

Effects of A Picture Book Reading Intervention Program on Young Children's Language Development and Print Concept

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The purpose of this study was to investigate the effects of picture book reading intervention activities on language development of low-income children. The subjects were 60 children in low-income families, aged 5, selected from 24 child care centers located in three cities nearby Seoul, South Korea. The experimental group had received intervention program for 8 weeks, two days a week, and three teachers conducted the intervention program for 30 to 40 minutes for each session. The intervention program was administered to the children with picture book reading activities in the first session, followed by providing more extensive activities in the second session. Afterwards, the study allowed the children to take one picture book to read at home. To evaluate the effect of the picture book reading intervention program, this study utilized instruments called the Preschool Receptive-Expressive Language Scale and the Concepts about Print. Significant differences found between the two groups. The experimental group showed higher scores compared with the control group in the post-test of expressive language development. Also, children in the experimental group showed a significant increase in the concepts about print after the intervention program was administered. In conclusion, findings indicate several changes in positive outcomes after implementation of the picture book reading intervention program.

Keywords: low-income children, language development, picture book reading intervention program

Introduction

Early childhood is a critical period for children's language development, a period that is greatly affected by their environment. During this period, a family plays an important role in developing children's language as their primary environment. A number of research efforts on factors influencing children's language development have indicated that parents' socioeconomic status was one of the most important family environmental factors

(McLoyd, 1998; Sameroff, 1986; Snow, Burns, & Griffin, 1998).

In those studies, children from the upper-middle class background were likely to show higher levels of language understanding and to use more abundant resources of vocabulary, whereas children from the lower class background did not have command of a large vocabulary, nor did they show appropriate levels of understanding the contents and contexts of sentences (Byrnes & Wasik, 2009; Hart & Risley, 1995; NICHD, 2005; Lee & Kim, 2006; Whang, 2005).

Recently, the discrepancy in family income between lower and upper classes has been increasing, and has become one of the most

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serious issues in South Korea, where the poor acutely sense their relative poverty. As a result, Korean society has been demanding public awareness of the importance of effective educational intervention directed towards lower-class children to narrow the gap between classes. In the United States, the Head Start Program, a special educational program for low-income children, has been provided for over 40 years. Furthermore, the Head Start Impact Study with a total of 4,667 children aged 3-4 found that there were statistically significant differences in pre-reading, pre-writing, and vocabulary between children who received the Head Start Program and those who did not. The children who received the Head Start Program showed more positive improvement in those language skills, and parents involved in the program reported that they perceived their children's literacy skills to have improved (Administration for Children and Families, 2005).

Even the United Kingdom, which tried to minimize government involvement in individual family's child-rearing activity, started the Sure Start Program as an early intervention program for the poor children in 1997. Australia also initiated a similar program called the Best Start Program in 2002 (Kim & Lee, 2006). Likewise, a need has been raised for the South Korean government to conduct more studies to construct a database in order to establish effective educational intervention programs for low-income children.

One positive sign was when a corporate town began the We Start Program in South Korea in 2004, an integrated program to provide education, health, and welfare services for the poor with the purpose of narrowing the sociocultural deficits that children might experience at earlier ages (Lee, Yang, & Kim, 2006). Along with such an integrated intervention program, a number of language intervention programs were administered, although these programs focused only on children's language improvement. For instance, such programs as the Reading Recovery Program or the Chapter One Program in the United States, and the Book Start Program in the

United Kingdom, have been administered for a considerable length of time, all of which appeared to have influenced children's language development positively (Roy, 2003). Again, identifying and collecting relevant data of children's existing levels of language development was necessary before planning and administering the early intervention programs.

In lower-class families, parents were not likely to provide their children with more effective home literacy environment or literacy activities such as reading or writing (Gray, 1995). They seldom possessed picture books that were suitable for the ages of their children. Moreover, they perceived language as a unilateral way of conveying information in their communication with their children (Anderson-Yockel & Haynes, 1994). In addition, when they read picture books to their children, they seemed to give their children one-way explanations or simple answers when children asked questions (Lee & Kim, 2006). Children appeared to be engaged in reading activities passively at home, and reading activities were more likely to be perceived as a medium for learning and practicing vocabulary rather than pursuing the joy of reading or of expanding their understanding of the meanings of the text. Additionally, children tended not to ask questions to the grown-ups (So, 1999; Sin, 2004; Anderson & Stokes, 1984; Elliot & Hewison, 1994).

On the other hand, although those children in low-income families were deprived of the environmental influence, it was found that their colloquial speech, cognitive skills, and academic skills improved if they were given opportunities to receive effective language intervention programs from educational institutions (Lee et al., 2008; Campbell & Ramey, 1994; Fowler, Ogston, Roberts-Fiati, & Swenson, 1997). Furthermore, these children showed higher scores on language usage or communication skills when teachers at the child care centers tried to make as many conversations with them as possible (Phillips, Scarr, & McCartney, 1987). These findings suggested that an effective language environment be given to low-income children as early as possible.

Picture book reading has been well-known as one of the important teaching methods to promote children's language development (Adams, 1990; Bus, van Ijzendoorn, & Pelligrini, 1995; Dunning, Mason, & Stewart, 1994). Children's experience of reading with adults may evoke a higher level of linguistic interaction. Even though children's reading experiences with adults does not require formal learning, unlike daily routines or play activities, they may provoke high levels of various kinds of interactions (Lee & Kim, 2006). Picture books play a critical role in acquiring speaking and listening skills as well as in learning vocabulary for children. Whether or not children are exposed to as many and various kinds of books is positively related to children's success in literacy development later in elementary school life. Children who lacked experiences in either reading or listening to various picture books showed not only lower levels of reading skills, written descriptions of their impressions, or comprehension, but also lower levels of motivation for reading books (Beals, DeTemple, & Dickinson, 1994; Sénéchal & LeFevre, 2002; Whitehurst & Lonigan, 2001). Children were gradually exposed to a variety of vocabulary and sentences as they listened to adults who were reading the books to them. They also developed concepts and perceptions about both books and print as they tried to make stories out of the picture books they were reading, and to read and write them (Kim, 1997; Kim & Kim, 2004; Lee, 2004).

Neuman (1999), after administering a reading program to improve children's language development and to provide them with literacy opportunities at a child care center, reported that it was effective to not only provide picture books of good quality for low-income children, but also to encourage teachers to be engaged in frequent reading activities for children with the books which were appropriately chosen to fit the children's developmental stages. Britto and Brooks-Gunn (2001) conducted a study on the impact of interactive reading skills on low-income, four-year-old children's language and literacy development. They found that children

in the experimental group showed higher scores on vocabulary and receptive and expressive language skills than those in the control group.

A series of studies conducted by Whitehurst and his colleagues (Lonigan & Whitehurst, 1998; Valdez-Menchaca & Whitehurst, 1992; Whitehurst, Arnold, et al., 1994; Whitehurst, Epstein, et al., 1994) showed that dialogic picture book reading intervention could produce significant positive gains in language development for children from low-income families who attend day care. Likewise, a study with 207 low-income children aged 3 who had been offered interactive book-reading intervention for nine months reported that the children in the experimental group appeared to improve their language development positively compared with the control group (Wasik, Bond, & Hindman, 2006). Phillips, Norris, and Mason (1996) conducted a follow-up study with kindergarten children who had participated in a reading intervention program called the Little Books Program for a year in Canada in 1988. They explored a longitudinal effect of the picture book reading program and reported that children in the experimental group showed a remarkable improvement in reading skills from the first to fourth grades at elementary schools.

Morrow (1989), who conducted an 11-week picture book reading small group intervention for the low-income children that met once a week, reported that children participating in the small group intervention program were more likely to have achievement in linguistic participation and complexity, and concepts about print than those in a large-group reading intervention. Most of the studies on the effect of the picture book reading intervention reported the consistent results that picture-reading activities through either small group or individual interactions had not only short-term but long-term effects on children's language development.

On the other hand, family literacy intervention programs have raised an important issue socially and politically in the United States since 1980s. Those programs aimed at developing low-income children's language development, but

more by focusing on families rather than children only. Family literacy interventions or family-oriented intervention programs were established for both low-income children and parents who were lacking in fundamental literacy skills. Those programs also tried to provide both children and parents with active and integrated intervention programs based on research findings that emphasized the importance of: family environment influencing children's language development; interactive reading and writing between parents and children; parents' role as the literacy model; and parents' positive attitudes toward children's reading achievement (Kim, 1996; Nickse, 1990, 1991).

Another program called the Even Start Family Literacy Program includes both parents and children as well. In this program, after both parents and children come to a formal institution, parents participate either in individual instruction or in group workshops for literacy, while their children participate in kindergarten program which focus on cognitive aspects of literacy development. Afterwards, parents and children meet up again to have literacy activities together. Another library-based program, called the Beginning with Books Program, was composed of three programs: the first was the Gift Book Program, a program that gave children books as gifts; the second program was called the Read Aloud Program. For this program, parents or grandparents received individual instruction, while children aged 3 to 10 participated in a one-to-one reading program; and finally, in the Read Aloud Parent Club, parents received a four-week training on how to read the books to their children. The parents were then asked to read the books to their children for about 15 minutes every day at home and guide their children to have discussions afterwards.

However, such intensive family-oriented programs were expensive to operate. Because of budgetary restrictions, more and more school-based intervention programs have been developed instead (Karweit, 1994). In such school-based programs, small group activities or one-to-one programs between teachers and

students are given. These programs feature reading specialists, trained volunteers, or visiting teachers who take the children out of the classroom and have reading activities in another classroom. These programs were more cost-effective than home-visiting, family-oriented programs because they took place at existing institutions like kindergartens, child care centers, or schools. Moreover, because these programs were administered by well-trained visiting teachers either in small groups or one-to-one interactions, teachers were easily able to identify difficulties or problems children had with reading so as to provide appropriate instructions to solve those problems (Dickinson, 1994). In the Book Buddies Program, well-trained community volunteers visited the institutions twice a week and provided one-to-one reading activities for the children for about 45 minutes. The children who participated in such a program were likely to have higher scores on the levels of recognizing letters, words, and understanding the contexts of the sentences than those in the control group (Meier & Invernizzi, 1999).

In addition, the STaR Program, a one-to-one picture book reading and follow-up program, reported that as many as 43 kindergarten children were likely to have higher scores on vocabulary power, sentence imitation, and receptive language than those in the control group (Karweit, 1988). Reynolds and associates (1995, 1996, 1998), conducted research on reading specialists who provided reading and reading-related activities for about three to five children outside of the classroom, and reported that children in the intervention group were likely to have higher scores in reading than those in the control group. Furthermore, when a longer program of reading was given to children, they appeared to maintain high scores on reading from the later period of elementary school through middle school (Reynolds & Temple, 1998).

Along with the relative lack of basic research to date on low-income children's language development, little research has been done in South Korea to identify the effect of intervention programs for improving low-income children's

language development. Therefore, it was necessary to conduct this study to identify the level of language development of low-income children who lacked a home literacy environment, and to see if it was effective to provide them with a picture book reading intervention.

Research questions for this study were as follows:

1. What is the impact of picture book reading intervention activities on low-income children's receptive and expressive language development?
2. What is the impact of picture book reading intervention activities on low-income children's concepts about print?

Method

Participants

The subjects of the study were 60 children from low-income families aged 5 (30 boys and 30 girls) who were eligible for the welfare service that was recognized by South Korean law. We selected 5-year-old children prior to entering school as the participants, because this age group urgently needed an intervention program. Low-income families were defined as families who earned the lowest income according to Article 5 of the National Basic Livelihood Security Law of Korea. This study included subjects from the resident registry at three town offices designated as "We Start" towns in Gyeonggi Province in South Korea, who, according to the guidelines, were among the lawfully eligible low-income families and who had children aged 5. As many as 24 child care centers where these low-income children were enrolled were selected for a total of 60 low-income children. These 60 selected children were randomly divided into two groups: an experimental group of 30 children, and a control group of 30.

Measures

Receptive and expressive language. In order to measure children's language development, this study utilized the Preschool Receptive-Expressive Language Scale (PRES) (Kim, Sung, & Lee, 2003). This test is a standardized individual test used in South Korea to measure receptive and expressive language ability of children whose language development levels are under the ages of 2 to 6.

The contents of the PRES test consisted of 90 items, which were divided into two areas: receptive language areas of 45 items, and expressive language areas of 45 items. Specifically, the test measured the following categories: (1) perceptive concepts and semantic language ability (41 items); (2) phonological and syntactic language ability (37 items); and (3) pragmatic language ability (14 items).

Concepts about print (CAP). Concepts about print were measured by the Concepts About Print (CAP) assessment, originally developed by Clay (2000), and then modified and translated into Korean by Kim & Kim (2004). The CAP is designed to measure children's understanding of the concepts about print when they read books and of the context of the books. The CAP test was developed to administer individually to a child, and is made up of 24 items with a total score of 24. The storybooks used for the test included such two books as Follow Me, Moon, and No Shoes, the former for the pre-test, and the latter for the post-test. The books had a total of 20 pages with a picture on one page and a text on the other. One of the principal researchers of this study conducted a factor analysis to come up with five sub-factors for the CAP: Cronbach α for the advanced concept about print was .72, convention of the printed materials was .62, the concept about the book was .57, direction of the print was .72, and the order of the print .83 (Kim & Kim, 2004).

Procedure

The study proceeded with the pre-test first, providing small group intervention activities for reading picture books, and administering the post-test, in that order.

Pre- and post-tests. The pre-test was administered before small group intervention activities with reading picture books. All the children were tested individually in the order of receptive language, expressive language, and concepts about print. The tests were administered in an empty room at the child care centers, which took approximately 40 to 50 minutes.

Picture book reading intervention activities. Only the experimental group was provided with the small group intervention program for picture book reading activities, which lasted for 8 weeks, and met twice a week. Children in the experimental group were divided into small groups of three to five, and the teacher who was trained for picture book reading activities in advance provided them with picture book reading activities in a separate room for about 30 to 40 minutes during the course of their daily routine at the child care centers. After the activities, the children in the experimental group were given the same book that was used for reading activities and let them take it home without any fee or cost. They were instructed to read the book with their parents at home, along with a letter of reading guidelines sent to the parents. The guidelines included such instructions as how to read the book with the children and what kind of questions the parents might ask their children during and after reading.

The process of development of the small group intervention activities to improve the 5-year-old, low-income children's language development was as follows:

First, based on the literature review of such approaches as the Early Reading Intervention Program and the Chapter One Program, this study designed and developed institution-based reading activities that could be used with

teachers who visited the children outside the school. The second stage of the development included choosing appropriate picture books that were as well-suited as possible to fit the study purpose. A total of eight picture books were chosen after two university professors, who were in the relevant field of study, reviewed the list of the books recommended by the Children's Book Research Society of Korea as well as the guidelines for selecting children's books suggested by Lee's 'Picture books appropriate for young children' (Lee, 1997).

Third, as mentioned earlier, the intervention activities for this study were designed to be administered twice a week. On the first day when reading picture books was the main focus of the activities, the teacher showed the children the picture book, introduced the story of the book to the children, and read it to them. Then the teacher read the same book again with them and asked the children to report back a summary outline of the story, and followed with more specific questions about the lead characters, background events, and content of the book. This process was similar to the STaR Program done by Karweit (1988), which was developed for low-income children. Fourth, on the second day of small group activities, the teacher and the children read the same book they had read on the first day. These activities aimed at getting children to have an interest in the book again, experiencing the joy of reading, being exposed to a variety of vocabulary and sentences, and facilitating language development by enhancing their understanding of the relationships between sentences in the picture book as well as providing them with various opportunities for expressing their ideas.

The types of picture book activities included those that involved language, board games, and physical activity games. The visiting teacher attempted linguistic interaction with children as naturally as possible and encouraged children to have an interest in reading the picture book. Each activity lasted for about 30-40 minutes. A summary of the picture book reading intervention activities can be seen in Table 1.

Table 1
Picture Book Reading Intervention Activities

Week	Time	Book Title / Activity Title	Type of Activity
1	1-1	Book: <i>One piece Two piece Three piece</i> (Author: Kim Hea Hwan)	Picture book reading
	1-2	Activity: Let's make with piece of shape	Extension activities
2	2-1	Book: <i>Guess How Much I Love You</i> (Author: Sam McBratney)	Picture book reading
	2-2	Activity: This much? How much?	Extension activities
3	3-1	Book: <i>Joseph Had a Little Overcoat</i> (Author: Simms Taback)	Picture book reading
	3-2	Activity: In front of? Behind?	Extension activities
4	4-1	Book: <i>Living in the sky? Living on the earth?</i> (Author: Kim Sung Eun)	Picture book reading
	4-2	Activity: Let's play riddles	Extension activities
5	5-1	Book: <i>Family 1 2 3</i> (Author: Jung Sang Kyung)	Picture book reading
	5-2	Activity: Shadow of whom?	Extension activities
6	6-1	Book: <i>Doggy poo</i> (Author: Kyun Jung Seng)	Picture book reading
	6-2	Activity: Straight down! Straight to the side!	Extension activities
7	7-1	Book: <i>The Secret Birthday Message</i> (Author: Eric Carle)	Picture book reading
	7-2	Activity: Create a shape book	Extension activities
8	8-1	Book: <i>Have You Seen My Duckling?</i> (Author: Nancy Tafuri)	Picture book reading
	8-2	Activity: Find the hidden duck!	Extension activities

Results

Children's receptive and expressive language development

Children's receptive and expressive language development was measured twice: before the

small group reading intervention activities and after the activities. Table 2 shows the means and standard deviations of those pre- and the post-tests.

The experimental group that underwent the 8-week small group intervention program showed an increase in the age for integrated language

Table 2
t-Test between Experimental Group and Control Group in Language Development ($n = 60$)

	Pre-test		Post-test		Mean difference		<i>t</i>
	<u>Exp.</u> <i>M(SD)</i>	<u>Con.</u> <i>M(SD)</i>	<u>Exp.</u> <i>M(SD)</i>	<u>Con.</u> <i>M(SD)</i>	<u>Exp.</u> <i>M(SD)</i>	<u>Con.</u> <i>M(SD)</i>	
Ages for receptive language	60.60 (8.68)	57.13 (9.31)	63.97 (9.07)	60.30 (9.48)	3.37 (9.08)	3.17 (7.76)	.49
<i>t</i>	.98		1.12				
Ages for expressive language	61.33 (10.03)	59.93 (9.24)	69.23 (8.20)	63.13 (9.80)	7.90 (10.80)	3.20 (7.00)	1.30
<i>t</i>	.09		2.18*				
Ages for integrated language	61.03 (7.98)	58.43 (8.23)	66.67 (6.98)	61.97 (8.63)	5.63 (7.31)	3.53 (6.11)	.49
<i>t</i>	.69		1.83				
Chronological age bracket	66.03	67.53	70.23	71.23	-	-	-

* $p < .05$

development to 5.63 months, on average, whereas the control group showed an increase in only of 3.53 months, of which the mean difference was not statistically significant. However, in the post-test of expressive language development, there was a significant difference ($t = 2.18, p < .05$) between the experimental and control groups in that children in the experimental group showed higher scores compared with that of the control group.

Children's concepts about print

The result of t-test for children's concepts about print between pre- and post-tests is shown in Table 3. Children in the experimental group showed an increase in the scores on the concepts about print of 4.73 points after the intervention, whereas those in the control group showed an increase only of 1.23 points, which was statistically significant between the two groups ($t = 4.66, p < .01$). Among 5 sub-categories of the book orientation concepts, children in the

experimental group did show an increase in two categories, namely print directions, and print order, of 4.73 points after the intervention, compared with those in the control group with an increase of 1.23, which was also statistically significant ($t = 3.84, p < .01, t = 3.31, p < .05$)

Discussion

This study was conducted to identify the effectiveness of picture book reading small group intervention program, which was administered for 8 weeks, on two aspects of receptive and expressive language development as well as on the concepts about print among low-income children.

Low-income children's receptive and expressive language development

The result of this study showed that low-income children's language development levels

Table 3
t-Test between Experimental Group and Control Group in Children's Concepts about Print ($N = 60$)

	Pre-test		Post-test		Mean difference		<i>t</i>
	<u>Exp.</u> <i>M</i> (<i>SD</i>)	<u>Con.</u> <i>M</i> (<i>SD</i>)	<u>Exp.</u> <i>M</i> (<i>SD</i>)	<u>Con.</u> <i>M</i> (<i>SD</i>)	<u>Exp.</u> <i>M</i> (<i>SD</i>)	<u>Con.</u> <i>M</i> (<i>SD</i>)	
Book orientation concepts	1.73 (.52)	1.73 (.52)	1.97 (.51)	1.73 (.45)	.23 (.50)	.00 (.58)	1.56
Print convention	2.63 (.76)	2.66 (.13)	2.93 (.73)	2.93 (.87)	.30 (.70)	.27 (.64)	.21
Print direction	3.73 (2.27)	4.80 (1.71)	6.10 (1.44)	5.67 (2.03)	2.37 (2.09)	.46 (1.25)	3.84**
Print order	.33 (.66)	.53 (.97)	1.37 (.98)	.77 (1.20)	1.03 (1.30)	.23 (.77)	3.31*
Advanced print concept	.73 (.63)	.67 (.92)	1.47 (.42)	.97 (.79)	.73 (1.11)	.30 (.84)	1.80
total	9.17 (3.57)	10.40 (3.42)	13.90 (3.24)	11.63 (3.67)	4.73 (3.44)	1.23 (1.63)	4.66**

* $p < .05$, ** $p < .01$

lagged behind those in the same age bracket by approximately 5 to 9 months. It indicated that children with a developmental lag may be designated with a belated entrance level when entering elementary school, which implies that an intervention program for children with a developmental lag should start as early as possible. According to Chae's study (2007), which investigated receptive and expressive language development of low-income children aged 3 to 5, children at age 3 showed about two months of a developmental lag; children at age 4, about seven months, and children at 5, about 10 months, compared with those who were at the same ages (Chae, 2007). These findings showed that if an intervention program for low-income children is initiated as early as possible, developmental lags may be prevented and the impact of such a program will be maximized.

The results of this study further found that picture book intervention improved expressive language development which indicates the intervention program brought about a reduction

in the developmental lag by one month compared with those at the same age. This finding was consistent with a series of studies conducted by Whitehurst and his colleagues: that picture book reading intervention may produce significant positive gains in expressive language for children from low-income families who attended day care (Lonigan & Whitehurst, 1998; Valdez-Menchaca & Whitehurst, 1992; Whitehurst, Arnold, et al., 1994; Whitehurst, Epstein, et al., 1994).

The present study failed to find significant effects on receptive language development for low-income children. This result is consistent with the Whitehurst studies on book-reading intervention, in which no significant increases in receptive language were found (Lonigan & Whitehurst, 1998; Whitehurst, Arnold, et al., 1994; Whitehurst, Epstein, et al., 1994; Whitehurst et al., 1988). It is, however, inconsistent with experimental studies that use more sensitive measures (Sénéchal, 1997; Sénéchal et al., 1995). The PRES study

instrument used for this study was designed to measure and evaluate children's overall language abilities, including not only receptive and expressive language, but also semantic, phonological, syntactic, and pragmatic language aspects. More sensitive measures that catch specific areas of children's language development may be required to more thoroughly appraise the efficacy of book-reading intervention.

We also found that beneficial effects of intervention were produced in a shorter period than in other research. Previous studies on the intervention programs for low-income children (Reynold et al., 1995, 1996, 1998) took about one to two years, starting with children at ages 3 to 4. For example, a study done by Phillips, Norris, and Mason (1996) lasted for one year of the intervention. Another study done by Wasik et al. (2006) also lasted for 9 months although the intervention was given only twice a month. Regardless of the short period of activities, this study demonstrated an important result: children who showed a developmental lag of 5 months before the intervention, compared with those in the same age bracket, showed only one month's lag after the 8-week intervention was given. Therefore, considering the risks that children from impoverished backgrounds who attend day care face, the practicality of a picture book reading intervention program such as this should be very encouraging for local communities (Snow et al., 1991).

Low-income children's concepts about print

The reported scores on the low-income children's concepts about print showed that the experimental group demonstrated a score of 9.17, whereas the control group marked 10.14. While these scores are consistent with what was reported in previous research by Chae (2006) and Sin (2006), other studies such as Kim and Kim (2004) and Jung (2004) reported much higher scores (e.g., 16.03 and 14.92, respectively). As a whole, the results of this study are more in line with previous studies conducted in other countries, which

demonstrates that low-income children are likely to show lower scores on concepts about print than middle-class children (Brizius & Foster, 1993; Purcell-Gate, 1996; Snow et al., 1991).

Moreover, this study shows that the experimental group that received the picture book reading small group intervention was likely to increase their scores compared to the control group. In other words, children in the experimental group showed an increase in the concepts about print by 4.7 from the pre-test, whereas the control group showed only an increase of 1.2 points. This finding was also consistent with other studies which, by utilizing picture books, were conducted with such language intervention programs as Early Reading Intervention (ERI) or Chapter One Program. Picture books resulted in improving children's early language ability and literacy development (Pinnell, Lyon, DeFord, Bark, & Seltzer, 1994; Reynolds & Temple, 1998; Taylor, Strait, & Medo, 1994). Furthermore, this finding was consistent with reports from other studies that showed significant improvement in children's concepts about print when provided with language intervention program for at-risk children (Schwartz, 2005), or when provided with picture book small group intervention program (Morrow, 1989). In conclusion, small group activities for picture book reading appear to expose children to a variety of literacy types, and positively influence children's acquisition of the concepts about print through on-going experience with printed materials.

As far as the sub-categories of the concepts about print were concerned, the experimental group showed a greater increase in the print direction and the print order after the intervention was given than the control group, which was statistically significant. For the concepts about print, the older the children, the more they acquired concepts about print. Moreover, as the age of the children increased, the sub-categories of the concepts appeared to develop in a particular order (Clay, 1972, 2002; Harlin, 1984; Kim & Kim, 2004). It has been well-reported that book orientation concepts or print conventions are concepts that are first

developed in children. This study also shows that the scores for book orientation concepts as well as print conventions have the least difference between pre-and post-tests in the experimental group, compared with other areas in question. Interestingly, the control group showed exactly the same scores between the two tests and both areas showed the least individual difference compared with other areas. These findings indicate that because these two areas had already been developed before the children reached the age of 5, any intervention program would not bring about effective outcomes. However, the next steps of development, namely, print directions and print order, would be influenced by the intervention. However, because advanced print concepts are considered to be the most complex and difficult area of development, an 8-week intervention is simply not long enough to see any effectiveness (Kim & Kim, 2004).

Results of this study must be interpreted with the following limitations in mind. First, although a small group intervention program used in this study was designed for institution-based activities, much consideration was placed on the home literacy environment. Enclosing an instruction letter of parental guidelines for reading at home, this study allowed children to take one book home so that they could read with their parents at home. However, because it was possible to anticipate a great deal of individual differences in how and what occurs at home with regard to reading activities, home-based reading activities might affect the result of the study. If both parents and teachers provided a high quality of language environment, children's language development should have improved most remarkably. Therefore, this study suggests that, when developing language intervention programs for low-income children, they will be more effective if home-visiting activities are provided simultaneously with institution-oriented activities, or if integrated training programs for both parents and teachers are offered (Kim & Lee, 2006).

Second, although this study offered children intervention activities twice a week, the duration of the study was limited to only 8 weeks and a

relatively small number of subjects participated in the study (30 children for the experimental group and 30 children for the control group). If further studies are administered for a longer period of time, for a larger number of children and are conducted longitudinally, we can expect more effective outcomes of the programs.

Despite the limitations in this study, it is one of the first studies conducted in South Korea that examines the effectiveness of intervention program for young children's language development. Even though it is preliminary, the findings in this study can be used to plan and further develop the We Start Educational Intervention Program in South Korea.

References

- Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Administration for Children and Families. (2005). *Head Start impact study: First year findings*. Washington, DC.
- Anderson, A. B., & Stokes, S. J. (1984). Social and institutional influences on the development and practice of literacy. In H. Goelman, A. Oberg, & F. Smith (Eds.), *Awakening to literacy* (pp.24-37). Exeter, NH: Heinemann.
- Anderson-Yockel, J., & Haynes, W. O. (1994). Joint book-reading strategies in working-class African American and white mother-toddler dyads. *Journal of Speech and Hearing Research, 37*, 583-593.
- Beals, D. E., DeTemple, J. M., & Dickinson, D. K. (1994). Talking and listening that support early literacy development of children from low-income families. In D. K. Dickinson (Ed.), *Bridges to Literacy: Children, families, and schools* (pp.19-40). Cambridge, MA: Blackwell.
- Britto, P. R., & Brooks-Gunn, J. (2001). Beyond shared book reading: Dimensions of home literacy and low-income African American preschooler's skills. *New Directions for Child and Adolescent Development, 92*, 73-89.

- Brizius, J. A., & Foster, S. A. (1993). *Generation to Generation: Realizing the Promise of Family Literacy*. (ERIC Document Reproduction Service ED, 357869)
- Bus, A. G., Van Ijzendoorn, M. H., & Pellegrini, A. D. (1995). Joint book reading makes for success in learning to read: A meta-analysis on intergenerational transmission of literacy. *Review of Educational Research, 65*(1), 1-21.
- Byrnes, J., & Wasik, B. A. (2009). Picture this: Using photography as a learning tool in early childhood classrooms. *Childhood Education, 85*(4), 243-248.
- Campbell, F., & Ramey, C. (1994). Effects of early intervention on intellectual and academic achievement: A follow-up study of children from low-income families. *Child Development, 65*, 684-698.
- Chae, E. H. (2007). Vocabulary, receptive-expressive language, and concepts about print among the low-income children at ages 3 to 5. Unpublished master's thesis, Yonsei University, Seoul, S. Korea.
- Cho, M. H. (1979). Social Class Differences in Linguistics Expressions of the Children. Unpublished master's thesis, Ewha Womans University, Seoul, S. Korea.
- Clay, M. M. (1970). Language skills: A comparison of Maori, Samoan and Pakeha children aged 5 to 7 years. *New Zealand Journal of Educational Studies, 5*(2), 153-170.
- Clay, M. M. (1993). *Reading recovery: A guidebook for teachers in training*. Portsmouth, NH: Heinemann.
- Clay, M. M. (2000a). *Follow me, moon*. Auckland: Heinemann.
- Clay, M. M. (2000b). *No shoes*. Auckland: Heinemann.
- Clay, M. M. (2002). *An observation survey of early literacy achievement* (2nd ed.). Auckland: Heinemann.
- Dickinson, D. K. (1994). *Bridges to literacy: Children, families, and schools*. Cambridge, MA: Blackwell.
- Dickinson, D. K., & Tabors, P. O. (1991). Early literacy: Linkages between home, school and literacy achievement at age five. *Childhood Education International, 6*(1), 30-46.
- Dunning, D. B., Mason, J. M., & Stewart, J. P. (1994). Reading to preschoolers: A response to Scarborough and Dobrich (1994) and recommendations for future research. *Developmental Review, 14*, 324-339.
- Elliot, J. A., & Hewison, J. (1994). Comprehension and interest in home reading. *Journal of Educational Psychology, 64*, 203-220.
- Feitelson, D., Goldstein, Z., Iraqi, J., & Share, D. L. (1993). Effects of listening to story reading on aspects of literacy acquisition in a dialogic situation. *Reading Research Quarterly, 28*, 71-79.
- Fowler, W., Ogston, K., Roberts-Fiati, G., & Swenson, A. (1997). The effects of enriching language in infancy on the early and later development of competence. *Early Child Development and Care, 135*, 41-77.
- Gray, L. S. (1995). Taking from books by asking questions. *Journal of Research in Childhood Education, 10*(1), 23-28.
- Harlin, R. P. (1984). What do pre readers know about print? (ERIC Document Reproduction Service No. ED, 255 891)
- Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: Brooker.
- Jung, J. Y. (2004). The relationships between home literacy environment and children's print concepts. Unpublished master's thesis, Yonsei University, Seoul, S. Korea.
- Karweit, N. (1988). *STaR (Story telling and retelling): Teacher's manual*. Baltimore: Johns Hopkins University, Center for Social Organization of Schools.
- Karweit, N. (1994). The effect of story reading on the language development of disadvantaged prekindergarten and kindergarten students. In D. K. Dickinson (Ed.), *Bridges to literacy: Children, families, and schools* (pp.43-65), Cambridge, MA: Blackwell.
- Kim, K. H. (1989). A study of influences on the language ability and academic achievement by the socio-cultural background of a family. Unpublished doctoral dissertation, Sungkyunkwan University, Seoul, S. Korea.

- Kim, M. S. (1996). Holistic intervention of family literacy programs. *Yonsei Journal of Human Ecology* 10, 78-89.
- Kim, M. S. (1997). Effects of school literacy environment on 4- and 5-year-old children's storytelling. *Early Childhood Education Research*, 17(2), 77-95.
- Kim, M. S., & Kim, S. H. (2004). Relationships between Print Concepts and Language Ability in 4-to 6-year old Korean Children. *Korean Journal of Child Studies*, 25(6), 371-383.
- Kim, M. S., & Lee, M. H. (2006). *Comprehensive childcare services*. Daum Generation: Seoul, S. Korea.
- Kim, S. H. (2003). The relationships between print concepts and language ability in 4- to 6-year old Korean children. Unpublished master's thesis, Yonsei University, Seoul, S. Korea.
- Kim, Y. T., Sung, T. J., & Lee, Y. K. (2003). Preschool Receptive-Expressive language Scale (PRES). Seoul Community Rehabilitation Center.
- Lee, B. J., Yang S., & Kim, M. S. (2006). Kyung-gi Province WE Start Village making project handbook Final report.
- Lee, E. H., Kim, M. S., Jun, H. J., & Lee, J. R. (2008). *Samsung Childcare center's comprehensive childcare services Effect: Second year results*. Samsung Welfare Foundation research report. Seoul: Samsung Welfare Foundation.
- Lee, K. W. (1997). *Picture-books appropriate for young children*. Seoul: Yangseowon.
- Lee, K. Y. (2004). Mother-child interactions in picture-book reading and children's language ability among low-income families. Unpublished doctoral dissertation, Yonsei University, Seoul, S. Korea.
- Lee, K. Y., & Kim, M. S. (2006). Mother-child interactions in picture-book reading and children's language ability among low-income. *Journal of ARAHE*, 13(1), 39-49
- Lee, V., Brooks-Gunn, J., & Schnur, E. (1988). Does Head Start work? A 1-year follow-up comparison of disadvantaged children attending Head Start, no preschool, and other preschool programs. *Developmental Psychology*, 24, 210-22.
- Lonigan, C., & Whitehurst, G. J. (1998). Examination of the relative efficacy of parent and teacher involvement in a shared-reading intervention for preschool children from low-income background. *Early Childhood Research Quarterly*, 13, 263-290.
- McLoyd, V. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, 53(2), 185-204.
- Meier, J., & Invernizzi, M. A. (1999). Book buddies in the Bronx: Testing a model for America Reads. *Journal for Educational Placement of Children Placed at Risk*, 6(4), 319-333.
- Morrow, L. M. (1989). The effect of small group story reading on children's questions and comments. In S. McCormick, & J. Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction: Thirty-eighth yearbook of the National Reading Conference* (pp.77-86). Chicago: National Reading Conference.
- NICHD, (2005). Pathways to Reading: The Role of Oral Language in the Transition to Reading. *Developmental Psychology*, 41(2), 428-442.
- Neuman, S. B. (1999). Books make a difference: A study of access to literacy. *Reading Research Quarterly*, 34(3), 286-311.
- Nickse, R. S. (1990). Family literacy programs ideas for action. *Adult Learning*, 1(5), 9-13, 28-29.
- Nickse, R. S. (1991). A typology of family and intergenerational literacy program: Implication for evaluation. Chicago, IL: American Educational Research Association, *Educational Document*, 3, 331-366.
- Phillips, D. A., Scarr, S., & McCartney, K. (1987). Dimensions and effects of child care quality: The Bermuda study. In D. A. Phillips (Ed.), *Quality in child care: What does research tell us?* Washington, D. C.: National Association for the Education of Young Children.
- Phillips, L. M., Norris, S. P., & Mason, J. M. (1996). Longitudinal effects of early literacy concepts on reading achievement: A kindergarten intervention and five-year

- follow-up. *Journal of Literacy Research*, 28(1), 173-195
- Pinnell, G. S., Lyons, C. A., DeFord, D. E., Bryk, A., & Seltzer, N. (1994). Comparing instructional models for the literacy education of high risk first graders. *Reading Research Quarterly*, 29, 8-39.
- Purcell-Gate, V. (1996). Relationships between parental literacy skills and functional uses of print and children's ability to learn literacy skills (ERIC Document Reproduction Service ED, 372 28)
- Reynolds, A. (1995). One year of preschool intervention or two: Does it matter? *Early Childhood Research Quarterly*, 10, 1-31.
- Reynolds, A., & Temple, J. (1998). Extended early childhood intervention and school achievement: Age thirteen findings from the Chicago Longitudinal Study. *Child Development*, 69, 231-246.
- Reynolds, A., Mavrogenes, N., Bezrucko, N., & Hagemann, M. (1996). Cognitive and family support mediators of preschool effectiveness: A confirmatory analysis. *Child Development*, 67, 1119-1140.
- Reynolds, A., Mehana, M., & Temple, J. (1995). Does preschool intervention affect children's perceived competence? *Journal of Applied Developmental Psychology*, 16, 211-230.
- Roy, A. (2003). Evaluation of the Head Start Program: Additional evidence from the NLSCM79 data. State University of New York at Albany.
- Sameroff, A. J. (1986). Environmental context of child development. *Journal of Pediatrics*, 109, 192-200.
- Schwartz, I., Carta, J., & Grant, S. (1996). Examining the use of recommended language intervention practices in early childhood special education classrooms. *Topics in Early Childhood Special Education*, 16, 251-72.
- Schwartz, R. M. (2005). Literacy learning of at-risk first-grade students in the Reading Recovery early intervention. *Journal of Educational Psychology*, 97(2), 257-267.
- Sénéchal, M. (1997). The differential effect of storybook reading on preschoolers' acquisition of expressive and receptive vocabulary. *Journal of Child Language*, 24, 123-138.
- Sénéchal, M., & LeFevre, J. (2002). Parental involvement in the development of children's reading skill: A five-year longitudinal study. *Child Development*, 73, 445-460.
- Sénéchal, M., Thomas, E., & Monker, J. (1995). Individual differences in 4-year-old children's acquisition of vocabulary during storybook reading. *Journal of Educational Psychology*, 87, 218-229.
- Sin, Y. J. (2004). Influence of the family income and classroom literacy environment upon children's concept about print. Unpublished master's thesis, Yonsei University, Seoul, S. Korea.
- Snow, C. E., Barnes, W. S., Chandler, J., Goodman, I. F., & Hempfill, L. (1991). *Unfulfilled expectations: Home and school influences on Literacy*. Cambridge, MA: Harvard.
- Snow, C. E., Burns, M. S., & Griffin, P. (1998). Preventing reading difficulties in young children. Washington DC: National Academy Press.
- So, H. A. (1999). Low-income mother-child interactions during book reading. Unpublished master's thesis, Yonsei University, Seoul, S. Korea.
- Taylor, B., Strait, J., & Medo, M. (1994). Early intervention in reading: Supplemental instruction for group of low-achieving students provided by first-grade teachers. In E. Hiebert & B. Taylor (Eds.), *Getting reading right from the start: Effective early literacy intervention*. Boston: Allyn & Bacon.
- Valdez-Menchaca, M. C., & Whitehurst, G. J. (1992). Accelerating language development through picture book reading: A systematic extension to Mexican day care. *Developmental Psychology*, 28, 1106-1114.
- Wasik, B. A., Bond, M. A., & Hindman, A. (2006). The effects of a language and literacy intervention on Head Start children and teachers. *Journal of Educational Psychology*, 98, 63-74.
- Wells, G. (1985). *Language development in the preschool year*. New York, NY: Cambridge

- University Press.
- Whang, H. Y. (2005). Influence of the family income, children's language ability and home literacy environment. Unpublished master's thesis, Yonsei University, Seoul, S. Korea.
- Whitehurst, G. C., & Lonigan, C. J. (2001). Emergent literacy: Development from prereaders to readers. In S. B. Neuman, & D. K. Dickinson (Eds.), *Handbook of early literacy research* (Vol. 1, pp. 11-29). New York: Guilford Press.
- Whitehurst, G. J., Epstein, J. N., Angell, A. L., Payne, A. C., Crone, D. A., & Fischel, J. E. (1994a). Outcomes of an emergent literacy intervention in Head Start. *Journal of Educational Psychology*, *86*, 542-555.
- Whitehurst, G. J., Arnold, D. S., Epstein, J. N., Angell, A. L., Smith, M., & Fischel, J. E. (1994b). A picture book reading intervention in day care and home for children from low-income families. *Developmental Psychology*, *30*, 679-689.
- Whitehurst, G. J., Falco, F. L., Lonigan, C., Fischel, J. E., DeBaryshe, B. D., Valdez-Menchaca, M. C., & Caulfield, M. (1988). Accelerating language development through picture book reading. *Developmental Psychology*, *24*, 552-558.

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