

A Comparative Experiment of Two Pedagogical Modes of Picture Books Reading in China's Kindergarten

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Abstract: *An experimental group and a comparison group were chosen from an ordinary kindergarten in Dongguan City, China to conduct an eight-week comparative pedagogical experiment of different modes in reading bilingual picture books. One hundred and sixty children participated in the experiment, and each group comprised three- to five-year-old children in three classes of Nursery, Lower- and Upper-Kindergarten respectively. The experiment group adopted the interactive pedagogical mode of Early Synchronous Bilingual Reading (ESBR), whereas the comparison group read Chinese picture books and employed the regular instructional mode of Chinese reading class. The experiment results showed that ESBR mode is popular among children participants; their reading habits and interest were developed, and their bilingual reading comprehension and oral expression competences were improved significantly in play and performance through interactive reading and creating a quasi-acquisition environment of English. This mode performs much better than the common Chinese reading instructional mode. Therefore, this instructional mode enjoys great popularity and active participation among the principals and teachers of kindergarten and parents.*

Key Words: *kindergarten in China; instruction of reading picture books; two reading modes; comparative experiment*

1. Introduction

Since 2012, China's Ministry of Education prohibited kindergartens from offering interest-oriented classes and talented classes, adopting textbooks of primary schools and teaching in elementary school style. Reading is the only language education course not influenced by the educational policies, so kindergartens attaching more importance to reading, and early reading in kindergartens will directly affect children's reading ability and academic performance in later life (Li, 2013).

The Education Guidelines for Kindergartens (Ministry of Education of China, 2001) clearly points out that "guide preschoolers to get to know the outstanding children's literature works, experience the diversity and grace of language, and enable them to better understand the works through various activities." Picture books are illustrated reading materials and their function of narrating through illustration fit the characteristics of children's development. They can inspire children's imaginative competence and cultivate their reading interest. Many kindergartens

started to offer reading course, but they are still exploring the choice of reading modes and materials (Zhang, 2013).

Most kindergartens in China choose Chinese picture books as materials for reading course, and they usually adopt the reading modes of “teacher reading to children” and “children’s independent reading.” Kindergartens usually could only offer only one copy of each kind of book, so children cannot see illustrations when their teachers read stories aloud to them. Moreover, young children cannot recognize words when they read independently and teachers do not have enough time to teach one-to-one. Therefore, these two regular reading modes cannot enable children to comprehend the story fully through combining words with pictures and have an ideal reading effect (Kang, 2013).

Play is the nature of all children (Miao, 2012; Zhang, 2013) and performance is an advanced form of play (Meng, 2014). The purpose of the current experiment is to study if children’s Chinese-English bilingual reading comprehension and expression competences can be improved in play through the pedagogical mode of interactive performance in reading course.

2. Experiment design

2.1 Experiment participants and period

An experimental group and a comparative group were chosen from an ordinary kindergarten in Dongguan City, China for this eight-week pedagogical experiment of reading picture books. One hundred and sixty-seven preschoolers in six classes participated in the experiment, and each group comprised three classes of nursery, lower kindergarten and upper kindergarten.

2.2 Reading materials

The reading materials for the comparative group were the existing Chinese picture books (the kindergarten did not have Chinese-English bilingual or English picture books).

The reading materials for the experimental group are the level one to four of *The Key Words Reading Scheme*, introduced and published by The Beijing Normal University Press, and includes 12 bilingual picture books with CDs of slow-speed recording in Standard English.

The author of this series of children’s books is William Murray, who has been an educationist in early childhood education for more than forty years. The protagonists of the picture books are Peter and Jane, and over 90 million of this series of books have been sold in more than 60 countries. This series of books helped numerous children to cultivate interest in reading English and acquire English reading skills and competences. Murray realized that 12 key words can cover a quarter of the common vocabulary in English, 100 key words can cover a half, and 300 words can cover three-quarters. Therefore, Murray compiled this series of books with

300 words for children from three to five years old. This series of picture books has 12 levels, and each level has three books, so the entire series has 36 books.

The reason to select this series is: each book has around 50 pages; when the book is opened, the left page is English words while the right page is illustration; every book has Chinese translation and a glossary at the end. Book A introduces new words by stories, Book B repeats these key words in different stories and Book C is for reading practices. This series of books enables children to acquire Key Words from easy to difficult and develop their English competence; it is the first series of children's books in China that combines key words with phonics. The first and second levels of this series of books do not have long and complicated sentences and words. Only Book A has one to two new words and two to three sentences on each page, but each word will repeat more than ten times. The third and fourth level of this series of books increase words and sentences and each page has two to three new words and five to eight sentences, which increases the difficulty appropriately. The 12 picture books of the first to the fourth level have around 150 new words and 1,200 short sentences and are suitable for cultivating reading interest in English and the elementary English reading education for the three- to five-year-old children.

2.3 Reading modes and methods

The comparison group adopted the regular reading pedagogical mode of “teacher reading to children” and “children's independent reading”, and they had a 30-minute reading course per day.

The experiment group used an interactive reading mode, Early Synchronous Bilingual Picture Books Reading (ESBR), and arranges a 30-minute bilingual picture books reading course in the morning and afternoon respectively.

Early Synchronous Bilingual Picture Books Reading (ESBR), is a new early childhood bilingual interactive approach of reading education, proposed after I theoretically refined my years of teaching experience. It suggests to choose the Chinese-English bilingual audio picture books as reading materials, read the bilingual picture books synchronously in the interactive pedagogical approaches of the audiovisual, point reading-repeat reading, role-play reading and story adapting, and enable China's kindergarten children to experience bilingual stories and culture enjoyably in interactive reading and playing. ESBR is adopted to develop their listening, speaking, reading and pre-writing ability of Putonghua and Standard English in the quasi-acquisition mode, cultivate their reading interest and habit, and develop their cognitive, thinking, expression competence and school readiness.

The theoretical bases of the current approach are as follows:

(1) Critical Period Theory, proposed by Lenneberg (1967), pointed out that children in early childhood are good at imitating and have advantages on acquiring pronunciation. As long as they have an appropriate linguistic environment, they can acquire the standard bilingual pronunciation that is hard for adults in a short time (Lenneberg, 1967). Johnson and Newport (1989) and Long (1990) also found that the critical period for language acquisition is before six years old, and the decline of second language acquisition ability starts before six years old. These findings show that English study in early childhood is not an optional extra but very essential, and the key point is the learning method must fit the characteristics of children's mental and physical development. Though role-play reading cannot create a real English environment, it can build a quasi-acquisition English environment and enable children to learn English in role-play and reading aloud. Therefore, it can become a relatively feasible method of English acquisition.

(2) The approach of ESBR advocates attending to common words while reading bilingual picture books, instructing in role-play reading mode, enabling children to acquire Chinese and English in play, and drawing them to pay attention to words and know more story content, which fits Goodman (2006)'s Theory of Whole Language Education, "the process of language study should be from entirety to part, and children should be allowed to learn reading and writing due to their own needs."

(3) When Chinese children read bilingual picture books, they usually can recognize common words in their native language quickly, and these recognized Chinese words can enhance their acquisition of corresponding English words. This acquisition process fits Cummins (2006)'s Theory of Linguistic Interdependent Development, which states "the cognitive ability of mother tongue can transfer to the second language in a certain situation through the Common Underlying Proficiency. The better the children's mother tongue, the greater possibilities their second language have to achieve the fluent level close to their mother tongue." Early exposure to bilingual language and two cultures can improve the development in both languages and bi-cultural competence (Petitto, 2003).

The picture books for experiment are in the size of A4 with large illustrations, but the printed words are much smaller on pages, so children can read illustrations, but not words when the picture books were presented in class instruction. Therefore, I made A2 size pedagogical cards with 6 X 10cm Chinese-English bilingual words (new words are in red and other words are in black) and instructed three teachers in the experimental classes to use these cards, convert CD to MP3, read words and sentences on books aloud correctly, and master the skills and methods of interactive role-play in reading course.

Teachers would present illustrations, read large pedagogical cards word by word aloud with expression, and let young children read after them. Teachers who were not confident in their English pronunciation could play MP3 and lead children to follow and repeat audio. They would play roles in books with children interactively and try their best to enable every student to play a

role. They had to praise children who performed well in the class, encourage all children to participate role-play, memorize frequently repeated key words and develop their bilingual reading comprehension and listening and speaking.

2.4 Test tools and methods

Children’s bilingual competences can be divided into Chinese-English bilingual reading comprehension competence and oral expression competence, and are embodied as the competence to recognize Chinese-English bilingual words and sentences in picture books and narrate stories in picture books orally in the experiment. The material for the test is Book A of the fourth level, which has around 200 Chinese and English sentences and 1,200 Chinese and English words. This book contains more than one hundred common Chinese and English Key Words, which covers all main vocabulary of the first to third level of the whole series of book. The split-half reliability of the word list is 0.783 and 0.792 for the sentence list.

The children participants were tested individually before and after the experiment. The specific contents are: (1) recognize and read Chinese-English bilingual words and sentences in Book 4a, and children are marked by the proportion of correctly recognized words and sentences; (2) narrate the story orally based on illustrations in both Chinese and English, and children are rated “Very Good”, “Relatively Good”, “Average”, and “Relatively Poor”, according to their level of narration; (3) their standard level of Chinese and English pronunciation were rated as “Very Good”, “Relatively Good”, “Average”, and “Relatively Poor.”

3. Experiment result and analysis

The test indicators of instruction of reading bilingual picture books synchronously are as follows:

Table 1: Performance Indicator of Experiment and Comparative Groups in Pre-test

Means comparison indicators of Test	Pre-test								P	Conclusion
	Experimental group				Comparative group					
	UK	LK	N	M	UK	LK	N	M		
Class size (children)	36	28	20	28	35	29	19	28	.892	No significant difference between the experiment and comparison groups

Average age of children (months)	67	55	43	55	67	55	44	55	.672	No significant difference between the experiment and comparison groups	
Weekly frequency of reading course (times)	5	5	5	5	5	5	5	5	-	No difference among grades and classes	
Time for each reading course (minutes)	30	30	30	30	30	30	30	30	-	No difference among grades and classes	
Frequency of reading Chinese words in each picture book (times)	0	0	0	0	0	0	0	0	-	Did not attend to words when they read Chinese picture books	
Frequency of reading English words in each picture book (times)	0	0	0	0	0	0	0	0	-	All classes did not have bilingual and English picture books	
Percent of modes of reading course (%)	ESBR									-	The reading modes of every grade and class are the same.
	Regular reading	50	50	50	50	50	50	50	50		
	Independent reading	50	50	50	50	50	50	50	50		
Percent of recognized Chinese words (%)	16	12	7	11.7	17	13	7	12	.727	No significant difference among the means of each grade	
Percent of recognized English words (%)	5	2	0	2.3	5	3	1	3	.281	No significant difference among the means of each grade	
Percent of recognized and comprehended Chinese sentences (%)	15	11	2	9.3	16	11	3	10	.663	No significant difference among the means of every grade	
Percent of recognized and comprehended Chinese sentences (%)	0	0	0	0	0	0	0	0	-	No difference, no one recognizes English	
Standard degree of	A	A	A	A	A	A	A	A	-	Did not perform well in the pronunciation of	

Chinese Putonghua pronunciation										Putonghua
Standard degree of English pronunciation	-	-	-	-	-	-	-	-	-	No difference, no one recognizes English
Stories retelling in Chinese	A	A	A	A	A	A	A	A	-	Could just guess the plot through pictures
Stories retelling in English	0	0	0	0	0	0	0	0	-	No child could retell in English

A=Average UK=Upper Kindergarten LK=Lower Kindergarten M=Means N=Nursery P= P-value

Table 2: Performance Indicator of Experiment and Comparative Groups in Post-test

Means comparison Test indicators	Post-test								P	Conclusion
	Experimental group				Comparative group					
	UK	LK	N	M	UK	LK	N	M		
Class size (children)	36	28	20	28	35	29	19	28	.892	No significant difference between the experiment and comparison groups
Average age of children (months)	69	57	45	57	69	57	46	57	.641	No significant difference between the experiment and comparison groups
Weekly frequency of reading course (times)	10	10	10	10	5	5	5	5	.000	Significant difference between the experimental and comparative groups
Time for each reading course (minutes)	30	30	30	30	30	30	30	30	-	Every class is equivalent to each other

Frequency of reading Chinese words in each picture book (times)	4	4	3	3.7	0	0	0	0	-	Significant difference between the experiment and comparison groups	
Frequency of reading English words in each picture book (times)	6	5	4	5	0	0	0	0	-	Significant difference between the experiment and comparison groups	
Percent of modes of reading course (%)	ESBR	100	100	100	100					.000	Significant difference between the experiment and comparison groups
	Regular reading					50	50	50	50		
	Independent reading					50	50	50	50		
Percent of recognized Chinese words (%)	71	65	57	64	18	13	7	13	.000	Significant difference between the experiment and comparison groups	
Percent of recognized English words (%)	48	41	35	41	5	3	1	3	.000	Significant difference between the experiment and comparison groups	
Percent of recognized and comprehended Chinese sentences (%)	67	61	52	60	16	11	3	10	.000	Significant difference between the experiment and comparison groups	
Percent of recognized and comprehended English sentences (%)	45	39	33	39	0	0	0	0	.000	Significant difference between the experimental and comparative groups	
Standard degree of Chinese Putonghua pronunciation	VG	RG	RG	RG	A	A	A	A	.001	Significant difference between the experiment and comparison groups	
Standard degree of English pronunciation	RG	RG	A	RG	-	-	-	-	.000	Significant difference between the experiment and comparison groups	
Stories retelling in Chinese	VG	RG	RG	RG	A	A	A	A	.001	Significant difference between the experiment and comparison groups	

Stories retelling in English	0	0	0	0	0	0	0	0	-	No change, no children can retell
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VG=Very Good RG=Relatively Good

The above tables reveal that both the experimental group and comparative group are roughly equal in class size and average age. In the pre-test, their weekly frequency of reading course and time for each reading course were the same. In addition, teachers adopted the modes of “regular reading” and “independent reading” that neither attends to printed words. Before the experiment, each group’s proportion of recognized Chinese words in picture books was around 16-17% for the upper kindergarten class, 7% for the nursery class and 11.7% and 12% for the average value, which was equal to the lower kindergarten class; the group’s proportion of recognized and comprehended Chinese sentences was 9.3% and 10% on average, which was slightly lower than the percent of recognized Chinese. The average percent of recognized English words for each group was 2.3% and 3%.

Children in the kindergarten mainly came from Guangdong Province and the surrounding cities and provinces in China, so they usually speak Cantonese, Hakka, Hunan dialect and so on. They did not learn the Putonghua systematically and had a strong southern dialect in their pronunciation of Putonghua. Therefore, they were rated as “Average”. The kindergarten did not have bilingual or English picture books and children also had not been trained to retell the stories they have read, so their retelling was often incomplete and rated as “Average.” Though some children could say a few simple English sentences, such as “Good morning” and “Bye-Bye”, they could not recognize English words and sentences or retell stories they had read. Therefore, it was impossible to assess their pronunciation.

Compared with the pre-test, each class in the comparison group did not develop in the performance of test and the modes of reading course, whereas the experiment group achieved significant progress. Every class in the experiment group added a 30-minute reading course each day; all the classes adopted reading modes of ESB and mainly used modes of “point reading-repeat reading” and “role-play reading.” Children in the experiment groups read English words in the picture books 5 times on average and Chinese words 3.7 times on average; the time spent reading English is around 25% over the time reading Chinese, which is 25 minutes read Chinese per day and 35 minutes to read English per day.

Compared with the pre-test, the proportion of “recognized Chinese words and sentences in picture books for the experiment” in the post-test is 64% and 60% respectively and increased about 51%. The proportion of “recognized English words and sentences in the picture books for

the experiment” in the post-test is 41% and 39% respectively and grew around 39%, compared with the pre-test. The data are the average performance of experimental group in the post-test and equal to the performance of children in the lower kindergarten class, while children in the upper kindergarten class performed 6-7% better, and the nursery class achieved 6-8% lower. Girls performed slightly better than boys, but the difference is insignificant.

Meanwhile, the experimental group’s rate of “retelling story in Chinese and standard degree of Putonghua and English pronunciation” was upgraded a level to “Relatively Good.” Every class in the experimental group achieved a significant progress compared with the post-test performance of comparative group, which shows the significant effectiveness of ESBR reading mode.

The “story retelling in English” is an indicator of children’s English retelling and expression competences and none of the children could retell in English in either the pre- or post-test. The reason is, though children in a Chinese environment are exposed to some English words and sentences in reading class, their daily time to input English was around 35 minutes, and the experiment only lasted for eight weeks. The limited input is hardly generating an effective output. The reading time and amount of English books need to be increased to improve English expression competence. The children participants in the comparison group did not experience English reading and accumulate input, so they cannot generate output.

The experimental group had a reading class each morning and afternoon and twice as long as the comparative group. The relatively sufficient time for reading instructions is also one of the determinants to develop bilingual competence of the experiment group.

Through observing the class, I found that children participants in the experimental group performed actively in the ESBR bilingual class. They liked this reading course very much, rushed to read interactively with teachers, and over half of the children could play the roles in picture books with teachers in each class. The reading course became a happy time for children to perform and play, and every child takes pride in speaking English sentences in picture books. The entire instruction had no shadow of elementary school teaching style. Every class in the comparison group had regular reading course as usual: children just sat there listening to their teachers read stories in picture books; there was no interaction and discussion, and children could not hold their attention on class; teachers could not conduct one-to-one instruction when children read picture books independently, and the classroom atmosphere and teaching effectiveness were far worse than the experimental group. The effect of bilingual interactive reading course has been approved by principals and teachers and parents. Many parents of children in other classes asked the kindergarten to transfer their children to the experimental classes and were even willing to pay a higher tuition for that.

Since English vocabulary in picture books is not very large and picture books have audio recording in English, the current young kindergarten teachers have basis in English and are

competent in instructing bilingual reading after a short-term training. Therefore, the kindergarten invited me to offer a one-week ESBR training of interactive instruction to its teachers and launched the bilingual course in ESBR interactive reading mode in all classes.

TV is a motional reading material and the screens switch in a fast speed, so children usually have no time to think when they watch TV. Therefore, watching too much TV will impair their development of character, linguistic competence, and communication ability. The most obvious damages are the loss of independent thinking, which makes children unwilling to think actively and carefully in cognitive study, and it is unhelpful to developing children's abstract thinking. In addition, watching too much TV will have significant negative effects on children's eyesight (Yang, 2008). Books are stationary reading materials that children can read them repeatedly and all of these activities are beneficial for children's brain development. Parent-child reading can cultivate children's reading interest and habits and enhance their language and cognitive development; highly-educated parents are more willingly to read books with their children (Feng, 2011).

The interview results show many children brought role-play back to home, and often showed off their newly learned English words and sentences and acted the plots of stories. Parents were very happy with their children's changes and willing to embrace the bilingual reading classes in the kindergarten. Many even voluntarily bought the entire series of *The Key Words Reading Scheme* online. The family parent-child reading enables children to read and play roles in picture books further at home, and has a complementary relationship with bilingual reading course in kindergarten. The one-to-one parent-child interactive reading increases the time and frequency for children to read bilingual picture books and is more helpful for enhancing children's development of bilingual competence. If the family-kindergarten cooperated bilingual reading can be continued more than one to two years, children's bilingual competence and school readiness will be improved significantly.

4. Conclusion and discussion

- (1) Each class in the experiment and the comparison group is equivalent in average class size, children's age and performance in the pre-test. The comparison group still made no progress, compared with the performance in the pre-test. However, the indicators of every class in the experimental group have significantly improved compared with their performance in the pre-test, except the "story retelling in English." Among the indicators, the average proportion of "recognized Chinese words and sentences" is 64% and 60% respectively and increased 51% compared with the performance in the pre-test; the average proportion of "recognized Chinese words and sentences" is 41% and 39% respectively and grew 39% compared with the performance in the pre-test. The average value of indicators in the post-test is equivalent to the performance of lower kindergarten class and upper

kindergarten class performs 6-7% better, whereas the nursery class performs 6-8% worse. Each grade has a gap of 6-8%, and girls perform better than boys, but the difference is insignificant. In addition, the experimental group achieved an upgrade to “Relatively Good” in “story retelling in Chinese” and “standard degree of Putonghua and English pronunciation.”

The experiment result suggests the interactive bilingual reading instruction of ESBR can improve the preschoolers’ bilingual reading comprehension and oral expression competences effectively and achieve a much better effect than the regular Chinese reading class.

- (2) Though children living in Chinese environment can read Chinese and English words synchronously in the ESBR mode, the absorption of Chinese and English is not synchronous, and the absorption rate is not high. The absorption of English is less than a third of that of Chinese. Children can improve their Chinese pronunciation through imitation and repetition in a short time, but it is hard for them to be fluent in English through a short-term reading. To raise the absorption rate of Chinese and English, especially the rate of English, the time and amount of reading bilingual picture books, especially the English picture books, needs to be increased.
- (3) Children in each class of the experimental group enjoy bilingual interactive reading course very much, treat reading as performance and play and cultivate good reading habits and reading interest. Both kindergarten teachers and children’s parents embraced this reading course and decided to promote it to whole kindergarten after the experiment. Many parents also bought the entire series of *The Key Words Reading Scheme* for children to play story characters at home. The family-kindergarten cooperative bilingual reading is more helpful for developing children’s Chinese-English bilingual competence and improving their school readiness. In addition, parents also find the number of commercially available bilingual picture books in China is still limited, and they hope to buy more of this kind of picture books.
- (4) I communicated with several kindergarten principals. Most accepted the bilingual interactive reading instruction of ESBR and are willing to launch this pedagogical mode. They think this pedagogical mode does not violate the kindergarten policies in China, and improves children’s bilingual competence through the existing reading courses, without need to launch a new course of English or traditional Chinese culture. In their opinion, this pedagogical mode can keep parents satisfied and raise teaching quality and competitive power. Therefore, it has enormous value and significance to be promoted. However, they also note this pedagogical mode requires teachers to have English teaching competence and may need to give teachers training in competence and skills of bilingual instruction.

The quality of bilingual reading course depends on appropriate pedagogical mode and material, time length of instruction and level of bilingual teachers.

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