A school-based fusion of East and West: a case study of modern curriculum innovations in a Chinese kindergarten

Abstract

School-based curriculum innovations have been widely implemented in Chinese kindergartens since the turn of the new millennium. However, in the absence of professional guidance, Chinese kindergartens have been forced to 'ride a blind horse' when developing curriculum. The aim of this study was to understand the nature of and mechanisms underlying school-based curriculum (SBC) development (SBCD) in an informative kindergarten in southern China from the sociocultural-historical perspective. Data obtained from interviews, observations and document analysis were triangulated to determine *why* and *how* curriculum innovations had taken place and the nature of the curriculum introduced. Evidence suggested that (1) SBCD in the Chinese kindergarten under study was a dynamic process undertaken in four main stages: *imitation*, *absorption*, *integration,* and *evaluation*; (2) the resulting SBC was a comprehensive and sophisticated curricular system balancing child-centred and teacher-directed pedagogies and hybridising Eastern and Western curricula; and (3) SBCD in the kindergarten under study was guided by Chinese philosophy (highlighting balance and harmony), which offers a valuable perspective on recent curriculum changes in Chinese kindergartens. The theoretical and practical implications of these findings were discussed.

Keywords: curriculum innovation; school-based curriculum development; Chinese kindergarten; Chinese philosophy; Doctrine of the Mean

The quality of early childhood curriculum has drawn considerable attention from policy-makers, researchers and practitioners since the turn of the new millennium (Siraj-Blatchford, Sylva, Muttock, Gilden, & Bell, 2002; Sylva et al., 2007). The educational authorities in China, for instance, issued a set of new curriculum guidelines in 2000 to enhance the quality of curriculum at all levels and to promote school-based curriculum (SBC) development (SBCD) in the field of early childhood education (ECE). SBCD, however, needs full participation, democracy, teacher autonomy, professionalism, and decentralisation, which were absent in Chinese kindergartens (Li, 2006). What is even worse is that there was neither theoretical preparation nor practical guidance for SBCD in China; therefore, Chinese kindergarten teachers had become 'blind men riding blind horses' when developing SBC (Li, 2005). After a decade of piloting SBCD, Chinese kindergartens tended to employ a blend of approaches to SBCD (Tobin, Hsueh, & Karasawa, 2009). However, no evidence-based studies have been conducted to understand *how* and *why* SBCD in kindergarten took place within the Chinese context. This study is dedicated to filling this gap in the literature through a case study of the processes and mechanisms of SBCD in one informative Chinese kindergarten.

Context of the study

Curriculum is a broad concept which is not easy to define. It consists of many components, such as educational goals, content, learning experiences, pedagogy and instructional practices (NAEYC and NAECS/SDE, 2003). In this paper, curriculum is defined as 'a series of planned events intended for students to learn particular knowledge, skills, and values and organised to be carried out by administrators and teachers' (Cuban, 1992, p. 221). SBCD, in this paper, refers to the practice that some or all of the members of a school community develop an aspect or aspects of their own curriculum to meet children's diverse needs and fulfil the cultural

expectations of local communities (Bezzina, 1991; Skilbeck, 1984). This section briefly reviews how kindergarten curriculum and SBCD emerged and developed in China.

Evolution of kindergarten curriculum in China. Kindergarten provides ECE services to young children between 3 and 6 years old in China (Zhu & Zhang, 2008). Public kindergartens are funded by governmental bodies, whereas private ones are run by private groups or individuals (Li, Yang, & Chen, 2016). The first kindergarten in China was established in 1903, which imported teachers and curriculum from Japan (Li & Chen, 2016). Since then, three major waves of early childhood curriculum reform/transformation have taken place, as a consequence of the interactions between local and global forces (Zhu & Zhang, 2008). The most recent wave of ECE reforms in China began in the 1980s, when a series of political, social and economic reforms was initiated to transform the country into a market economy based society (Li & Rao, 2005; Liu & Feng, 2005). Since then, ECE professionals in China have introduced and experimented with a considerable number of educational theories and curriculum approaches from developed countries, especially the US and some European countries (Zhu & Zhang, 2008). Various imported theories, models and programmes, such as the Montessori Method, the Project Approach, the Reggio Emilia approach, the Multiple Intelligences theory, and the HighScope curriculum, have been widely promoted by both researchers and practitioners in China (Li, Rao, & Tse, 2012).

The central government of China has also taken the lead to guide and reform early childhood curriculum over its vast territory. The most influential measure of these reforms was the publication of *Regulations on Kindergarten Education Practice* in 1989 by the National Education Committee (the former Ministry of Education) (Li & Chen, 2016). In this document, the committee presented progressive ideas which emphasise the personal and problem-centred

approaches to recognise and maximise the potential of each child (Eisner, 1992). The following values and ideas were highlighted in this wave of curriculum reforms: (1) respect for children, (2) active learning, (3) teaching for individual learning needs, (4) play-based teaching and learning, and (5) teaching and learning through daily life in kindergartens (Liu & Feng, 2005). Later on, *Guidelines for Kindergarten Education (Trial Version)* (Ministry of Education of China, 2001) was issued in 2001 to further facilitate the curriculum reform. It suggested five domains for kindergarten curriculum – health, language, society, science, and art – and mandated that each domain be taught in sufficient depth. This document has advocated sound principles for teaching and learning to bridge the gap between progressive and traditional subject-based approaches to curriculum and pedagogy in kindergartens (Li & Rao, 2005; Zhu & Zhang, 2008).

SBCD in Chinese kindergartens. SBCD, the process being the decentralisation of curriculum decision-making, has become a global trend since the 1980s (Skilbeck, 1984). According to Yeung (2012), there were four major forces behind the popularity of SBCD: a call for decentralisation of curriculum development, an urge for democratisation of curriculum decision-making, a demand for teacher professionalisation, and a modern call for quality assurance and accountability. Ye (2014) regarded SBCD as an effective way to deepen curriculum decentralisation in China, as it could involve more stakeholders in curriculum development and could redistribute the decision-making power. It could be a potential solution to many educational problems in schools, especially against the background of educational reforms (Bolstad, 2004; Juang, Liu, & Chan, 2005). However, rather than gaining immediate popularity worldwide, SBCD first came to the forefront in Western countries in which teachers had particularly high levels of professional autonomy, such as Australia, Canada, the UK and the US,

and later became influential in places such as China and Singapore (Li, 2005; Marsh, Day, Hannay, & McCutcheon, 1990).

In 1999, the educational authorities of China launched a three-level curriculum management system to redistribute decision-making power at the national, local, and school-based levels (Li, 2005). For the first time, kindergartens and schools officially gained some control over their curriculum. Accordingly, many kindergartens have initiated SBCD to develop their own curriculum. However, without any theoretical frameworks and practical guidelines, most of the kindergartens (if not all of them) have encountered many difficulties in the process. One of these barriers was the originally centralised curriculum decision-making system. In addition, kindergarten teachers did not have the expertise and capacity to develop a brand new curriculum on their own (Li, 2006; Zhu, 2011). They had to 'adopt' or 'adapt' the curriculum models from other kindergartens or even other countries (Li, 2006).

It was shown that the adaptation of Western theories and approaches to Chinese society has created a 'pendulum' effect in the process of kindergarten curriculum reform. The popular curriculum model seems to swing back and forth from one opposing orientation to another: from teacher-directed instruction to child-centred learning, from subject-based teaching to integrated learning, from intentional teaching to play-based learning, from academic orientation to social orientation, and from outcome-based assessment to process-oriented assessment, without reaching an equilibrium (Cuban, 1990; Li et al., 2012; Preus, 2007; Throne, 1994). This pendulum effect had a remarkable impact on the implementation of kindergarten education in China. Eventually, a hybrid of Western-derived and Confucian belief systems about teaching and learning seems to form and be put into practice (e.g. J. Chen, Li, & Wang, in press; Li et al.,

2012; Ng & Rao, 2008). However, very few studies have been done to explore how this hybrid evolved and developed in Chinese kindergartens. This purposive case study aims to fill this gap.

Theoretical framework

Sociocultural-historical theory

Taking into account the complexity of curriculum development, we employed the sociocultural-historical theory (Rogoff, 2003; Vygotsky, 1978) to examine the dynamic and nature of individual, interrelated, and cultural-institutional processes in SBCD. This theory frames the individual aspect of human development or activity in its social and cultural-historical context (Rogoff, 2003). Taking a sociocultural-historical perspective on SBCD means that we look into curriculum development or innovation from three lenses that enable the focus of analysis to be individuals, relations with each other, and the culture (Li & Chau, 2010). These lenses are mutual and show an individual's involvement in a sociocultural context (Jane, Fleer, & Gipps, 2007). Hence, this study focuses on three inseparable planes of SBCD: (1) the individual entity of SBC with its components being examined; (2) the interrelated processes in SBCD as the method of curriculum development and implementation; and (3) the cultural-institutional processes in SBCD as the influencing factors of curriculum development and implementation. To understand the components of curriculum, the developmental stages of curriculum, and the influencing forces behind curriculum development, we further employed the models and ecological systems of SBCD as the foundation for data collection and analysis.

A general model of SBCD

Previous studies have placed SBCD into a six-phase cycle of planning and decision-making in school: (1) goal establishment and needs identification; (2) construction of guidelines; (3) programme planning; (4) preparation and approval of programme budgets; (5) programme

implementation; and (6) programme evaluation (Brady, 1992). Models of curriculum development have also been constructed to provide technical support for SBCD (Brady & Kennedy, 2013; Oliva & Gordon, 2013; Ornstein & Hunkins, 2016). The three main classical models of curriculum development are the Tyler model (Tyler, 1949), the Taba model (Taba, 1962) and the Saylor, Alexander and Lewis model (Saylor, Alexander, & Lewis, 1981). These models have some overlapping areas. For example, they have commonly focused on the aims, content, approaches to and evaluation of curriculum development (Scott, 2007). Curriculum planning, designing, implementation, and evaluation have also received considerable attention in these models regarding the processes of curriculum development. Through reviewing and synthesising these models, we built the aims, content, approaches, and the four developmental stages of a curriculum into a general model of SBCD to detect the features of SBC and the method/processes of SBCD in this study.

Ecological systems of SBCD

There are many forces causing curriculum changes (Oliva, 1992), such as philosophical, psychological and sociological developments (Oliva & Gordon, 2013; Ornstein & Hunkins, 2016). For example, Project Approach and child-centred curricula became very popular when the essentialist and progressivist philosophies were popular during 1925 to 1950 (Oliva & Gordon, 2013). In Chinese context, many sociocultural factors were found very influential in curriculum and pedagogy, such as educational policies, traditional cultural beliefs, national developments, and research (Chan & Rao, 2010; Cheng, 2006; Rao, Ng, & Pearson, 2010). Previous studies also focused on the involvement of stakeholders in SBCD, including teachers, curriculum specialists, administrators, students, parents and other community representatives (Hedges, Cullen, & Jordan, 2011; Oliva & Gordon, 2013). All these factors and their interactions

formulate a complex and dynamic ecology, which requires a comprehensive and inclusive theoretical framework.

Therefore, in this study, we adopted Bronfenbrenner's ecological systems theory (1979, 1986) to understand how a kindergarten curriculum was constructed (affecting and being affected) within the multi-level contexts. As shown in Figure 1, this framework suggests four layers of context that may have impacts on child's being and interact with each other:

(1) *Microsystem*: the environment which has the immediate and face-to-face interactions with the individual. For example, family, peers, school, and community;

(2) *Mesosystem*: the relationships established among settings of the microsystem. For example, the relationship between parents and school, and community supports;

(3) *Exosystem*: the environment which affects an individual's experiences in microsystem and mesosystem but may not directly impact on the individual himself/herself. For example, parent's employment, curriculum policy, and curriculum resources;

(4) *Macrosystem*: the ideology or philosophical system inherent in the society including values, customs, religions, and laws. For example, culture, changing society, and the economic and political systems.

Our understanding is that SBC could be located in the microsystem of child's ecological systems, and the construction of the ecological systems could be used to systematically explore the influencing factors of curriculum practices at meso-, exo-, and macro-system levels.

Accordingly, this case study adopted the syncretic theoretical framework comprising the sociocultural-historical theory, model of curriculum development, and ecological systems theory to understand *how* and *why* the SBC was developed in a purposive Chinese kindergarten. In particular, the following questions guided this study.

(1) What are the features of SBC in the chosen Chinese kindergarten?

(2) How did the kindergarten implement its curriculum innovations?

(3) Why were the curriculum innovations implemented in this way?

Methodology

Research site

The city of Shenzhen is located immediately north of Hong Kong in southern China. Shenzhen was one of China's first Special Economic Zones, open to foreign investment, following the launch of the 'Reform and Opening-up' policy in late 1979. In this 'city of the future', in which East meets West, kindergarten curriculum is regarded as fundamental to ECE accountability.

To explore curriculum development and innovations in China's kindergartens, we purposively chose a kindergarten in Shenzhen according to three criteria. First, we required the kindergarten to be local and registered; second, the children had to be between 3 and 6 years old. On the basis of kindergarten profiles provided by the Education Bureau of Shenzhen, a pool of kindergartens that met these criteria was identified. To select an informative case from the pool, the third and final criterion was set: the kindergarten should have its own curriculum, to ensure that the implementation of curriculum innovations was clearly visible. Through consultation with Shenzhen educators and with reference to official assessment profiles, E-Kindergarten (E-KG) was selected from the pool as an informative case. This kindergarten also provided a convenient site for data collection.

E-KG was a whole-day public kindergarten, supervised by the Administration Centre of Preschool Education run by Shenzhen Investment Holdings Co. Ltd and located in a quiet housing estate in Futian District. The students comprised 470 children in 12 classes, who were

taught by 36 class teachers and 12 nursery teachers at three grade levels (K1: 3 year olds; K2: 4 year olds; K3: 5 year olds). According to the kindergarten principals, the children at E-KG were from diverse socioeconomic backgrounds; most were from middle-class families and a few were from lower-class families. At the time of the study, all of the class teachers except one held an associate degree or above in Early Childhood Education, and all held a Kindergarten Teacher Certificate (KTC). In China, the KTC is the licence awarded by the Ministry of Education of China attesting the official permission for an individual to be a kindergarten teacher (Ministry of Education of China, 1995). In addition, more than 50% of the class teachers had at least 10 years of teaching experience.

Participants

To thoroughly explore curriculum practices at E-KG, we randomly sampled three classes from each grade. Each participating class comprised one senior teacher (Chinese speaking), two team teachers (one Chinese-speaking teacher and one English-speaking teacher) and about 40 children (with an approximately equal gender distribution). The teachers were all female Chinese natives aged between 24 and 45, and had been teaching at the kindergarten for 3 to 25 years. Only one of the participating teachers did not hold an associate degree or above; all held a KTC issued by the Ministry of Education of China.

All of the curriculum leaders (three principals and a teaching researcher) at E-KG and three senior teachers from the participating classes were interviewed. After notifying the participants and obtaining their consent, observations were carried out with the full classes and two target children from each class.

Data collection

To conduct 'methodological triangulation', we gathered data from multiple sources (Yin, 2013), namely (1) audiotaped interviews with principals and teachers, (2) videotaped classroom observation and target-child observation (TCO), and (3) curriculum documents.

Interviews. Prior to the observations, to gain a contextual understanding of the curriculum innovations undertaken at E-KG, the first author interviewed all of the curriculum leaders (Principal A, Principal B, Principal C and Teacher A) for 1-1.5 hours each, using a semi-structured interview protocol. Information was elicited on the aims of, approaches to and factors influencing SBCD at the kindergarten, along with the content and philosophical/theoretical basis of the kindergarten's SBC.

After the observations, all three senior teachers from the participating classes (Teacher B, Teacher C and Teacher D) were interviewed individually by the first author for 30-60 minutes each. We developed a semi-structured interview protocol, drawing on insights gained from the observations and document analysis, to encourage the teachers to report (1) the children's daily activities; (2) learning content and related resources; (3) the children's pedagogical practices; and (4) their own evaluation of curriculum quality and the children's development outcomes. All of the interviews were conducted, audiotaped and transcribed in Mandarin Chinese.

Observations. The participating classes were observed for 1 week to explore the daily routine at E-KG. A familiarisation period was arranged before formal videotaping to enable the teacher and children to become accustomed to the presence of the camera and observer (Li et al., 2012). Each classroom was continually observed for 2-4 hours (3 hours on average) on each observation day. Each class was observed for 2 half-days (one morning session and one afternoon session), giving approximately 18 observation hours for the 3 classrooms (K1, K2 and

K3). In addition to the classroom observations, TCO was carried out to record the daily routines of individual children within a given setting for 60 minutes per day. Altogether six children were observed: one boy and one girl came from each class. Each child was observed for 2 days. The TCO was conducted throughout the day (morning and afternoon, indoors and outdoors), resulting in 12 observation hours for the 6 children.

Documents. Various documents relevant to curriculum innovation were collected as supplementary data. These documents included but were not limited to the following.

(1) Information available on E-KG's official website.

(2) Formal curriculum documents used by the teachers.

(3) Teaching materials (e.g. lesson plans, schedules, books, work produced by children).

(4) Other curriculum materials provided by the interviewees.

(5) Field notes written and collected by the researcher.

Data analysis

The interview transcripts were analysed using open coding and axial coding (Corbin & Strauss, 2014). Consistent with Creswell (2014) guidelines for qualitative data analysis, the following procedures were carried out: (1) reading through transcripts; (2) coding (i.e. labelling portions of each transcript relevant to the research questions); (3) recording the emergence of themes and categories (i.e. clustering relevant codes to form themes and clustering themes to form categories); (4) tabulating the themes and categories; and (5) interpreting the findings. Additionally, general patterns were identified from analysis of the observation data. Document analysis was also conducted to complement and clarify the findings of our analysis of the interview and observation data.

Several techniques were also used to ensure the trustworthiness of the findings, namely *member checking*, *peer debriefing* and *inquiry auditing* (Creswell, 2014). To carry out the *member checking*, three of the participants (Principal C, Teacher C and Teacher D) were interviewed again to check that their opinions on SBCD at E-KG remained consistent with their responses in the initial interviews. *Peer debriefing* was conducted by a PhD student working on ECE to check that the codes and themes represented important parts of the interview transcripts and that the analysis of data drawn from the observations and documents had been accurate. Finally, the second author, a senior researcher, took the role of *inquiry auditor*, responsible for ensuring that the processes of data collection and analysis were sufficiently rigorous for a single case study.

Findings

Aims, approaches, and content of SBC at E-KG

Data drawn from interviews, observations and documents facilitated our in-depth exploration of the SBC at E-KG. As shown in Table 1, the principals and teachers answered three fundamental questions regarding their curriculum practices, as follows. (1) What were their goals for the development of children at their kindergarten? (2) What measures had been taken to achieve the aims of the curriculum? (3) How had the content of the curriculum been designed to support young children's learning? To assess the teachers' actual approaches to curriculum implementation, data from the observations and documents were used to triangulate the interview data.

Insert Table 1 about here

Aims of curriculum. According to the curriculum leaders at E-KG, the curriculum had no fixed aims. However, the following two groups of aims had been trialled by E-KG.

(1) To promote civilised and confident behaviour, a fondness for sports/exercise and proficiency in thinking and learning.

(2) To cultivate curious, active, cooperative and creative dispositions.

In the individual interviews, certain other important objectives for children's learning were mentioned (see the 'aims' section of Table 1). These objectives, which were less explicit, can be divided into two main types: individualist and collectivist. The former emphasised the fulfilment of children's individual needs, and the latter the quality of children's relationships with others and the environment. The difference between these proposed aims/expectations was made clear by Principal B, as follows.

> In my opinion, kids at our kindergarten should feel happy, relaxed and confident. Our curriculum should be *balanced* to support children's academic learning *as well as* their natural instincts. Well, another [objective] is [to cultivate] productive habits. We should encourage kids to be respectful of others and develop good habits *while* being happy here.

Principal B integrated these two distinct types of objectives to give an 'impartial' answer. Other teachers expressed themselves similarly when describing their expectations of children at E-KG. When discussing the approaches taken to achieve these aims, the teachers consistently highlighted the need to structure the curriculum appropriately to support young children's learning and development.

Curriculum approaches. Table 1 shows the fundamental framework for curriculum innovation at E-KG. Four components corresponding to different approaches to supporting children's development were distinguished clearly by the curriculum leaders. On a typical weekday at E-KG, children followed the daily routine shown in Table 2.

Insert Table 2 about here

As indicated by the observation data and shown in Table 2, basic and body-related approaches ('Basic' and 'Body', respectively), played the greatest role in the children's daily lives. The presence of an English-speaking teacher, the use of English as medium for the afternoon of every day, and English thematic activities were manifestations of an English immersion curriculum. Approaches relating to science and technology and parent-children activities were less visible, as indicated by Principal B in the following.

> The science and technology component of our curriculum is intrinsic to the other components. For example, our students pursue scientific and technological enquiry in daily life, during their thematic activities, in learning centres and even during parent-children activities after school. We provide more than 50 sets of science and technology materials in each classroom to support the kids' individual and collaborative learning. We have also prepared a special room as a science and technology operating platform for kids' exploration…

Principal B explained that the science and technology component was not separate from other parts of the curriculum, and that the 'supplementary' parent-children activities were an extension of the kindergarten curriculum.

Content of curriculum. Analysis of the interviews and curriculum documents revealed that the content of the E-KG curriculum was organised as a complex system. The content listed in the 'Body' section and the 'Characteristics' section of Table 2 were emphasised. We asked the following questions. What were E-KG's students expected to learn in learning centres? What were they expected to learn during thematic activities, subject-based teaching and English activities? What sources of knowledge and materials were used in the science and technology activities? Although it was difficult to answer these questions, the following four sources of

content were identified: (1) certain published textbooks, (2) a school-based repository of previous curriculum materials, (3) newly added materials shared by colleagues, and (4) temporary materials or experiences emerging from ongoing activities.

At E-KG, three main textbook series (one for Chinese thematic activities, another for activities related to science and technology and the last for English immersion activities) were used by the teachers, who had collaborated in producing these curriculum materials. However, both the curriculum leaders and the teachers reported that some of the materials in these series were a little outdated. Teacher A noted that the English immersion textbooks 'were published in 2001…I just feel that the content of this series is too easy to be used by children in all three years. It needs to be updated'. To solve this problem, the teachers often added supplementary materials to these well-designed textbooks. Regarding what materials to add and how to collect them as supplementary materials for children and teachers, Teacher A further gave the following explanations.

> These materials generally come from the children's life and from their interests…Our teachers would also visit some foreign websites to find resources from international kindergartens during the preparation of activities. We may collect materials usually used by native English speakers in those international schools to make up for our shortcomings [There are no native English speakers at E-KG]…Newly added materials, for example, can be interesting topics about volcano and earthquake, with series of new activities and materials for kids.

In addition, some 'classical' teaching materials that meet the needs and interests of the children had been accumulated for teachers' long-term reference and usage. Sometimes, teaching

staff were required to improvise in response to children's emerging interests and needs; however, this was 'not particularly easy for every teacher', according to Principal B.

Method of curriculum development and implementation at E-KG

This study revealed that curriculum innovations at E-KG were implemented dynamically in four major steps: (1) imitation, (2) absorption, (3) integration, and (4) evaluation. This four-step process was inferred from the themes that emerged from the interviews with curriculum developers (see Table 3).

Insert Table 3 about here

Imitation. All of the interviewees reported that they had initially tried to copy a well-known curriculum model implemented at another Shenzhen kindergarten, L-KG. L-KG was a whole-day public kindergarten, also supervised by the Administration Centre of Preschool Education run by Shenzhen Investment Holdings Co. Ltd and located in Futian District, Shenzhen City. According to some documents (i.e. L-KG's official website and its published book on their own SBC), L-KG firstly borrowed the Montessori Method and an English immersion programme in initiating the SBCD in 2000. During the process of SBCD, the Reggio Emilia approach was subsequently learned to improve the collective thematic activities of L-KG in 2001. Later on, consultants of the kindergarten introduced the HighScope curriculum into L-KG to propel the development of its curriculum in 2007. Principal C made the following remarks when she talked about L-KG.

> We did not begin implementing [curriculum development/innovations] until Principal A [concurrently the principal of L-KG] came here in 2009. L-KG is famous for its curriculum, which is based on a localised version of the Montessori Method…We

arranged teachers to visit L-KG and receive training in its terrific curriculum practices…So we're just 'standing on the shoulders of giants'.

The arrival of Principal A, whose strong curriculum leadership was confirmed by other interviewees, clearly marked the starting point of SBCD at E-KG. Teachers at E-KG soon began to copy the SBC at L-KG, which was deemed a model curriculum.

Absorption. It is not easy to transfer a curriculum from one school to another, as teachers in a new context may not thoroughly understand the underlying principles or put the correct practices in place. In other words, it is difficult to 'digest' everything done in another kindergarten. Teachers must work together to absorb useful practices and collect or develop resources for the implementation of curriculum innovations. The curriculum developers interviewed in this study were also aware of the need to go beyond previous models to develop useful features and discard those of less use. As stated by the four curriculum leaders, teachers' professional competence plays a significant role in high-quality implementation even after curriculum ideas, practices and models have been fully absorbed.

Integration. The three principals (i.e. Principal A, Principal B and Principal C) all emphasised the need for a comprehensive curriculum framework and system. As both Principal A and Principal B pointed out, constructing an SBC framework and system requires professional guidance from curriculum experts. All of the interviewees realised that to implement a comprehensive curriculum system rather than merely scattered innovations, the distinctive characteristics of the school's community and children should be accommodated. In addition, effort should be made to implement all aspects of the curriculum, not merely some of them. For instance, the principals at E-KG asked the teachers to strengthen children's thematic activities and subject-based teaching (especially in music and physical education), despite the strengths of

L-KG in learning-centre activities. Similarly, the teachers at E-KG valued collaborative learning and individual learning in learning centres, and thus developed many materials requiring children's collaboration. They felt that the learning centres at L-KG failed to adequately support children's collaborative learning, as they over-emphasised individual learning in line with the Montessori Method.

Evaluation. The following six groups of stakeholders contributed to the major sources of data used to evaluate curriculum implementation and innovation at E-KG: (1) class teachers, (2) parents, (3) experts, (4) peers at other kindergartens, (5) local authorities, and (6) primary school teachers. Indeed, the curriculum developers at E-KG continually collected 'data' from these sources on children's learning and development and the strengths and weaknesses of the curriculum through feedback on visits and official quality reviews. Based on these data, the developers made suitable and timely improvements to the curriculum and determined future directions for curriculum development.

Influencing factors of curriculum development and implementation at E-KG

Four categories from the ecological systems framework (Bronfenbrenner, 1979, 1986) are used to classify the themes that emerged in the individual interviews with the principals and teachers, as shown in Figure 1, to provide a robust explanation that accommodates the influence of factors at multiple levels on SBCD. We can see a comprehensive range of factors influencing curriculum decision-making, including students' needs (e.g. "catering for individual differences", "promoting children's holistic development"), parents' needs (e.g. "parents' demands"), school's needs and characteristics (e.g. "the demand of development", "director's curriculum leadership", etc.), and even the social, cultural, and contextual requirements (e.g. "curriculum reform", "policies", "Chinese culture", etc.). In this section, the essential themes indicating key reasons

for the method of implementation of curriculum innovations at E-KG are reported with more details.

Insert Figure 1 about here

'Doctrine of the Mean'. This study revealed that the Chinese educational philosophy of the Doctrine of the Mean (*Zhongyong*, 中庸) affects educators' curriculum decision-making, whether consciously or unconsciously. Doctrine of the Mean is a doctrine of Confucianism, which has also been the title of one of the Four Books (四书) of Confucian philosophy in ancient China. In James Legge's translation of the text, the goal of the mean is to maintain balance and harmony from directing the mind to a state of constant equilibrium (Tsze-sze & Legge, 1893). The following statement by Principal C clearly illustrates this finding.

> We should be more *Zhongyong*; we should not go to extremes. Some of the children's learning should take place through subject-based teaching, as in fields such as mathematics, physical education and music. Some should be integrated through thematic activities…Diverse approaches [towards children's learning] should be used. Yes, 'teaching is not fixed'.

Principal B expressed a similar sentiment when evaluating the success of the 'learning through play' principle, as follows.

> It's good for young kids to engage in free play. But I don't like my children to play constantly. I wouldn't approve of their studying all the time either…We may need to find a middle ground to achieve balance.

The Chinese philosophical emphasis on balance and harmony evidently played an important role in shaping the curriculum, especially at the integration stage. Similar beliefs expressed in interviews are shown in Table 4.

Insert Table 4 about here

Imported curriculum models. As noted above, E-KG replicated the curriculum model introduced at L-KG as a basis for its own curriculum innovations. Further document analysis revealed that the SBC at L-KG was developed on the basis of diverse curriculum models imported from the West, such as the Montessori Method (Italy), the Reggio Emilia approach (Italy), the HighScope curriculum (US), and the language immersion programme (Canada). The document analysis was done with the information available on L-KG's official website and its published book on their own SBC. Here are two critical quotes (English translation from Chinese texts) from the documents.

(1) Our kindergarten has developed the school-based curriculum, the 'Lotus Curriculum', under the supervision and guidance of specialists from Beijing Normal University, Shaanxi Normal University, and The University of Hong Kong since 2000… We introduced the English immersion programme under the long-term guidance of Prof. Zhao Lin and Prof. Linda Siegel… (From L-KG's official website)

(2) We borrowed and absorbed the approaches from the Montessori Method, Reggio Emilia, Multiple Intelligences theory, and HighScope. We also rooted our school-based curriculum in the ground of Chinese culture by integrating the *Guidelines for Kindergarten Education (Trial Version)* into our curriculum to propel its localisation… (From L-KG's published book about their SBC)

Therefore, the curriculum innovations initiated at E-KG were indirectly influenced by these imported curriculum models. As said by Principal C, she wanted her teachers to 'stand on the shoulders of giants' by arranging teachers to be trained by L-KG in its curriculum practices. During the 'absorption' stage of development, the practitioners at E-KG borrowed useful

features from the imported models and discarded those of less use. The developers successfully mixed and matched the 'ingredients' of these established curriculum models or approaches in their own kindergarten, which may in part explain the resulting complexity of curriculum structure and the processes of 'absorbing' and 'integrating' borrowed curriculum practices.

Parents' demands. The teachers indicated in interview that parents were enormously demanding regarding their children's English learning, as explained by Teacher A below.

> If we failed to provide an English curriculum, parents would enrol their kids on external, supplementary English learning programmes…We surveyed parents and found the English curriculum to be most in demand. They said that it would be a great loss if our kindergarten did not provide an English-learning service…

Parents with a middle to upper-middle socioeconomic status seemed particularly concerned about challenges posed by the globalising world to their children's growth and development. As reported by Principal C, parents tended to feel satisfied with the kindergarten when their children were able to speak English naturally and fluently. Where there is demand, there is supply. E-KG had to meet parents' expectations regarding curriculum implementation.

Participation in research projects. The principals told us that they had participated in many research projects supporting SBCD. For example, E-KG was the experimental setting for a research project on early childhood science and technology education led by the National Institute of Education Sciences of China. This experience led the school to emphasise the science and technology component of SBCD, as indicated above. As such research projects generally combine teaching and research, they may help kindergartens to attract guidance on curriculum development from experts.

In addition, participating in research projects gave kindergarten teachers the opportunity for training and skills enhancement. As noted by Principal B and Principal C, teachers at E-KG experienced lots of 'moke' (磨课) – 'lesson polishing' – during the abovementioned research project. First, a teacher's lesson was observed, and feedback was provided by peers and experts. The teacher modified the lesson accordingly and taught it again, receiving further feedback. This process was repeated until the teacher was deemed to have taught a satisfactory or high-quality lesson. The E-KG teachers generally underwent three iterations of lesson polishing (一课三研). Due to teachers' participation in research and the accompanying lesson polishing, teaching at E-KG was strong in diverse areas of the curriculum. For example, some of the teachers were good at providing science and technology education, some at providing music education and others at providing physical education. Then these specialists would become the leading teachers in different areas of the SBC at E-KG to promote its sustainable development.

Discussion

The status of blending and balance in the individual SBC

Consistent with the previous finding that the pedagogy in Hong Kong kindergartens is a hybrid drawing on both Chinese and Western educational philosophies (J. Chen et al., in press; Ng & Rao, 2008; Rao et al., 2010), the current study revealed that different pedagogical approaches and curriculum models had also been borrowed and integrated to develop SBC in Mainland China. The participating principals and teachers recognised this and highlighted the notion of Doctrine of the Mean (or so-called *'Zhongyong'* by Confucius) which is similar to the philosophy of eclecticism. The Doctrine of the Mean was interpreted by Li (2005) as being rational and balanced, changing with the times, and being harmonised but different. Coincidently, besides the self-report by interviewees, this study found the actual practices that Chinese

educators tended to adopt an eclectic approach to SBCD at E-KG. For example, four complementary approaches were implemented to facilitate the realisation of both individualist and collectivist objectives reported by the principals and teachers (see Table 1). These findings jointly indicated that the traditional Chinese philosophy (emphasising balance and harmony) had influenced SBCD in Chinese kindergartens. And this influence could be better detected and understood from the planes of individual, interrelated, and cultural-institutional processes according to the sociocultural-historical theory (Rogoff, 2003). Both examples and connotations of balance and harmony with regard to curriculum development can be examined on these three planes. The aforementioned example of curriculum approaches and objectives is analysed on the plane of the individual entity of SBC. Apart from this, more evidence from this informative case (as shown in Table 3, Table 4, and Figure 1) also suggested that the status of blending could be understood from the interrelated and cultural-institutional processes of SBCD.

How did the interrelated process of SBCD take place

It was found that the SBC of E-KG had become a balanced fusion of the traditional model of teacher-directed learning and the progressive model of child-centred play/inquiry. Consistent with the findings of previous research (J. Chen et al., in press; Li et al., 2012), this study provides evidence of a 'paradigm shift' in Chinese kindergarten educators' beliefs: the traditional model of teacher-directedness was replaced by the progressive model of child-centredness initiated in the West, which in turn was replaced by an amalgam of the two. This change in beliefs may have been affected by the kindergarten curriculum reforms launched in China, and in turn influenced the development and implementation of school-based curricula in kindergartens. In the broader context of China's kindergarten curriculum reform, which emphasises Western-derived constructivist and child-centred pedagogies (J. Chen et al., in press),

this study revealed the fundamental framework (i.e. processes and underlying mechanisms; see Figure 2) of kindergarten SBCD undertaken by Chinese educators.

Insert Figure 2 about here

As shown in Figure 2, with principals' curriculum leadership and experts' professional guidance, teachers worked as a team to copy, absorb and integrate best curriculum practice in other schools/programmes, drawing on necessary resources to construct a comprehensive and balanced curriculum. This in-depth qualitative study thus makes a novel contribution to the existing literature (Bezzina, 1991; D.-T. Chen, Wang, & Neo, 2015) by exploring the dynamic process of SBCD in Chinese kindergarten undertaken in four main stages: *imitation*, *absorption*, *integration,* and *evaluation*.

Further explanations from the cultural-institutional plane

The mechanisms underlying the dynamic process of curriculum development can be understood from both a micro and a macro perspective as shown in Figure 2. At the micro level, parents' demands, principals' leadership, kindergartens' characteristics, teachers' professional competencies and so on, were found to affect curriculum development, consistent with the findings of previous research (e.g. Oliva & Gordon, 2013; Priestley, Minty, & Eager, 2014); the importance of teachers' participation in research projects was a new insight. From the macro perspective, consistent with previous literature (e.g. Oliva & Gordon, 2013; Ornstein & Hunkins, 2016), imported curriculum models, curriculum reforms, socio-contextual characteristics and globalisation are all responsible for the changes to China's kindergarten curriculum. The underlying mechanisms of SBCD uncovered in this study is consistent with the identification of the dynamic effects of various local and global factors on the curriculum (Zhang & Heydon, 2015). Also, the study revealed that traditional Chinese philosophy and cultural values greatly

affect educators' curriculum decision-making. The so-called Doctrine of the Mean (eclecticism as a philosophy and an approach) was found to offer crucial insights into the curriculum innovations implemented at E-KG as mentioned above.

Moreover, the findings of this study may reflect the historical progression of kindergarten curriculum reform in China. Since 2001, various curricula – such as the Project Approach, the Reggio Emilia approach, and the Montessori Method – have been widely borrowed and localised in China (Li, 2005). Many new school-based curricula have been developed in China, and SBCD has become a new trend in early childhood settings. Chinese kindergartens have broken the boundary between subject-based and theme- or unit-based curricula and developed a school-based fusion of curricula. This study also provides evidence to support the following statement by Tobin and his colleagues (2009).

> The aggressive push toward progressivism and child-centredness that characterised Chinese early childhood education from about 1990 to 2005 has begun to be counterbalanced by an acknowledgment of the value of traditional Chinese pedagogical practices and theories. This leads to the prediction that the period of intense borrowing will soon be replaced by a period of consolidation, localisation, and hybridisation of foreign and domestic educational ideas. (p. 236)

However, the Confucian-Western dichotomy has been criticised for being both misleading and too simplistic to accommodate the complexity and diversity of curricular and pedagogical practices (Biggs, 1996; J. Chen et al., in press; Ryan & Louie, 2007). "Cultural differences are generally variations on themes of universal import, with differing emphasis or value placed on particular practices rather than all-or-none differences (Rogoff, 2003, p. 64)." It is not our goal to distinguish the Eastern versus Western part of the curricular and pedagogical

practices at E-KG. The current study goes beyond and to some extent, demonstrates the value of importing and adapting educational principles and curriculum models to diverse ways of life, as globalisation has resulted in rich diversity (Pearson, 2011). In particular, the study investigated ways in which a balance between change and tradition, East and West, the local and the global, can be achieved and maintained. In addition, new insights are provided into the process of importing approaches to shape high-quality early childhood curricula. It remains unclear how many kindergartens in modern China have adopted a blend of curriculum approaches or models. However, in showing *how* and *why* the educators in one common Chinese kindergarten have implemented curriculum innovations, this study reveals some unique features of kindergarten curriculum innovation in the Chinese context and indicates the potential value of amalgamation as an approach to kindergarten SBCD in today's globalised world.

Conclusion

This study would contribute to the theory development in understanding the outcomes, processes, and influencing factors of SBCD in the field of ECE within Chinese contexts. From the sociocultural-historical perspective, this study reveals the unique and strong influence of Chinese philosophy, especially the Doctrine of the Mean, on Chinese educators' beliefs and practices of SBCD in kindergarten. It also examines the impact of the reform initiatives on the curricular and pedagogical practices, and would provide implications for policy-makers in reflecting and promoting the ongoing early childhood curriculum reforms. Furthermore, it would serve as a valuable reference for early childhood educators in reflecting and enhancing curriculum implementation and innovation. Albeit firmly rooted in data from multiple sources and yielding consistent findings, this qualitative study has certain limitations. As the case was selected using criteria-based purposive sampling, it is important to be cautious in generalising the

findings to other situations. In addition to constructing similar case enquiries to complement the qualitative findings of the current study, future researchers should quantitatively investigate curriculum implementation in Chinese kindergartens. A larger and more diverse sample will undoubtedly provide additional insights into curriculum practices and help to ascertain the generalisability of the theoretical findings in this in-depth and informative case study.

References

Bezzina, M. (1991). Teachers' perceptions of their participation in school-based curriculum development: A case study. *Curriculum Perspectives, 11*(2), 39-47.

Biggs, J. (1996). Western misperceptions of the Confucian-heritage learning culture. In D. W. J. Biggs (Ed.), *The Chinese learner: Cultural, psychological and contextual influences* (pp. 45-67). Hong Kong: Comparative Education and Research Centre and Australian Council for Educational Research.

Bolstad, R. (2004). School-based curriculum development: Principles, processes, and practices. *Journal of Curriculum Studies, 31*(1), 83-97.

Brady, L. (1992). *Curriculum development (4th Ed.)*. Sydney: Prentice Hall.

Brady, L., & Kennedy, K. (2013). *Curriculum construction*: Pearson Higher Education AU.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by design and nature*. Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental psychology, 22*(6), 723-742.

Chan, C. K. K., & Rao, N. (2010). The paradoxes revisited: The Chinese learner in changing educational contexts. In C. K. K. Chan & N. Rao (Eds.), *Revisiting The Chinese Learner* (pp. 315-349). Hong Kong: Springer.

Chen, D.-T., Wang, L.-Y., & Neo, W.-L. (2015). School-based curriculum development towards a culture of learning: Nonlinearity in practice. *British Journal of Educational Studies, 63*(2), 213-228.

Chen, J., Li, H., & Wang, J. (in press). Implementing the project approach: A case study of hybrid pedagogy in a Hong Kong kindergarten. *Journal of Research in Childhood Education*.

Cheng, D. P.-W. (2006). The translation of Western teaching approaches in the Hong Kong early childhood curriculum: A promise for effective teaching? *Contemporary Issues in Early Childhood, 7*(3), 228-237.

Corbin, J., & Strauss, A. (2014). *Basics of qualitative research: Techniques and procedures for developing grounded theory (4th Ed.)*. Thousand Oaks, CA: Sage publications.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.)*. California: Sage publications.

Cuban, L. (1990). Reforming again, again, and again. *Educational researcher, 19*(1), 3-13.

Cuban, L. (1992). Curriculum stability and change. In P. W. Jackson (Ed.), *Handbook of research on curriculum: A project of the American Educational Research Association* (pp. 216-247). New York: Macmillan Publishing Company.

Eisner, E. W. (1992). Curriculum ideologies. In P. W. Jackson (Ed.), *Handbook of research on curriculum: A project of the American Educational Research Association* (pp. 302-326). New York: Macmillan Publishing Company.

Hedges, H., Cullen, J., & Jordan, B. (2011). Early years curriculum: Funds of knowledge as a conceptual framework for children's interests. *Journal of Curriculum Studies, 43*(2), 185-205.

Jane, B., Fleer, M., & Gipps, J. (2007). *Changing children's views of science and scientists through school-based teaching.* Paper presented at the Asia-Pacific Forum on Science Learning and Teaching, Hong Kong.

Juang, Y.-R., Liu, T.-C., & Chan, T.-W. (2005). Web-based performance support system for school-based curriculum development: SBCDSS. *Computer Science and Information Systems, 2*(2), 37-64.

Li, H. (2005). *Developing school-based curriculum in Hong Kong kindergartens: Insights, challenges and solutions*. Hong Kong: The Hong Kong Institute of Education.

Li, H. (2006). School-based curriculum development: An interview study of Chinese kindergartens. *Early Childhood Education Journal, 33*(4), 223-229.

Li, H., & Chau, L. (2010). Story Approach to Integrated Learning (SAIL): A postmodernism curriculum for Hong Kong kindergartens. In L. E. Kattington (Ed.), *Handbook of curriculum development* (pp. 329-346). New York: Nova Science Publishers.

Li, H., & Chen, J. J. (2016). Evolution of the early childhood curriculum in China: the impact of social and cultural factors on revolution and innovation. *Early Child Development and Care*, 1-13.

Li, H., & Rao, N. (2005). Curricular and instructional influences on early literacy attainment: Evidence from Beijing, Hong Kong and Singapore. *International Journal of Early Years Education, 13*(3), 235-253.

Li, H., Rao, N., & Tse, S. K. (2012). Adapting Western pedagogies for Chinese literacy instruction: Case studies of Hong Kong, Shenzhen, and Singapore preschools. *Early Education & Development, 23*(4), 603-621.

Li, H., Yang, W., & Chen, J. J. (2016). From 'Cinderella' to 'Beloved Princess': The evolution of early childhood education policy in China. *International Journal of Child Care and Education Policy, 10*(1), 2. doi:10.1186/s40723-016-0018-2

Liu, Y., & Feng, X. (2005). Kindergarten educational reform during the past two decades in mainland China: Achievements and problems. *International Journal of Early Years Education, 13*(2), 93-99.

Marsh, C., Day, C., Hannay, L., & McCutcheon, G. (1990). *Reconceptualizing school-based curriculum development*. London: The Falmer Press.

Ministry of Education of China. (1995). Regulations on teacher qualification. Retrieved from http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_620/200409/3178.html

Ministry of Education of China. (2001). *Guidelines for kindergarten education (Trial Version)*. Beijing: The author.

NAEYC and NAECS/SDE. (2003). *Joint position statement on early childhood curriculum, assessment, and program evaluation: Building an effective, accountable system in programs for children birth through age 8*. Retrieved from Washington, DC:

Ng, S. S., & Rao, N. (2008). Mathematics teaching during the early years in Hong Kong: A reflection of constructivism with Chinese characteristics? *Early Years, 28*(2), 159-172.

Oliva, P. F. (1992). *Developing the curriculum (3rd Ed.)*. New York: HarperCollins.

Oliva, P. F., & Gordon, W. R. (2013). *Developing the curriculum (8rd Ed.)*. New Jersey: Pearson.

Ornstein, A. C., & Hunkins, F. P. (2016). *Curriculum: Foundations, principles, and issues (7th Ed.)*. New Jersey: Pearson Education.

Pearson, E. (2011). Avoiding Recolonisation in Early Childhood: promoting local values as mediators in the spread of globalisation. *Contemporary Issues in Early Childhood, 12*(3), 212-223.

Preus, B. (2007). Educational trends in China and the United States: Proverbial pendulum or potential for balance? *Phi Delta Kappan, 89*(2), 115-118.

Priestley, M., Minty, S., & Eager, M. (2014). School-based curriculum development in Scotland: curriculum policy and enactment. *Pedagogy, Culture & Society, 22*(2), 189-211.

Rao, N., Ng, S. S., & Pearson, E. (2010). Preschool pedagogy: A fusion of traditional Chinese beliefs and contemporary notions of appropriate practice. In C. K. K. Chan & N. Rao (Eds.), *Revisiting The Chinese Learner: Changing Contexts, Changing Education* (pp. 255-279). Hong Kong: Springer.

Rogoff, B. (2003). *The cultural nature of human development*. Oxford: Oxford University Press.

Ryan, J., & Louie, K. (2007). False dichotomy? 'Western'and 'Confucian'concepts of scholarship and learning. *Educational Philosophy and Theory, 39*(4), 404-417.

Saylor, J. G., Alexander, W. M., & Lewis, A. J. (1981). *Curriculum planning for better teaching and learning(4th Ed.)*. New York: Holt, Rinehart and Winston.

Scott, D. (2007). *Critical essays on major curriculum theorists*. London: Routledge.

Siraj-Blatchford, I., Sylva, K., Muttock, S., Gilden, R., & Bell, D. (2002). *Researching effective pedagogy in the early years*. Retrieved from London:

Skilbeck, M. (1984). *School-Based Curriculum Development*. London: Harper & Row.

Sylva, K., Taggart, B., Siraj‐Blatchford, I., Totsika, V., Ereky‐Stevens, K., Gilden, R., & Bell, D. (2007). Curricular quality and day-to-day learning activities in pre-school. *International Journal of Early Years Education, 15*(1), 49-65.

Taba, H. (1962). *Curriculum development: Theory and practice*. New York: Harcourt Brace Jovanovich.

Throne, J. (1994). Living with the pendulum: The complex world of teaching. *Harvard Educational Review, 64*(2), 195-208.

Tobin, J. J., Hsueh, Y., & Karasawa, M. (2009). *Preschool in three cultures revisited: China, Japan, and the United States*. Chicago and London: University of Chicago Press.

Tsze-sze, & Legge, J. (1893). *The Doctrine of the Mean*: Clarendon Press.

Tyler, R. W. (1949). *Basic principles of curriculum and instruction*. Chicago: The University of Chicago Press.

Vygotsky, L. S. (1978). *Mind in society: The development of higher mental process*. Cambridge, MA: Harvard University Press.

Ye, W. (2014). *Power and moral education in China: Three examples of school-based curriculum development*. Maryland: Lexington Books.

Yeung, S. S. Y. (2012). Curriculum policy and priorities in an era of change. In S. S. Y. Y. J. T. S. Lam, A. W. L. Leung, & Y. C. Lo (Eds.), *Curriculum change and innovation* (pp. 59-92). Hong Kong: Hong Kong University Press.

Yin, R. K. (2013). *Case study research: Design and methods*: Sage publications.

Zhang, Z., & Heydon, R. (2015). The changing landscape of literacy curriculum in a Sino-Canada transnational education programme: an actor-network theory informed case study. *Journal of Curriculum Studies*, 1-18.

Zhu, J. (2011). *Kindergarten Curriculum (2nd Ed., in Chinese)*. Shanghai: East China Normal University Press.

Zhu, J., & Zhang, J. (2008). Contemporary trends and developments in early childhood education in China. *Early Years: An International Research Journal, 28*(2), 173-182.

Table 1

SBC at E-KG: Perceived aims, approaches and content

Aims	*Individualism*	Being happy
		Autonomy
		Initiative
		Confidence
		Curiosity
	Collectivism	Being thankful
		Cooperation
		Rule consciousness
		Good habits
		Self-care
Approaches	*Basic*	Daily life activities
		Free play
		Physical exercise
	Body	Learning-centre activities
		Thematic activities
		Subject-based teaching
	Characteristics	English immersion
		Science and technology
	Supplementary	Parent-children activities
Contents	Textbooks	
	Accumulation of classical resources	
	Shared materials	
	Emergent activities	

Table 2

Daily routines of children at E-KG

Time	Activity	Language
7:45-9:00	Daily-life activity (travelling to kindergarten) Daily-life activity (breakfast, using bathroom, etc.)	Mandarin (English teacher can only speak English)
9:00-10:00	Outdoor physical exercise (optional exercise, free play)	
10:00-11:30	Learning-centre activity (individual and collaborative learning) Thematic activity/subject-based teaching	
11:30-12:15	Daily-life activity (bathroom; lunch; after-lunch activity)	
12:15-14:40	Daily life activity (afternoon nap, bathroom, etc.)	English (Chinese teachers try to speak English)
14:40-16:00	Outdoor physical exercise (collective exercise or free play) Daily life activity (afternoon tea, bathroom, etc.)	
16:00-16:40	English thematic activity	
After 16:40	Daily-life activity (leaving kindergarten)	

Note. There were some very slight differences in the daily routines of the K1 and K2/K3 children.

Table 3

Drivers, processes and outcomes of implementation of curriculum innovations

Driver	a. Curriculum leadership b. Professional guidance c. Teachers' professional competence d. Teamwork e. Resources	
Process	*Imitation*	'Copying'; 'standing on the shoulders of giants'
	Absorption	a. 'Thoroughly understanding' (吃透) / 'putting in place' (到位) b. 'Developing that which is useful or healthy and discarding what is not' (扬弃)
	Integration	a. Tailoring to distinctive 'characteristics' (特色) b. Ensuring balance
	Evaluation	a. Class teachers' observations on child development b. Feedback from parents and primary-school teachers c. Experts' and peers' comments d. Quality assessment by local authorities
Outcome	a. A comprehensive and balanced curriculum system b. Teachers' professional development	

Table 4

References to the so-called Doctrine of the Mean in interviews

	References by interviewees
Chinese philosophical emphasis on balance and harmony	'Teaching is not fixed' (教无定法) 'Cannot go to extremes' (不走极端) 'Exist side by side and play a part together' (相辅相成) 'Be complementary' (互补) 'Coexistence' (共存) and 'fusion' (融合) 'Should be balanced' (平衡)

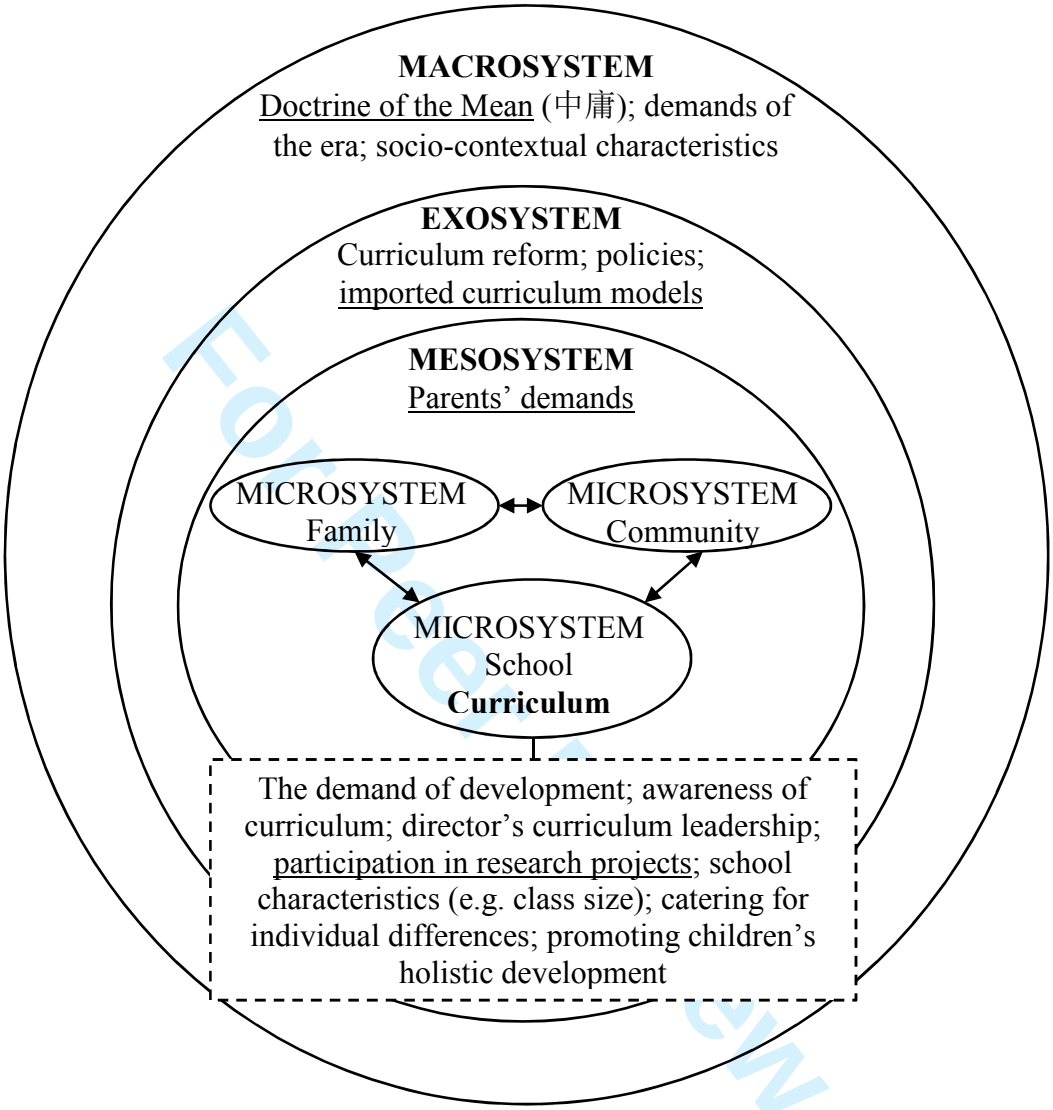

Figure 1. Perceived reasons for the implementation of curriculum innovations.

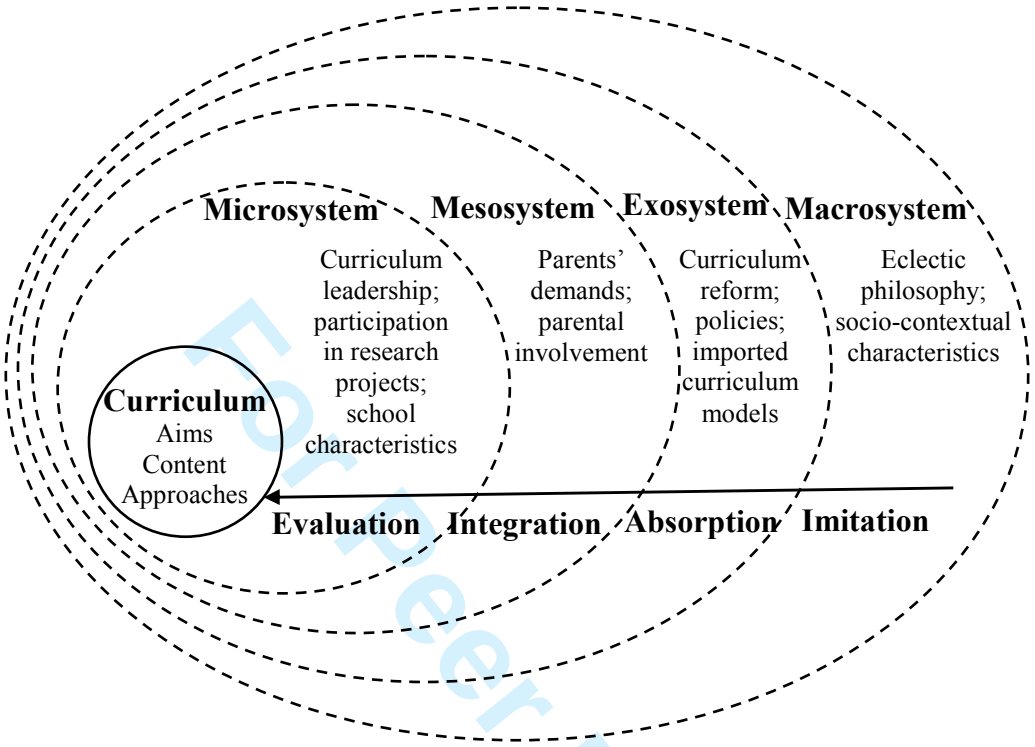

Figure 2. Comprehensive and inclusive framework for kindergarten curriculum development in China.