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# Early Bilingual Education: An Examination of Purposely Selected Teacher Viewpoints: South East China and San Francisco Area

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Early Bilingual Education:  
An Examination of Purposely Selected Teacher Viewpoints:  
South East China and San Francisco Area

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Submitted in Partial Fulfillment of the Requirements for the Degree  
Master of Science in Education

School of Education and Counseling Psychology  
Dominican University of California  
San Rafael, CA

December 2014

Signature Sheet

This thesis, written under the direction of the candidate's thesis advisor and approved by the Chair of the Master's program, has been presented to and accepted by the Faculty of Education in partial fulfillment of the requirements for the degree of Master of Science. The content and research methodologies presented in this work represent the work of the candidate alone.

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Date December 1, 2014

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Date December 1, 2014

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### Abstract

In the coming years, an increasing number of children in urban Chinese areas are taking a second language at an early age. It leads to an argument about whether it is appropriate for children to learn a second language in an early age. Some people disagree that idea, because children are not developed enough to receive foreign language learning. Learning a second language early is disadvantageous for young children because they should first learn to speak the primary language well. Whereas, other people support that children should start learning a second language early for three main reasons: children's talent for language study, the need of global communication, and the educational achievement. The purpose of this study is to examine teacher perceptions of children's potential for learning a new language, and the effects of bilingual education on young children.

Data were gathered from two kindergarten teachers in Fuzhou, Fujian, China and two teachers from San Francisco, CA, U.S. Teachers were interviewed about their viewpoints on bilingual education as an option for young children. Results indicated that early bilingual education is necessary for young children because language pronunciation shapes language confidence and proficiency. Implications of these findings suggest that children who have an interest in learning a second language may benefit from bilingual education. Children who are under three years old do not benefit from bilingual education.



## Chapter 1 Introduction

I still remember the time when I was only three years old; I moved from a small town with my family to the city. After that I went to a kindergarten and started my study life. Before going to school, I could not speak any Mandarin. I spoke with my family a dialect, which is a kind of local language called Min dialect. Only after one week in kindergarten, I became proficient in Mandarin. I began to speak Mandarin to my family since I started school. However, as I became more and more fluent in Mandarin, I lost the ability to speak the Min dialect over time. Now as an adult, I find it hard when I want to say something specific in the dialect.

### Statement of Problem

The popularity of second language education in China has led parents to enroll their children in second language programs at an early age. Bastin (2013) reported, “unlike typical US or European school children, their counterparts in urban China are facing increasing pressure in an extremely competitive educational environment. China's population growth and, most importantly, urban population density continue to exert massive pressure on parents and children to succeed” (p. 1). His work and the work of others led to an argument about whether it is good for young children to learn a second language in their early childhood.

Some researchers claim that it is inappropriate to educate children with second language early, because they are not developed enough to receive foreign language learning. Learning a second language early is disadvantageous for young children because they should first learn to speak the native language well. Whereas the opposite argument points out that students should

start learning a second language early for three main reasons: children's talent, the need of global communication and educational benefits for children in the future.

### Purpose Statement

The purpose of this study is to examine teacher perspectives on the value of bilingual education for young children. A second purpose is to examine the short-term and long-term influence of bilingual education program on young children.

### Research Question

What are teacher viewpoints on the effectiveness of teaching a second language to young children? For the purpose of this study, the term effectiveness refers to outcomes of second language instruction for young children. In this study, a second language refers to teaching English for Mandarin speaking children, and teaching Mandarin for English speaking children.

### Theoretical Rationale

#### Language Acquisition

According to Krashen's theory of language acquisition (2003), five main hypotheses exist:

- The Acquisition-Learning hypothesis,
- The Monitor hypothesis,
- The Natural Order hypothesis,
- The Input hypothesis,
- The Affective Filter hypothesis.

According to Krashen (2003), "we have two independent ways of developing language ability: acquisition and learning" (p. 1). He also claims that "learning is less important than 'acquisition'" (p.1). According to his theory, a subconscious process which produced the "acquisition" is

similar to the progress when children acquire the first language. Children can acquire the language ability from natural communication and the environment they are familiar with.

### Phonological Awareness

Gillon (2004) reported that adults have difficulty hearing all of the sounds that humans can make in all of the languages, whereas young children do not have this problem, this ability is identified as “phonological awareness”. She defined phonological awareness as the clarification of the relationship between different terminologies and the levels of phonological awareness that are relevant to reading and spelling. Phonological awareness can be defined as “explicit awareness of the phonological structure of the words in one language”. For young children, phonological awareness has been described as the best single predictor of reading performance according to Gillon.

### Assumptions

I believe young children as a group are good at learning a new language. They have the natural talent to grasp a new language faster than adults. Children learning a second language can bring a lot of benefits, such as cognitive advantages with development of bilingualism and literacy, enhancing academic and linguistic competence in two languages, development of skills in collaboration and cooperation, appreciation of other cultures and languages, increasing job opportunities and expanded travel experiences.

### Background and Need

“The study of student’s early development has shown that the first several years of life are a truly critical period for language learning” (Hallahan, Kaufman and Pullen, 2011, p. 286).

According to studies by Byrne and Fielding-Barnsley in 1991, 1993 and 1995, second language education designed to develop the phonological awareness in preschoolers has improved their

reading skills in kindergarten, first and second grades. This evidence indicated that young children have the ability to grasp a new language at an early age. This ability enabled children to obtain a second language. Children learn a foreign language quickly and easily when compared to adult second language learners.

### Summary

Young students are more talented in language learning than adults. This ability is called phonological awareness. There are some studies showing that children benefit from second language learning over time. Krashen's (1975) research indicated the need to explore second language education in early childhood. The focus of this research was to explore the relationship between age factor and the second language acquisition.

## Chapter 2 Review of the Literature

### Introduction

This section is an examination of the research literature on second language education in early childhood. Information was gathered from academic library searches using online resources. Research information is organized in the following categories: Historical Context, Review of the Academic Research, Statistical Information, Internet Sources, and Interview with an Expert. In this section, the content are divided into four main points: the relation between age and second language acquisition, the biological factor for acquiring the second language, the informal and formal effects on language learning, and the effect of bilingualism on creativity.

### Historical Context

“Language acquisition in children proceeds by process which is called acquisition (hence forth a technical term). If the children are allowed the necessary input during some critical period, complete competence in the target language (first or second) appears to be inevitable.” (Krashen 1975).

Studies about the age and language acquisition reported inconsistent results. Some claimed that older children or adults learn faster than younger one in second language acquisition. Other studies showed that the performance of younger children is superior compared to older children and adults in language acquisition, and they are better in language acquisition over time (Krashen, Long, & Scarcella, 1979).

## Review of Academic Research

### Relationship Between Age and Second Language Acquisition

“Common lore has it that children learn second languages more quickly and easily than adults” (Snow and Kats, 2010, p. 91). Krashen, Long and Scarcella (1979) presented the three generalizations what concern the relationship between age, rate and eventual attainment in second language acquisition. The early hypothesis is that people believe younger perform better than older in language acquisition

The papers related to this research imply that the literature on age and language learning is inconsistent. Some papers show the older children are superior to younger, whereas other papers indicated the reverse.

The purpose of this study is to demonstrate that the recent literature is consistent with three generalizations concerning the relationship among the factors of age, rate and eventual attainment in second language acquisition. There are three main thoughts on the three generalizations:

1. Adults proceed through early stages of syntactic and development faster than children;
2. Older children acquire faster than younger children;
3. Acquirers who begin natural exposure to second languages during childhood generally achieve higher second language proficiency than those beginning as adults.

In order to support their assumption, the researchers investigated both child-adult differences in eventual attainment in second language acquisition, and short-term study that compare children and adults acquiring second languages in informal, natural environments and also formal and classroom environment. In this study, the length of residency varies from extremely short term exposure as short as twenty-five minutes, to long term exposure as long as

one year. The participants included adults, young children, and older children. The authors used test scores and observation notes to collect information. The authors organized the information by setting up interviews with second language learners to compare the differences. They also read information to find common responses or themes by participants. The author used quantitative data to verify the findings.

The main findings were that adults are superior to children in language acquisition in the short term. Older children learned faster than younger children in syntax and morphology when they were exposed to the similar second language in natural and formal environments. However, young children performed better than adults in the long term. The study indicated that children apparently surpass adults in about one year in morphology and syntax. Furthermore, younger children may take a little longer to catch up to older children in second language production. These findings contradicted my previous assumption, young children learned faster than adults and older children.

At first, young children performed below the average level of language acquisition. However, young children performed better than adults and older children in a short time and perform better in the long run. Young children were still good at second language acquisition, and they were suitable to receive second language education early.

Schmid (2011) conducted an investigation of the constraints on final attainment in second language pronunciation by directly comparing of gaining foreign accent of 40 late second language learners, and 40 late first language learners when studying German. The former studies showed that pronunciation accuracy is one of the most difficult skills for late language learners, and that age does have an effect on second language acquisition. The strongest finding was that foreign accent rating showed a negative relationship with age of acquisition (AOA). The later the

second language learners were exposed in the second language, the stronger foreign accent they had in the process of acquisition. There is an important question about whether AOA is the cause of persisting transfer from the first language, or whether it is related to it. The author tried to use direct comparison of first language learners and second language acquisition, finding out that whether the age is an influence in second language acquisition. She also aimed to assess the relative impact of AOA and bilingual education in the late first language attrition and second language acquisition.

There were three hypotheses in this study; the first one (AOA) should make an independent contribution to non-native likeness in perceiving accent. The second one is that if second language speech pronunciation is affected by cross-linguistic interference in bilingualism, there should be a basic overlap in foreign accent ratings for late second language learners. Additionally, there were some other factors, such as LOR, use; attitudes should contribute to the proportion of explained variance in foreign accent ratings. The final hypothesis stated if cross-linguistic interference affects bilingual speech production, there should be differences between bilingual groups depending on language combination.

The participants were native speakers of German, and late second language learners of German with English or Dutch as the first language. The author collected the information by using speech samples, and a C-Test, which is an assessment of language learners' general proficiency. This research was based on quantitative data, collected by comparing 40 late second language learners, and 40 late first language attributers of German. The researcher used charts and graphs to show the results revealing "the late bilingualism leads to stronger foreign accents in the second language than in the first language. In other words, advanced second language speakers are overall outperformed in terms of perceived native likeness by long-term attributers,



who learn the language under investigation from birth but have not been using it dominantly for a substantial period of time (Hopp & Schmid, 2011). It indicated that age influences second language acquisition, the older a person learns a second language, the harder for him/her to change the foreign accent. These results supported my assumption in chapter 1, which is learning a second language in early childhood made it easier for the child to grasp this ability.

Despite the age factor in language acquisition, children are suitable to start learning a second language early because of the development of phonological awareness. Lenneberg (1967) presented the Critical Period Hypothesis, indicated the reason why young children could learn a second language faster and easier than adults is that their brains were more plastic than adults. Chomsky (1957, 1965) also showed that children were born with the “language acquisition device” which is a biological blueprint for language. These theories all indicate children are more talented in language acquisition in comparison to adults.

#### Biological Factors in Learning a Second Language

##### Phonological Awareness

One of the reasons why it is important to start learning a second language in childhood is that, unlike children, adults have difficulty hearing all of the sounds that humans can make in all of the languages. Scientists call this ability “phonological awareness.” Gillon (2004) defines phonological awareness as the clarification of the relationship between different terminologies and the levels of phonological awareness that are relevant to reading and spelling. According to Torgensen and Mathes (1998), phonological awareness can be defined as “explicit awareness of the phonological structure of the words in one’s language” (p. 2). For young children, phonological awareness has been described as the best single predictor of reading performance according to Gillon (2004).

Research evidence shows that young children biologically gain this kind of talent. According several studies by Byrne and Fielding-Barnsley in 1991, 1993, and 1995, evidence indicated that second language education that is designed to develop the phonological awareness for these preschoolers improved reading skills in the first and second grade of kindergarten. This evidence indicated that young children have the ability to grasp a new language at an early age. This ability enabled children to obtain a second language. Children learned a foreign language more quickly and easily when compared to adults.

Li, Chen and Kirby (2012) studied the relationship between phonological awareness and listening comprehension among Chinese English-Immersion students. They measured ninety-five Chinese students, 48 of them were in Grade 2, and 47 were in Grade 4, from English immersion programs in three Chinese cities-Donguan, Guangzhou and Xi'an. They measured those students phonological awareness by English Sound Detection, Chinese Sound Detection, and Chinese Tone Detection. They also took control measures by examining other subjects, such as Chinese and Mathematics. The results showed the strong association between English phonological awareness and English listening comprehension. "The English of immersion students had improved to the point that it had a language-specific effort on PA; the English-specific PA skill is more important especially at the higher grade level" (p. 58). Furthermore, this research also showed the cross-linguistic transfer from phonological awareness in Chinese to listening comprehension in English.

This evidence indicated phonological awareness plays an important role in second language acquisition, and children have this gifted talent as they were born. Therefore, children should start second language learning early, because adults are not as good as children at

phonological awareness. If not cultivated early, this ability decreases as time passes. It matches my assumption.

### Morphological Awareness

Lam, Chen, Geva, Luo and Li (2011) conducted research among Chinese-speaking English language learners (ELLs) in Canada. The purpose of their study was to test the effect of morphological awareness on vocabulary and reading comprehension among young Chinese ELLs. 46 Kindergarteners and 34 first graders were selected in tests. The researchers first conducted tests in the fall semester and retested one year later. They used three measures including morphological awareness - that is, derivational awareness and compound awareness - outcome, and control to explore the study. Results showed the development of morphological awareness in young ELLs. “Consistent with our expectation, the Chinese-speaking ELL children in our study improved from kindergarten to grade 2 on the derivational awareness task” (p. 1864). “Children in our study demonstrated substantial growth in their compound awareness between kindergarten and grade 2” (p. 1864). Furthermore, morphological awareness also has significant influence on the development of vocabulary and reading comprehension. “Our study shows that morphological awareness, especially derivational awareness, plays an increasingly important role in vocabulary over time” (p. 1864). Researchers also discovered that “the effects of morphological awareness on reading comprehension emerged with time” (p. 1866). More interesting, the research indicated the first language characteristics help bilingual Chinese children getting improvement in English compound awareness. These findings showed that if young language learners should be exposed in both first language environment and second language environment, their language skills would improve sequentially. These results also showed the important role of bilingual education for younger children.

### Formal and Informal Effects on Language Learning

Krashen (1976) tried to find out which effect had a large impact on language acquisition. Some studies showed that people can sufficiently use the natural, informal environment for second language learning. However, other studies indicated that the artificial or formal environment which form the most part in the classroom, led to greater benefits for second language acquisition. The main purpose of this study was to identify effects of the two contrasted sorts of linguistic environment on learning a second language.

There were two hypotheses in this study: 1) second language learners can fully utilize the informal environment; 2) formal study, such as classroom environment, played an important role in increasing the proficiency of second language learning. The sample included 116 students of English as a second language in an extension program; instruments used were placement test scores and students' reports of years of formal study and years spent in an English speaking country. The researcher used tables to compare these data. Krashen found out that both formal and informal environments made great contribution to second language learning, claiming that "an informal environment provides the necessary input for acquisition while the classroom aids in increasing learned competence." Secondly, "the classroom may serve as an 'intake' informal environment as well as a formal linguistic environment" (Krashen, 1976, p.165).

Environment influenced language acquisition in different ways: a concentrated intake informal environment, such as traveling abroad or taking time in foreign countries can provide adults and children the necessary input; while the classroom environment can provide rule segregation and feedback for the development of the language monitor. Furthermore, language was emphatically used as a source of primary information for language acquisition at the same time. This study recommended the importance of the formal classroom environment in second

language education. It can be inferred that children need formal language intervention to strengthen their language ability. In other words, children were identified as the group who needed second language education.

#### Effect of Bilingualism on Creativity

Leikin (2012) tried to identify the positive impacts of bilingual education on creativity with non-mathematical and mathematical problem solving in both, very young bilingual and monolingual children in preschools. There were three aims and hypotheses in this study. The first purpose was to check whether early bilingualism affected creative development. The author hypothesized that the early bilingual education had a positive influence on the children's creative ability; the young bilingual preschoolers would show greater creative ability in both mathematical and non-mathematical problem solving, compared to young monolingual children. The second goal of this study was to find out whether the advanced bilingual children depended on educational approaches to teaching a second language at an early age. Consequently, the second hypothesis states that "if bilingual education has a positive effect on creative ability, then young bilingual children receiving a strong form of bilingual education (in a bilingual Russian-Hebrew kindergarten) demonstrate better creative thinking than do young bilingual children receiving the weak form of bilingual education (in monolingual Hebrew language kindergarten)" (Leikin, 2012, p.435).

The author examined possible effects of early bilingual education on creative ability in solving non-mathematical and mathematical problems in very young bilingual and monolingual children. Therefore, researchers presume that "there is no unequivocal correlation between general and mathematical creativity" (Leikin, 2012, p.436).

Researchers selected 37 children from seven kindergartens in the north Israel, whose average ages are 45.4 months at the beginning of the study. There are 13 bilingual children from bilingual kindergartens attending a Hebrew and Russian speaking school known as the BB group, 10 bilingual children from monolingual kindergartens, who are Russian-Hebrew speaking children attending a Hebrew speaking only kindergarten, referred to as the BM group). The other 14 monolingual children were from a monolingual kindergarten, speaking Hebrew only, and attended Hebrew speaking school. In this study, this group was called the MM group). All the young children came from similar neighborhoods and socioeconomic levels. Their teachers used the same everyday curriculum including discussion sessions, read- aloud sessions, sports sessions, and art sessions, which were provided by the Israeli Ministry of Education.

There were two tests provided for these 37 children. The first one is a Pictorial Multiple solution (PMS) task, one black-and white picture was chosen from Kushnir's (1999) "I have a problem" notebook which describes a problem in the everyday life. Participants need to provide as many solutions as they could for the problem. "Each answer was scores for fluency, flexibility, originality, and creativity using Leikin's (2009) model and scoring scheme for the evaluation of creativity" (Leikin, 2012, p. 437). The second test was a Creating Equal Number (CEN) task, where one selected child sat with an adult at a table in a quiet corner of the kindergarten. There were two distinct sets of bottle caps presented to the child: three bottle caps, and five other bottle caps were separately placed on the different sides of table (all bottle caps are in the same shape, size, and color). The participant was asked to place the caps to be equal number on each side of the table. After children did this, interviewers rearranged the bottle caps to be three on one side and five in other side again. Children were asked to come up with more

solutions to place these caps to be equal on each side. The test was finished when children said they were done.

For the results, the first hypothesis was partially confirmed in the study. There are obvious difference between the bilingual groups (BB group and BM group) and monolingual group (MM group) in both PMS task and CEN task. “The results demonstrate that bilingualism seems to be capable of influencing the flexibility and originality of thinking, generally and individually, a phenomenon that appeared to be more pronounced in the task on mathematical creativity” (Leikin, 2012, p. 442).

The second hypothesis was partially confirmed as well. There are significant differences between the BB group and MM group, the BM group also show obvious differences from the MM group in mathematical originality and creativity. However, “there are no difference between BB and BM, each of them differed from the MM group in a dissimilar manner” (Leikin, 2012, p. 442).

The third hypothesis, which suggested the ability of general and mathematical creativity is different, was confirmed by the results. “The findings suggest that general creativity tested with PMS task and mathematical creativity tested with CEN task relate differently to bilingualism and bilingual education” (Leikin, 2012, p. 443). The results demonstrated that early bilingualism promoted the development of creativity. However, the contribution of different types of early bilingualism to the creative development needs further research.

## Summary

The research showed that children have biological talent to learn a second language. Children have a talent that adults do not have in acquisition of a new language, it is called "phonological awareness". There is also a relationship between the age and second language acquisition.

Research indicated that young children perform better than adults in the long term, even though adults are superior to children in the beginning of learning a second language. Research also showed that the age factor had a significant influence on second language learning. It would be more difficult for adults to grasp a second language than young children.

There were also some positive effects on second language learning for young children in the research. The classroom environment played an important role in increasing the proficiency of second language; the informal environment had an influence as well. Children need the formal and informal learning environments to enhance their language skills. In other words, children need formal and regular second language education. Furthermore, there were many beneficial factors that resulted for children enrolled in bilingual education. It increased children's creativity in the early childhood, which also had a significant impact on future studies. In summary, it is easy for children to gain the second language ability at a young age. Children performed better in second language acquisition, and benefited from early second language education.



## Chapter 3 Method

### Research Approach

Methodology is a teacher action research study comparing the viewpoints of selected early bilingual education teachers in south east China and the San Francisco area. Four bilingual teachers, two from bilingual schools in China, the other two teachers from bilingual schools in U.S., were selected for the purpose of this interview. Questions were established based on the topic and were reviewed for their utility in gathering specific information on the research question.

### Ethical Standards

This paper adheres to ethical standards in the treatment of human subjects in research as articulated by the American Psychological Association (2010). Additionally, the research proposal was reviewed by the Dominican University of California Institutional Review Board for the Protection of Human Subjects (IRBPHS), approved, and assigned number 10243.

### Sample and Site

My target subjects were four bilingual teachers, two of them are from bilingual preschools in San Francisco, California, USA; and other two are from bilingual kindergartens in Fuzhou, Fujian, China.

Interviews were conducted during teacher free time. Teachers involved in the interviews received written and verbal explanations of interviews prior to their participation.

### Data Gathering Strategies

I interviewed three bilingual teachers in preschool and kindergarten, who were recommended by friends in China and US. Two of them were from U.S. schools, and others were from schools in China. I contacted teachers in the U.S. and requested their participation in face-to-face interviews, talking via phone and email. I did the interviews with other Chinese bilingual teachers by phone, or email.

I collected data by taking detailed notes during the interviews. Sometimes, I gave them additional interviews when I needed further information. The follow up interviews occurred when the teachers agreed to have a second meeting.

#### Access and Permission

In order to reach selected teachers I asked my local teacher friends in China for Chinese early bilingual teachers. In the U.S., I asked my classmates in the master's program for their recommendations. These people gave me names of teachers. I followed up by contacting them by phone and email to describe the purpose of the study and requested their permission to participate in an interview.

#### Data Analysis Approach

Information was gathered using the data from the interviews. The interview conversations were voice recorded and the researcher took notes. Interview responses and observations were analyzed. Information was reviewed for common themes in responses. The researcher gathered information about the students' achievement level in a bilingual education program.

In the summer of 2014, I interviewed two second language teachers in China. The purpose of the interviews was to gather teacher perceptions of the effectiveness of early bilingual education in two different countries, to understand how well second language education was

implemented in these areas, and, also, whether or not it is suitable for most children to start learning a second language at early childhood.

Interview data were analyzed and summarized in narrative form. The summary report included a description of the responses according to themes. Interview data were stored in a locked file. Names or other personally identifying information were removed from the final report to preserve confidentiality.

## Chapter 4 Findings

### Description of Site, Individuals, Data

I interviewed four teachers who are teaching bilingual programs in preschool and primary school in the USA and China. There were two teachers from South-east China, who teach English as a second language for young children. The other two were from the U.S., who teaches Mandarin as a second language for the native English speaking young children.

Interview responses from two teachers who teach English as a second language to young Mandarin-speaking children in Fuzhou, Fujian, China are reported as follows:

Interviewee 1

#### Demographic Questions

Name: FL

Gender: Female

Age: 20s

The school he/she teaches: Shiyang Bilingual Kindergarten, Changele, Fujian, China

School Area: Suburban

Number of years teaching: 8 years

Highest degree earned: Bachelor of Education

Interview results:

1. What is the set of formal curriculum for bilingual class in your school?

FL said actually there was no formal curriculum for bilingual class in her school. The system was not really set up. Because parents preferred bilingual classes, the principal hired

some foreign teachers who came from English-speaking countries, to teach children in English class.

2. How many students are in your class?

FL said there were 28 children in the preschool class, 35 children in the preschool class, 40 children in middle class, and 48 children in the top class. Normally, the enrollment in these classes is high.

3. How many native students and immigrant students?

FL told me the majority of the students were native citizens in Changle district. No child was from a foreign country.

4. Please describe the ethnicity and cultural background of your children.

FL said the ethnicity of all the children was Han. Most of them were from similar cultural backgrounds.

5. Please describe the performance of these students who take the bilingual program. Are they interested in learning a second language?

FL said it varied a lot. She told me whether children performed well in the class depended on their interests in this class, the teacher's strategies and instructional methods. Some pupils preferred this teacher's way of instruction, so they might engage more in the class than ones who were forced by their parents to attend this class.

6. Please describe their performance in other academic subjects.

FL said it was similar to the former question. Whether a child performs well was based on the interest of this class.

7. Please describe the difference in achievement between the students who take bilingual program and students who do not.

FL answered that varied a lot in individuals. Compared to the children who did not take the bilingual program, these children were more confident in their English ability. The children who took the bilingual program thought they were superior to the children who did not take this program in English, but it did not mean that they also performed better than other children in other subjects. She told me her school offered lots of specialty classes for children, such as dancing, painting and math. Children who did not attend the bilingual class also perform well in other classes.

8. As an educator, please describe advantages and disadvantages for children who are learning a second language.

FL told me it was necessary to give children second language immersion in their early childhood, because their confidence grew, and learning a second language helped them perform well in other subjects. However, parents and schools should allow children to make the choice. It would not make a difference if children were not interested in the class. And the disadvantage was that parents just blindly followed the trend of offering their children second language education without thinking about their children's needs. The lack of communication with their children causes children's negative attitudes. It was a kind of wasting resources if children did not really want to engage in this program.

9. What are the main difficulties for children in learning a second language?

FL said there were no difficulties for her children to learn a second language, because the curriculum was not difficult for children, and teachers taught children using step-by-step instruction. Normally, children acquired English language ability by playing games and other interesting activities during class. The assessment was not an exam; teachers assessed their

performance by letting children sing English songs in school parties. Teachers repeatedly reviewed what they taught before so that they had a continuing assessment record for each child.

10. What is your own opinion about the second language education for young children?

FL said “a coin has two sides”, the early bilingual education should be guided positively. Sometimes, the parents forced their children to learn, which made teachers anxious for children to demonstrate their proficiency in English, which made children resist learning.

FL is now teaching Mandarin for English speaking children in Little Panda Early Child in Boston area. She felt that the situation of early bilingual education in China was better compared to the one of US. Because the majority population of China was Han. They shared the same cultural background; so it was easier to adjust the instruction to meet children’s needs. However, the U.S. was a multiple cultural country, with children from Latino backgrounds, African backgrounds, European backgrounds and Asian backgrounds. It was more difficult for teachers to modify the lesson according to the individual child.

Interviewee 2

Demographic Questions

Name: YL

Gender: Female

Age: 20s

The school he/she teaches: Kid Castle Educational Corporation (Kindergarten), Fuzhou, Fujian, China

School Area: Urban

Number of years teaching: 8 years

Highest degree earned: Bachelor of Education

Interview results:

1. What is the set of formal curriculum for bilingual class in your school?

YL said their school had a set of formal curriculum for bilingual classes. In everyday classes, they had half day teaching in English, and the other half day teaching in Mandarin. And teachers who were English-speakers instruct one class every day.

2. How many students are in your class?

YL said there were 26 children in her class.

3. How many native students and immigrant students?

YL said there were 18 native students and 8 foreign students in her class.

4. Please describe the ethnicity and cultural background of your children.

YL said other non-native children were from Taiwan, Hong Kong, Singapore, Japan, and the USA. Most of the children shared Chinese cultural backgrounds; some children had western cultural background. However, they did not have difficulty in understanding each other.

5. Please describe the performance of these students who take the bilingual program? Are they interested in learning a second language?

YL said her children showed strong interests in the class; they actively collaborated with the teacher to catch up with the study goals, and actively took part in the class activities.

6. Please describe their performance in other academic subjects.

YL said these children who took the bilingual program performed well no matter in bilingual classes or other subject classes. Furthermore, they were not affected by learning another language. They had been naturally taking these two languages as a part of their lives.

7. Please describe the difference in achievement between the students who take bilingual program and students who do not?



YL said sorry, she could not answer this question. Because she did not have the comparison in her original working situation, her view on this question might not be comprehensive.

8. As an educator, describe advantages and disadvantages for children who are learning a second language.

YL said learning a second language was the need of modern society and the trend of globalization. Second language skills had gradually been a necessary skill whether in study or at work. However, second language learners needed to make more efforts to acquire this ability due to the limit of language environment. While the emergence of bilingual schools created the environment for second language learners; at the same time, bilingual schools could help children to achieve the best development in the most sensitive developing period in child life.

9. What are the main difficulties for children in learning a second language?

YL told me that different children had different physical and mental characteristics. They focused on imaginative thinking, and could not pay attention on the class for a long time. So the curriculum design should be vivid and step by step; the courses should be based on the Auger-type.

10. What is your own opinion about the second language education for young children?

YL said learning a second language not only means mastering two different languages. What was more important was that it could make positive influence on children's language development, cognitive development, and social development. However, it was only a possibility to achieve these positive impacts; the reality was that multiple aspects would affect the use of bilingual education. The right learning objectives, appropriate learning content and methods were the keys to get success in bilingual education.

The following section includes interviews from two teachers who teach Mandarin as a second language to young English-speaking children in San Francisco, California, U.S.

Interviewee 3

Demographic Questions

Name: YH

Gender: Female

Age: 30s

The school he/she teaches: Montessori Preschool, San Francisco, California

School Area: Urban

Number of years teaching: 3 years (3 months in Mandarin Teaching)

Highest degree earned: Master of Education

Interview results:

1. What is the set of formal curriculum for bilingual class in your school?

YH said she was not sure whether the curriculum of her school was formal. Her school starts on 7 a.m., and closes on 6:30 p.m. During this time, there is a Spanish circle in the morning and Mandarin circle in the afternoon from 3:20~4:00. Besides that, they have theme activities that are taught in English for children in the rest time.

2. How many students are in your class?

YH said there were 2 classes in her school, and every class has approximately 20 students. She had 23 students in her class, and the number of students changed everyday. Because some children had classes on Monday, Wednesday, and Friday; some children had classes on Tuesday, and Thursday; other children had classes from Monday to Friday, the number of her students was not all the same every day.

3. How many native students and immigrant students?

YH thought all children were born in United States.

4. Please describe the ethnicity and cultural background of your children.

YH said there were 14 boys and 9 girls among the total 23 children. In these 23 children, there were 9 Asian American, 3 Latino, 1 African-American, 1 mixed-blood, and others were White-American children. Among the 9 Asian-American children, there was 1 boy and 1 girl who could speak Mandarin. In the 3 Hispanic children, there was a boy who comes from Mexico speaking Spanish, and a boy who was from Brazil. Another African-American boy could also speak Spanish.

5. Please describe the performance of these students who take the bilingual program. Are they interested in learning a second language?

YH said the older children who were around 4 years old performed better than younger children who were from 2.5 to 3.5 years old. The older children had good memory, and they acquired the knowledge quickly. However, the younger children were always in a daze during class.

YH told me all her students showed great interests in her Mandarin circle class. They would positively participate in activities in order to get the reward such as a toy.

6. Please describe their performance in other academic subjects.

YH said the situation was the same as bilingual classes. No matter older children or younger children showed great interest in participation, they wanted the toys as rewards. And older children performed better than younger ones.

7. Please describe the difference in achievement between the students who take bilingual program and students who do not?

YH told me that because all her students took bilingual program, she could not compare the difference.

8. As an educator, describe advantages and disadvantages for children who are learning a second language.

YH said second language education was the need of globalization, by teaching children a second language in their early stage; their pronunciation was good. For example, when children in the Spanish circle learnt retroflex, they acquired it easily. Normally, adults would need to consistently practice it for one month. Furthermore, children had a good sense of language. By reviewing something they had learned in the class, she knew that they could remember what they have learned or listened to. In other words, they had the awareness of a second language.

YH told me that if there were no pressure for children, she thought there were no disadvantages in learning a second language.

9. What are the main difficulties for children in learning a second language?

YH said for the children who were under 3 years old, they were too young to pay attention in class. It was difficult for them to focus on language learning; they just acted as daydream all the time. Teaching a second language for them would not make a difference.

10. What is your own opinion about the second language education for young children?

YH said that bilingual education should not be started from so early an age; it was better to begin at 3.5~4 years old. Only if children grew up to a certain age, they could pay attention to something they are interested in. It was also good for teachers to teach a second language. Secondly, teachers should begin with some topics that were related to real life, so that children would have the opportunity to use them. For example, once she taught different colors in Mandarin, when children had lunch at school, one child said that was a red apple in Mandarin.

Starting teaching children something about real world could help them to practice in daily life and enhance this language skill.

Interviewee 4

Demographic Questions

Name: YC

Gender: Female

Age: 20s

The school he/she teaches: Palo Alto International School

School Area: Suburban

Number of years teaching: 6 years

Highest degree earned: Master of Education

Interview results:

1. What is the set of formal curriculum for bilingual class in your school?

YC said there were formal curriculums of Mandarin Immersion class and French Immersion class in her school.

2. How many students are in your class?

YC said there were total 16 children in her class.

3. How many native students and immigrant students?

YC said more than half of students were from American families, and other half are from Chinese immigrant families.

4. Please describe the ethnicity and cultural background of your children.

YC said some children's parents were from Chinese cultural background, so these children could speak Mandarin. The others who were from White American cultural background could not speak Mandarin at all.

5. Please describe the performance of these students who take the bilingual program. Are they interested in learning a second language?

YC said these children performed well in bilingual classes. They could fluently communicate with each other in Mandarin; they could understand the teacher's instruction.

YC said she thought her students were strongly interested in bilingual classes.

6. Please describe their performance in other academic subjects.

YC said her students' performance in other academic subjects was excellent.

7. Please describe the difference in achievement between the students who take bilingual program and students who do not.

YC said the performance difference was students who took bilingual class thought more creatively than students who did not take this program. Students under the bilingual program could think about questions from multiple perspectives.

8. As an educator, describe advantages and disadvantages for children who are learning a second language.

YC said learning a second or third language could enhance the competitive ability for individuals. If a person could speak more than one language, he/she would have the superiority in work. Secondly, bilingual education had a positive impact on broadening children's thoughts and minds.

9. What are the main difficulties for children in learning a second language?

YC said for the students who were from non-Mandarin speaking families, they could not use what they learned in school to communicate with their parents at home. The lack of language practice environment led to parents' worry (nervousness) about what their children learned at school, and whether they had gained that language skill.

10. What is your own opinion about the second language education for young children?

YC Said language education should not only focus on language, it should also emphasize the culture and background information of this language. By understanding the culture, students would feel free to use what they learned in real situation.

## Chapter 5 Discussion /Analysis

### Summary of Major Findings

#### Strong Interest

Three teachers indicated that their students shown strong interests in bilingual class. One teacher in China claimed whether students were interested in bilingual class or not depended on the teacher's strategies and instructional methods. The other Chinese bilingual teacher also mentioned the keys of successful bilingual education were appropriate learning content and methods used in teaching. Two bilingual teachers in China suggested schools and parents should make the decision based on children's interests. If a child was not interested in this lesson, parents should not force their children to learn.

#### Bilingual Education is Necessary

All four interviewees indicated teaching a second language to young children was necessary. Two teachers showed bilingual education was the need of globalization, social and economical development. Two teachers emphasized the benefits of second language education in work. A person who could speak more than one language would have more opportunities and strong competitive abilities in applying for a job.

#### Positive Impact

During interviews, four bilingual educators discussed many examples that their students benefit from bilingual programs. First, children's confidence increases. Students who took bilingual programs showed stronger confidence in classroom, especially in English class. Second, children's pronunciation is good. Children in bilingual class could acquire the native-like



pronunciation easily. Third, children do achieve language development in this sensitive period of time. Finally, bilingual education does not only have positive influence on children's language ability; it also impacts children's cognitive development and social development. Bilingual education broadens their minds; they could think from different perspectives, and think creatively.

### Subjective and Objective Difficulties

Two teachers mentioned that it was hard for children to pay attention in the class. Age is an objective factor in influencing bilingual education. A teacher indicated that her students who were younger than three years old could not catch up with the class easily. It seemed like they stay in the classroom and learned nothing at all. However, students who were around 4 years old had best performance in class. They can understand the teacher's instruction, and collaborate with the teacher to do activities. By reviewing the day after, it showed that those children could remember what they had learned. Another objective factor is the limits or lack of language practice environment. Students whose parents could not speak the second language did not get practice at home, so that they could not use what they learned.

### Relating Language to Culture: Practical Application

Two teachers pointed out bilingual education should not only base on language, teachers should make more connection to real life and cultural element. Teacher should make language education more practical, so that students understand and reinforce this language skill in real life.

### Comparison of Findings to the Literature

#### Relationship Between Age and Second Language Acquisition

Research literature showed even young children could not have better performance than adults and older children in the beginning of second language learning, young children could

also benefit from second language education, and they would perform better in the long run. However, my interviewee stated children who were below three years old could not acquire the best achievement in her bilingual class. Children who were around 3.5 to 4 years old performed best in the class. Consequently, she indicated that bilingual education should not begin in too early period of time. It would not make the positive impact on young children who could not speak their first language well.

A study from Gass and Selinker (2001) also showed a similar result. Young children were not significantly superior in language learning. “Older learners benefit from having a fully developed cognitive system; they are not learning to think while still learning both their first and second language simultaneously as is the case with young learners. They, therefore, can bring to bear on second language learning the cognitive and analytical skills they possess as more experience learners in general” (Snow & Katz, 2010, p. 92). Consequently, second language should not begin too early. Only if young children have cognitive skills, the second language education would make a difference on them.

### Biological Factors in Learning a Second Language

Literature shows that biological factors such as phonological awareness can contribute to early bilingual education. Children do have this gift, which adults do not, so that they have this advantage to have better achievement than adults in the future study. My interviewee indicated her students showed this biological talent during learning a second language. They could pronounce as native-like in second language, and they could learn faster than adults. By the development of their language skills, the second language has become a part of their life; they can switch from two different languages easily. Some researchers also showed this benefit.

In Snow and Katz's article (2010),

However, young children have demonstrated consistent superiority in second-language learning in two areas: the ability to development native-like pronunciation of the second language and to development proficiency with grammatical structures (Johnson & Newport 1989; Munro & Mann 2005; Newport, Bavelier, & Neville 2001). This research supports the contention that the earlier a child is exposed to a new language, the more likely he or she is to develop proficiency with both sound system and the grammatical system of that language (p. 92).

Compared to Munro and Mann's research (2005), children who began to learn a second language over seven years old would have an accent in this language. Therefore, bilingual education is important and necessary for children.

#### Formal and Informal Effects on Language Learning

Early research indicated that not only classroom environment, but also the informal environment had a significant influence on bilingual education. Two of my interviewees also stated that informal environment, such as home and real life situations, had a positive impact on bilingual program. Due to the limits of language practice , children had fewer opportunities to practice the second language. Therefore, parents felt confused about whether their children achieved progress in the bilingual program. Bilingual education should not only focus on classroom environment, but also make connections to real life and cultural elements. According to Snow and Katz (2010), it is important to build up a safe and supportive learning environment for young children. They can learn a new language and understand how to interact with each other effectively without being afraid of making mistakes. Therefore, teachers also need to create

this environment for young children in the classroom, encourage them to use the second language as much as they can.

#### Effect of Bilingualism on Creativity

Research indicated bilingual education contributes to children's creativity. Two teachers also showed bilingual education shaped their students' way of thinking. Bilingual programs broaden their minds because they could think about a question from different points of view. Furthermore, they were more active to take part in activities. A teacher in China stated her students were more confident than other children who were not enrolled in bilingual program in English class, and children's cognitive competence also improved.

#### Limitations/Gaps in the Research

This is a descriptive study, with purposively selected early bilingual education teachers in one area of China and in San Francisco. All interviewees were recommended by friends. I selected two teachers from south-east China, and two teachers from San Francisco. A limitation is that four teachers cannot present the whole situation in early bilingual education. This is a research from teachers' perspectives. I did not involve parents and students in this study, and it could not also show the condition from comprehensive perspectives.

#### Implications for Future Research

##### Interest-Based Education

Two teachers stated if children did not have pressure to learn, they would make progress in bilingual program. In China, some children were forced by parents to take bilingual classes; they did not show the eagerness in class, so their learning outcomes did not match parents' and teachers' expectations. Not only parents and teachers, but also students themselves felt disappointed, which might have a negative influence on students' enthusiasm learning a

language in the early period. Therefore, parents and teachers should allow students to choose what they are interested in. And teachers should change instruction based on it.

#### Right Period of Time/Age Issue

My interview results indicated that bilingual education should not begin at too early an age. Even though young children are eager to learn, they could not pay attention in class, and it is hard for them to understand the instruction. Second language education should begin at a certain age when children acquire cognitive and analytical skills. It is better to immerse a second language for children who are older than three years old. According to these studies and research results, the most effective period of second language immersion for children is from 3.5 to 7 years old.

#### Teacher's Instruction

First, teachers should make bilingual education more practical for children. They must connect content to daily life, or they could also teach the cultural element of this language. Second, teachers need to make the instruction more interesting, and they need to know how to catch children's attention in class. Last, teachers should create language practical environment both in school and at home. For example, teachers could encourage students to talk to each other in second language in break, and reward students who do well. Also, teachers should try to get parents involved in bilingual education, offering parents electronic materials to listen with children together, or asking them to assist their children to explore second language program on the Internet at home.

#### Considering Ethnic Problems

By comparing two different kinds of bilingual education in China and U.S., it indicated that the current situation in China is better than the one in the U.S. Most of the students who took

bilingual programs in China shared the similar cultural background, so it is easier for teachers to adjust instruction to children's needs. However, the situation in the US is complicated. Students in classrooms have multi-ethnic and multi-cultural backgrounds. It is harder for teachers in the U.S. to teach meeting individuals' need. Consequently, teachers should make more efforts to get to know their students, and carefully choose the topic and content to teach.

#### Overall Significance of the Study

Bilingual education is the product of cultural and economic communication between different countries; it is also the need of globalization. Teachers, schools, parents and students should make efforts together to produce best outcomes. Parents should provide the freedom for children to choose what they are interested in, and teachers should make efforts to make the instruction better, and pay attention on ethnic issues. Early bilingual education would make a difference for both students and educators; it would have a bright future.

#### About the Author

Shan Chen achieved the Bachelor degree of Law in Xiamen University, Tan Kah Kee College in Fujian, China. She is interested in early education and bilingual education, so she chose to continue a master study and changed her major to education in USA. In 2014, she completed her Master of Science degree in education at Dominican University of California.

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