

Child, Home, and Heritage Language: The Influence of Home Literacy Activities on Emergent Reading Skills in a Sequential Language

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Abstract

배혜경 · 김선아 · 로즈 서브첵. 2016. 9. 30. 가정 문해 활동이 어린이 학습자의 계승어로서 한국어 읽기 능력에 미치는 영향. *이중언어학* 64, 21-54. 가정 문해 환경이 모국어 발달에 중요한 역할을 한다는 연구결과는 오랫동안 축적되어 왔으나, 가정 문해 환경이 제2언어나 계승어(이후 제2언어로 통칭) 읽기 발달에 끼치는 영향에 대한 연구는 그리 많지 않다. 이에 본 연구는 가정 내 언어 사용 정도, 부모의 언어 능력, 가정 문해 활동, 가정의 인구통계학적 특성 등을 포함한 전반적인 가정 문해 환경이 제2언어 읽기 능력에 미치는 영향을 살펴보았다. 연구에는 영어를 모국어로 하면서 계승어로서의 한국어를 배우기 시작한 한국계 미국인 아동(5세에서 8세 사이) 50명이 참가했다. 어린이들은 한국어 읽기 능력을 측정하는 실험에 참여하였고, 해당 아동의 부모는 가정 문해 환경 설문 조사에 답변하였다. 실험 결과, 어머니의 교육 정도, 가정 내 장서 수, 과외 활동의 개인 교습 횟수, 가정 내 한국어 사용 정도라는 4가지 요소가 제2언어 학습 아동의 한글 자모와 단어 변별, 철자 식별, 무의미단어 읽기 능력을 예측함을 발견했다. 그러나 어머니의 교육 정도가 통계적으로 통제되었을 때에는, 가정 내 장서 수, 개인 교습 횟수, 가정 내 한국어 사용 정도가 아동의 한글 읽기 결과에 미치는 고유한 영향이 감소했다. 구체적으로 가정 내 장서 수와 한국어 사용 정도가 아동의 단어 변별 능력에, 장서 수가 어린이들의 철자 식별 능력에, 개인 교습 횟수가 무의미단어 읽기에 고유한 변동량을 설명하였다. 본 연구는 가정 문해 환경 설문 조사와 아동의 읽기 실험 결과를 정량 분석한 방법으로 제2언어 아동 학습자의 한국어 읽기 발달에 대한 가정

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문해 환경의 영향을 보여주었다는 점에서 의미를 찾을 수 있다. (University of Cincinnati, The Hong Kong Polytechnic University, Georgia State University)

【Key words】 계승어(heritage language), 한국어(Korean), 어린이(child), 읽기(reading), 발달(development), 가정(home), 문해 활동(literacy)

1. Introduction

Children's learning is influenced by individual, social, and cultural environments in which they directly interact in their everyday lives. An ecological model of child development provides a conceptual framework for understanding the multidimensional nature of family involvement in children's academic growth (Bronfenbrenner, 1986). This perspective underscores the family as the most important agent in the development of young children, and is based on a transactional view that emphasizes the interplay between the individual and his/her first-hand environment. The transactional view comprises an understanding of children's development within their social processes because cognitive and academic growth is closely tied to children's interaction with their immediate social settings (Bronfenbrenner, 1986). Bronfenbrenner's ecosystem theory¹⁾ encompasses the richness and depth of the various layers of the individual's environment by characterizing it as a series of nested and interconnected structures. At the core in the ecosystem is the interaction between the child and immediate environments, such as home, family, or

1) There are four elements of this ecological framework that emphasizes transactional relationships between the child and the following agents: *microsystem*—parents and family members; *mesosystem*—teachers, peer groups, and school climate; *exosystem*—community, neighborhood, mass media, and church; *macrosystem*—ideology and popular culture. This paper focuses only on the microsystem.

home climate (Bronfenbrenner, 1986).

Given the importance of the home environment, the focal point of this paper is the interrelationship between the child and his/her family literacy environment in relation to a sequential reading development in the heritage language²). Of particular interest is to document how the home literacy environment functions and how parental involvement is related to the development of reading skills. This issue is worthwhile to investigate, because children bring their existing knowledge and experiences formed in the family to the formal educational setting and learning.

2. Background of the Study

2.1. Exposure to Reading at Home

Within the context related to children's growth in academics, home environment as a core agent of children's development may provide a clue to questions about critical factors that lead to children's optimal literacy attainment. These questions include queries into where children acquire literacy from and what factors make differences in various forms of children's literacy skills, such as knowledge of letters (Ehri, 1998), vocabulary (Snow, 1983), and language skills (Deckner, Adamson, &

2) Although Korean might be the child's first language (L1) exposed at home since birth, the participant's oral and written language skills were skewed toward English as the dominant language; their production in Korean was much slower and more laborious than in English. For the sake of consistency with the literature, in this paper Korean is defined as a heritage language or second language (L2) that is sequentially learned to read with linguistic intuition gained in English as the dominant language.

Bakerman, 2006). Given that emergent readers generally show positive views on reading and high motivation for reading, regardless of socioeconomic status (SES), ethnicity, or gender (Baker & Scher, 2002), the availability of formal and informal educational resources, parental guidance in reading, and the exposure to reading materials at home seem to be crucial in the development of children's reading skills.

To accelerate children's development of literacy skills, it is critical to have home environments as a supporting platform in which children are read to regularly, have joint book reading with parents or caregivers, observe other family member's reading activities, have exposure to children's print materials, have frequent visits to the library, and are encouraged to ask questions during literacy activities (Anderson & Strokes, 1984; Bojczyk, Rogers-Haverback, Pae, Davis, & Mason, 2015; Snow, 1983) as well as set limits on television viewing or other media use (Morrow, 1997). Scarborough, Dobrich, and Hager (1991) have found that preschool children who have more experiences of shared reading with caregivers and their own independent reading become more proficient readers by grade 2 than preschoolers who had little experiences with literacy activities at home. Shared reading and parent-initiated reading facilitate the development of vocabulary and semantic knowledge, comprehension of the text, and letter and word recognition skills (Senechal, LeFevre, Thomas, & Daley, 1998) as well as children's academic skills in alphabetic recognition, and reading readiness in kindergarten (Bojczyk et al., 2015; Christian, Morrison, & Bryant, 1998; Deckner, Adamson, & Bakerman, 2006).

Concerning joint reading at home, however, other studies have

demonstrated slightly different findings. Evans, Shaw, and Bell (2000) indicate that shared book reading at home makes no contribution to the acquisition of letter names and letter sounds in kindergarten, although home activities involving letters predict a small but statistically significant variance in letter recognition. Neither shared book reading nor letter activities are predictive of receptive vocabulary and phonological sensitivity. They show that the frequency of being read to is significantly correlated with children's vocabulary scores. Interestingly, the age of first being read to does not predict phonological awareness skills, vocabulary, and letter knowledge, after controlling for age, parent educational level, and child's naming and visual perception skills. On the contrary, some studies show positive associations between the age first read to and children's academic skills. For example, DeBaryshe's (1993) study demonstrates a strong association between a child's age when first read to and cognitive/linguistic skills. DeBaryshe (1993) points out that the earlier parents begin to read to their children, the higher their children's receptive language abilities.

In a longitudinal study, Senechal and LeFevre (2002) have examined formal and informal literacy experiences at home. They reported that children's exposure to books was related to the development of subsequent receptive language skills, such as vocabulary and listening comprehension, and that these language skills were directly related to later children's reading in grade 3. Parents' teaching their children about reading and writing words is also related to the development of early literacy skills, which directly predicts word reading at the end of grade 1 and indirectly mediates through children's emergent literacy in grade 3.

Children seem to benefit from not only the availability of print materials at home, but also observation of parents' own reading. For instance, Elliott and Hewison (1994) have found that a composite of the presence of books, newspapers, and magazines in the home as well as the frequency of parents' own reading predict a significant variance in reading success in children of 3 to 11 years of age. However, it should be noted that the home reading-related activities they measured, such as rhyming, sounding out letters, and writing, do not predict fluent older readers' reading performance as much as beginners' reading.

2.2. Parents and Home Environment

Research shows that parents' marital status and parental education are significantly related to parents' involvement in their children's education (Fantuzzo, Tighe, & Childs, 2000; Grolnick, Benjet, Kurowski, & Apostoleris, 1997). Fantuzzo and colleagues (2000) indicate that parents with college degrees or higher have more frequent home-school conferences than do parents with high school education or lower. Parents' level of education is also related positively to a higher level of involvement in other school-based activities. Dauber and Epstein (1993) have also noted a strong connection between higher parental education levels and more home- and school-based parental involvement, but that the marital status is not related to the level of involvement.

Other factors that may enhance children's literacy are the utilization of resources, exposure to print, and the presence of a home literacy environment. Weinberger (1996) and Mason (1980) have noted that

four-year-old children's regular visits to the library, library membership, reading signs, and viewing educational television programs are related to subsequent reading skills. Griffin and Morrison (1997) have also found that the presence of reading materials, the frequency of library use, parental reading, and shared storybook reading with parents in combination predict children's literacy skills in kindergarten and grade 2, after controlling for the variance attributable to child cognitive ability, maternal education, age, and preschool experience.

The parental role in children's reading development seems consistent across cultures. For example, Li and Rao (2000) have found that, despite differences in sociolinguistic and sociopolitical contexts in Beijing, Hong Kong, and Singapore, parental beliefs in literacy and language education, parental involvement in home literacy education, and home literacy resources significantly contribute to Chinese literacy attainment. Although there are age differences in the performance of Chinese reading and societal differences in parental beliefs and involvement across the three countries, commonalities are found in parental influences on Chinese literacy development. The study by Li and Rao (2000) confirms that active parental input, home literacy-promoting environment, and high values placed on education play a crucial part in children's reading development, in spite of differences in the socio-contextual milieu. Frijters, Barron, and Brunello (2000) found that home literacy (i.e., reports of children's literacy activities at home and parents' storybook title recognition) and literacy interest (i.e., children's reports of feelings about literacy activities) accounted for the significant variance in oral vocabulary (21%) and in a letter-name and letter-sound measure of early

written language (18%). This study confirms the consistently powerful influence of home literacy practices on children's vocabulary building and letter recognition.

2.3. Home Literacy and Second Language Reading

Learning to read in L2 is a dynamic and complex process, entailing possible clashes and incongruence of languages and cultures between the mainstream L1 atmosphere and L2 children's home. L2 learning of school-aged children may involve psycho-emotional issues and special situations, due to the discontinuity of languages used in school and home, dissonances of literacy practices in the two settings, and different educational aims and values presented by the parent and the teacher. It has been found that code-switching (language mixing within or between utterances) takes place in the bilingual home (Quintero & Huerta-Macias, 1990). Hence, the home literacy practices in the bilingual home may be different from those of mainstream monolingual children.

Research has been conducted to investigate the home influences in bilingual education (e.g., Amaral, 2001; Lao, 2004; Shannon & Milian, 2002; Shin & Gribbons, 1996), but most of these studies on bilingual families have focused on parental attitudes and perceptions of bilingual programs. Recently, case studies on home literacy practices among several immigrant Korean families in the U.S. appeared (Kim, 2007; Ro & Cheatham, 2009; Shin & Kwon, 2016), but they mainly reported detailed literacy practices of the families, rather than the relationship between the home environment and children's reading development.

As Chan and Sylva (2014) and Zhang and Koda (2011) mentioned, the role of the home literacy environment in bilingual or L2 children's literacy development has been rarely examined with a few exceptions. Ledesma (2002) explored, with participants from two schools in the Philippines whose languages of instruction were different (one was English, and the other Filipino), early reading development of bilingual children with respect to the influences of orthography, language dominance, and language of reading instruction, using parental self-report and teacher questionnaires along with a series academic performance measures. With respect to the home literacy environment, she identified a social factor, formal factor, and media factor, but these language preference factors changed from the three factors to two factors (i.e., social factor and formal/media factor) over time. This shift suggested that language preference in media use might be more fluid and transitory, particularly as the children grew older and made their own choices or had more options available to them. The children's language preference was positively related to reading abilities. The results of multiple regression analyses showed that the influence of language preference was largely limited to reading comprehension in English, although it also significantly predicted performance on a number of Filipino achievement measures when the language of instruction was not added to the regression equation.

Zhang and Koda (2011) examined the relation between the home literacy environment and Chinese word knowledge development by Chinese-American children from middle-class families in the U.S. who were about 9 years of age on average and attended a weekend Chinese school. They used a home literacy survey and Chinese tests, and found

the following results. First, at home the parents mostly used Chinese, but children spoke English or a combination of two languages. Second, parents' use of Chinese at home was significantly correlated with children's Chinese vocabulary knowledge, but not with the character structure awareness. Finally, children's reading for their weekend Chinese school classes correlated with their Chinese word knowledge, yet independent and shared reading unrelated to the Chinese schoolwork did not show a significant correlation with Chinese vocabulary skills.

Although there has been a handful of research conducted in this area, still unclear is the relationship between the home literacy environment and biliteracy attainment, especially the emergent reading of a heritage language. In order to fill the gap in the literature, the purpose of this study was to investigate how home biliteracy practices affected L2 reading achievement of Korean-American children. Given the salient influence of the home literacy environment on the L1 reading skills (Dodici et al., 2003; Senechal et al., 1998) and universal properties of reading acquisition across languages (McBride-Chang & Kail, 2002), it was hypothesized that positive home environment and reading activities at home would facilitate L2 reading skills, irrespective of linguistic differences between L1 and L2. Of particular interest was to understand how and what components of the home literacy environment and parental involvement were significantly related to the development of L2 reading skills.

Two research questions guided this study: (1) What are Korean-American home literacy environments like? (2) What are the shared and unique effects of home reading, language use at home, SES, and private lessons on L2 reading? It was important to note that reading skills were operationalized

to rudimentary reading skills, such as letter and word identification, orthographic awareness, and pseudohomophone identification skills, because the participants were emergent readers of Korean.

3. Method

3.1. Participants

Participants were 50 elementary Korean-American children (mean age = 6.49, $SD = .89$, range = 5.07 – 8.1; 23 males, 27 females) whose dominant language was English and who were enrolled in a Korean educational program (Saturday school) to learn to read Korean as their heritage language in a southeastern metropolitan area of the U.S. All of them were from different families, meaning that no siblings were included in this study. They were typically developing kindergarteners through second grade students who had received formal education in U.S. public schools. All the participants were in the first year of learning to read Korean as emergent readers of Korean, although their exposure to Korean oral language at home showed a wide range of variability.

3.2. Procedure

A parent questionnaire was completed by the mother. Reading measures in both English and Korean were individually administered by a bilingual examiner³⁾. Testing took place at the Korean school or at the

3) Although every child's literacy skills were tested both for L1 English and L2

participants' home.

3.3. Measures

3.3.1. Home Literacy Questionnaire

The parents were asked to indicate on a scale the extent of their involvement in their children's early educational experiences at home. Some items on the survey were adapted from the bilingual parent questionnaire of Ledesma (2002), and others were generated to elicit information on parental involvement in literacy education (e.g., frequency of reading to their children). The instrument included a wide range of questions, including children's language use in different contexts, language preference, parental English and Korean language fluency, home literacy activities, private tutoring including languages, music, art, or sports, and demographic information (see Appendix). The questionnaire items were grouped by topic using a Likert-type five-point scale. The Cronbach's alpha ranged from .61 to .97. Items below .75 were not included in analysis.

3.3.2. Korean Letter and Word Identification Tests

These two measures were developed based on the protocol of the Letter and Word Identification subtests of Woodcock Reading Mastery Test

Korean, the focus of this manuscript is on L2 Korean and the results of L2 Korean tests are reported in this paper.

Revised-NU (WRMT-R/NU; Woodcock, 1998). The Letter Identification test included 51 items (e.g., ㄴ, #), while the Word Identification test included 106 items [e.g., 아이 (the 1st item), 임진왜란 (the last item)]. The words were drawn from first-grade textbooks used in Korea and elementary-level Korean textbooks used in Korean schools overseas. The protocol of the WRMT was adopted for test administration regarding the basal and ceiling rules. When the participant failed to correctly read six items in a row, testing was discontinued.

3.3.3. Korean Orthographic Awareness Test

This test was composed of 30 items in which each item contained two related stimuli. The examiner asked the child to point to the stimulus that looked most like the words written in books. Some items included symbols, while others contained irregular letter strings (e.g., 미소 vs. ☺; 개 vs. 뽕). The construction of this test was based on the measure of English orthographic awareness test that had been used in many studies.

3.3.4. Korean Pseudohomophones

This test consisted of 25 target words. The child's task was to select a correctly spelled word that was paired with a phonetic nonword and had the pronunciation of a real word but no corresponding orthographic representation (e.g., 할아버지 vs. 하라버지).

4. Results

4.1. Research Question 1: Home Literacy Environment

Table 1 presents demographic information of the participants by grade. The degree of language spoken at home by children showed a wide range of variability. Korean was most frequently spoken at home by the parent. About two thirds of the participants' parents spoke Korean only or mostly Korean in their home settings, indicating that the majority of the Korean-American children were exposed to oral Korean language to some degree at home.

<Table 1> Demographic Information of the Participants ($N = 50$)

		Kindergarten ($N = 20$)	1 st Grade ($N = 17$)	2 nd Grade ($N = 13$)
Age		5.07 (.44) ^a	6.32 (.43)	7.75 (.45)
Gender	Female	13 (65) ^b	6 (65)	8 (62)
	Male	7 (35)	11 (35)	5 (38)
American Born	Yes	18 (90)	13 (76)	12 (92)
	No	2 (10)	4 (24)	1 (8)
Language Spoken at Home by the Parent	Korean Only	5 (25)	10 (59)	2 (15)
	Mostly Korean	7 (35)	4 (23)	6 (46)
	Both Equally Spoken	2 (10)	1 (6)	2 (15)
	Mostly English	3 (15)	2 (12)	3 (23)
	English Only	3 (15)	0	0

Note: ^a Standard Deviation in parenthesis; ^b Percent in parenthesis

All the parents except one were the first generation of immigrants, and they completed their formal education in Korea before they immigrated

to the U.S. All the participants lived with both parents who were married. About 90% of the fathers were college educated including junior college, while about three quarters of the mothers finished their college-level education. About a quarter of the fathers obtained Master's degrees or higher professional degrees, and four percent of the mothers received graduate-level education. The parents were asked to self-rate their language skills with the four areas (i.e., listening, speaking, reading, and writing) of oral and written languages of Korean and English, including, speaking, reading, writing, and listening, from the range of 0 (Not at all) to 4 (Fluently). The self-assessed language fluency of the parents was clearly skewed toward the Korean language. Almost all of them rated their Korean language skills as fluent. However, about one third of the respondents self-rated their English skills as moderate. The parents self-evaluated their reading skills the highest, and their speaking and listening skills the lowest in English (L2). The mothers were more self-confident in reading than speaking in English; reading ability ranked at the top of the mean scores (2.14), followed by listening comprehension (2.04) and then writing (1.90), with speaking (1.76) ability at the bottom on a 5-point scale from 0 (not at all) to 4 (fluently). The relationship between the mothers' English language use and their English competence showed a significant correlation ($r = .39, p < .05$)⁴.

4) The qualitative intensive interview was conducted with selective mothers by the first author with regard to the parent's explanation for why they use one language over the other or a combination of the two. Four mothers out of five said that they spoke Korean at home because they wanted their children to maintain their heritage language and culture. At the same time, they acknowledged that their insufficient English skills impeded the communication with their children in English. One mother said that she communicated with her child in Korean because of her

Children spoke Korean with their parents and siblings, but less with their friends. Given the parental English skills described earlier, it is not surprising. The majority of the children appeared to speak dual languages, switching one language from the other according to the person to whom they spoke. About half of the participating children used both English and Korean in general activities at home such as media use, print use, entertainment, and the like. English was used most when viewing TV (64%), counting (62%), and reading books or comics (60%), whereas Korean was used most in talking on the phone (22%). It is notable that Korean alone was not involved at all when children watched television, listened to music, or read books/comics, while English was used in all activities. Both languages were used most when singing songs (46%), but the use of dual language was quite balanced throughout activities (36%-46%). Overall, home activities were performed in English the most, followed by both languages, and Korean the least.

With regard to reading activities at home, joint reading with parents and other caregivers in English and/or Korean took place one to three times per week for about half of the participants (54% for parents' reading to the child and 40% for caregivers' reading to the child). More than a third (44%) of the children asked to be read to one to three times per week. About a third (32%) and 22% of the children engaged in independent reading four to six times and one to three times per week, respectively; about a third of the young students read and/or looked at

lack of English skills, despite her willingness to speak English with her child. Therefore, it is still unclear if their limited English skills lead to their reliance on the Korean language or their determination of cherishing the native language overpowers their home language use.

books alone more than seven times a week (16% for seven to nine times a week and another 16% for even more than 10 times per week). Eighty four percent of the participants used TV, other media, or computers for educational purposes.

The mothers were also asked to rate the question “How old was your child when you first began to read to him/her?” with scores ranging from 1 (3 years or older) to 5 (6 months or younger). About a quarter of the mothers began to read to their children somewhere between 1 and 2 years of age. Twenty percent of the mothers reported shared reading was introduced when or before the child was 6 months old. The mean score to this question was 2.86 with a standard deviation of 1.4, indicating that the mothers began to read to their children around two years of age. The Korean mothers’ initiation of shared reading in terms of the child’s age was similar to or a little earlier than that of the American mainstream family in that 27-month-old is an age when shared reading takes place most commonly in the majority of middle-income families in the U.S. (Deckner, Adamson, & Bakeman, 2006).

With respect to the number of children’s books at home, only 2% of the mothers reported that they had fewer than 10 books. More than a third (38%) of the mothers had over 70 children’s books. An index of mean score was 3.64 ($SD = 1.26$) on a scale of 1 (1-10 books) to 5 (70 books or more), indicating that the average books owned by each home to be somewhere between 31 and 50 books.

4.2. Research Question 2: Respective Contributions to L2 Korean Reading Skills

Prior to address Research Question 2, preliminary analyses were performed to (1) reduce the number of independent variables to measurable constructs through a data reduction scheme and (2) identify potential variables that would account for the significant variance in reading outcomes. The former was done through an exploratory factor analysis because of too many independent variables drawn from the survey items. The latter was done using stepwise regression analyses by entering two variables with the highest factor loadings in each factor into the models⁵⁾.

Given the relative importance of the mother's educational level in the prediction of L2 Korean reading outcomes, as identified in the preliminary analyses, we controlled for the variable using hierarchical multiple regression techniques. The order of entry was based on the results of the preliminary analyses, and Table 2 displays the results. Mothers' education predicted 14% of the unique variance in L2 Korean letter recognition skills, but when mothers' educational level was controlled for, none of the variables explained a significant variance in L2 letter identification. For L2 word identification skills, maternal educational level predicted 15% of the variance. When the education level was taken into consideration, the number of children's books at home and the average L2 Korean use at home still accounted for 7% of the independent variance in L2 word identification. Regarding L2 Korean orthographic awareness, mother's

5) The results of these preliminary analyses are not listed in this paper for lack of space, which is available upon request.

education background explained 15% of the variance, but when it was controlled, only the quantity of the books at home predicted 8% of the unique variance. Mothers' educational level accounted for 24% of the unique variance in the Korean pseudohomophones skills. After mothers' educational was taken into account, the frequency of tutoring per week explained a significant variance of the pseudohomophones (8% of the unique variance).

<Table 2> Hierarchical Multiple Regression Analyses for Variables Predicting L2 Reading Skills

Step	Predictors	R2	ΔR2	β	t
Korean (L2) Letter Identification					
Step 1	Mother's Education Level	.14**	.14**	.39**	2.98**
Step 2	Number of Books at Home	.15*	.01	.06	.47
Step 3	Frequency of Tutoring	.22**	.07	.25	1.84
Step 4	L2 Use at Home	.24*	.02	.15	1.10
Korean (L2) Word Identification					
Step 1	Mother's Education Level	.15**	.15**	.43**	3.41**
Step 2	Number of Books at Home	.22**	.07*	.27*	2.11*
Step 3	Frequency of Tutoring	.24**	.02	.08	.60
Step 4	L2 Use at Home	.31**	.07*	.27*	2.16*
Korean (L2) Orthographic Awareness					
Step 1	Mother's Education Level	.15**	.15**	.40**	3.04**
Step 2	Number of Books at Home	.23**	.08*	.26*	1.99*
Step 3	Frequency of Tutoring	.24**	.01	.11	.80
Step 4	L2 Use at Home	.25*	.01	.08	.58
Korean (L2) Pseudohomophones					
Step 1	Mother's Education Level	.24***	.24***	.49***	3.94***
Step 2	Number of Books at Home	.24**	.00	.05	.41
Step 3	Frequency of Tutoring	.32***	.08*	.29	2.29*
Step 4	L2 Use at Home	.33**	.01	.03	.23

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

5. Discussion

In order to characterize the home environmental input available to the child in two languages, this study examined the influence of parental demographic characteristics, home language use, home literacy resources, and literacy activities on L2 Korean reading development. The findings highlight the utility of home literacy practices and the benefit of mothers' education in promoting their children's L2 reading achievement. It is possible that the effect might have stemmed from better family resources mediated from the mother's educational level (i.e., higher SES) rather than the mother's education level per se. These results contribute to the growing body of evidence that children's reading performance is, in part, contingent upon home literacy environments and parental support (Bojczyk et al., 2015; Deckner et al., 2006; Frijters, et al., 2000).

Three quarters of the Korean mothers participating in this study were college educated, and the parents tended to adhere to their native language at home, but a large proportion of children communicated in linguistically mixed communication with their parents. The discrepancy in the language choice between the first-generation immigrant parents and the second-generation children seems common in immigrant families whose heritage language differs from the community language, as reported in literature (Ro & Cheatham, 2009; Zhang & Koda, 2011). In the current study, the children appeared to use both English (L1) and Korean (L2) concurrently in general home activities such as media use, playing games, and reading books/comics. Most of the parents were involved in home literacy activities such as joint reading, their own reading, and TV, computer or other media use for educational purposes.

In general, families may differ in the extent to which parents encourage literacy activities and provide their children with materials that focus on their children's learning. The parents of the participants in this study exhibited large-scale parental involvement and financial support for their children's education, especially by providing opportunities of private tutoring.

This study found four home factors predicting children's L2 Korean reading development, which are the mother's education level, the amount of the child's Korean use at home, the number of books at home, and the frequency of private tutoring in languages, music, art, or sports. Overall, these four factors played a role in children's L2 reading to a certain extent; so, we discuss each factor one by one. First, the maternal educational level was the most consistently significant factor for children's L2 Korean reading performance. Hierarchical regression analyses showed that the mother's education level explained the significant variance in all L2 tests, including the Korean letter and word identification skills, Korean orthographic awareness, and Korean pseudohomophone skills. This is consistent with previous research that maternal education is significantly associated with children's reading and overall education, and is highly related to home- and school-based parent involvement (Fantuzzo, Tighe, & Childs, 2000; Grolnick, Benjet, Kurowski, & Apostoleris, 1997). As indicated earlier, children's better reading outcomes may be attributable to richer home literacy environments and better home resources resulted from the mother's higher education level rather than the mother's education per se.

Second, the amount of the child's use of Korean at home significantly accounted for Korean word identification only. It should be noted that the

other three L2 reading tests (i.e., Korean letter identification, orthographic awareness, or pseudohomophones skills) require more sensitivity to the local sub-lexical level (i.e., identifying letters or checking spellings), whereas Korean word identification test is more closely linked to the global lexical level (i.e., accessing the meaning of words). It is reasonable that the child's Korean use is significantly predictable for his/her Korean word knowledge, rather than for the sensitivity to the orthography. This result confirms the finding of Zhang and Koda (2011) in which Chinese-American children's Chinese word knowledge, not their sensitivity to character structures, was significantly correlated with parents' Chinese use at home. Taken together, it suggests that the use of L2 at home would facilitate children's L2 vocabulary gain rather than the awareness of L2 orthography.

Third, the quantity of reading materials at home explained children's Korean word identification and orthographic awareness. This finding corroborates the benefits of the physical availability of literacy-related materials in the home to enhance children's literacy (Griffin & Morrison, 1997; Mason, 1980; Weinberger, 1996).

Finally, the frequency of tutoring showed a significant predictive power for children's Korean letter identification and pseudohomophone detection. Interestingly, the private tutoring here was not limited to Korean, but extended to other extracurricular activities. The majority of the participating children received many forms of private lessons, including English, Korean, art, music, Taekwondo, computer, or others. It should be noted that private lessons themselves may not be as crucial as the result shows. Rather, the private lesson may be an indicator of home

resources, support, and parents' educational ideology. Given that the frequency of children's private tutoring reflects the degree of the financial resources of the family (i.e., SES) and parental attention to children's education, the finding suggests that SES and parental emphasis on education seem to build a close alignment with children's literacy attainment. Furthermore, it would be helpful especially when children lag behind their school peers in terms of achievement level, but the holistic impact is still unknown and may be worthwhile to examine in the future. Regardless of its long-term effect, in a similar line with Snow and her colleagues' findings (1998), both parental value placed on literacy and press for education appear to be critical in children's literacy growth.

This study also found different results from previous research. The literature has noted that home reading, including shared reading with parents and child's independent reading, is one of the essential home literacy activities for the development of early L1 reading. However, the results of this study demonstrate that child's independent reading and parent-child joint reading at home did not account for a significant variance in L2 reading performance. It is possible that different aspects of the home literacy activities may be differentially associated with children's L1 and L2 development. In other words, not all home literacy experiences and activities directly affect children's literacy development in the same fashion. Unlike previous studies, the findings of this research showed little association between shared or independent reading at home and L2 reading scores. Several explanations may be given as to why non-significant relationships were found between the home literacy variables and L2 reading in this study. First, it is likely to be the

measurement issue, which refers particularly to the psychometric characteristics of the questions and scales. The questions and scales might not have completely captured the essential aspects of the home literacy environment. More qualitative measures or observational data are needed to further look into this point. Second, a critical level of literacy activities in the home may be necessary for home literacy activities to impact literacy outcomes. In other words, it is still unclear how much and what type of input in the two languages result in reading success. It is plausible that the dominance of one language over another and the interaction of the two languages play out in the children's literacy development (Hammer, Miccio, & Wagstaff, 2003).

The results of the present study need to be carefully interpreted, which is related to the limitations of this study. First, it is possible that other predictor variables that we did not measure may influence children's L2 reading achievement. Second, the Korean parents' heavy reliance on the private lessons may be culture-specific. Therefore, cautions need to be paid when the generalization of the results is made to other samples or cultures. Lastly, the social desirability bias (Scarborough & Dobrich, 1994) resulting from self-report in the questionnaire or interview should also be considered.

As Bronfenbrenner's developmental-ecological theory (1986) stresses an important role of surrounding systems of the child, the results of this study uphold the essential function of the microsystem that focuses on the interaction between the child and parents/family. Parental education and the press for education serve as a primary agent of children's L1 and L2 literacy development for Korean-American children in the U.S. This

transactional and ecological model of child development provides a groundwork for understanding the multidimensional nature of family involvement among other variables in children's academic growth, as it recognizes that the family is the most important agent in the literacy development of young children.

With abundant studies showing significant associations between global home literacy activities and early reading in L1, this study expands the vital influence on home literacy to the area of L2 acquisition. Mothers' education and home language use appear to provide young children with a promising pathway to fluent reading. Despite the limitations of this study, the results provide important information about home literacy of Korean families residing in the U.S. This study exhibits that consistent L2 use at home and educational activities, such as tutoring, lead to successful L2 literacy development, in spite of the possible dissonance or discontinuity of languages used in the home and school. In other words, commonalities of parental input in literacy practices exist, regardless of socio-cultural factors and languages to be learned. The attempt made in this study to document Korean immigrants' home literacy variables in relation to learning to read may grow into theory building on the L2 family literacy area. Clearly, further research is recommended to corroborate the results of this study, and, further, longitudinal studies are needed to determine whether the effect of home environments indeed yields long-term impact on later reading growth.

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<Appendix>

PARENT QUESTIONNAIRE (Confidential)

Child's Name: _____ Child's Birth Date: _____
 Your Name: _____ Today's Date: _____
 Relationship to Child: _____ Home Phone Number: _____

I. HOME LANGUAGE USE/MEDIATED LANGUAGE EXPOSURE

Please pick a number from the scale below to indicate language use at your home and write the number in the space to the right of the item. (#1 - #3)

0 = NOT AT ALL
1 = RARELY
2 = SOMETIMES
3 = MOST OF THE TIME
4 = ALL THE TIME

1. How often does YOUR CHILD speak Korean/English to communicate with you and your family members at home?

Korean English

- | | | |
|-----------------------------|-------|-------|
| 1) With you and your spouse | _____ | _____ |
| 2) With his/her siblings | _____ | _____ |
| 3) With friends | _____ | _____ |

2. How often do YOU speak Korean/English with your child at home? If the language you use is different from that of your spouse, please indicate that in the space provided.

Korean _____ English _____ Both _____

(Optional) Your Spouse: Korean _____ English _____ Both _____

3. How often does YOUR CHILD use Korean/English with the following activities at home?

Korean English

- | | | |
|--------------------------|-------|-------|
| 1) Watching TV | _____ | _____ |
| 2) Watching Video clip | _____ | _____ |
| 3) Reading Books/Comics | _____ | _____ |
| 4) Singing Songs | _____ | _____ |
| 5) Counting | _____ | _____ |
| 6) Talking on the Phones | _____ | _____ |
| 7) Playing Games | _____ | _____ |

Please pick a number from the scale below to indicate your language fluency and write the number in the space to the right of the item.

SCALE	
0 = NOT AT ALL	
1 = POORLY	
2 = FAIR	
3 = WELL	
4 = FLUENTLY	

- | | Korean | English |
|--|--------|---------|
| 4. How well do you speak Korean/English? | _____ | _____ |
| How well do you read Korean/English? | _____ | _____ |
| How well do you write Korean/English? | _____ | _____ |
| How well do you understand Korean/English? | _____ | _____ |

II. HOME READING ENVIRONMENT

Please pick a number from the scale below to indicate your child's language development and write the number in the space to the left of the item. (#5 - #8)

SCALE	
1 = 3 YEAR OR MORE	
2 = 2 TO 3 YEARS	
3 = 1 TO 2 YEARS	
4 = 7 TO 1 YEAR	
5 = 6 MONTHS OR LESS	

5. _____ At what age in months did your child say his or her first word other than mom or dad?
6. _____ At what age did your child first learn to say numbers?
7. _____ At what age did your child first learn to recognize letters?
8. _____ How old was your child when you first began to read to him or her?

SCALE	
0 = NOT AT ALL	
1 = 1-3 TIMES PER WEEK	
2 = 4-6 TIMES PER WEEK	
3 = 7-9 TIMES PER WEEK	
4 = MORE THAN 10 TIMES PER WEEK	

9. _____ How many times in a week do you read to your child?

10. ____ How many times in a week does another caregiver besides yourself (e.g., spouse, older sibling) read to your child?
11. ____ How often does your child ask to be read to?
12. ____ How many times at home does your child read and/or look at books alone?
13. ____ How many times does your child spend watching educational television programs and videos (e.g., Sesame Street, PBS programs)
14. ____ How many times does your child spend watching programs and videos for entertainment? (e.g., cartoons)?
15. ____ How often does your child use computer for educational purposes (e.g., for reading, math, etc.)? If you don't have a computer at home, put 0.

16. Not including books required for school courses or job, how many books do you and your spouse typically read in a year?

	Myself	My Spouse
1) none	_____	_____
2) 1 to 2	_____	_____
3) 3 to 10	_____	_____
4) 11 to 30	_____	_____
5) more than 30	_____	_____

17. How many magazines do you and your spouse subscribe to or purchase on a regular basis?

	Myself	My Spouse
1) none	_____	_____
2) 1	_____	_____
3) 2 to 5	_____	_____
4) 6 to 10	_____	_____
5) more than 10	_____	_____

18. Which of the following describe your newspaper reading? Please include paper and on-line version.

- 1) read more than one newspaper a day.
- 2) read one newspaper everyday
- 3) read a newspaper occasionally
- 4) do not have time to read a daily newspaper.
- 5) do not care to read a daily newspaper even if have the time.

19. Approximately how many children's book does your child have at home? (Please include series of books)

- | | |
|----------|-----------------|
| 1) 1-10 | 4) 51-70 |
| 2) 11-30 | 5) more than 70 |
| 3) 31-50 | |

SCALE 0 = NOT AT ALL 1 = SEVERAL TIMES PER MONTH 2 = ONCE A WEEK 3 = SEVERAL TIMES PER WEEK 4 = EVERYDAY

20. How often does your child get private tutoring (by one-on-one or group)?

For How Long? (Please write the number of year: e.g. a half year= .5)

- 1) ___ English _____
- 2) ___ Korean _____
- 3) ___ Math _____
- 4) ___ Art _____
- 5) ___ Music _____
- 6) ___ Computer _____
- 7) ___ TaeKwonDo _____
- 8) ___ Other _____

21. Did your child attend preschool? If yes, at what age? _____

III. DEMOGRAPHIC INFORMATION

22. Number of children you have in each age group

- 1) ___ UNDER 2 YEARS OF AGE
- 2) ___ 3 TO 5
- 3) ___ 6 TO 10
- 4) ___ 11 TO 17
- 5) ___ 18 AND OVER

23. Your present marital status (circle number)

- 1) NEVER MARRIED
- 2) MARRIED
- 3) DIVORCED
- 4) SEPARATED
- 5) WIDOWED

24. Number of children you have in each age group

- 1) ___ UNDER 2 YEARS OF AGE
- 2) ___ 3 TO 5
- 3) ___ 6 TO 10
- 4) ___ 11 TO 17
- 5) ___ 18 AND OVER

25. Your house holder's occupational status:

- 1) PROFESSIONAL (MED, LAW, ETC)
- 2) MANAGERIAL, EXECUTIVE
- 3) ENGINEERING, TECHNICAL
- 4) MARKETING, SALES
- 5) SKILLED CRAFT OR TRADE
- 6) SEMISKILLED OCCUPATION
- 7) CEO; SMALL BUSINESS OWNER
- 8) OTHER, SPECIFY WHAT: _____

26. What is the highest level of education you have completed? (Put a check mark in the appropriate space; You may check more than one space, when necessary)

- | | YOURSELF | YOUR SPOUSE |
|--------------------------------|----------|-------------|
| 1) LOWER THAN HIGH SCHOOL | _____ | _____ |
| 2) HIGH SCHOOL | _____ | _____ |
| 3) JUNIOR OR COMMUNITY COLLEGE | _____ | _____ |
| 4) FOUR-YEAR COLLEGE | _____ | _____ |
| 5) GRADUATE SCHOOL OR HIGHER | _____ | _____ |

27. Does anyone in your child's immediate family have trouble learning to read or write (e.g., learning disabilities, reading disabilities, dyslexia)? If yes, who and what difficulties? _____

28. Would you like to make any other comments? If so, please provide them in the space below.

Thank you very much for your cooperation!

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