The Effects of Cognitive Development on Bilingual Children with a Comparison to Monolingual Children

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Yu, Sun-Young. 2000. The Effects of cognitive Development on Bilingual Children with a Comparison to Monolingual Children. *Lingistics* 8-2, 59-78. The purpose of this article is to show the effects of cognitive development on bilingualism. The first part of this article presents advantages of bilingualism focusing on cognitive development, which is related to metalinguistic awareness, cognitive flexibility, nonverbal problem solving, reading comprehension, and analogical reasoning. The second part of the article introduces one of the effective bilingual education programs in the United States. In the immersion program, students are learning through two languages, and it aims to develop dual language proficiency along with academic achievement. **(Kijeon Women's College)**

1. Introduction

Nowadays our concern about bilingualism has been growing through enforcing the elementary school English education in Korea. To give some ideas about bilingualism, this article presents the effects of cognitive development on bilingualism with the situation of bilingual education in the United States.

There is a large population residing in the United States whose native language is something other than English, and schools have developed a wide range of bilingual programs to educate those children. However, the bilingual programs to educate those children. However, the bilingual education system has caused tremendous controversy among educators, policymakers and the public, including parents and students. The prime

arguments of bilingual education are that it does not develop children efficiently enough toward English literacy, and it has negative consequences on the relationship with cognitive development (Diaz 1983, p.24). The discussion of whether bilingualism leads to cognitive advantages, which are not shared by monolinguals, has been debated over its long history. The early studies by Sare (1923) said that the language handicap of bilinguals was interpreted as a linguistic confusion that deeply affected children's intellectual development and academic performance up to the college years (Diaz, 1983).

On the other side, in 1962, for the first time in the bilingual literature, Peal and Lambert (1962) showed the date indicating a positive influence of bilingualism on children's cognitive ability. Refuting a long tradition of negative beliefs about childhood bilingualism on cognitive development, during the past three decades, several researchers have confirmed Peal and Lambert's (1962) findings regarding the positive cognitive gains on bilinguals. Their bilingual samples were focused on "balanced" bilinguals, that is, children who had similar and age-appropriate abilities in their two languages. The positive cognitive gains were also confirmed through the two-way immersion program, which is providing the quantity and quality of high level bilingualism. Studies of balanced bilinguals have suggested that bilingualism has a positive effect on cognitive development, which is related to metalinguistic awareness (Diaz, 1983; Hakuta, 1987), reading comprehension (Gonzales and Yawkey, 1994; Jimenez, Garcia, and Pearson, 1995), and analogical reasoning (Diaz and Klingler, 1991).

2. Advantages of Linguistic and Metalinguistic Awareness

Regarding the positive effects of the bilingual experience, most research reports that bilinguals develop a higher awareness of the arbitrary nature of linguistic signs (Hamers, 1996). Such metalingustic

awareness allows bilinguals to step back from the comprehension of an utterance in order to consider the linguistic form and structure underlying the meaning of the utterance. A metalinguistic task is one which requires the individual to begin to think about the appreciation of that utterance of speech (Hamers, 1996, p.148). The metalinguistic awareness causes bilingual children to differ from monolinguals; balanced bilingual children show definite advantages in measures of metalinguistic awareness (Hakuta, Ferdman, & Diaz, 1989).

According to Diaz (1985), metalinguistic awareness was included as one of the cognitive verbal measures because bilingual children have special abilities to manipulate and objectify language. In Diaz's research, a sample of 100 Spanish (the first language) - English (the second language) bilingual children, aged 5-7 years, were tested twice, 6 months apart. Children in the sample represented extreme groups of high and low second-language (English) proficiency. For the research, three distinct measures of metalinguistic awareness (MLA) were administered. The first metalinguistic task (MLA 1) focused on measuring children's awareness of grammatical errors in their first language(Spanish). The investigator gave children eight ungrammatical Spanish sentences with several correct sentences mixed within the set. The investigator read the sentences to each children and then asked him or her to label each sentence as correct or incorrect.

The second metalinguistic task (MLA2) focused on measuring the children's awareness of English and Spanish as two different language systems. The investigator gave the children eight Spanish sentences with one English word in each. several correct Spanish sentences were mixed at random within the set. As in the first test, the investigator read the sentences to each child and then asked him or her to indicate whether the sentences were "correctly said in Spanish or not."

The last metalinguistic (MLA3) task by Diaz(1985) focused on measuring the children's capacity to correct ungrammatical sentences. The investigator asked the children to correct those ungrammatical sentences in the first sentences in a syntactic rather than a semantic

dimension shows a higher awareness of linguistic structure (p. 1380).

Through all three experiments, high second-language proficiency children showed higher level of metalingustic awareness. Especially, in the task of MLA 1 and MLA 2 indicated no significant differences between the two groups. Diaz's research shows positive effects of bilingualism on the metalinguistic abilities in terms of correction of ungrammatical sentences and detection of language mixing.

Using similar methods to find bilinguals' cognitive development, Hakata (1987) investigated two different types of metalinguistic awareness. One type was used to find bilingual children's awareness of grammatical errors in their first language. Another was used to find their ability to perceive their two languages as two independent and different language systems. Children in the sample were from the bilingual education program in the New Haven public schools in mainland Puerto Rico. The sample of the study differed from Diaz's research, which was focused on balanced bilinguals. In this study, a group of Spanish-English balanced bilingual children was compared to a group of Spanish-speaking children who were just beginning to learn English as a second language at school. It is possible to consider the comparison group comprised of monolingual children who were at the beginning stages of second-language learning.

The first task investigated children's awareness of grammatical corrections. The investigator gave children seven ungrammatical Spanish sentences with three correct sentences intermixed within the set. Children were asked to decide whether each sentence was correctly said in Spanish or not. Then, for those ungrammatical sentences, the investigator asked children to provide a correct sentence. In a second task, children were presented with seven Spanish sentences that contained one English word in them. Three correct Spanish sentences were inserted at random within the set. Children were supposed to decide whether each sentence was correctly said in Spanish or not.

The metalinguistic measures indicated a consistently strong and

positive relation with Spanish in the two groups of children. However, balanced bilingual children showed a greater ability to make grammatical corrections and to detect confusion between their two languages (Hakuta, 1987).

In a support of Hakuta's (1987) studies, Galambos and Hakuta (1988) confirmed that monolingual children have a difficult time nothing and correcting errors of this kind before the age of 5 to 6, even though their speech is devoid of such errors. However, bilingual children who are proficient in both languages can easily note such errors at the age of 4 to 6 (p. 147).

3. Analogical Reasoning

Diaz's (1985) studies regarding bilingualism and cognitive development included a measure of analogical reasoning. In this study, 100 children from the original sample were divided into groups of very low and very high second-language (English) proficiency. Both groups were proficient in their frist language (Spanish). To measure analogical reasoning, a modified version of the Stanford-Binet Intelligence Scale subtest of opposite analogies was administered twice. The modified test consisted a set of incomplete sentences in which the last word is missing. after the investigator read an incomplete sentences, the child was supposed to respond by verbally filling in the black. For example, "The princess is beautiful, the monster is _____." To get a passing score for this sentence, the child had to respond saying the word "ugly." All the items were administered in Spanish (p.1379).

The results of the experiment could be divided into three parts" (1) the first time, children with higher second-language (English) proficiency scored significantly higher on the analogical-reasoning test given in Spanish. However, the differences were only significant when socioeconomic variables were taken into account. (2) the degree of bilingualism was significantly related to analogical-reasoning variance only for children in the low second-language proficiency group. (3) the

second time, initial differences in analogical reasoning which were present between the two groups disappeared. That is, children of low second-language (English) proficiency caught up in their analogical reasoning skills. According to Diaz and Klingker's (1991) analysis of this fact, since second-language proficiency predicted significant portions if the analogical reasoning variance withing the low-proficiency group, "the catch-up at the end of the year could be attributed to their increased bilingualism (p. 172).

Even though the results studied by Diaz (1985) varied for children at different stages of second-language proficiency, it was clear that there was a strong relationship between degree of bilingualism and analogical reasoning in the multiple-regression equations. For example, for the low English-proficiency group, the second-language variable explained 12 percent (the first time) and 6 percent (the second time) of the variance in the analogies reasoning measure (Diaz & Klingler, 1991).

4. Cognitive Flexibility: Nonverbal Abilities

In the studies on Bilingualism and cognitive development, the term "cognitive flexibility" was used first by Peal and Lambert (1962) (cited in Diaz, 1983, p.34) to explain that bilinguals performed significantly better than monolinguals on several non-verbal testes of intelligence. As Diaz noticed, a bilingual's need to switch language, and a resulting mental flexibility, proved to be a logical and attractive explanation by product. This assumption is related to Peal and Lambert's code-switching hypothesis. More specifically, the hypothesis involves three basic ideas:

(1) that bilingual children are thinking verbally performing these tasks;
(2) that bilingual switch from one language to the other while performing these tasks;.
(3) that bilinguals have a habit of switching languages while performing these tasks (Diaz, 1983, p.35).

In short, the investigators who promote the code-switching hypothesis believe that the possibility of switching linguistic codes while performing cognitive tasks gives bilingual children a flexibility that monolingual children do not enjoy (Hakuta et al., 1987).

In support of cognitive flexibility in bilingualism, Hakuta (1987) and Diaz (1985) studied nonverbal abilities using the visual-relations subtest of the SRA Primary Mental Abilities Test (Grades K-1). The SRA subtest has been used as an estimate of children's capacity to manipulate visual symbols, and it is divided into two sets of items. In this study, 100 children from the original sample were divided into groups of very low and very high second-language (English) proficiency. Both groups were proficient in their first language (Spanish). The test was administered twice. For the first set (SRA1), the investigator asked the child to select one of four figures that adequately completed a square with a missing part. For the second set (SRA2), children needed to draw missing lines in a figure by copying from a given model. Children's responses were scored by adding item scores within each set.

The result for the experiment can be divided into two parts. The first time they were tested, children in the high English proficiency group showed advantages in spatial abilities measured by the second set of the SRA subtest (SRA2). However, the effect was marginally significant on the first set of the SRA test, even though the high English proficiency group still showed advantages. The second time, the initial differences between the two groups of children decreased considerably since children of low second-language (English) proficiency were affected by "catching up" (p. 1382). The only significant difference found between the groups was in the SRA1 measure. The high English proficiency group still showed higher advantages.

5. Cognitive advantages by the Verbal Mediation Hypothesis: Bilingual Private Speech

In fact, Peal and Lambert's (1962) code-switching hypothesis suggests another assumption, the so called verbal-mediation hypothesis. As Hakuta and Diaz (1985, p.341) noted, "It is possible...that children's bilingualism fosters a rather precocious use of verbal mediation of the processing of information and this, in turn, explains bilinguals' improved performance on nonverbal tasks." Diaz and Klingler (1991) also point out that finding out about the private speech of bilingual children is a unique opportunity to study both a process variable in bilingual task performance and an excellent data base to show the validity of the code-switching and verbal-mediation hypotheses (p.181). Private speech refers to children's use of overt language during cognitive tasks for the purpose of planning, guiding, and monitoring their own activity (Diaz & Klinger, 1991).

In order to test the code-switching and verbal-mediation hypotheses, the private speech of 34 Mexican-American preschoolers were examined by Diaz, Padilla, and Weathersby (in press). In this study, children in the sample, aged 3 to 6, were attending Spanish-English bilingual preschool programs in El Paso, Texas. The purpose of these bilingual programs was to ensure that children achieved a high level of bilingual proficiency by the time they entered first grade. During the day, the children had several activities. Some activities were conducted mostly in English while others were mostly in Spanish. However, teachers always were encouraged to switch languages as much as they could and give instruction in both languages (Diaz, Padilla, & Weathersby, in press).

In order to observe the validity of the verbal-mediation hypothesis, Diaz, Padilla, and Weathrsby (in press) examined the differences between high and low bilingual groups on two measures of verbal mediation. One was for examining the overall frequency of

task-relevant private-speech utterances. The other was to assess the quality of verbal mediation. A number of different task-relevant functions were used by the child in his or her private speech. The investigators were considering the idea that children who use their private speech for a larger number of functions could have a higher quality of verbal mediation than children who only use it for one or two functions. For example, the private speech of a talkative child who only uses the labeling function has less quality than the less talkative child who uses language for labeling, describing his or her activity, and planning (cited in Diaz & Klingler, 1991). The result of the experiment showed that there is a positive effect of bilingualism on both frequency and quality of private speech. More bilingual children used much higher number of task-relevant private-speech utterances.

6. Nonverbal Problem-Solving Tasks

Bilingual children demonstrated enhanced metalinguistic understanding on cognitive processing. This ability may play an important role in the development of nonverbal problem-solving and early childhood bilingualism have been reported by Bamford and Mizokawa (1991). for this study, children enrolled in a Spanish-immersion program were tested twice (spring and fall). A second-grade Spanish-immersion program in a suburban school was compared to a standard second-grade program in the same area on measures of nonverbal problem-solving abilities. As Hakuta (1987) and Diaz (1985) mentioned, this method has been widely used as a valid and reliable measure for nonverbal problem solving skills. CPM was used both as a measure of cognitive flexibility and as a measure of nonverbal intelligence. In the spring, immersion children were examined to determine if increased bilingual ability may predict in nonverbal problem-solving skill.

The results indicated that Spanish-immersion program children were changed by time between spring and fall. They showed superior growth in nonverbal problem-solving supports that immersion children

have positive cognitive gains (p.422).

Recently, Bialystok and Majumder (1998) examined the effect of differing degrees of bilingualism on the nonverbal problem solving abilities of children in grade 3. The purpose of the study was to test the hypothesis that bilinguals are superior to monolinguals on nonverbal problem solving tasks. For this study, 71 children in grade 3 (38 females, 33 males) participated. The children formed three linguistic groups. The first group consisted of 28 monolingual English-speaking children. these children had no experience in any language other than English. The second group consisted of 26 French-English bilingual children. These children were considered to be balanced bilinguals. The last group consisted of 17 Bengali-English bilingual children. These children had no experience in any language other than English. These children were considered to be balanced bilinguals. The last group consisted of 17 Bengali-English bilingual children. These children were considered to be partial bilinguals. They were much stronger in English.

Five tasks were used for this study. The first, the Peabody Picture Vocabulary Test-Revised (PPVT-R), was used to measure language proficiency. The second task used was the Grammaticality Judgement task. This task was used to measure the child's ability on grammatical acceptability. The third task used was Block Design. It was used to measure the ability to perceive and analyze patterns. The Water Level Task was used as the fourth task. This task assessed, in the children, the development of the concept of the horizontal coordinate. The last task used for the study was the Noelting Juice Task to examine children's developing concept of proportion. The result of the study suggested five positive effects of bilingualism on problem-solving tasks.

(1) In the PPVT-R test for the French-English bilinguals, the result confirmed that the children were balanced bilinguals, equally proficient in both languages. The test comparing performance in English and Bengali for the Bengali-English bilinguals showed that they were more proficient in English

(2) The results of the Grammaticality Judgment Task confirmed the control advantage for all the bilingual children. Bilingual children solved the control items better than monolinguals. On the analysis item, the balanced French-English bilinguals scored higher than partial bilinguals, but there was no significant difference.

(3) The scores from the Block Design Task were highest within the French-English bilinguals. Partial bilinguals and monolinguals scored at the same level.

(4) The Water Level Task showed that the effect approached significance. Again, the highest score on this task was obtained by the French-English Bilingual children. Monolinguals were higher than the Bengali-English partial bilinguals, but there was no significant difference.

(5) The result for the Noelting Juice Task showed no significant difference among the three language groups. The results of this study support the idea that fully balanced bilingual children perform better than partial bilingual or monolingual children on the nonverbal problem-solving tests.

7. Bilingual vs. Monolingual Reading Ability

According to Gonzalez and Yawkey (1994), reading comprehension in first and second language is a developmental process of concept constrction at three levels, nonverbal, verbal, and symbolic levels, which are influenced by cognitive and linguistic factors. Then, reading is considered a way of thinking about language and text which is related to the process of metalinguistic ability (p.230). For further research Jimenez, Garcia, and Pearson (1995) examined the cognitive knowledge of a proficient bilingual reader who was Latina This was accomplished by comparing her reading processes and those of a marginally proficient bilingual reader and a proficient monolingual reader.

For the study, the 3 sixth-grade students were selected within a sample of 428 children. for the selection, the teachers identified Pamela,

a bilingual Latina student, and Michelle, a monolingual Anglo student as proficient English readers. They then identified Catalina, a bilingual Latina student, as a student who was not succeeding in the school English reading program.

For the study, think-aloud texts, interview, text retellings, a prior knowledge measure, and a questionnaire. In the think-aloud texts, seven different texts were read by the three participants. Selection of texts was based on the idea that those texts provided opportunities for invoking cognitive and metacognitive strategies (p.74). All three students read one narrative and two expository texts in English, and the two bilingual students also read a comparable set of Spanish texts. Qualitative analysis focused on the proficient bilingual reader's performance based on four dimensions: how she completed unknown vocabulary in both English and Spanish, how she comprehended the purpose of reading, how she interacted with the text, and how hse took advantage of herbilingualism.

Pamela, a proficient bilingual reader, asked four trends; logocentricity, a tendency to view comprehension as the goal of reading, awareness of the relationship between Spanish and English, and a multistrategic approach to interacting with text (p.76), When the investigator asked to discuss her reading, Pamela said that reading enhanced the pronunciation and comprehension of words. Pamela demonstrated a special attention for vocabulary when reading both Spanish and English, and she also employed many different reading strategies when reading in both languages.

Three trends were shown in the data collected from Michelle who is the proficient monolingual reader. Firstly, she possessed a very high understanding of reading. She emphasized comprehension of the text as the goal of reading. The second was that she showed a multistrategic approach to reading as Pamela showed. However, unlike Pamela, Michelle showed a tendency toward global reflection concerning her comprehension.

Catalina who is the less proficient bilingual reader showed

bilingualism as a confusing. She did not have a clear understanding of how reading in English related to reading in Spanish. She also expressed a faulty conception of reading, and showed a fragmented manner in reading strategies. Through the data of all three students, it can be concluded that bilingual students enhanced their reading comprehension with the knowledge of the relationship between Spanish and English.

Many studies regarding the interaction between bilingualism and cognitive development have presented evidence showing a positive influence. Especially, when compared to monolinguals, balanced bilingual children have significant advantages on measure of metalinguistic abilities, analogical reasoning, cognitive flexibility, nonverbal problem solving, and reading comprehension. The reliable findings can be summarized as following:

(1) Bilingual children show invariable advantages in terms of both verbal and nonverbal abilities.
(2) Bilingual children show advanced metalinguistic abilities in their control of langauge processing.
(3) Bilingual children show advantages in the use of language for verbal mediation a s evidenced by their higher frequency of private speech utterances and their larger number of private speech functions (Diaz & Klingler, 1991).
(4) Bilingual children show better performnce in nonverbal problem solving tasks.
(5) Bilingual children's flexible, multistrategic approach to reading included strategies that are unique, and affect to reading comprehension.

several investigators have presented evidence showing a positive influence of bilingualism on children's cognitive development, and this evidence demonstrates bilingualism increases intellectual potential, mental flexibility, and concept formation. To maximize the benefits of bilingualism, it is important to be provided the effective bilingual education programs. One of the successful models in the United States

is the immersion program.

8. The Effects of the Two-Way Bilingual Immersion Program

Recently, to provide the quantity and quality of high level bilingualism, a two-way language immersion program was introduced within educational systems. The term "two-way" refers to two language groups mastering the curriculum through each other's languages. In this immersion program, students are learning through two languages, and it aims to develop dual language proficiency along with academic achievement. The two-way language immersion program has positive impacts on both non-English speaking students and English speaking students. The benefits of immersion programs are that non-English speakers learn English and at the same time maintain and develop their native language, native English speakers become proficient in another language, and students learn from one another and develop good cross-cultural attitudes (Christian, 1996).

Immersion programs emphasize the less dominant language more than English in the early grades. The reason is that the early grades are optimal ages for developing the minority language. According to studies by Asher and Garcia (1982), "something in the early development of the child maximizes the probability that the younger the human organism when exposed to a language, the greater the probability that the individual will acquire a native pronunciation" (p.3). They also pointed that the young child's brain has a cellular receptivity to language acquisition. This receptivity may be a function of cellular plasticity. With ages, the cellular plasticity is changed, and the changing reduces the organism's capacity to learn language (Asher & Garcia, 1982).

The United States developed a new two-way immersion program model which is now known as the 50-50 model of two-way. These

classes provide a half day of the curriculum in English and a half day in another language. Over time, the immersion programs have grown significantly in the United States. Currently, there are 204 two-way bilingual immersion schools in twenty-five states and the District of Columbia (Thomas and Collier, 1998). Although many U.S. schools use Spanish-English two-way programs, there are programs in Korea, French, Cantonese, Navajo, Japanese, Arabic, Portuguese, Russian, Chinese, and German as well. Typical goals for two-way immersion programs involve language, academics, and affective dimensions. Firstly, students will develop high levels of proficiency in both their native language and a second language. Secondly, students will perform at or above grade level in academic areas in both languages. Thirdly, students will demonstrate positive cross-cultural attitudes and behaviors and high levels of self-esteem (Christian, 1996, p.67).

The rationale for the basic two-way bilingual approach obtains from several assumptions about content and language learning. Firstly, thee is significant evidence that learning content knowledge through native language enhances students' knowledge acquisition in the second language. It promotes the development of both "basic" and "advanced" literacy in the native language and in English (Christian, 1998, p.67). Many studies on bilingual education program have shown that when native language instruction is provided with balanced second language support, it allows students to gain important content knowledge. Thus, students who learn content in the native language can demonstrate content knowledge in the second language (Montone et al.,1996).

Also, social cultural theory is key to understanding the rationale for the bilingual approach. The program also provides better opportunities for language development through the social interaction between the two groups. Development of both languages is sped up by the interaction between novices (the learners of the language) and experts (fluent speakers of the language). One of the biggest advantages is that students can approach the language within the presence of native speaker models through combining the two groups. In addition, this

environment supports progress in the native language while a second language is learned. The two-way immersion program promotes student-centered classrooms based on cooperative learning, and peer grouping (Christian, 1996).

9. The Immersion Program in Practice: the case of Key Elementary in Virginia

The two-way immersion program at the Francis Scott Key Elementary school in Arlington, Virginia, is one of the excellent examples that has received a great deal of positive attention since it began operating in 1986. This example gives us a sense of how students are performing academically in the two-way program. The school has shown the effectiveness in developing academic achievement for non-English speakers and native English speakers along with high levels of language proficiency for the both groups. The program was designed so that second language learning is done in a way similar to how children acquire their first language. The point was that students learn it in order to take part in meaningful and interesting communication.

At Key Elementary School, instruction is divided equally between English and Spanish. Two first-grade classes were paired for the first year of the program. Both classes used the regular first-grade curriculum but students received instruction in Spanish. Each class worked with two teachers, one teaching the English part of the day and the other teaching the Spanish part. Thus, children changed English or Spanish teachers at the lunch break (Rhodes, 1990). The choice of language of instruction for different academic subject varies from grade to grade. Basically, the Spanish speakers would continue to develop their English language skills, but would also have an opportunity to maintain and expand their Spanish. This program also provides an "immersion" experience for Spanish to English speakers. In addition,

because the class includes native speakers of both, the students can serve as peer tutors for each other. Peer models stimulate natural language acquisition for both groups because they keep the level of interaction cognitively complex (Thomas & Collier, 1998).

For evaluating and improving the immersion program, several types of observations are collected by the Center for Language Education and Research at the Center for Applied Linguistics (CAL0 at Key Elementary School. Classroom visitations are made to observe both the English (morning) and the Spanish (afternoon) parts of the day. CAL evaluations focus on the students to assess their academic progress and language development. Students, parents, teachers, the coordinator, and the principal are interviewed to determine their perceptions of the immersion program. In addition, the paired class is observed to provide a basis for comparison of instruction in the immersion and all-English classrooms (Roldes et al., 1997).

Rhodes (1990) reported that the majority of the students expressed a great deal of satisfaction with the two-way immersion program (p.134). The immersion program has effects on parents of both groups as well. Parents of both groups were satisfied with the immersion program. More than 80% of the parents responded that they were "very satisfied" in the survey of 1992. The English-speaking parents focused on four advantages to the program: cultural diversity, ease of learning a second language at an early age, future job opportunities, and maintenance of their ethnicity (Rhodes et al., 1997). The Spanish-speaking parents mentioned cultural maintenance, ethnic pride, and future opportunities as the advantages in the program. both groups of parents viewed the two-way immersion program as "a means of satisfying the diverse educational and social needs of a multicultural school district" (Rhodes et al., 1997, p.270). Interviews with Key School immersion teachers indicate that the majority of teachers also prefer the system. The teachers are very supportive of the program and feel that the program has a great deal of positive impact on the students' development of bilingualism. The students, their parents and their teachers are all very

satisfied with the way that students are learning in the program.

This program is desirable for several reasons. Firstly, it allows language non-English speaking students to maintain and develop their native language while developing fluency in English. Secondly, it reduces the cultural gap between two groups of ethnically diverse student by providing positive cross-cultural understanding and interaction. Finally, it provides native English speaking students with the opportunity to enhance learning of another language at a high level. Using two languages is better than one, and students who are acquiring multilingual skills have a better and more opportunistic future.

10. Conclusions

The study of bilingual education and programs has shown the cognitive advantages of bilingual students. For the students to benefits from a bilingual experience, both language should be balanced. In addition, the better-planned programs bring the more positive impacts on students' cognitive development. Looking toward the 21st century for the next generation, it is clear that we live in an interconnected world with international communications. Now, Korean society and many businesses are looking for employees who are fluent in both English and another language (Korean) because economic activity is taking place in a more multilingual environment. Students who are educated with only one language will not be prepared to assist to their societies. For the better futures, it is necessary to maximize the benefits of bilingualism and develope programs to be appropriated to Korean students.

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