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Home literacy environments and emergent literacy skills of English- and Spanish-speaking students.

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HOME LITERACY ENVIRONMENTS AND EMERGENT LITERACY SKILLS OF
ENGLISH- AND SPANISH-SPEAKING STUDENTS

An Ed.S. Field Project

Presented to the

Department of Psychology

and the

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment

of the Requirements for the Degree

Educational Specialist

University of Nebraska at Omaha

by

Megan M. Stroud

April 2006

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ED.S. FIELD PROJECT ACCEPTANCE

Acceptance for the faculty of the Graduate College,
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University of Nebraska, 2007

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Abstract

Learning to read is a process that begins long before a child enters school. One of the most important things that parents can do to help their children prepare for school is to create home environments that promote literacy. The purpose of the present study was to examine kindergarten student's home literacy environments in relation to their emergent literacy skills. A home literacy environment questionnaire was administered to both English-speaking and Spanish-speaking parents of kindergarten students enrolled in a dual language program. The questionnaire was then compared to data collected on students' emergent literacy skills. Results of the study provide information for parents as well as educators concerning literacy activities that contribute to the development of children's literacy skills.

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Home Literacy Environments and Emergent Literacy Skills of English- and Spanish-Speaking Students

According to the traditional view of reading children begin to acquire literacy skills once they start school; however the current view of reading is that children begin to develop these skills long before they enter formal schooling (Lancy, 1994; Storch & Whitehurst, 2001; Whitehurst & Lonigan, 1998). Parents, therefore, play an important and essential role in the development of their child's literacy skills (Evans, Shaw, & Bell, 2000). By providing children with opportunities to engage in print and books along with various other literacy activities in the home parents promote their child's literacy development (Baker & Scher, 2002). Children who are given these book opportunities in their homes are more successful in reading, read more for pleasure, and enjoy reading more than children who are not provided with these early literacy activities (Whitehurst & Lonigan, 2001). Literacy experiences that children bring with them to kindergarten and first grade have been found to predict whether they will be successful in school and whether they will graduate from high school (Cunningham & Stanovich, 1997). Although people in the U.S. are reading now more than ever, and the illiteracy rates in the U.S. are decreasing, shockingly many children proceed through the educational system without ever learning how to read (Gregory & Morrison, 1998). Given the seriousness of illiteracy, responsibility is placed on the parents to implement literacy activities in their homes in order to promote literacy development and thus prepare their child for school (Gregory & Morrison).

Although home environments that support literacy are found to be beneficial in the development of children's reading skills, the vast majority of research on home literacy experiences before kindergarten focuses primarily on Caucasian, middle-class families (García, 2000; Vernon-Feagans, Scheffner Hammer, Miccio, & Manlove, 2001). Research relating to the home literacy experiences of Spanish-speaking students, outcomes from these experiences, and our understanding of these literacy experiences in general, is limited (García, 2000).

Latinos represent the largest and fastest growing minority group in the U.S. and research has revealed that in U.S. schools these children are at a high risk of failing academically. Latino children read at significantly lower levels compared to their non-Latino peers (Ortiz, 1986) and are more likely to be plagued with poor literacy outcomes (Hammer et al., 2003). Given these findings, further research is warranted regarding the home literacy environments of Latino children and how these environments affect the development of their emergent literacy skills. Results from this type of research could provide information on how to better help these children become successful in U.S. schools (Vernon-Feagans et al., 2001).

The term "Latino" will be used throughout the present study when referring to the Spanish-speaking population (Hayes-Bautista & Chapa, 1987). Latino is a generic term that refers to "all persons of Latin American origin or descent, irrespective of language, race, or culture" (p. 61). It is the preferred term given that it preserves the national origin as well as the political relationship between Latin America and the U.S. It has also been found to be the term that is least objectionable according to most Spanish speakers and is

generally favored over the term “Hispanic (Bautista & Chapa, 1987).” It is for these reasons that the present study will utilize the term “Latino” when referring to the Spanish-speaking population, and the term “non-Latino” when referring to students whose native language is English. It should also be noted that the term “parent” will be used to signify parents, guardians, and caregivers in the present study.

The present paper includes information regarding the educational attainment of Latino children in U.S. schools, the development of emergent literacy skills, home literacy environments and types of home literacy activities, and the use of questionnaires for collecting data on literacy skills. This paper seeks to expand on the current literature by examining the correlates of home literacy environments and emergent literacy skills of both Spanish-speaking and English-speaking students. The goal of the present study is to provide information, not only for schools regarding the literacy experiences that children bring with them to kindergarten, but also to inform parents of the home practices that can help prepare their child for school.

Literature Review

Latino Education

The Latino population makes up the largest minority group in the U.S, with an estimated 37.4 million or 13.3 percent of the United States population (U.S. Census Bureau, 2002). In terms of educational attainment, approximately 57 percent of Latinos aged 25 or older have graduated from High School, compared to 88.7 percent of non-Latinos (U.S. Census Bureau). Latino migration to the U.S. is the largest migration in the world with an unprecedented number migrating to the U.S. every year. Immigrants in the

U.S. constitute approximately 11 percent of the total population, including 22 percent of children under the age of 6 (Capps, Fox, Ost, Reardon-Anderson, & Passel, 2004).

Reasons for migration vary and may include, escape from political or personal turmoil and search for better job and educational opportunities (C. Suarez-Orzoco, M. Suarez-Orzoco, & Doucet, 2004).

Although the Latino population is increasing in numbers, unfortunately one of the most educationally disadvantaged groups of students in U.S. schools today is children of migrant families. So while some Latino students experience success in U.S. schools, a high percentage of these students do not (Gouwens, 2001; C. Suarez-Orzoco et al., 2004). Historically Latino students have faced numerous challenges in U.S. schools compared to their non-Latino peers, and most of these challenges are still evident today. Some of these challenges include a standardized testing system geared toward non-Latino students leading to significantly lower test scores, culture shock from migrating to the U.S., difficulty with learning the English language, low achievement in reading, and relatively high school dropout rates (Arzubiaga, Rueda, & Monzo, 2002; A. DeBlassie, R. DeBlassie, 1996; García, 2004; Stevenson, Chen, & Uttal, 1990). There is also a growing achievement gap between Latino students and Caucasian, non-Latino students (Minami & Ovando, 2004). With this in mind it is not surprising that a growing national concern has been given to the educational experiences of minority children in the U.S. (García, 2004; Miniami & Ovondo, 2004).

There is high variability in the family backgrounds of Latino students in the U.S. Some Latino students are from middle to upper class backgrounds, and have well

developed literacy skills, while some Latino students migrate from poverty-stricken places with little to no schooling (C. Suarez-Orzoco et al., 2004). It is also true that, much like parents of non-Latino students, parents of Latino students who are well educated are better able to equip their children with more educational tools that can lead to successful learning. Ortiz (1986) examined African-American and Latino parental factors that contributed to children's academic achievement. He found that the educational levels of parents were correlated with the academic achievement of their children. Parents with higher levels of education had more literacy materials in the home and read more frequently to their children, compared to parents with limited educational backgrounds. The results from this study have important implications to the present study given that the average level of education attained from the Spanish-speaking parents in the present study is elementary school.

Statistics reveal that the population of Latino students is growing rapidly, and more and more children are entering U.S. schools speaking little to no English. However, research primarily focuses on the educational experiences and the home literacy environments of non-Latino students (García, 2000). Latino students face many challenges in U.S. schools, and given these challenges, paired with our limited understanding of the Latino family's influence on children's literacy development, examining the home literacy environments of Latino children could help to address the educational needs of this group of students.

Emergent Literacy

Parents and the home literacy environments they create for their children play an important role in the development of their child's emergent literacy skills (Evans et al., 2000; Hoing & Shin, 2001; Karrass, VanDeventer, & Braungart-Ricker, 2003).

According to Whitehurst and Lonigan (1998) emergent literacy can be defined as characteristics of a student that are thought to be precursors to a child's future in reading and writing. Children begin to develop literacy skills at a very early age, well before they begin their formal schooling. The emergent literacy perspective states that children acquire these literacy skills throughout their childhood and therefore can be viewed along a developmental continuum (Whitehurst & Lonigan, 1998; Whitehurst & Lonigan, 2001). Examining these skills on a continuum implies that becoming literate occurs at every moment in a child's life. Literacy "emerges" by activities such as being read to; however there is no single, agreed upon definition of the term emergent literacy (Lancy, 1994).

The current literature regarding emergent literacy is diverse in that there are multiple definitions, components, theoretical viewpoints, and methodologies used to collect data. Although according to Whitehurst and Longian (2001), research on emergent literacy focuses primarily on English-speaking students providing little direction for understanding the development of literacy skills in non-English-speaking students. This is also true for methods used to collect data on emergent literacy skills, which focuses primarily on assessments in the English language.

According to Whitehurst and Lonigan (1998), components of emergent literacy, with respect to English-speaking children include language skills, conventions of print,

knowledge of letters, linguistic awareness, phoneme-grapheme correspondence, emergent reading, emergent writing, other cognitive factors, and print motivation. These components of emergent literacy are skills that children acquire early in life that ultimately initiate their development into becoming readers (Whitehurst & Lonigan).

The extent to which research findings regarding emergent literacy applies to non-English-speaking students is not known, (Whitehurst & Lonigan, 2001) thus it is important to examine the cultural context in which a child's emergent literacy develops. When Latino families first migrate to the U.S. a high percentage of these families have limited literacy experiences. Knowledge of the cultural backgrounds of Latinos and their views on education could help in understanding their home literacy environments. Much like non-Latino parents, Latino parents value their child's education and view reading as an activity that prepares their child for school (C. Suarez-Orzoco et al., 2004), however some Latino parents lack the resources necessary for their child to be successful in U.S. schools (Capps et al., 2004).

Despite the fact that emergent literacy development has not been thoroughly studied in Latino children, preliminary studies have suggested a link between home literacy environments and emergent literacy skills of Latino children. In one such study, Ezell, Gonzales, and Randolph (2000) examined emergent literacy skills of Mexican American preschoolers in relation to home literacy environments and Head Start programs. Participants included 48 4-year old children of Mexican migrants. In order to assess children's emergent literacy skills, three assessments were administered in English including environmental print, letter identification, and the Concepts about Print Test. A

questionnaire was administered to each parent in order to assess the home literacy environment. Head Start teachers were asked to complete questionnaires regarding the literacy environment of the Head Start program. According to these assessments, Mexican American children demonstrated mixed performances on the emergent literacy assessments. Environmental print scores for these children averaged a 29% accuracy rate, while children's letter identification averaged a 27% accuracy rate. The results from the Concepts about Print Test were the most comparable to the average score of typical 4-year olds. Finally, it was determined that children's home literacy environments contributed to better overall performance on the assessments compared to the literacy environment provided by the Head Start program. Although this study does provide a profile of emergent literacy skills in migrant Mexican American children, further research needs to be conducted in order to examine these skills more thoroughly.

Not only is research on the English literacy skill development of Latino children limited, emergent literacy development in their native Spanish language is limited as well (Carlisle & Beeman, 2000). The accuracy level of Latino children using their native language has important implications for the ease of acquiring reading and writing skills in the English language. The higher a child's proficiency in Spanish language skills the easier it is for him/her to learn to read and write in English (Carlisle & Beeman).

Carlisle and Beeman (2000) examined the effects of teaching reading and writing skills to Latino students. Participants in the study included two first grade classrooms consisting of Latino students. The students' language development was tracked from first grade to the beginning of second grade. In one of the first grade classrooms, 17 children

were taught in English 80% of the day, while the other classroom 19 students were taught in Spanish 80% of the day. Spanish was the predominate language spoken in 60% of the homes. The children were administered two subtests of the Woodcock-Johnson Psycho-Educational Battery in English and Spanish during the fall of first and second grade. The Peabody Picture Vocabulary Test-Revised was administered during the first year, while the Test de Vocabulario en Imágenes Peabody-Adaptación Hispanoamericana was administered in the second year. The results indicated that children taught primarily in Spanish did not differ in terms of English reading and writing compared to children taught primarily in English; however, they were much stronger in Spanish reading and writing. While on the other hand, children who were taught primarily in Spanish demonstrated better skills in Spanish reading comprehension than children taught in English, who did not show similar positive effects of reading comprehension in English. The evidence from this study suggests that native language proficiency helps to build the foundation for future literacy development regardless of the particular language used.

Although the majority of research on the development of emergent literacy skills focuses on non-Latino children, results from these studies have important implications for the emergent literacy development of Latino children. For instance, the greater the Spanish language development of Latino children, the easier it will be for them to learn the English language. Preliminary studies also suggest the importance of home literacy environments in the development of emergent literacy skills in Mexican American immigrants. Therefore, it is important to examine home literacy environments that are

conducive to the development of a child's emergent literacy skills, regardless of the language spoken in the home.

Home Literacy Environments

Family literacy can be defined as day-to-day literacy activities and interactions that are provided by parents and other family members, which occur spontaneously as well as intentionally, and are influenced by the culture of the family (Britto & Brooks-Gunn, 2001). Therefore the role that parents play is crucial to the development of a child's reading and language skills (Evans et al., 2000; Baker & Scher, 2002). It is also true that literacy experiences that children bring with them to kindergarten and first grade have been found to predict school achievement and completion of high school (Cunningham & Stanovich, 1997).

A relationship has been found to exist between emergent literacy skills, such as phonological awareness and letter knowledge, and supportive home literacy environments. In order to examine the specific factors of home literacy environments that are related to emergent literacy skill development, Storch & Whitehurst (2001) utilized structural equation modeling with low-income preschool children. Participants included 367 4-year olds enrolled in Head Start classrooms. Language and literacy skills of the students were assessed in English once at the beginning of Head Start, once in kindergarten, once in first grade, and once in second grade. The skills that were assessed included inside-out skills (phonological awareness and letter knowledge), outside-in skills (vocabulary and conceptual knowledge), understanding story structures, reading measures, and home and family measures. Maternal IQ and home environment were also

assessed at the beginning of the child's Head Start year. Inside-out skills were assessed using 12 subtests from the Developing Skills Checklist. Reading measures were taken in first grade using the Word Reading Subscale of the Stanford Achievement Test (SAT), Eighth Edition, the Reading subscale of the Wide Range Achievement Test-Revised (WRAT-R), and the Word Attack subscale of the Woodcock Reading Mastery Tests-Revised (WRMT-R). Reading skills at the end of second grade were assessed using the Word reading Subtest from the SAT and the Word Attack subtest from the WRMT-R. Outside-in skills were assessed in the Head Start year and kindergarten using the Peabody Picture Vocabulary Test-Revised. Finally, home and family measures were assessed when the children were in the Head start year using the Stony Brook Family Reading Survey. The results of the structural equation model indicated that home and family characteristics of literacy environments, parental expectations, and parental characteristics were significantly correlated with the child's outside-in skills of vocabulary and conceptual knowledge in kindergarten. A strong significant correlation was also found between outside-in skills and inside-out skills of phonological awareness and letter knowledge in the preschool years. Finally, from preschool to second grade there was a strong continuity in both outside-in and inside-out skills.

Factors of home literacy environments that are related to emergent literacy skill development include the number of times a parent spends reading to his/her child and the duration of each reading episode. Payne, Whitehurst, and Angell (1994), examined such factors with relation to children's literacy development by assessing the frequency and duration of shared reading activities, the number of books the child has access to, the

frequency of trips to the library, the frequency of the caregiver's personal reading, and parents' enjoyment of reading. Participants included 323 4-year olds from a Head Start Program, along with their caregivers. The Stony Brook Family Reading Survey, a 52-item multiple choice questionnaire examined home literacy activities. Children's language skills were measured using the Peabody Picture Vocabulary Test-Revised. The results indicated that 12% to 18% of the child's language was accounted for by the literacy environment. A non-significant low correlation between the parent's personal reading practices and his/her child's language scores was found. According to the Stony Brook Family Reading Survey when parents directly engaged their child in shared reading, specifically the number of times they read to their child per day and the length of each reading episode, a statistically significant correlation of .25 was found in relation to their child's language development.

The responsibility of creating supportive home literacy environments lies with children's parents/guardians. Therefore parental characteristics and family factors, such as the parent's educational level, family income, and time available to spend with the family are factors that could enhance or impede the creation of a supportive home literacy environment. In order to examine parental characteristics, Karrass et al. (2003) investigated factors that predicted whether parents read to their 8-month old infants. Infant characteristics such as gender, temperament, and parent contextual factors were used to predict whether mothers read to their infants. Participants included 106 infants and their mothers from Caucasian, middle-class families. The measures that were used included the Dyadic Adjustment Scale, the Parenting Stress Index/Short Form, the

Parenting Daily Hassles Scale, maternal parenting style coded by examining a video tape, the Infant Behavior Questionnaire, and the Infant Care Activity Sheet. Results revealed that parents who had higher incomes, less stress, and fewer daily hassles were more likely to read to their infants than parents with lower incomes, greater stress, and more daily hassles. These results have important implications for the current study given the population of interest. The free and reduced lunch rate of the participants in the present study is approximately 84%, suggesting that parents of these children have lower incomes than the average population, which may influence the creation of a supportive home literacy environment.

Not only are parental factors important in determining whether children are provided with supportive home literacy environments, culture also plays a substantial role in this development. Educational values and beliefs may differ from culture to culture hence it is important to consider the cultural models being used in the home. Reese & Gallimore (2000) utilized case study data in order to explore Latino immigrants' cultural models and practices with relation to their children's emergent literacy development. Approximately 121 families were interviewed in the home with questions related to parents' views on academic progress in U.S. schools, and expectations for their child's occupational future. Parents of Latino immigrant students viewed reading as something that is learned once children start school, occurring through repeatedly practicing and reading books. These parents also began reading to their child at an age at which they felt the children could understand, with over half beginning to read to their child at age 5, while 14 percent began reading to their child at the age of 3 to 4. The results of this study

demonstrated that when teachers informed parents that reading to their child at an earlier age would increase their child's chance for academic success in U.S. schools, most parents would comply with the teacher's request, which in turn changed the way these parents viewed their child's literacy development.

Research that has been performed on home literacy environments of Latino children concentrates primarily on bilingual children. In a study by Hammer et al. (2003) home literacy environments of bilingual preschoolers were examined. Participants in the study included Puerto Rican children enrolled in various Head Start programs. These children were divided into two groups, one group considered simultaneous language learners because they were exposed to both Spanish and English since birth, and one group considered sequential language learners since they were exposed exclusively to Spanish since birth. A Home Activities Questionnaire was administered to mothers in order to examine the value that they placed on literacy, the number of reading materials they had in the home for their child, and the frequency with which they read to their child. The children were administered the Test of Early Reading Ability-2 (TERA-2) during the first and second year in the Head Start program. No differences were found in the availability of reading materials in the homes of the two groups of students. In terms of frequency of reading, simultaneous language learners were read to an average of 2-4 times per week, whereas sequential language learners were read to on average one time per week. No differences were found among literacy outcomes in the two groups during the middle of the child's first year and the start of his/her second year in the Head Start Program, which could be due to children learning more general print concepts in their

first year, compared to their second year when they are taught letter knowledge and sound concepts of the letters. Although during the second year, simultaneous language learners scored 1.0 standard deviations below the mean on the TERA-2, compared to sequential language learners who scored 1.5 standard deviations below the mean on the TERA-2. This difference could be attributed to the fact that sequential language learners may be focusing their effort on learning the English language rather than learning other academic skills in the Spanish language. Parents of sequential language learners, and parents of simultaneous language learners read to their children in different languages, with 78% parents reading in English, compared to 28% of parents reading in Spanish and English, which also could have contributed to the differences found in scores on the TERA-2. This study has important implications to the present paper given that the average length of time the Latino parents in the present study have resided in the U.S. is 13 years.

Home literacy environments play a substantial role in determining and influencing whether children will become literate adults. It is not only important to explore home literacy environments it is also important to examine the factors that determine how and if these environments are created. Parental factors and the culture of the family are two important aspects in explaining whether children are provided with supportive home literacy environments.

Types of Home Literacy Activities

There are many ways in which parents can provide literacy environments for their children. The iconic image of home literacy environments is shared reading, or reading

that occurs between a parent and a child (Whitehurst & Lonigan, 2001). Shared reading is particularly important in terms of influencing the development of a child's emergent literacy skills, language, cognitive functioning, and future academic achievement (Evans et al., 2000; Hoing & Shin, 2001; Karrass et al., 2003). Reading not only builds the foundation for an individual's academic success, it also aids in establishing a child's academic identity (Gregory & Morrison, 1998). A link is suggested between the literacy development of preschoolers and how often they were read to before kindergarten (Karrass et al., 2003).

A plethora of research exists on the benefits of shared reading. Outcomes related to shared reading include, increased attention span, greater word comprehension, and enjoyment of books (Hoing & Shin, 2001). Bus, van IJzendoorn, and Pellegrini (1995) analyzed studies investigating the frequency of shared reading activities between a parent and a child. Specifically they examined correlational studies exploring the relationship between shared book reading with toddlers and preschoolers of low socioeconomic status and emergent literacy skills. Frequency of book reading was also assessed given that most studies employ this as a measure when examining shared reading practices. Parents who engaged their child in shared reading contributed to their child's language growth and development, emergent literacy skills, and success in reading. It was concluded that shared reading is a major part of a child's literacy environment and it is necessary for developing the knowledge needed to become successful readers.

Age of onset of shared reading has been consistently found to be positively correlated with emergent literacy skill development. The younger the child when they

were initially read to the greater their emergent literacy skills. Debaryshe (1993) examined the age of onset of shared book reading as well as other factors related to language and literacy development. In this study, participants included 41 two-year-olds along with their mothers. The participants were recruited from Long Island, New York with a mean age of 2 years, 2 months. Reading exposure was measured by the frequency in which mothers read aloud to their children, the number of trips to the library, the amount of time allotted to reading aloud to their child, and the number of stories read per reading session. A structured interview consisting of questions regarding family demographics, language history of the child, and shared reading activities was given to the parents in the study. The Reynell Developmental Language Scales was administered to children in the study in order to measure oral language skills. Mothers reported that they began reading to their child at 0-7.6 months of age, with an average of 7.6 sessions a week. Approximately 3/4th of the children had been to a library an average of 2.75 times per month. Children who were read to at an earlier age had stronger receptive vocabulary skills than children who were read to at a later age. Shared reading experiences were more strongly related to receptive language skills than expressive language skills, and the age of onset of reading was a more powerful predictor than the frequency of reading experiences. Debaryshe (1993) concluded that reading to children at a very early age may in fact have lasting and beneficial effects on children's literacy development.

Although shared reading is the most extensively researched home literacy activity, other aspects of home literacy environments are implicated in the development of children's literacy skills. Sénéchal, LeFevre, Hudson, & Lawson (1996) looked

beyond shared book reading, and determined other literacy activities to be beneficial in the literacy development of children. Participants in the study included 119 children and their parents. Parents were assessed by a variety of self-reports, measuring literacy environments as well as their own literacy and education level. Parents were asked to indicate the frequency of storybook reading per week, how often their child asked to be read to, the number of children's books in their home, and how often they visited the library with their child. Children's vocabulary was assessed using the Peabody Picture Vocabulary Test-Revised (PPVT-R). Children in the study who were interested in book reading tended to look at books independently, ask their parents to read to them, and were read to frequently. The number of books in the home and the number of visits to the library were correlated with how often the child was read to. Parent education level and parent print exposure were also found to contribute to their child's literacy variables. Finally, significant positive correlations existed between children's PPVT-R scores and their interest in reading, frequency of storybook reading, number of trips to the library, and the number of children's books available in the home.

Many benefits of literacy activities in the home, especially with respect to shared reading have been demonstrated; however, few studies have determined whether these benefits can extend beyond English-speaking children (García, 2000). Given that the definition of family literacy incorporates the important component of culture (Britto & Brooks-Gunn, 2001), it is not only critical to research home literacy experiences of non-Latino children it is also important to examine home literacy experiences of Latino children as well.

Home Literacy Questionnaires

When examining the home literacy experiences of a child, parent reporting, specifically in the form of questionnaires, is found to be a valid method of gathering information. The use of open-ended questionnaires is recommended when questioning parents from diverse backgrounds to ensure that bias of any sort is not evident in closed ended questions (Boudreau, 2005). Overall, parents are viewed as a valid and valuable source of information regarding their child's literacy development. The information parents contribute aids in the development of assessments and interventions for their children (Boudreau).

Many studies utilize a family literacy questionnaire when determining the effect of family literacy practices on children's emergent literacy skills. Questions regarding the frequency of book reading, the amount of reading parents do for pleasure, the duration of each shared reading episode, and the age of onset in which shared reading occurred are often included in these home literacy questionnaires. Whitehurst (1993) developed one such questionnaire that has been utilized in the current research. The Stony Brook Family Reading Survey is a 52- item questionnaire that measures items on a 4 to 5 point scale. This scale consists of questions regarding shared reading but also more general questions pertaining to the home literacy environment.

In order to determine the effectiveness of using parent report a study by Boudreau (2005) examined the effectiveness of parent questionnaires in assessing preschool children's emergent literacy skills. Participants included preschool children who were referred for language impairments along with their same age peers. Parents were

administered a questionnaire that measured perceptions of their child's early literacy skills and their practices in the home used to promote these skills, while children were assessed in writing and phonological skills. Parents were found to accurately report on their child's literacy skills based on comparison to their child's literacy skill assessments. Parent report, therefore, was determined to be a valid measurement for gaining information on a child's literacy environment and their subsequent literacy development (Bourdeau).

Although parent questionnaires are an effective tool for gaining insight into children's emergent literacy skills, self-report measures may be found to be less valid and reliable than other methods such as direct observation (Bus et al., 1995). Social desirability is one of the major downfalls of using self-report because parents may exaggerate the frequency of shared reading activities with their children in order to be seen in a more favorable light by examiners, which in turn minimizes the differences between families and their shared reading activities. Direct observation leads to less biased views of information (Bus et al.) and it may be the preferred method, however it is not practical in every situation.

Present Study

Home literacy environments play an essential role in the development of literacy skills in children. These environments have a major impact on the emergent literacy skills that children bring with them to kindergarten. Research on literacy environments of Latino children is limited, and given the fact that national concern is growing regarding experiences of Latino children in U.S. schools, it is important and necessary to

investigate the home literacy environments of these children. Although research on Latino children and their home literacy environments is limited, studies that have been conducted on this population utilize assessments in the English language as a means to measure emergent literacy skills. These studies do not indicate whether a primary language other than English is used in the child's home. Given this limitation, the present study intended to utilize assessments that take into account the language that was used to read to the child before entering school, in order to measure emergent literacy skills more accurately. Therefore instead of dividing students in the present study according to their National origin (Latino vs. non-Latino), students in the present study were divided by the language (English vs. Spanish) used in their home literacy environments.

The aim of the present study was to provide information on home literacy environments as they relate to emergent literacy skills of kindergarten students enrolled in a dual language program. The present study focused on the current literature regarding the benefits of home literacy activities in non-Latino students and further analyzed these results as they applied to Latino students. Applying these findings to Latino students allowed for a more comprehensive examination regarding the effect of home literacy environments on children's emergent literacy skills.

The present study utilized a home literacy questionnaire that is adapted from Whitehurst's (1993), Stony Brook Family Reading Survey, particularly with regards to the home literacy environment questions. Given the population the present study assessed, open-ended questions were used in order to avoid cultural bias (Boudreau, 2005). Although direct observation yields less biased information regarding shared

reading practices, the use of a questionnaire was more practical for the purpose of the present study.

Specifically, factors of home literacy environments that are related to emergent literacy skills in English-speaking children include the amount of shared reading, the length of each reading episode, and the amount of print the child had access to in the home. The primary research question of the present study was to investigate whether a similar relationship could be demonstrated between home literacy environments and emergent literacy skills of Latino students. Given these factors it was hypothesized that children who were read to more frequently would score higher on an early literacy measure compared to children who were read to less frequently. The next hypothesis was that children who were read to for longer durations of time would score higher on an early literacy measure compared to students who were read to for shorter lengths of time. It was also hypothesized that children who were read to beginning at a younger age would score higher on an early literacy measure compared to children who were read to at a later age. Finally, it was hypothesized that the more books the child has access to in the home and the more frequently the child visited the library the higher the score on the early literacy measure. The present study also compared emergent literacy skills and home literacy environments of the English-speaking students with that of Spanish-speaking students.

Method

Participants

Twenty-four parent/child dyads recruited from a dual-language program in a Midwestern city participated in the study. A total of 27 parents/guardians completed a demographic questionnaire. However, data from three of the questionnaires were unable to be used because corresponding student data were not collected. Questionnaires were completed by 18 mothers, 3 fathers, 1 guardian, 1 grandparent, and 1 sibling. Fourteen of the participants who completed the questionnaire were Hispanic or Latino/Latina, 4 were White, Caucasian, European or non-Hispanic or Latino/Latina, 3 were Biracial, 1 was Asian, Asian American, and 2 were from an ethnicity not listed.

Forty-two kindergarten students in the dual language program were tested using the Dynamic Indicators of Basic Early Literacy Skills (DIBELS). Only the scores of students whose parents/guardians completed the questionnaire were used for analyses. These 24 students (13 boys and 11 girls) ranged in age from 5.0 years old to 6.2 years old.

Setting

An elementary school located in the Midwest was the setting in which the present study took place. This location was chosen due to the fact that it is currently a site in which a dual language program is implemented. Enrollment in this dual language program is optional, therefore not every kindergarten student in this school is enrolled. Although the goal of this particular dual language program is to be 50% native English-speaking and 50% native Spanish-speaking, the population of the surrounding

neighborhood and school district does not allow for this. The free and reduced lunch rate in this Midwestern school is approximately 87%. This rate does not vary as a result of ethnic background.

The dual language program is a 50/50 model, meaning that children receive English instruction 50% of the day and Spanish instruction 50% of the day. This program currently consists of kindergarten through fourth grade students. Each grade follows a simultaneous literacy model meaning that students receive an hour of Spanish reading instruction and an hour of English reading instruction daily. Kindergarten is the only grade where reading instruction is taught in the child's native language of either Spanish or English. Given that reading instruction is taught in the child's native language, and the present study intended to examine children's literacy skills in the language used in the home literacy environment, the kindergarten classroom was the setting in which the present study occurred.

Materials/Instruments

Materials consisted of Curriculum Based Measurement (CBM) reading probes taken from the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) appropriate for the kindergarten curriculum. DIBELS is a method of curriculum based measurement that is intended to assess pre-literacy skills of school-aged children (Good, Gruba, & Kaminiski, 2002). DIBELS measures concepts of phonological awareness, the alphabetic principle, and fluency with connected text. Recently a Spanish version has become available (Good et al., 2003).

When assessing kindergarten students, initial sound fluency (ISF) and letter naming fluency (LNF) measures are used. These measures are relatively quick and available in both English and Spanish version. The ISF measure assesses the recognition and production of the beginning sounds in words. The student is presented with a group of pictures and is asked to identify the picture that corresponds to the sound spoken by the examiner. The amount of time that the child takes to answer each question is calculated to form an ISF score. LNF measures a child's ability to correctly identify letters of the alphabet. The student is presented with a group of letters and is given 1 minute to correctly identify as many letters as possible. The score is calculated by counting the number of words that the student correctly identifies.

DIBELS has been supported in the literature as a valid and reliable instrument for identifying children at risk for reading difficulties, examining early literacy development, and predicting future achievement in reading (Good et al., 2003). The current literature suggests that DIBELS is a very promising assessment instrument with high levels of reliability for both ISF and LNF (Shanahan, in press). LNF was found to demonstrate high alternate form reliability ($r=.87$), while the concurrent validity ($r=.55$) and predictive validity ($r=.66$) of ISF were moderate. Although little is known regarding the validity of instructional decisions that result from using DIBELS, encouraging evidence for the psychometric properties of DIBELS demonstrates it to be a valid indicator of reading ability in children (Shanahan).

The present study also utilized a parent questionnaire that was adapted from Whitehurst's (1993) "Stony Brook Family Reading Survey." The Home Literacy

Environment Questionnaire is an open-ended questionnaire consisting of 10 questions (Appendix). This questionnaire was adapted from Whitehurst's (1994) "Stony Brook Family Reading Survey," which is a fifty-two multiple-choice questionnaire that measures a variety of family factors relating to literacy. The questionnaire in the present study utilized questions from Whitehurst's (1994) survey specifically regarding the home literacy environment, however the questions were modified to allow for open-ended responses. The questionnaire was intended to measure the frequency, duration, age of onset in which shared reading practices occurred, frequency of trips to the library, number of books in the home, and the primary language which was used when reading to the child. School personnel including the school principal, grant coordinator, and the kindergarten teachers helped with the development of the questionnaire. In order to adapt the questionnaire to better fit the characteristics of the parents in this specific dual language program, school personnel gave feedback on the wording of the questions and the length of the questionnaire. Input from the school personnel was vital to the development of the questionnaire given that they were the most familiar with these parents and understood their dynamics better than anyone else.

The research project committee and the university dual language research team also served an important role in the development of the questionnaire. They provided recommendations including a checklist to determine the accuracy of parent responses. The research project committee also suggested the addition of demographic questions in order to provide further insight into the results of the present study. After receiving feedback from school personnel and the research project committee the questionnaire was

revised accordingly and piloted on three English-speaking parents and three Spanish-speaking parents. Questionnaires were made available in both English and Spanish depending on the parent's/guardian's preference. The piloted questionnaires indicated that parents understood the questions as reflected by their answers and suggested that no further revisions to the questionnaire needed to be made.

Procedure

The parents/guardians of 24 Latino and non-Latino kindergarten students enrolled in a dual language program at a Midwestern elementary school were recruited to participate in the study. A letter was sent home to the parents/guardians in their native language describing the study and informing them of their rights to withdraw from the study at any time. The letter also described the process of confidentiality and the information needed to participate in the study. Parents were also provided with a consent letter before completing the questionnaire, which again described confidentiality and their rights as participants. The parents were informed that they may ask questions of the researchers when needed. Researchers' phone numbers were provided on the consent form and additional consent forms were provided for the subjects. Questionnaires were made available before and after school on three consecutive days for the parents to complete. Tables were set up outside of the kindergarten classroom where the questionnaires were distributed and both English-speaking and Spanish-speaking researchers were present to answer any questions. A \$5 cash incentive was provided to the parents who choose to participate in the study.

Two weeks after the questionnaires were completed, University graduate students collected DIBELS data on children's reading measures of ISF and LNF in both English and Spanish. This information was collected over a two week period in which graduate students administered DIBELS in both English and Spanish to all students in the kindergarten classroom. Student's scores were then compared to the parent's/guardian's answers on the questionnaire. Two scores were derived from the DIBELS for comparison of the questionnaire, the ISF score and the LNF score. The ISF score was derived by calculating the amount of time taken to identify the correct sounds in words and pictures. The score was then converted into the number of sounds correctly identified in a minute. The score associated with LNF concerns the number of letters correctly identified in one minute.

In order to protect the participants from risk and invasion of privacy a research code was assigned to each student. Access to these codes and names was limited to the researchers, the principal of the school, and the kindergarten teachers in the dual language program. After completion of the questionnaires and DIBELS, the names of parents and students were removed and codes were written in their place.

Coding of Questionnaire

A coding scheme was developed in order to analyze parents' open-ended responses on the questionnaire. Each response on the questionnaire was assigned a numerical value. For instance, the question which asked parents to indicate the language that was used to read to their child, only two responses were provided. A value of one was assigned to the response indicating English as the primary reading language, whereas

a value of two was assigned to the response indicating Spanish as the primary reading language. However, if the question required the parents to provide a numerical answer then no code was assigned, and instead the value the parents indicated was used. For example, with regards to the question that asked parents to indicate the number of books in the home, parent responses were already in numerical form.

After the questionnaires were coded, the numerical value was recorded and was then compared to the child's DIBELS scores for analysis. High scores on questions pertaining to the frequency and duration of shared reading and to the availability of literacy materials in the home were interpreted as the presence of a supportive home literacy environment. Additionally, an early age of onset of shared reading provided evidence of a supportive home literacy environment.

Data Analysis

Open-ended responses on the home literacy questionnaire were coded and analyzed. Correlational analyses were utilized to examine the relationship between home literacy environments and DIBELS scores. In order to determine whether a correlation existed, children's DIBELS scores were compared to scores on the questionnaire. The parent/guardian's response regarding the primary language used to read to the child was used to determine the score for comparison. Frequency of reading, duration of reading, number of books in the home, trips to the library, and age of onset were each individually compared to the child's DIBELS score in the language used in the home. Simple correlations and descriptive statistics were utilized. Specifically, the present study

focused on analyzing the relationship between children's DIBELS scores and aspects of the home literacy environment.

Results

Descriptive information regarding all variables is presented in Table 1. Pearson correlations were calculated for all the variables gathered (Table 2 and Table 3). DIBELS measures of ISF and LNF were collected on both English-speaking and Spanish-speaking students. The average English Emergent Literacy Raw Score (EELRS) on DIBELS for English-speaking students and the average Spanish Emergent Literacy Raw Score (SELRS) for English-speaking students are presented in Table 4. The average SELRS on DIBELS for Spanish-speaking students and the average EELRS for Spanish-speaking students are located in Table 5. The emergent literacy raw scores (EELRS and SELRS) were calculated for each student by summing the DIBELS measures of ISF and LNF scores.

The first hypothesis was that children who were read to at an earlier age would score higher on an early literacy measure compared to children read to at a later age. This hypothesis was not supported for either English-speaking students ($r = -.19$) or Spanish-speaking students ($r = .19$). The next hypothesis tested was that children who were read to more frequently would score higher on an early literacy measure compared to children who were read to less frequently. This hypothesis was also not supported for English-speaking students ($r = -.25$) or Spanish-speaking students ($r = -.34$).

The hypothesis that students who were read to for longer durations of time would score higher on an early literacy measure compared to students who were read to for

shorter lengths of time was also not supported for either English-speaking or Spanish-speaking students. However, the manner in which the question was worded was confusing to the parents/guardians indicated by their answers. This particular question “in a typical week, how much time did you or another family member spend each time you read to your child,” was worded appropriately, but the open ended answer required parents to insert the minutes per week. The question should have asked parents/guardians to indicate the minutes per reading episode. Due to this confusion this question was unable to be coded and was not used in the present analysis.

Finally, it was hypothesized that students who were provided with an overall supportive home literacy environment would score higher on an early literacy measure compared to students who were not provided with a supportive home literacy environment. This hypothesis was only partially supported. Elements of supportive home literacy environments include number of books available in the home and frequency of trips to the library. A statistically significant correlation was found in English-speaking students between the number of books in their home and their EELRS, such that the more books available in the home the higher the score on an early literacy measure in English ($r=.66, p<.05$).

Although the majority of the hypotheses in the present study were not supported, statistically significant correlations were found among other variables of interest. English-speaking children who had more books in the home were read to more frequently than children with less books in the home ($r=.50, p<.05$). Finally, there was a statistically significant correlation between frequency of reading in English-speaking students and

trips to the library, such that the more frequently they were read to at home the less likely they were to visit the library ($r=-.68, p<.05$).

Statistically significant correlations were also found with regards to Spanish-speaking students. For instance, the earlier Spanish-speaking students were first read to the more frequently they visited the library ($r=-.88, p<.05$). There was also a statistically significant correlation between frequency of library visits and the number of books in the home, such that the more books available in the homes of Spanish-speaking students the less frequently trips were taken to the library ($r=-.83, p<.05$). Finally, it was determined that there was a statistically significant correlation between Spanish-speaking student's SELRS and EELRS. In other words, students who scored higher on DIBELS in Spanish were more likely to score higher on English DIBELS compared to students who scored lower on DIBELS in Spanish ($r=.88, p<.05$).

Discussion

The present study intended to investigate whether a correlation exists between emergent literacy skills and home literacy environments of both English-speaking and Spanish-speaking students. It was hypothesized that children who were read to more frequently would score higher on an early literacy measure compared to children who were read to less frequently. The next hypothesis asserted that children who were read to for longer durations of time would score higher on an early literacy measure compared to students who were read to for shorter lengths of time. It was also hypothesized that children who were read to beginning at a younger age would score higher on an early literacy measure compared to students who were read to at an older age. Finally, it was

hypothesized that students who had more books available in their home and who visited the library more frequently would score higher on an early literacy measure compared to students who had fewer books in the home and who visited the library less frequently. Although the majority of hypotheses in the present study were not supported, several explanations should be considered.

The first hypothesis was not supported, which stated that students who were read to more frequently would score higher on an early literacy measure compared to students who were read to less frequently. This finding is inconsistent with previous research conducted with English-speaking students, which consistently demonstrates that the more frequently a child is read to the stronger their literacy skills (Bus et al., 1995; Payne et al., 1994; Sénéchal et. al., 1996). This hypothesis was also not supported in relation to Spanish-speaking students as well. One reason that this hypothesis was not supported could be the fact that the present study required parents to recall information from several years ago regarding their literacy activities with their children. Parents/guardians may have found it difficult to accurately estimate how often they read to their child. Another reason this hypothesis was not supported could be due to parents/guardians wanting to appear more favorable and in doing so exaggerated their answers. Additionally, parents could have given current information regarding their home literacy activities instead of past literacy practices, which the present study intended to examine. Perhaps the purpose of the questionnaire was not clearly stated or understood by the parents in the present study. Another possible explanation could be that parents found it easier to retrieve current information rather than past information on literacy practices with their children.

If parents indeed responded to this question with current literacy activities in mind, it could be possible that once children begin school parents read to them less often. Finally, a plausible explanation as to why this hypothesis was not supported could be that the free and reduced lunch rate of students in the present study was approximately 87%. This information suggests that parents in the present study have low incomes and in turn may experience greater stress and more daily hassles, thus decreasing the amount of time they spend reading to their child (Karrass et al., 2003).

The hypothesis that students who were read to beginning at an earlier age would score higher on an early literacy measure compared to students who were read to at a later age was also not supported. This result conflicts with previous research, which suggests that the earlier a child is read to in English the stronger his/her emergent literacy skills (Debaryshe, 1993). One reason for this discrepancy may be that parents in the present study were asked to recall the month and the year in which they first began reading to their child. This question required parents to recall specific information, thereby increasing the likelihood of making errors. Another reason this hypothesis was not supported could be due to response bias. Parents may have underestimated the age in which they began reading to their child so that they would appear more positive to researchers. This hypothesis was also not supported with Spanish-speaking students. However, some research indicates that cultural models come into play and that Latino children are read to at an age in which parents believe they are able to comprehend (Reese & Gallimore, 2000). Results from the present study could validate this explanation given that the average age of onset in which shared reading first occurred in

Spanish-speaking students was 2 years and 8 months, compared to English-speaking students whose average age of onset was 1 year and 9 months.

Finally, it was hypothesized that students who were provided with an overall supportive home literacy environment would score higher on an early literacy measure compared to students who were not provided with a supportive home literacy environment. Elements of a supportive home literacy environment include frequent trips to the library and a number of books in the home (Payne et al., 1994; Sénéchal et al., 1995). This hypothesis was only partially supported, where a statistically significant correlation was found between the number of books in the home and the EELRS of English-speaking students. The more books that were available in the homes of English-speaking students the higher the score on an early literacy measure in English. This result is consistent with previous research, which implies that when more books are available for children in the home the more likely they will be utilized (Payne et. al, 1994). However, similar results were not demonstrated with Spanish-speaking students. This difference could be attributed to the fact that the average number of books available in the home for English-speaking students was 58, compared to Spanish-speaking students who had an average number of 14 books in the home. Fewer books in the home could also indicate that parents read to their child less often. Finally, the parent's education level could have also contributed to the limited number of books in the home given that on average Spanish-speaking parents in the present study had an elementary education, while English-speaking parents attained a high school education (Ortiz, 1986).

A statistically significant correlation was not demonstrated between the frequency of trips to the library and the score on an early literacy measure. This result is not consistent with previous research, which implies that the more frequently a child visits the library the stronger their emergent literacy skills (Debaryshe, 1993; Sénéchal et al, 1996). However, the question on the questionnaire that measured this factor of the home literacy environment was the least answered question by both English-speaking and Spanish-speaking parents, with only 10 out of the 24 parents responding. The question asked the parent/guardian to indicate “in a typical month how often did you visit the library.” If the question was worded “how often in the last six months did you visit the library with your child,” possibly more people would have responded. Maybe the general population does not visit the library every month. Also if more books were available in the home parents may have felt less inclined to take their child to the library. Another important factor to take into consideration is the actual process of opening a library account. The application process could require parents to provide driver’s license numbers, which given the low socioeconomic status, limited amount of time living in the U.S. and education levels of the population of the present study may not be feasible. Also if library applications are written primarily in English it may be difficult for Spanish-speaking parents to complete.

Although the majority of the hypotheses in the present study were not supported, statistically significant correlations were found between other variables of interest. For instance, the more books the child had in the home the more frequently they were read to by their parents. Greater access to books could increase the likelihood of parents taking

the time to read to their child. Another statistically significant result was that English-speaking students who were read to more frequently also visited the library less frequently. A possible explanation could be that parents who read to their children more often may have more books in the home and consequently do not perceive the need to take their child to the library.

Statistically significant results were also revealed in relation to Spanish-speaking students. For instance, the earlier the age of onset in which students were first read to the more frequently they visited the library. This could point to the fact that parents who read to their child at an earlier age, also held stronger literacy beliefs, and therefore understood the benefits of taking their child to the library. Finally, and perhaps most importantly, was the conclusion that Spanish-speaking students who scored higher on an early literacy measure in Spanish were also more likely to score higher on an early literacy measure in English. This finding is consistent with previous research, which indicates that children who have a strong literacy foundation in their native language, regardless of the language, are more likely to succeed in learning a second language (Carlisle & Beeman, 2000). Implying that regardless of the language used to read to a child if they have a strong literacy foundation in their native language they are more likely to experience success in learning and speaking another language.

Several important conclusions can be drawn from the present study. One key finding was that the number of books available in the homes of English-speaking students and Spanish-speaking students was markedly different. Possible reasons for this difference could be the fact that parents of Spanish-speaking students have lived in the

U.S. an average of 13 years and have attained an elementary education. Consequently they may not be proficient enough in the English language to read to their child in English. Additionally they may prefer to read to their child in Spanish, however fewer Spanish books may be available. Given this information it is essential to equip U.S. schools with more books written in Spanish so that parents have access to these books in order to read to their children. This is especially important given that Spanish-speaking students in the present study who scored higher on an early literacy measure in Spanish also scored higher on an early literacy measure in English. Indicating that regardless of the language used in the home literacy environment, a strong foundation in the student's native language fostered emergent literacy skill development in a second language.

Another important implication of the present study was that English-speaking students performed significantly better on an early literacy measure in their native language compared to Spanish-speaking students, however they also performed significantly worse on an early literacy measure in their non-native language compared to Spanish-speaking students. Spanish-speaking students also scored on average the same on an early literacy measure in both Spanish and English, suggesting that they are being adequately exposed to two languages. It could be argued that parents of Spanish-speaking students place a high value on learning the English language as well as the Spanish language.

Several limitations of the current study should be addressed given that the majority of the hypotheses were not supported and were inconsistent with previous research on home literacy environments. The first, and perhaps biggest limitation of the

present study, was the small sample size. Only twenty-four parent/child dyads participated in the present study, which decreased the probability of finding statistically significant results. However, it should be noted that many of the hypotheses that were analyzed appeared to trend upwards, and with a larger sample size may have been significant. Future studies should seek to examine more than one grade level of students in order to assess a larger sample size.

Another limitation of the present study was that the questionnaire that was utilized asked parents to recall a variety of information about home literacy activities prior to their child entering school. The questionnaire required parents to rely on their memory to retrieve specific information. For instance, one of the questions asked parents to indicate how many times per week they read to their child. Some parents may not have provided an accurate answer. Response bias could also have been a factor when using the questionnaire. Parents could have exaggerated some of their answers in order to impress the examiner. The questionnaire may have also been too difficult for the parents in the present study to accurately complete given that the highest level of educational attainment of Spanish-speaking parents was elementary school and the highest level of educational attainment of English-speaking parents was high school. Future studies should employ other forms of data collection to assess home literacy environments, such as the use of an interview. Interviews may provide a greater breadth of information for researchers. Talking one on one with family members would enable them to ask for clarification of questions if they do not understand what is being asked of them. Future studies should also look at the time of day in which reading between a parent and child

occurred. If parents read to their child during the day when the child is more alert versus at night when the child is getting ready to sleep, children may have different experiences and retain different amounts of information. Future studies should also take technology into consideration when asking parents questions regarding their home literacy environments. Computers and electronic learning tools are becoming more and more popular and as a result parents may use these forms of media in addition to books.

Finally, a limitation of the present study was that the characteristics of the population which the present study examined included 87% free and reduced lunch rate, limited education, and an average 13 years in the U.S. The present study intended to compare two populations, Latino and non-Latino and did so by language used to read to the child. However, the ethnicity of the majority of the parents who read to their child primarily in English was not Caucasian, non-Latino. In fact many of the parents indicated Latino or Biracial ethnicities. Past research has focused on middle-class, Caucasian, non-Latino families which may explain the differences between the present study and past literature in this area. Future research should seek to examine families and students from all socioeconomic backgrounds, ethnicities, and language groups.

Supportive home literacy environments have proven time and again to be an essential factor in the development of emergent literacy skills, cognitive functioning, and future academic achievement in children (Evans et al., 2000; Hoing & Shin, 2001; Karrass et al., 2003). Although these benefits have consistently been demonstrated by Caucasian, non-Latino students, few studies have examined whether benefits of home literacy environments apply to Latino students. This is particularly alarming given that

the Latino population is growing in size and more and more children are entering U.S. schools speaking little or no English. Spanish-speaking children are also at high risk for developing academic difficulties and dropping out of school (Gouwens, 2001; C. Suarez-Orzoco et al., 2004). The present study reiterated the importance of building a strong foundation in the student's native language in order to succeed in learning a second language. For children to become successful in U.S. schools it is important to intervene as early as possible. Understanding the educational backgrounds and home literacy environments of all students prior to beginning school would be one way to start. The creation of a supportive home literacy environment from birth would be one way to provide early intervention for these children. However, it is important to take into consideration factors that affect the establishment of a supportive home literacy environment. The present study included parents who have lived in the U.S. for a limited number of years, who have low income, and who have limited educational backgrounds. These factors taken together may make it difficult for parents to set up a strong home literacy environment. Most importantly parents need to be taught how to implement a home literacy environment that incorporates a variety of literacy activities in order to contribute to their child's emergent literacy skill development regardless of the language spoken in the home.

Table 1

Means and Standard Deviations for Variables

Variables	<u>English</u>		<u>Spanish</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age of onset of shared reading	20.67	12.85	31.58	18.16
Ideal age of onset of shared reading	34.40	26.91	17.42	11.50
Number of books in the home	58.75	39.10	14.67	11.16
Frequency of reading	5.65	1.49	5.35	1.65
Trips to the library	1.17	.41	2.0	.71
English Emergent Literacy Raw Score (EELRS)	34.31	12.15	16.54	10.57
Spanish Emergent Literacy Raw Score (SELRS)	12.52	8.87	15.67	9.60

n=24

Table 2

Intercorrelations Among Variables- English

Variables	1.	2.	3.	4.	5.	6.	7.
1. Age of Onset		-.49	-.18	-.23	-.35	-.19	.35
2. Belief of Age of Onset			.28	.15	-.51	.55	.08
3. Number of Books				.50*	-.53	.66*	.03
4. Frequency of Reading					-.68*	-.25	-.59
5. Trips to the Library						-.12	.22
6. English Emergent Literacy Raw Score (EELRS)							-.36
7. Spanish Emergent Literacy Raw Score (SELRS)							

Table 3

Intercorrelations Among Variables- Spanish

Variables	1.	2.	3.	4.	5.	6.	7.
1. Age of Onset		-.74**	-.57	-.21	-.88*	.19	.19
2. Belief of Age of Onset			-.51	-.35	.30	.07	.06
3. Number of Books				.49	-.83*	.18	.17
4. Frequency of Reading					-.51	-.52	-.34
5. Trips to the Library						.09	-.06
6. English Emergent Literacy Raw Score (EELRS)							.88**
7. Spanish Emergent Literacy Raw Score (SELRS)							

Table 4

Dynamic Indicators of Basic Early Literacy Skills (DIBELS) scores-English-speaking students

Student	<u>EELRS</u>	<u>SELRS</u>
1	18.38*	16.40
2	1.02*	0.00
3	56.24*	10.19
4	61.71*	11.53
5	16.00*	1.71
6	26.75*	14.79
7	31.00*	11.43
8	48.67*	27.13
9	50.30*	6.80
10	33.00*	25.20

n=10

* Language used to read to the student

Table 5

Dynamic Indicators of Basic Early Literacy Skills (DIBELS) scores-Spanish-speaking students

Student	<u>EELRS</u>	<u>SELRS</u>
1	4.71	1.54*
2	31.84	25.83*
3	9.71	6.06*
4	17.83	16.00*
5	17.89	23.78*
6	33.67	20.90*
7	10.00	12.93*
8	11.59	10.67*
9	19.38	4.25*
10	6.00	4.95*
11	33.67	35.76*
12	19.31	23.61*
13	.92	6.10*
14	15.00	16.94*

n=14

* Language used to read to the student

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Appendix

Home Literacy Questionnaire

Instructions: Please fill out the following questionnaire by providing answers that best describe you and your child. Your answers on this form will be kept confidential, so no one other than the researchers will see your answers to this survey. The purpose of this questionnaire is simply to survey literacy activities of families in the Dual Language Program and it is understood that not all cultures utilize the same activities in the home. Please keep in mind that there is no right or wrong answer.

Reading Practices before Kindergarten

1. Did you or another family member read to your child before Kindergarten? (Circle one)

YES NO

If you circled YES, at what age in years and months did you or another family member begin to read to your child?

_____ Year _____ Month

2. At what age do you think a child should start being read to? _____ Year _____ Month

3. In a typical week, how often did you or another family member read to your child?

_____ Number of times per week

4. In a typical week, how much time did you or another family member spend each time you read to your child?

_____ Minutes per week

5. What was the primary language used when you or another family member read to your child?

6. Who read to your child most often?

7. Approximately how many books are available to your child for them to read in your home?

8. How often do you or another family member go to the library with your child?

_____times per month

Please indicate the activities that you have frequently engaged your child in since birth by checking the box(es) below?

- | | |
|---|--------------------------|
| Go to the park with your child | <input type="checkbox"/> |
| Talk to your child | <input type="checkbox"/> |
| Go to the grocery store with your child | <input type="checkbox"/> |
| Play games with your child | <input type="checkbox"/> |
| Go to the library with your child | <input type="checkbox"/> |
| Sing to your child | <input type="checkbox"/> |
| Practice writing with your child | <input type="checkbox"/> |
| Draw with your child | <input type="checkbox"/> |

*Please list any additional comments you may have relating to the topic of this questionnaire:

Please answer each of the questions below so that we have some background information about you.

Person completing the questionnaire (circle one): Mother Father Guardian

Your marital status:_____

Number of years your child has lived in the USA:_____

Number of years you have lived in the USA:_____

Number of children living in your home:_____

Last grade you completed in school (circle one):

1. Elementary-6th grade
2. 7th-8th grade
3. 9th-12th grade
4. 1-2 years of college
5. 3-4 years of college
6. College graduate or higher

In what country?_____

Did your child attend preschool?

My ethnicity is: (circle one)

1. Asian, Asian American or Oriental
2. Black or African American
3. Hispanic or Latino/Latina
4. White, Caucasian, European, not Hispanic
5. American Indian
6. Biracial

Please specify_____

7. Other (write in):_____

If married, my spouse's ethnicity (use numbers above)_____

Circle the generation below that best applies to you. Circle only one.

1. 1st generation = I was born in another country
2. 2nd generation = I was born in the USA and one of my parents was born in another country
3. 3rd generation = I and both of my parents were born in the USA, but all of my grandparents were born in another country
4. 4th generation = I and my parents were born in the USA, some of my grandparents were born in another country and some were born in the USA
5. 5th generation = I, my parents, and all of my grandparents were born in the USA

6. Does your child receive free and reduced lunch?

This part of the page will be destroyed as soon as the questionnaire is coded.

Child's name: _____

Child's sex: Male Female

Child's date of birth: _____

Teacher's name: _____

Encuesta de Alfabetización en la Casa

Instrucciones: Por favor, que llene la encuesta que sigue con las respuestas que describen mejor usted y su hijo-a. Estas contestaciones serán mantenidas confidenciales, de ahí, nadie afuera de los investigadores tendrán acceso a ellas. El propósito de esta encuesta es obtener una idea sobre las actividades relacionadas con la alfabetización de las familias participantes en el Programa de Lenguaje Dual, también se entiende que no todas las culturas utilizan las mismas actividades en la casa. Por favor, manténgase en mente que no hay contestaciones correctas ni incorrectas.

Costumbres Literarios antes del Kindergarten

1. ¿Usted o otro miembro de la familia leyó a su niño-a antes de inscribirse en el Kindergarten? (Circule uno)

Si No

Si eligió "Si", ¿a cual edad, en años y meses, empezó a leer a su niño-a?

_____ Año _____ Mes

2. ¿A cual año piensa que un padre debe empezar a leer a un niño-a?

_____ Año _____ Mes

3. Durante una semana típica, ¿con cuanta frecuencia leye usted o otro miembro de la familia al niño-a?

_____ Número de veces a la semana

4. Durante una semana típica, ¿Cuánto tiempo pasó usted (o otro) cada vez que leía a su hijo-a?

_____ Minutos a la semana

5. ¿Cuál era el idioma principal en que usted (u otro) leyó al niño-a?

6. ¿Quién leyó al niño-a con la mas frecuencia?

7. Aproximadamente, ¿Cuántos libros están disponibles en su casa para el uso del niño-a?
8. ¿Con cuanta frecuencia va usted (u otro) a la biblioteca con su hijo-a?

_____ Veces a mes

Por favor, que indique las actividades que usted ha hecho, con frecuencia, con su hijo-a desde su nacimiento:

(Marque todas que aplican)

- | | |
|-------------------------------------|--------------------------|
| Ir al parque con su hijo-a | <input type="checkbox"/> |
| Hablar con su hijo-a | <input type="checkbox"/> |
| Ir al supermercado con su hijo-a | <input type="checkbox"/> |
| Jugar con su hijo-a | <input type="checkbox"/> |
| Ir al biblioteca con su hijo-a | <input type="checkbox"/> |
| Cantar a su hijo-a | <input type="checkbox"/> |
| Practicar escribiendo con su hijo-a | <input type="checkbox"/> |
| Dibujar con su hijo-a | <input type="checkbox"/> |

*Por favor haga una lista de comentarios adicionales que usted tenga con relación al propósito de esta encuesta:

Finalmente, nos gustaría que contestara cada una de las preguntas abajo para tener alguna información de fondo acerca de usted.

Persona completando en cuestionario. (circule uno): Madre Padre Tutor

Su estado marital: _____

Número de veces que su hijo/a a cambiado escuelas: _____

Número de años que su hijo/a a vivido en USA.: _____

Número de años que usted a vivido en USA.: _____

Número de niños que viven en su casa.: _____

Ultimo grado que usted completo en la escuela (circule uno)?

- 1- Elemental – 6to Grado.
- 2- Grados 7 y 8.
- 3- Grados 9 al 12.
- 4- 1-2 años de Universidad.
- 5- 3- 4 años de Universidad.
- 6- Graduado del Universidad o Superior.

En que Pais? _____

?Asistió al kinder su hijo/a? (circule uno)

Si No

Mi etnicidad es:

- 1- Asiático, Asiático Americano, o Oriental.
- 2- Negro o Africano Americano.
- 3- Hispano o Latino / Latina
- 4- Blanco, Caucasiiano, Europeo, no Hispano.
- 5- Indio Americano
- 6- Biracial
- Por favor especifique _____
- 7- Otro (escribirlo) _____

Si casado/a, la etnicidad de mi esposo/a es (use el número de arriba) _____

Circule la generación abajo que mejor aplica a usted. Circule solamente uno.

- 1- Primera generación = Yo nací en otro País (no USA).
- 2- Segunda generación = Yo nací en USA y uno de mis padres nació en otro país.
- 3- Tercera generación = Yo y mis padres nacimos en USA, pero todos mis abuelos nacieron en otro País.
- 4- Cuarta generación = Yo y mis padres nacimos en USA. Algunos de mis abuelos nacieron en otro país y algunos nacieron en USA.
- 5- Quinta generación = Yo, mis padres, y todos mis abuelos nacimos en USA.

¿Recibe su hijo un almuerzo gratis o a un precio reducido? (circule uno)

Si

No

Esta parte de la pagina será destruida tan pronto el cuestionario sean puestos en cifras.

Nombre del Niño/a: _____

Sexo del niño/a: masculino femenino

Fecha de nacimiento del niño/a: ____/____/____
(mes / día / año)

Nombre de Maestro /a _____