).

***Quality*.** There is a dearth of minimum quality standards and a shortage of data that can reflect the compliance with quality standards in China (Kidwai & Chen, 2015). In a survey which investigated 50 classrooms from 26 kindergartens, 94 percent of the classrooms were poor in quality, and only around 6 percent of the classrooms reached the minimum quality level as required by their measurement scale (Pan & Liu, 2008, p. 38). It is an important finding but is very limited in terms of its scale or magnitude. Here the researcher adopts child-teacher ratio as a proxy for assessing quality. A high child-

teacher ratio usually associates with a large class size; although no significant correlation is found between class size and student performance, a smaller class size is generally regarded as more beneficial than a smaller one, when all other factors being equal (OECD, 2011, p. 394). This correlation is found to be more evident in early years of schooling (Finn, 1988). In China, the average child-teacher ratio is 27:1 for the governmental early childhood education institutions, and 19:1 for the non-government early childhood education institutions in 2011 (Ministry of Education, 2012). These ratios are relatively high when compared with the OECD average of 14:1 as is available for 2012 (OECD, 2014c, p. 451), which implies the quality of early childhood education in China may be relatively lower than the OECD average.).

Equity. Despite the rapid expansion of early childhood education, provision of this education varies in accessibility and quality by region. First, the enrollment rate is different across the country, with clear rural-urban disparity. In 2010, while the enrollment rate for early childhood education exceeded 90 percent in relatively developed urban cities like Shanghai and Beijing, this rate remained below 50 percent in largely rural provinces such as Henan and Xinjiang (Jiang et al., 2014). Also, the access to early childhood education is inequitable by gender. According to the Ministry of Education (2012), of the children aged below seven, over 2.7 million more boys were enrolled in 2011 than girls in early childhood education across the nation; the ratio of pre-primary enrollment for boys and girls is thus calculated to be 1.2, which shows gender disparity in enrollment. Second, in quality, China's early childhood education is highly privatized, and private kindergartens tend to spread on "either the high or the low end of the market," with high prices for the former and poor quality and safety concerns for the latter due to

the low cost (Zeng, 2010). This polarization exhibits inequitable quality resulted from massive privatization.

Finance. Early childhood education in China does not gain enough governmental attention in financing, which makes this educational subsector particularly vulnerable to low access, poor quality, and inequity. Unlike the primary or secondary education where the majority of the educational institutions has been compensated by the government, 41 percent of kindergartens in China were privately owned in 2012, which represented 34 percent of the total preschool enrollment and 40 percent of the total number of preschool teachers (Liang et al., 2014). Considering the financing data on early childhood education in 2011, according to the Ministry of Education and National Bureau of Statistics (2014), while the total educational public expenditure was 21.13 percent of the total governmental expenditure, the expenditure on early childhood education accounted for only 4.31 percent of the total educational expenditure. This financial support lags far behind the governmental investment in primary and secondary schooling

To sum up, the status quo of China's early childhood education can be analyzed in two aspects: demand and supply. In demand, the demand for early childhood education keeps growing. In supply, the situation can be specified in terms of access, quality, equity, and finance: 1) in access, China's gross enrollment rate in early childhood education is still low when compared with that for other countries in the Asia-Pacific region and the OECD average; 2) in quality, early childhood education in China has a relatively low quality; 3) in equity, rural-urban disparity and gender disparity are phenomenal; 4) in finance, China's governmental financial support for early childhood education is significantly lower than that for primary and secondary education.

The Two Relationships that Involve Teachers in Curriculum Reforms

Earlier in this thesis as shown in Figure 2, a conceptual model was built to reveal the two relationships that involve teachers in curriculum reforms: 1) how teachers have affected the implemented curriculum, and 2) how the administration of education has affected teachers so as to change the implemented curriculum. This study focused on these two relationships that involve teachers in the curriculum reform process in preparation for the later diagnosis of the existing problems. The operationalization of the four key elements in the implemented curriculum as adapted from Schmidt et al. (2001) was used for the analysis of the first relationship, and the UNESCO's framework on governments' four strategies on teacher development was adopted to tackle the second relationship, as presented below.

How teachers have affected the implemented curriculum. The Chinese education system began to decentralize in the 1980s, and a variety of interpretations of the national curriculum have been allowed since then in the hope to cultivate individuality and innovation for China's further economic and social development. Nevertheless, the traditional governmental control on the curriculum has been strong, and the Chinese schools remain accustomed to centralization that forces them to focus on classroom teaching rather than curricular adaptation. Consequently, the majority of Chinese teachers lack the essential capacity to make effective curricular decisions. It is worth noting, thus far, the implementation the new curriculums has been facing direct challenges and even resistance from the current teaching force, and it is imperative to figure out in the first place how teachers have affected the implemented curriculum. Below, this thesis presented how teachers have determined the "goals for students,"

"contents of instruction," "methods of instruction" and "examinations," the four key elements that compose the implemented curriculum.

In "goals for students." Three types of goals exist in curriculum reforms: educational goals, curricular goals, and teaching goals (Chen, 2009; Li, 2001). A lack of clear knowledge of their distinctions has left teachers in confusion (Li, 2001). According to Li (2001), an overarching educational goal in early childhood education, as elucidated by the national policy document *Working Standards for Kindergartens*, is to "offer a holistic education covering physical, cognitive, ethical and aesthetic development for children." Most recently, the national guiding policy document *Outline for Chinese Children Development (2011-2020)* specified one educational goal for early childhood development is to reach an over-70-percent gross enrollment rate for 3-year preschool education and an over 95-percent gross enrollment rate for 1-year preschool education (Kidwai & Chen, 2015, p. 9). This kind of goals does not shed light on what should specifically be done in educational practices (Huang, 2004, p. 104). China's kindergartens have been mandated to help achieve this kind of educational goals, and kindergarten teachers who focus on their work in individual kindergartens do not play a significant role in shaping these goals.

Curricular goals, in contrast, are very specific to each lesson as teachers implement the designed curriculum, and these curricular goals, usually a reflection of educational goals, are vital in achieving educational goals. A case study provided by Chen (2009) unfolded that curricular goals, different from the educational goals, have a clear and wide presence in the daily educational routines. According to Chen, kindergarten teachers are usually divided into teaching groups by grade, and a group

leader is designated for each group; before the start of each semester, the group leader takes the lead to complete the design of a curriculum plan for this grade over the semester, and this plan details contents, objectives and specific teaching sessions to deliver the curriculum by week (Chen, 2009, p. 70). Kindergarten teachers in each grade group, in this case, are allowed to freely contribute their own ideas to the design of the curriculum plan (p. 73), which specify the curricular goals to be reached each week and over the whole semester.

Teaching goals are also an integrated part of the curriculum, which are different from educational goals or curricular goals mentioned above. These goals are more specific concerning what to be taught, based upon the curricular goals decided together by a grade group (Chen, 2009, p. 85). Teachers in the interviews conducted by Chen asserted that the teaching goals were often available at hand as provided by today's textbooks, and so they just needed to follow these goals, only with some adaptation from time to time given some particular teaching settings (p. 74). One teacher in an interview decided the teaching goals for a whole class based upon capabilities of children who tend to perform at the lower end of the class so as to guarantee nearly all the children can achieve the expected outcomes (p. 85). In this sense, teachers are able to design their teaching goals before the teaching activities start, built upon their understanding of the contents to be covered and the specific characteristics of the children in each class (p. 85). In turn, teaching goals suggest the expected outcomes from each teaching activity and guide teachers' preparation for implementing a curriculum (p. 85).

There are concerns over the mismatch between the teaching goals as designed by kindergarten teachers and the curricular or the educational goals. According to Liu's

survey on 195 teachers from 64 classrooms, teachers' interpretations of policy documents specifying the educational goals could be distinct from scholars' or kindergarten managers' interpretations (Liu, 2007), which may distort the delivery or implementation of a new curriculum in educational practices.

In sum, kindergarten teachers directly determine the teaching goals, but they lack the power in shaping the educational or curricular goals. In effect, these teachers' teaching goals, in general, are expected to agree with the educational and curricular goals, and so, in this sense, their effect on the teaching goals is also limited to some extent.

In "contents of instruction." Existing concerns about the contents of instruction reflect teachers' limited capacity in determining appropriate contents of instruction, which can be reflected in two aspects: the selection of textbooks and the actual coverage of the contents to be taught in class. In terms of the selection of textbooks, according to Suo (2014), selection of textbooks in kindergartens today is administered through a threefold structure: the national government offers general guidance on what textbooks to be selected; the local government in a province or city designs or designates a set of textbooks specifically to be used for local kindergartens; each kindergarten is given some autonomy in selecting textbooks. This threefold structure combines the national regulation with the kindergarten-based autonomy, aiming to achieve individualized early childhood education for different types of children. Around 80 percent of the textbooks eventually used in each local kindergarten are determined by the local government, targeting the common needs in local areas, and around 20 percent of these textbooks are decided by kindergarten teachers (Chen, 2009, p. 74). Nevertheless, many kindergartens, in reality, were found to have simply introduced whatever textbooks that were popular to

the market, without much examination or adaptation out of their own children's interests, which is a problem worth noting (Suo, 2014, p. 12).

As for the actual coverage of the contents to be taught to children, the contents covered in many kindergartens tend to overlap with the contents in early grades for primary school. As reported, kindergarten teachers today teach children to read, write, and recite Chinese characters and classics, to do arithmetical deductions for two- or three-digit numbers, and to recognize the English characters and some basic English words. These contents tend to overlap with the contents in Grade 1 in primary school (Qi, 2011). In this case, children are deprived of their play time, and many of them tend to dislike study because of this intensive knowledge inculcation when they are not ready for it (Suo, 2014, p. 7). Additionally, there is another problem worth noting: some kindergartens have established "specialty classes," training young children to develop a specialty in chess, dance, drawing, literacy, Chinese classics or so, which is widely regarded as inappropriate for the early-age groups. Although many teachers were aware of the problems, they feel they have to do so. Otherwise, children's parents who often push children to learn would not be satisfied, and consequently, kindergarten managers would feel degraded (Su, 2012).

In sum, China's kindergarten teachers have limited influence on the contents of instruction, which can be reflected in two aspects: the selection of textbooks and the actual coverage of the contents. These teachers were found to play a small role in selecting textbooks and possess little control over the actual coverage of the contents to be taught.

In "methods of instruction." Instructional methods are key to effective teaching. Kindergarten teachers in China are aware of the importance of effective instructional methods to their teaching. According to Chen (2009), the teachers in the interviews realized it was important to diversify their teaching strategies, i.e. periodically changing instructional methods or types of activities, so as to attract children's attention and help them focus on learning. They recognized plays and hands-on activities as highly effective methods, and believed teaching tools like fluffy dolls or animal-shape images would help attract children (Chen, 2009). The Chinese kindergarten teachers can directly shape their instructional methods through lesson planning and classroom teaching, and it is important to let kindergarten teachers know more of the instructional methods that are available to them.

A mismatch between teachers' beliefs about instructional methods and their actual instructional practice is a concern. Curriculum reforms in early childhood education have brought a revolution in teaching ideas, and most of these ideas were accepted as can be reflected by findings from teachers' self-evaluation, and yet these ideas have not been put into many kindergarten teachers' instructional practices in China. In an investigation on five Chinese kindergartens, according to Li, Wang, and Wong (2011), kindergarten teachers' instructional methods remained dominantly lecture-focused or instruction-centered. According to Pan and Liu (2008), play is widely recognized for children's development, and yet, nearly 40 percent of surveyed teachers did not use children's play effectively (Pan & Liu, 2008, p. 40)

In sum, kindergarten teachers largely shape the methods of instruction in China. However, there is some mismatch between their beliefs and their instructional practice.

In "examinations." Over the past several years, examinations have existed in China's kindergartens. According to a survey of kindergarten teachers in 25 kindergartens in Hebei Province in 2012, around 28 percent of the surveyed teachers mentioned examinations were held once each semester near the end of the term; around 11 percent of the surveyed teachers claimed examinations were held "periodically" (Li, Hu, Li, & Ma, 2014). These figures unfolded some presence of examinations in kindergartens. As reflected by Li (2007), contents of examinations in kindergartens were directly connected with literacy, arithmetic skills or English language skills, which were required to get into highly competitive primary schools, and are key to the academic success in primary school. Teachers often felt they had to administer these examinations due to the pressure from parents and kindergarten managers who have high expectations of children.

In examinations, in sum, kindergarten teachers do not possess sufficient power to determine whether or not the examinations should be carried out for children, and they do not play a dominant role in deciding the contents and standards of the examinations.

Overall, how have teachers affected the implemented curriculum? Adopting the operationalization as mentioned ahead, this section analyzed teachers' impact on the four elements of the implemented curriculum: goals for students, contents of instruction, methods of instruction, and examinations. China's kindergarten teachers are found to have played a dominant role in designing and implementing the teaching goals and have largely shaped the methods of instruction. However, these teachers lack the power in designing the educational or curricular goals, which their teaching goals are demanded to follow, and some teachers do not have the capacity to put into practice the instructional

methods they identify with. Teachers were also found to have very limited influence on the contents of instruction and the examinations, for they have been under the strong governmental control and the pressure from the society in these domains.

How the administration of education has affected teachers. The administration of education still plays a dominant role in today's curricular decision-making even when the recent curriculum reforms are calling for decentralization. Its design and implementation of the teacher-related policies continuously affect kindergarten teachers. According to UNESCO (2014), the quality of teachers can be shaped by the administration of education through training, recruitment, allocation and retention. This UNESCO's framework was adopted below to help analyze how the administration of education has affected teachers.

In training. National standards are established for preschool teachers to be met through pre-service and in-service training. Regarding the pre-service training, there is a minimum education background and a minimum professional qualification to be achieved through such training before each kindergarten teacher starts teaching. According to Kidwai and Chen (2015), the minimum education background to be met for preschool teachers working with children aged 0-3 years is the completion of upper secondary education, and that for those teaching children aged 3-7 years is the completion of lower secondary or junior college specialized in early childhood education. Additionally, the minimum professional qualification for preschool teachers is to get certified in preschool teaching, participate in relevant training sessions, and perform well in a relevant internship under supervision (Kidwai & Chen, 2015, p. 24).

The in-service training has been delivered through the teaching-research system that links the administration of education at the provincial, municipal and county levels to individual kindergartens. It guides teachers to periodically exchange information through the inter-school visit, peer observation of teaching, competition for the best teaching performance, school-based research, or so (as cited in Zhao, 2012, p. 233). A certain amount of time attending the in-service training sessions, either on-site or online, is required to be fulfilled for each teacher through this kind of in-service training (Kidwai & Chen, 2015, p. 24).

The problem is that, however, the minimum standards for kindergarten teachers to be met through the pre-service or the in-service training are not challenging enough. Considering that the higher education is nearly popularized in China, the minimum education background set at the secondary education or junior college is low and obviously lower than that for primary and high school teachers (Wang, Guo, & Wu, 2014, p. 28). Plus, given the fact that many developed countries mandate teachers to receive training periodically over their full career span, China's teacher training standards which only look at the total amount of training hours may be insufficient.

Additionally, the training opportunities, in general, are not fair for pre-service or in-service preschool teachers. Reflecting upon the history, according to Pang, Zhang, and Xiao (2013), in the 1990s, many specialized teachers' colleges were shut down or integrated into normal universities which were most often located in the middle or large cities. This change, in essence, absorbed a large portion of high-quality pre-service kindergarten teachers into developed areas in lieu of rural districts (Pang et al., 2013), and has triggered a significant shrinkage of the pre-service training opportunities in rural

areas. In terms of in-service training, training opportunities for early childhood educators are in shortage, as there is no training system specifically targeting this group: training at the preschool level is designed and delivered according to the standards for the teacher training at the primary and secondary levels, where the situation often conflicts with that in preschool education and consequently not many preschool teachers are able to receive such training, whereas the training sources largely tilt towards primary and secondary educators. Even worse, for the preschool teachers who do get the training, costs on such training cannot be reimbursed (p. 35).

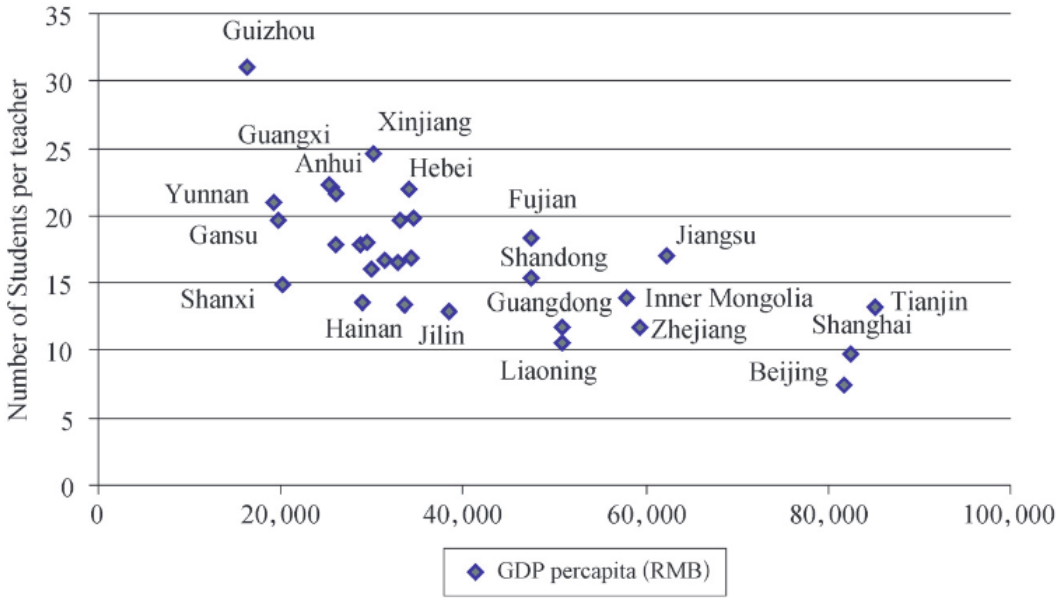
In sum, the administration of education has yet to deliver sufficient high-quality training for kindergarten teachers. While national standards are clear about preschool teachers' training, the minimum standards to be met through pre-service training are low, and the requirement of the in-service training which only targets the total training hours is not sufficient. Meanwhile, the pre-service training is biased against the pre-service preschool teachers in rural areas, and the in-service training overall is not enough at the preschool level.

In recruitment. The staff quota system is core to human resource development in kindergartens, as it largely determines the quota of the teachers to be recruited within the staff system with guaranteed job security, salaries, and entitlements (Han et al., 2010; Xia, 2014). To be hired within the quota system has been significant due to the benefits attached to it, like the guaranteed job security, salaries, and entitlements mentioned above. For over a decade, however, the quota for kindergarten teachers to be hired within the staff system with guaranteed benefits keeps shrinking (Wang et al., 2014, p. 27). In 1998-2008, the proportion of the teachers hired within the quota system plummeted from 72

percent to 39 percent (Zhang, 2010). This shrinking quota obviously is a critical factor that has discouraged some high-quality pre-service teachers from taking early childhood education as their profession.

In the meantime, teacher shortage is prevalent among kindergartens. As exhibited by the pupil-teacher ratio, in 2010, for the majority of China's provinces, the pupil-teacher ratio was above the national standard 15:1 (Wang et al., 2014, p. 28), as shown in Figure 5

Figure 5 Pupil-teacher ratio in kindergartens by province (2010)



Source: Liang et al. (2013, p. 87).

(Liang et al., 2013, p. 87). In effect, the national average pupil-teacher ratio for kindergartens is 26:1, significantly higher than the national average for primary education, 17.1:1, lower secondary education, 15:1, and upper secondary education, 16:1 (China Education Network, 2011). It shows that teacher shortage is worse in the preschool sector than that in others. This situation also suggests, despite the continuous increase in the number of kindergarten teachers, that individual kindergarten teachers may be burdened

with a huge workload that may require them to work with an oversized class for more than ten hours per day (Wang et al., 2014, p. 28).

Plus, a large portion of the employed kindergarten teachers do not meet the national minimum standards regarding their educational credentials or professional qualifications. The phenomenon "teaching without a teaching certificate" is extensive. In Qingdao City, for example, around 60 percent of the 16 thousand kindergarten teachers teach without a teaching certificate (China Broadcasting Network, 2012), and this situation gets worse in private or rural kindergartens (Liang et al., 2013, p. 217).

In sum, the administration of education has yet to build an effective system for recruiting high-quality kindergarten teachers. The number keeps shrinking for kindergarten teachers to be hired within the staff quota system, which discourages highly qualified pre-service teachers from stepping into the preschool education. Meanwhile, teacher shortage in kindergartens, with a much higher pupil-teacher ratio, is worse than that in primary and secondary schools, and it indicates individual kindergarten teachers may be suffering from a huge workload. On the other side of the coin, a large number of kindergarten teachers are recruited even when they do not meet the national minimum standards, and this problem gets worse in private or rural kindergartens.

In allocation. A huge gap straddles urban and rural areas regarding the number of teachers, with the number of kindergarten teachers tilting for urban cities (Pang et al., 2013, p. 33). As reflected by the pupil-teacher ratio, in Yunnan Province, for example, the pupil-teacher ratio is 48.7:1 in public kindergartens and 23.8:1 in private kindergartens (Ding, 2012). The rural-urban gap in terms of pupil-teacher ratio was 41:1 on average between 20 provinces in China, with this gap at 169:1 in Guizhou Province

(Pang et al., 2013, p. 33). In fact, rural areas in 2010 were expected to lack at least 144 thousand kindergarten teachers in place, which accounted for 34.3 percent of China's total demand for kindergarten teachers. The total number of rural kindergarten teachers, what's worse, has been decreasing since 1997 (p. 32).

Regarding the quality of kindergarten teachers, the rural-urban and the private-public gaps are also worth noting. In 2010, the proportion of uncertified teachers in the urban areas of Beijing was lower than 10 percent, while this figure was over 40 percent in the rural areas in Beijing. This rural-urban gap keeps expanding, as the number of rural kindergarten teachers who do not meet the minimum qualification standards made a jump from 14.1 thousand to 20.8 thousand, and the number of rural kindergarten teachers without a professional title increased at an annual rate of 10 percent on average (Pang et al., 2013, p. 32). Meanwhile, a gap exists between private and public kindergartens with regard to the quality of teachers, as the proportion of teachers who are not certified to teach is larger in private kindergartens than in public ones (Liang et al., 2013, p. 217; Wang et al., 2014, p. 28).

In sum, the administration of education has yet to effectively allocate qualified kindergarten teachers to guarantee educational quality and equity. The rural-urban gap is large concerning both the quantity and quality of the teaching force for early childhood education. Also, a quality gap exists between the private and public kindergartens.

In retention. The retention of kindergarten teachers is not promising. The turnover rate in private kindergartens is around 20 percent to 30 percent, with teachers for some classes being replaced four to five times in a semester. Additionally, the number of high school graduates who would choose to study early childhood education is decreasing

at an accelerating rate. A lot of college students who major in early childhood education have decided to work in a field rather different from what they learned in school (Wang et al., 2014, p. 29). Both conditions indicate dropping attractiveness and worsening retention of early childhood education as a profession.

In rural areas, in particular, the retention concerns the public. In an era when an enormous rural-urban gap exists regarding opportunities and social welfare, the total number of rural kindergarten teachers has been decreasing since 1997 (Pang et al., 2013, p. 32), as mentioned earlier. Concurrently, most college graduates or young kindergarten teachers are incapable or unwilling to teach in rural areas, which is an importance reason beneath the fact that many rural kindergartens have not recruited any new teacher for years (Zhang & Yu, 2009).

The salaries are low, the number of kindergarten teachers to be hired within the staff quota system keeps shrinking, and the training opportunities for teachers at the preschool level are limited. All these conditions hurt the retention. First, the salaries for kindergarten teachers are lower than that for primary or secondary school teachers, which has aroused wide dissatisfaction (Liang et al., 2013, p. 21). Second, the staff quota system mandates the number of teachers each educational unit can hire with government-guaranteed job security, salaries, and entitlements, and yet this quota for kindergarten teachers keeps decreasing over a decade. In the meantime, the in-service training is limited for the majority of kindergarten teachers as the training system tends to favor primary and secondary school teachers, which can also discourage pre-service teachers from joining the preschool profession.

A career ladder mechanism, as widely established in the Chinese schools, regularly assigns professional titles to teachers given their qualifications, experience, work performance or so. However, the likelihood to earn recognized professional titles is significantly low for kindergarten teachers. The national average of the percentage of teachers with recognized professional titles in 2010 is 13.2 percent in early childhood education, considerably lower than the national average for primary education, 53.1 percent, lower secondary education, 54.8 percent, and upper secondary education, 59.4 percent (China Education Network, 2011). This lack of chance to earn professional titles negatively impacts retention as well.

In the aspect of retention, in sum, the retention of kindergarten teachers is not promising under the administration of education. The fact is that the turnover rate of teachers in private kindergartens is high, and fewer pre-service teachers would like to teach in early childhood education, with the retention in rural areas very concerning.

Overall for this section, how the administration of education has affected teachers? To answer this question, this thesis examined how the administration of education has affected training, recruitment, allocation and retention for kindergarten teachers respectively—

First, the administration of education was found not in place to deliver sufficient high-quality training to kindergarten teachers. The pre-service training system does not help build the teaching force in rural areas, and the in-service training opportunities are not sufficient for preschool teachers. Additionally, the minimum standards to be met in the pre-service or the in-service training are low.

Second, the administration of education has yet to build an effective recruiting system to absorb the best teachers to the early childhood education sector. The quota keeps shrinking for kindergarten teachers to be hired within the staff quota system that guarantees the job security and benefits for individual teachers. Meanwhile, teacher shortage in kindergartens is worse than that in primary and secondary schools. Concurrently, a large number of kindergarten teachers are recruited even when they do not meet the national minimum standards.

Third, the administration of education has not done well in allocating qualified kindergarten teachers to guarantee educational quality and equity. In China, there exists a phenomenal rural-urban gap concerning both the quantity and quality of kindergarten teachers. A gap between public and private kindergartens regarding the teachers' quality has also aroused public concern.

Lastly, the administration of education has yet to sufficiently retain kindergarten teachers. The turnover rate is high in private kindergartens, and fewer people would like to teach in early childhood education; the low salaries, the shrinking staff quota system, the limited training and the relatively small chance to earn professional titles for kindergarten teachers were found to be part of the reasons.

Chapter 5: Summary and Discussion

Three research questions were considered for this study: 2) What are the relationships that involve teachers in China's curriculum reform cycle for early childhood education? 3) What are teachers' roles in China's curriculum reforms for early childhood education? The findings which would help answer these questions were summarized as follows.

The History and Status Quo of China's Curriculum Reforms

China's early childhood education development, from the past till today, have gone through these four stages: copying the Japanese model (after the Sino-Japan War in the Qing Dynasty in 1895) → establishing an independent system based upon China's own educators' pioneering work (after the May Fourth Movement in 1919) → learning from the Soviet Union models (after People's Republic of China was established in 1949) → embracing the western styles while reviving the domestic models (after China established the "reform and opening up" policy in the 1970s).

China's curriculum for early childhood education has been developed in this way for each of the four stages above: being flexible while emphasizing children's life experience and interests → establishing the first official curriculum which recognized China's own "unit instruction" → replacing "unit instruction" with the Soviet Union's "direct instruction" and "subject instruction" → redefining the curriculums in a more holistic way and building rather comprehensive curricular designs.

The status quo of China's early childhood education can be analyzed through two dimensions: demand and supply. The demand of early childhood education keeps growing. Considering supply, the condition can be specified regarding access, quality, equity, and finance: China's early childhood education has a relatively low gross enrollment rate, a relatively low quality, a phenomenal rural-urban disparity, an obvious gender gap, and a shortage of governmental financial support.

To sum up, four stages can be identified regarding the development process of early childhood education and its curriculum in China. Currently, China's early childhood education has an increasing demand and yet a relatively poor supply.

The Two relationships that Involve Teachers & Teachers' Roles

The two relationships that involve teachers in the conceptual model of China's curriculum reform cycle were targeted: 1) how teachers have affected the implemented curriculum, and 2) how the administration of education has affected teachers. The operationalization of four key curricular elements as adapted from Schmidt et al. and the UNESCO's framework on governments' operations on teachers were adopted below to guide the analysis of the two relationships respectively.

How teachers have affected the implemented curriculum. Adopting the operationalization as mentioned ahead, the Chinese kindergarten teachers' impact on the implemented curriculum was analyzed by each of the four elements critical to the implemented curriculum: goals for students, contents of instruction, methods of instruction, and examinations. Through this analysis, China's kindergarten teachers are found to have had a large impact on the design and implementation of the *teaching goals* and have possessed a significant role in shaping the *instructional methods*. Nonetheless,

these teachers have not obtained sufficient power in designing *the educational or curricular goals,* on which their teaching goals are based; some teachers have failed to carry out the *instructional methods* they identify with into practice. Their influence on the *contents of instruction* and the *examinations* has also been very limited.

How the administration of education has affected teachers. Utilizing the UNESCO's framework on teacher development, the influence of the administration of education on teachers was examined through four aspects: training, recruitment, allocation and retention for kindergarten teachers—

- *In training, the administration of education has yet to deliver sufficient high-quality training to kindergarten teachers:* the pre-service training system in rural areas is not in place, the in-service training opportunities are not sufficient, and the minimum standards to be met through the training are low.
- *In recruitment, the recruiting system under the administration of education has not been effective enough to absorb the best teachers to the early childhood education sector:* the staff quota system which guarantees the job security and benefits for individual teachers has been shrinking, teacher shortage in early childhood education has been worse than other education sectors, while a large number of kindergarten teachers are recruited even when they are not qualified according to the national minimum standards.
- *In allocation, the administration of education has not done well in allocating qualified kindergarten teachers to guarantee educational quality and equity:* a large rural-urban gap exists concerning both the quantity and quality of kindergarten teachers, and a quality gap between public and private kindergartens is also a concern.

- *In retention, the administration of education has yet to sufficiently retain kindergarten teachers:* the turnover rate is high in private kindergartens, and the number of pre-service teachers would like to teach in early childhood education has been declining; the unpromising retention was attributed to the low salaries, the shrinking staff quota system, the limited training and the relatively small chance to earn professional titles.

Through the analysis of the two relationships, teachers' roles in China's curriculum reforms for early childhood education were examined. Overall, teachers, again here we mainly refer to kindergarten teachers, were found to have had a direct impact on the design and implementation of specific teaching goals, contents, instructional methods and examinations, but within a limit. This limit has been, to a large extent, enforced by the administration of education and the society, having restrained teachers to obtain full autonomy and to further develop their professionalism.

Discussion

There is an irony in China's curriculum reforms. The most recent curriculum reforms are calling for decentralization and encouraging school-based decision-making, having aimed for a new curriculum that would help cultivate individuality and innovation. The reality today, however, is that the decentralized scheme remains largely nascent after years of reforms. In early childhood education, in particular, teachers as a critical factor in curricular changes have not obtained sufficient power to make their voice heard either in the high-level reform process or in the school-based curricular decision-making. Through the above analysis of the two relationships that involve teachers in China's curriculum reforms, the problems that have been in the way to successful curricular reforms in the decentralized mode were unveiled. Below, these problems were pulled

together, and some policy suggestions that might help address these problems were presented as alternatives for people to think about.

Problems. Multiple problems exist in different aspects of teachers' effects on the delivery of a curriculum, i.e. the implemented curriculum. These problems were listed in Table 3 below.

Table 3 Problems on the side of teachers in delivering a curriculum

CURRICULAR ELEMENTS	PROBLEMS
Goals for students	• Limited power in designing the educational goals or the curricular goals.
Contents of instruction	• Lack of influence in determining the contents to be covered for students.
Methods of instruction	• Lack of capacity to use effective instructional methods.
Examinations	• Insufficient control over the examinations.

Some relevant problems which the administration of education held accountable for must be considered to seek reasons beneath the above problems on the side of teachers. These problems were displayed is Table 4 below.

Table 4 Relevant problems which the administration of education held accountable for

POLICY DOMAINS	PROBLEMS
Training	• Inadequate pre-service training system in rural areas. • Deficient in-service training opportunities • Low minimum training standards.
Recruitment	• Shrinking staff quota system. • Grave teacher shortage. • A large number of unqualified teachers.
Allocation	• An enormous rural-urban gap regarding the number of teachers. • An enormous rural-urban gap in terms of the quality of teachers. • A large gap between public and private kindergartens concerning the quality of teachers.
Retention	• High turnover rate. • Fewer pre-service teachers who would choose early childhood education as a profession.

In reflection, some problems in the two tables above are linked with each other, as analyzed below.

- Teachers' *limited power in designing the educational goals or the curricular goals* directly associates with their *lack of influence in determining the contents to be covered for students*. The linkage is obvious: the high-level educational goals and the school-based curricular goals mandate the principles that each teacher has to follow when designing its own teaching goals, and it is these teaching goals that directly determine the contents to be taught.
- Teachers' *insufficient control over the examinations* is related to their *inadequate control over the contents to be taught*. As knowledge and skills training have turned indispensable in many of today's kindergartens' curriculum, as enforced by many children's parents and the kindergarten managers, examinations have become inevitable in these kindergartens to monitor children's learning outcomes and to evaluate the effectiveness of teaching.
- The enormous *rural-urban gap in terms of the quantity and the quality of teachers* and the *quality gap between the public and private kindergartens* can be attributed to the *inadequate pre-service training system in rural areas* and the *relatively low national minimum training standards*. The shutdown or integration of rural teachers' colleges in effect has led to the majority of in-service teachers to urban areas, and the relatively low minimum training standards have triggered varying training outcomes among different types of kindergartens, with the teachers' quality resulted from such training spread on either the high or the low end.

- The *grave teacher shortage*, the *large number of unqualified teachers*, the *high turnover rate* and the *declining number of in-service teachers who would choose early childhood education as a profession* can result from the *deficient in-service training opportunities* and the *shrinking staff quota system*. The professional development opportunities and the benefits are significant factors that determine retention, and the lack of these opportunities and benefits would obviously trigger the worsening retention rate.

Policy suggestions. The administration of education has failed to give teachers sufficient autonomy in curricular decision-making and implementation as they claimed. Additionally, many teachers have yet to develop adequate professionalism that is necessary for effectively delivering a curriculum. This condition implies a need of policy alteration so as to address the existing dilemmas. Five policy alternatives were suggested underneath in response to the problems cropped out overhead.

1. More proactively involve teacher representatives in designing the high-level educational goals and the school-based curricular goals. It was found that teachers' *lack of influence in determining the contents to be covered for students* can be attributed to their *limited power in designing the educational goals or the curricular goals*. Meanwhile, teachers' *insufficient control over the examinations* can be resulted from their *inadequate control over the contents to be taught*. Through this analysis, the *limited power in designing the educational goals or the curricular goals* was found to be the fuse of a chain of problems on the side of teachers. To eventually enable teachers to obtain sufficient autonomy in each of the four aspects in implementing a curriculum, the administration of education may consider addressing this problem in the first place.

2. Restore the pre-service teacher training system in rural areas. In the1990s, many specialized teachers' colleges were shut down or integrated into normal universities that were most often located in the middle or large cities. This change has resulted in a significant portion of high-quality pre-service kindergarten teachers being absorbed into developed urban areas and has triggered a shrinkage of the pre-service training opportunities in rural areas. The administration of education could consider restoring the pre-service teacher training system in rural areas to help bridge the gap between rural and urban areas regarding both the quantity and the quality of teachers.

3. Raise the national minimum training standards for early childhood education. Many developed countries mandate teachers to receive training periodically over the full course of a career life whereas China's teacher training standards only require a certain amount of training hours to be fulfilled. Considering the importance of lifelong learning and the varying demand of training at different stages of individual teachers' career development, the administration of education should introduce a set of minimum training standards that target the full-span professional development for teachers.

4. Raise teachers' salaries in early childhood education. The salaries for kindergarten teachers are obviously lower than that for primary or secondary school teachers, which has aroused dissatisfaction and has discouraged pre-service teachers from taking early childhood education as a profession. To attract more talented young people to the field of early childhood education, alleviate the teacher shortage, and enhance the current conditions to achieve better recruitment, allocation, and retention, the administration of education needs to raise the salaries for kindergarten teachers.

5. Build an effective independent system for the teacher training, the staff quota distribution, and the professional entitlements in early childhood education. Training at the preschool level is designed and delivered according to the standards for the teacher training at the primary and secondary levels, where the training sources largely tilt towards elementary and secondary educators. Meanwhile, the staff quota system, which mandates the number of teachers each educational unit can hire with government-guaranteed job security, salaries, and entitlements, keeps shrinking over a decade as it is losing effectiveness when no independent system set for kindergarten teachers is functional now. Additionally, the likelihood to earn recognized professional titles is significantly low for kindergarten teachers when compared with that for primary and secondary teachers. These conditions discourage pre-service teachers from joining the preschool profession, hurt the long-term development of China's kindergarten teachers, and cause impediments for China's curriculum reforms in early childhood education. The administration of education must build an effective independent system that serve preschool teachers only in the aspects of the teacher training, the staff quota distribution, and the professional entitlements.

Chapter 6: Conclusion

The curriculum is the center of education and educational reform, and also a critical dimension of education quality. Teachers are at the heart of quality education as the direct implementers of the curriculum. A dearth of literature in conceptualization and analytical frameworks for analyzing curriculum reforms in education in China, especially in China's early childhood education, makes it rather tricky to analyze teachers' roles in China's recent curriculum reforms. It is paralleled by a scarcity of studies on how to potentially address problems in delivering curriculums in China's new curriculum reforms that are calling for decentralization.

This thesis aims to unfold teachers' roles in China's curriculums, unveil the existing problems relating to teachers in delivering a new curriculum, and find solutions, for China's early childhood education. The research questions considered for this study are: 1) What are the history and the status quo of curriculum reforms in China's early childhood education? 2) What are the relationships that involve teachers in China's curriculum reform cycle for early childhood education? 3) What are teachers' roles in China's curriculum reforms for early childhood education?

Adopting the literature review method in answering the research questions, this thesis first framed the definition of the curriculum, and then constructed a conceptual model on China's curriculum reform cycle. Employing this framework, the thesis then went further to present the history, the status quo, the two relationships that involve teachers in curriculum reforms, and teachers' roles in China's curriculum reforms for early childhood education. In the Discussion section, existing problems, as unveiled in the two relationships, were pulled together into two tables, and five policy alternatives

were suggested accordingly to help address these issues: 1) more proactively involve teacher representatives in designing the high-level educational goals and the school-based curricular goals; 2) restore the pre-service teacher training system in rural areas, 3) raise the national minimum training standards for early childhood education, 4) raise teachers' salaries in early childhood education, and 5) build an effective independent system for the teacher training, the staff quota distribution, and the professional entitlements in early childhood education.

This study brought a new but straightforward conceptual model on curriculum reform cycle in China, revealing the relationships among main change agents: the administration of education, teachers, the intended curriculum, and the implemented curriculum. It helped bridge the literature gap on analytical frameworks for analyzing curriculum reforms in education in China, especially in China's early childhood education, and laid groundwork on what the problems are and how to potentially address these issues in China's new curriculum reforms for early childhood education.

Due to the limited time and the complexity of early childhood education itself, this thesis mainly focused on teachers in kindergartens and teachers' roles in today's curriculum reforms. The paper did not cover teachers in nursery schools or "preschool classes" in primary schools, as resources in these areas are particularly scarce. "Kindergarten teachers" is the term used most frequently in the analysis to refer to the teachers in kindergartens this paper aimed to target. "Preschool teachers" or just "teachers" in a general sense also appeared many times in this thesis, but only to refer to teachers across the early childhood education sector to give a context for focused analysis, not the teachers to our focus. Additionally, while four stages were identified in China's

early childhood education development and in its curriculum reforms for early-age children, the analysis of teachers' roles mainly covered teachers' roles in the recent curriculum reforms instead of their roles across all the four stages.

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