

University of Northern Iowa
UNI ScholarWorks

Graduate Research Papers

Student Work

2009

Preschool Spanish speakers who are learning English : factors related to later reading success

Debra S. Negley
University of Northern Iowa

Copyright ©2009 Debra S. Negley

Follow this and additional works at: <https://scholarworks.uni.edu/grp>



Part of the [Bilingual, Multilingual, and Multicultural Education Commons](#), [Curriculum and Instruction Commons](#), and the [Language and Literacy Education Commons](#)

Let us know how access to this document benefits you

Recommended Citation

Negley, Debra S., "Preschool Spanish speakers who are learning English : factors related to later reading success" (2009). *Graduate Research Papers*. 1269.
<https://scholarworks.uni.edu/grp/1269>

This Open Access Graduate Research Paper is brought to you for free and open access by the Student Work at UNI ScholarWorks. It has been accepted for inclusion in Graduate Research Papers by an authorized administrator of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

Preschool Spanish speakers who are learning English : factors related to later reading success

Abstract

The rapid rate of increasing numbers of Hispanics in the United States, along with the reading achievement gap between Whites and Hispanics, highlights the need to examine the factors that affect young Hispanics' literacy success. This literature review examined the specific factors that might predict Spanish-speaking Hispanic preschoolers' later reading accomplishments. Studies were categorized by child, family, and school factors that are related to prediction of future literacy attainment.

Analysis of the assorted papers and articles demonstrated that a combination of the following factors would most affect Hispanic preschoolers' future reading abilities in English: high quality early childhood education programs that assist the child in the native language and in English as he or she is learning important preliteracy skills in both languages.

Preschool Spanish Speakers Who Are Learning English:
Factors Related to Later Reading Success

A Graduate Review Paper

Submitted to the

Department of Curriculum and Instruction

In Partial Fulfillment

Of the Requirements for the Degree

Master of Arts in Early Childhood Education

UNIVERSITY OF NORTHERN IOWA

by

Debra S. Negley

July 14, 2009

This Literature Review by: Debra S. Negley

Titled: Preschool Spanish Speakers Who Are Learning English: Factors Related to Later Reading Success

has been approved as meeting the research requirement for the Degree of Master of Arts in Early Childhood Education.

7-16-09
Date Approved

Jill M. Uhlenberg

Graduate Faculty Reader

7-16-09
Date Approved

Charles R. May

Graduate Faculty Reader

7-16-09
Date Approved

Jill M. Uhlenberg

Head, Department of Curriculum and Instruction

Abstract

The rapid rate of increasing numbers of Hispanics in the United States, along with the reading achievement gap between Whites and Hispanics, highlights the need to examine the factors that affect young Hispanics' literacy success. This literature review examined the specific factors that might predict Spanish-speaking Hispanic preschoolers' later reading accomplishments. Studies were categorized by child, family, and school factors that are related to prediction of future literacy attainment. Analysis of the assorted papers and articles demonstrated that a combination of the following factors would most affect Hispanic preschoolers' future reading abilities in English: high quality early childhood education programs that assist the child in the native language and in English as he or she is learning important preliteracy skills in both languages.

Table of Contents

Introduction	1
Description of Topic	1
Rationale	4
Purpose of Review Results.....	6
Importance of Review	6
Research Questions to be Answered	9
Limitations	9
Methodology	11
Method to Locate Sources.....	11
Method to Select Sources.....	12
Procedures to Analyze Sources	12
Criteria to Include Literature.....	13
Literature Review	15
Present Problem and Research Questions	15
Subtopics to be Addressed	16
Child Factors	17
Family Factors.....	21
School Factors	26
Evidence and Ideas Synthesized	35

Conclusions and Recommendations	36
Conclusions	36
Identify and Synthesize Insights	37
Recommendations	38
Future Research.....	40
Educational Policies	42
Teacher Practices of Self and Others	43
References	45

Chapter 1

Introduction

Description of Topic

In the United States, the population of young Hispanics has been growing at such a rapid rate that they "... are projected to be a quarter of all young children in the United States by 2030. Hispanics now constitute one-fifth of the nation's young children (infants through eight-year-olds) ..." (National Task Force on Early Childhood Education for Hispanics, 2007, March, p. 1). The greater concerns are the low levels of school readiness of Hispanics who are entering kindergarten and their continued lag in academic achievement throughout the school years. The National Task Force on Early Childhood Education for Hispanics (2007, March) stated "On measures of reading readiness, math concepts, and general knowledge, Hispanic youngsters are already behind their White peers when they start kindergarten. By the end of the third grade, the achievement gaps are essentially entrenched in reading and mathematics" (p. 13). Further data from the National Assessment of Educational Progress (NAEP) for 2007 showed that, although reading performance in the fourth grade for Hispanics has improved over the last 15 years, the gap in reading scores between White and Hispanic students in 2007 was not significantly different from the gaps in 2005 or 1992 (National Center for Education Statistics, 2007). The problems of lower reading scores and the inability of many young Hispanics to close the gap are of great importance since the area of literacy is at the center of academic and school achievement and life-long success. The U.S. Department of Education (2000) identified several reasons that Hispanic students are among the most educationally disadvantaged groups in the country. Hispanic children are more likely to

be enrolled in preschool less often, score significantly lower in reading and math on the National Assessment of Educational Progress (NAEP), have a high dropout rate, be taught by less qualified teachers, live in families with incomes below the poverty line, and attend schools with few resources. Those factors are not necessarily causes of lower reading scores, though the income level of families was cited as being closely associated with lower educational achievement. In Gouleta's (2004) study, more factors such as parents' level of education, gender, parents' occupation, country of origin, preschool experience, and years in the United States were examined in relation to reading readiness scores of Hispanic kindergarten students. Results showed that the father's level of education, length of residence in the United States, and preschool experience were related to group differences in reading readiness scores.

Other factors that might be related to the reading success of Hispanic preschoolers are early literacy experiences in various types of preschool programs that support the development of phonological awareness, letter knowledge, vocabulary, and oral language. For example, Muter and Diethelm (2001) found that letter knowledge was a significant predictor of reading skills in English and non-English speaking children a year later. In Lonigan's (2006) review of preliteracy skills research, he discovered that phonological awareness, alphabet knowledge, and concepts of print were important predictors of early reading success when those abilities are measures in preschool and kindergarten. In the *Joint Position Statement* by the International Reading Association (IRA) and the National Association for the Education of Young Children (NAEYC) (1998), recommendations for teaching literacy skills in early childhood (ages 0-8) were presented with the common understanding that children who have a solid foundation in

preliteracy will be proficient readers by third grade. Some of the concepts described that are important to teach to young children were phonological awareness, alphabetic principle, print knowledge, book handling, and invented spelling. It was also recommended that preschoolers who primarily speak a language other than English need to be supported in their native language while they are improving their oral proficiency in English. In summary, there is abundant evidence for teaching these emerging literacy skills in the preschool years in order to help children gain the tools for later reading.

There is other research that has been done on emergent literacy in many languages, but most studies have emphasized only monolingual children (Reyes, 2006). Also, longitudinal research is severely lacking that includes populations of Spanish-speaking preschoolers who are learning English, as well as trying to master their native language. One study that attempted to learn more about preschoolers learning Spanish and English was by Reyes (2006), and included three case studies of four-year-old children and their families of Mexican-background living in southern Arizona. It was part of a larger longitudinal project in which the two main goals were to "... explore (1) the development of emergent biliteracy in young pre-school children, and (2) Mexican families' language and literacy practices at home" (p. 274). The three children's interactions at home and school were observed, and their language and literacy patterns were analyzed. The author called the children *emergent bilinguals* since they were learning two languages simultaneously, but their literacy skills were emerging because they had not developed conventional writing and reading competencies. Reyes specifically referred to emergent biliteracy as "... the ongoing, dynamic development of concepts and expertise for thinking, listening, speaking, reading, and writing in two

languages” (p. 269). The data showed that emergent biliteracy can be achieved, but many more studies need to be done to show how emergent bilinguals become bilingual and biliterate.

Many studies previously cited are important in the endeavor to learn more about what factors can predict later reading success of Hispanic preschoolers, but they were somewhat faulty in their ability to show direct links for various reasons. For example, the subjects were already in elementary school and not of preschool age, the studies were designed to show short-term effects and not effects over many years, the participants spoke only English and not Spanish, and many variables had not been controlled. Presently, educators and researchers need to explore several factors with Hispanic preschoolers who are learning English that predict later reading success, and then develop new strategies, interventions, and assessments to help the Hispanic preschoolers achieve the skills to support their future educational attainment.

Rationale

With the Hispanic population growing so rapidly, it is imperative for our nation’s workforce that they succeed. Also, in order for states to meet the standards and expectations of No Child Left Behind (U.S. Department of Education, 2002), policymakers and educators need to realize that raising the academic achievement of Hispanics is of utmost importance. According to the National Task Force on Early Childhood Education for Hispanics (2007, March), education reform has been occurring for the last 20 years in response to population changes. It was believed that the achievement gaps between Whites, Hispanics, and African Americans needed to “... be closed as quickly as possible for both economic and social justice reasons. ... Despite

these efforts, much less progress has been made than many people had hoped would occur” (p. 5). Therefore, it makes sense that the focus of reform efforts were directed more at kindergarteners in their first year of school. Yet, the results of the Head Start Families and Children Experiences Survey (FACES) demonstrated the strong need for reform and research at the preschool level. Upon entering Head Start, Spanish-speaking Head Start children started with English vocabulary scores well below those children who spoke English as their first language, but the Spanish-speakers made the most gains over the year. Nevertheless, the spring English-language vocabulary scores of the Spanish-speaking children in the spring prior to entering kindergarten were still well below those of the English-speaking Head Start children and national norms (U.S. Department of Health and Human Services, 2003).

Also, findings by the National Task Force on Early Childhood Education for Hispanics (2007, June) showed “Collectively, Hispanic children started kindergarten well behind White youngsters on measures of reading readiness in English” (p. 2). In response to lower achievement starting even at kindergarten, more researchers are investigating the effects of quality preschool programs on the early achievement and long-term outcomes of Hispanic preschoolers. In addition, interventions and research studies have focused primarily on children older than preschoolers, and the conclusions of these studies are not necessarily appropriate to generalize to the younger children (Chang et al., 2007). The current emphasis on emergent literacy in preschool, combined with the growing amount of literacy research in early childhood and the new research with Spanish-speaking preschoolers, offers enormous possibilities for understanding the factors that most relate to Hispanic children’s later reading success.

Purpose of Review Results

The purpose of this review was to examine current research on factors that may predict later reading success for preschoolers who speak Spanish and are learning English. Most research concerning English Language Learners (ELL) has been conducted with elementary age children, but with the high influx of younger Spanish speakers in early childhood programs, there has been a growing need to investigate how Hispanic children learn at an earlier age. Administrators, educators, policy makers, and the public are realizing the advantages of quality preschool programs in helping young children prepare for kindergarten. Also, low reading skills are a concern for all populations, but especially for Hispanic children who never seem to reach the same level of reading abilities as their same-age peers who are not Hispanic (Laosa & Ainsworth, 2007).

Importance of Review

The research in the area of preschool Hispanics who are learning English and trying to achieve in reading and basic academics is important because, according to Laosa and Ainsworth (2007), "Many Hispanic children enter school well behind their non-Hispanic counterparts, achieve at lower levels throughout school, and graduate at lower rates" (p. 1). Lower achievement in the primary grades has been a pattern that continues through high school and college (National Task Force on Early Childhood Education for Hispanics, 2007, March). It is urgent that early childhood education is improved for this rapidly growing Hispanic population in the United States in order to increase their chances of graduating from high school, pursuing higher education, getting a job, and enhancing their socioeconomic status. "As a group, Hispanics are the least well-educated segment of the American population. Only 57 percent of Hispanics finish high school and

only about 10 percent earn a college degree” (Laosa & Ainsworth, 2007, p. 2). Finally, in the review by Cuéllar, Rodriguez, and Garcia (2007):

Hispanic youths experience very high levels of poverty in America. More than a quarter (26%) of Hispanic children age eight or younger live below the poverty line and more than half (58%) come from low-income families (those with incomes less than twice the national poverty line). This compares to only 9% of white children living below the poverty line and 27% of white children belonging to low-income families. (p. 6)

The current evidence overwhelmingly demonstrates the need to find interventions to assist teachers in the education of the preschool Hispanic population so later reading achievement and ultimately life-long success will transpire.

Terminology

Cross-language transfer: “This theoretical position asserts that language skills from the first language transfer to the second” (Garcia & Jensen, 2007, p. 83).

Cumulative advantage phenomenon: As explained by DiPrete and Eirich (2006, p. 272), it is a process in which “... the advantage of one individual or group over another grows over time. The advantage in question is typically a key resource or reward in the stratification process, for example, cognitive development, career position, income, wealth, or health.”

Emergent literacy: It “... consists of the skills, knowledge, and attitudes that are developmental precursors to reading and writing. It is used to denote the idea that the acquisition of literacy is best conceptualized as a developmental continuum.” (Whitehurst & Lonigan, 1998, p. 848).

English Language Learners (ELLs): “Children whose home language is not English or who primarily speak a language other than English in the home” (Buysse & Aytch, 2007, p. 10).

Hispanic/Latino: These terms are often used interchangeably in research journals and documents. From the U.S. Census Bureau (2007), “The federal government defines Hispanic or Latino as a person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin regardless of race. Thus, Hispanics may be any race” (p. 1).

Matthew effect: As explained by Shaywitz et al. (1995), it is “The notion of cumulative advantages leading to still further advantage or, conversely, initial disadvantage being accentuated over time. [It] ... posits that the gap between good and poor readers widens over time” (p. 894-895).

Oral language: This term “... refers to the corpus of words in a child’s vocabulary as well as his or her ability to use those words to understand and convey meaning (i.e. syntactic and narrative skills)” (Lonigan, 2006, p. 98).

Phonological processing skills: Lonigan (2006) described them as “... children’s developing sensitivity to the sound structure of his or her language (e.g., that words are made up of smaller sounds like syllables or phonemes) and the ability to use that information in cognitive processes like memory” (p. 98).

Print knowledge: Lonigan (2006) described it as “... a developing understanding about the nature and purpose of books and print (e.g., letters, the sounds letters represent, directionality of print)” (p. 98).

Socioeconomic Status (SES): “Socioeconomic status (SES) is usually measured by determining education, income, occupation, or a composite of these dimensions” (Winkleby, Jatulis, Frank, & Fortmann, 1992, p. 1).

White: According to the National Task Force on Early Childhood Education for Hispanics (2007, March), this term “refers to the U.S. Census category *non-Hispanic White* (p. 1).”

Research Questions to be Answered

This review examined the hypothesis that there are unique factors related to later reading success for preschool Spanish speakers who are learning English. If researchers are able to identify specific factors or combinations of factors that are consistently related to young Hispanics’ literacy success, early educators can more appropriately develop and implement strategies and interventions into their programs to facilitate literacy development of this population. Specifically, the following questions were explored:

- 1) What are the unique factors in preschool Spanish speakers who are learning English that predict their later reading success?
- 2) Are there combinations of these factors that are strong predictors of later reading success?

Limitations

One limitation to this review was that much of the research regarding preschool Spanish speakers is so recent that there is not much longitudinal data for tracking their progress through the elementary years. A second limitation was that, although many research studies have been conducted examining the reading success of elementary age Hispanic students, there is still a wide gap between the reading achievement of Whites

and Hispanics. Researchers need to focus on the 0-5 year ages when children's development is changing rapidly and avoid inferences from studies done with older children in order to give the research more validity. The beneficial part of this review was that the research is dynamic and expanding because the population of Hispanics in the United States is growing at such a fast rate.

Chapter 2

Methodology

Method to Locate Sources

The electronic searches were completed mostly through the Rod Library at the University of Northern Iowa and Google. The main databases that were used to search for studies and articles were Education, Teachers of English to Speakers of Other Languages (TESOL), and Linguistics. Websites that were specific to researching for this paper were www.nieer.org (National Institute for Early Education Research), www.ecehispanic.org, which led to reports by the National Task Force on Early Childhood Education for Hispanics, and www.preknow.org (Pre-K Now), which is a project that is promoting high quality preschool for all children. Pre-K Now publishes reports, studies, and daily pre-k news clips to advocate for voluntary pre-kindergarten for all three and four-year olds in the United States.

The ERIC website provided some titles of articles, but they were not always easily accessible as they were through Rod Library. Another available resource was the Professional Library collection at the Mississippi Bend Area Education Agency (AEA). Teachers are able to request professional journals through their AEA, which can be more time-consuming than with on-line resources, but yet a sure way to access a journal.

This review began with electronic searches using identifiers such as *preschool*, *Spanish speakers*, *ELL*, *predicting reading success*, *bilingual*, *phonological awareness*, *literacy abilities*, *preliteracy*, *emerging literacy*, *early reading skills*, *linguistics*, and *cross-language transfer*. It was necessary to keep the searches focused mostly on preschool aged children because the descriptor, early childhood, includes children

ages 0-8. Thus, the use of *early childhood* was avoided when possible. Sources that referred to the instructional environment, home environment, parent attitudes toward education, community environment, and skills of Hispanic 3-5-year olds were also located since they were identified in some articles as possible factors that predict Hispanic preschoolers' future reading achievement.

Method to Select Sources

Government documents that described current statistics on Hispanics (such as obtained through the U.S. Census Bureau and the U.S. Department of Education) and other populations in the United States were critical because this data is constantly changing. Especially advantageous were sources that showed projections for the number of Hispanics compared to other populations. Respected journals, such as *Child Development*, *Journal of Educational Psychology*, *National Association for Bilingual Education Journal of Research and Practice*, and *Bilingual Research Journal*, or those that represented research on reading or linguistics were inspected first. Documents and reports published by The National Task Force on Early Childhood Education for Hispanics provided current facts, reviews of studies, and recommendations for expanding early education for Hispanics. Many of these articles cited a wealth of other references, especially those that were peer reviewed, to investigate for this literature review.

Procedures to Analyze Sources

Sources were analyzed by looking at the unique factors represented in studies that predicted or correlated with reading success for preschool Spanish speakers. Studies that included only Spanish speakers were reviewed first because that is the focus of this paper. Articles that referred to speakers of languages other than English or Spanish were

considered if inferences needed to be made to help answer the literature review questions. Large group studies (i.e.; 50 or more participants), as opposed to case studies or small group studies, were considered to be more favorable, so conclusions could be made that were based on larger populations of Whites and Hispanics. Both quantitative and qualitative studies were presented in this paper; though, the complexity involved in controlling so many factors related to Hispanic preschoolers and early literacy, and the inherent problems with assessing young children made it difficult to exclude either kind of studies. Research that was cited often by other respected authors, journals, or publications were understood to be more valid than other research. During the phase of collecting and reading articles, notes were prepared with regard to what kind of factors they supported, how strong that support appeared to be, and in which section of the review they would fit best. The different factors appeared to fall into three broad categories: child, family, and school. Finally, according the Pew Hispanic Center (2009), Hispanics are a diverse group as seen by statistics from 2007 that revealed about 64% of the Hispanic population in the United States were from Mexico, 17% were from Central and South America, 9% were from Puerto Rico, 3.5% were from Cuba, and about 6% were from other areas. In order to include those studies that did not separate Latinos into smaller ethnic groups, conclusions were made with that limitation in mind.

Criteria to Include Literature

Documents that were published in the last 10 years were included because they were pertinent for making conclusions about factors that predict reading success for preschoolers learning English. When older documents were included, attempts were made to connect them to recent research that demonstrated possible correlations. Articles

that referenced other studies that helped develop this paper were given more consideration than those that did not. The literature needed to answer the research questions, provide pertinent statistics, or provide recommendations for teaching young preschool Spanish speakers based on the research.

Chapter 3

Literature Review

Present Problem and Research Questions

A significant problem in schools that the United States faces today is that efforts over the past two decades to raise academic achievement among Hispanic students have resulted in slow progress. As reported in the *Nation's Report Card: 2007 At a Glance* (National Center for Education Statistics, 2009), Hispanic students in fourth and eighth grades scored higher reading scores in 2007 than in the assessment done in 1992.

However, the reading achievement gap between Whites and Hispanics in 2007 was not significantly different from the gaps seen in 1992. The continued achievement lag of Hispanic students should be of great concern, not only to educators, but also to families, taxpayers, businesses, government officials, and legislators. This problem is more than just a matter of equal rights and helping those who are not as fortunate; it is a crisis that affects the strength of the workforce, economy, political structure and families in the United States. Specifically in the area of literacy, "Learning to read and write is a key developmental milestone in a literate society. ... Well-developed reading skills serve as the cornerstone to acquiring content knowledge in other domains both in school and throughout life" (Lonigan, 2006, p. 91-92). In school, it is necessary to be able to read math and science textbooks, directions for taking tests, rules for the playground, lunch menus, and songs in music class. To succeed in life, children need to be able to read books for pleasure, directions for video games, rules for the swimming pool, and the manual for driver's education class.

Unfortunately, many Hispanic students fall into a group that encounters what is termed a *Matthew effect*, in which children who read less, have slower vocabulary development, and do not enjoy reading experience inhibited growth in their reading ability. The opposite effect can happen, too, in which children who read well, have good vocabularies, and read more than others will continue to read even better. Stanovich (1986) called this a "... cumulative advantage phenomenon" (p. 381), an effect that he proposed can contribute to the lower reading achievement of many children. If researchers and educators agree with these ideas, then there is a critical need to study preliteracy skills and the factors that predict children's reading achievement of those populations that struggle the most.

In this chapter, I will present studies to help answer my two research questions:

- 1) What are the unique factors in preschool Spanish speakers who are learning English that predict their later reading success?
- 2) Are there combinations of these factors that are strong predictors of later reading success?

If researchers can determine which factors during the preschool years are most related to young Hispanics' literacy success in English, educators and schools can then help develop the best strategies and early interventions that will narrow the literacy achievement gap between Hispanics and Whites.

Subtopics to be Addressed

The research that described preschool Spanish speakers who are learning English was addressed according to the factors that predict or correlate with their later reading success. The factors were put in order by the following groups: child, family, and school.

The groups were listed in this paper not by importance, but by looking first at the child then moving *outward* toward school influences.

Child Factors

Cross-language transfer. There is an on-going controversy regarding the type of interventions that ELLs receive when learning a second language. Programs range from teaching ELL students only in their native language versus teaching them only in English. The theory of cross-language transfer, the process in which the skills related to learning one language can be applied to a second language, gives support for teaching Hispanic preschoolers in their native language. The language and preliteracy skills would be strengthened in Spanish and would assist the child in learning to speak and read in English.

The Center for Applied Linguistics (2009) and its collaborators, Harvard University, Johns Hopkins University, the University of Miami, and the University of Houston engaged in a 5-year research program called Acquiring Literacy in English (ALE). They studied the factors that predict success as Spanish-speaking children learn to read and write in English. The research program included three subprojects, the first of which was called Early Childhood Study (ECS) of Language and Literacy Development of Spanish-Speaking Children. This longitudinal study began in the fall of 2000 and continued through the spring of 2005. The subjects were native-Spanish-speaking children from pre-kindergarten through the end of second grade. At the start of the investigation, there were 350 four-year-olds, and at the end, 305 children were still participating. This group of children was referred to as the ECS sample. Researchers also compiled a comparative sample of 152 children from Head Start programs in Puerto

Rico. This similar sample allowed the examiners to determine expectable Spanish performance for the ECS sample. Tabors, Paez, and Lesaux (2008) looked at the influence of variables among the preschoolers, such as home literacy, language proficiencies, language instruction, and quality of instruction on their later reading development. Results of the ECS showed "... phonological awareness and early literacy skills appear to be highly related across Spanish and English, irrespective of the language in which they are learned" (p. 6). Those findings indicated that a preschooler who acquires emerging literacy skills in Spanish will be able to transfer those skills to English, which will in turn lead to reading success.

López and Greenfield (2004) reviewed the Spanish and English oral language abilities and phonological awareness of 100 Spanish-speaking Head Start children of ages 48-66 months. During a five month period, each child completed 2 assessments in both Spanish and English. Analysis of the test data for this sample indicated that "English proficiency and Spanish phonological awareness are both important predictors of English phonological awareness. ... As Spanish proficiency is correlated with Spanish phonological awareness, it is apparent that oral language skills in Spanish influence phonological awareness in English" (p. 12). This study supported cross-language transfer when looking at preliteracy measures at one point in time across the two languages, not across time as the next investigation demonstrated.

A study by Manis, Lindsey, and Bailey (2004) explored important preliteracy skills that are assumed to be important in learning to read in English. These were print knowledge, expressive language, phonological awareness, and rapid automatic naming. These skills were assessed in Spanish or English in Grades K-1 and analyzed in relation

to reading skills in both English and Spanish in Grade 2. The sample consisted of 251 Spanish-speaking English-language learners who had limited knowledge of English at the start of kindergarten. The data showed "... significant and moderately sized correlations between Spanish measures in kindergarten and parallel English measures in first grade. In addition, Spanish measures in kindergarten correlated significantly with English-reading measures in second grade" (p. 219). Of the four preliteracy skills, print knowledge in Spanish was the best single predictor of later English-reading skills. A slight limitation, though, was that the initial testing was first completed at the beginning of kindergarten and not with preschoolers. Overall, this study provided evidence that preliteracy skills in Spanish, measured at an early age, can predict later reading achievement in English.

These researchers also substantiated that early childhood teachers can teach ELL preschoolers in their home language without the worry that English acquisition would not occur. Of course, it would be necessary to require teachers to be fluent in the home language of the ELL children, a challenge that would prove difficult, especially in regions where there are large numbers of immigrants (Laosa & Ainsworth, 2007).

Oral and receptive vocabulary of the child. Hammer, Lawrence, and Miccio (2007) investigated bilingual Head Start children's receptive language development in English and Spanish to see if it could predict their reading outcomes at the end of kindergarten. Eighty-eight bilingual children who attended Head Start programs in Central Pennsylvania participated in the study. They were divided into two groups: those who spoke the two languages in the home from birth, and those who were spoken to in Spanish in the home from birth and were not expected to speak English until entering Head Start at age three. The children's receptive language abilities were assessed four

times during their two years in Head Start. Their emergent reading abilities were tested in the spring of their kindergarten year. This analysis:

Demonstrated that *growth* in children's English receptive language abilities during Head Start, as opposed to the level of English they had achieved by the end of Head Start, positively predicted the children's emergent reading abilities in English. ... This investigation also found that *changes* in children's English language abilities during Head Start predicted their ability to identify letters and words in Spanish and English, and *growth* in their Spanish language abilities predicted their early Spanish and English reading abilities. This is a key finding that indicates that growth in *either* Spanish or English language development during the preschool years results in positive reading outcomes in kindergarten.

(p. 243)

Also, in the ECS (Tabors, Paez, & Lesaux, 2008), the fall scores on the oral language measure for the children in the sample were well below the mean for monolingual children in both English and Spanish. From Pre-K to second grade, oral vocabulary gains in English were better than expected, but the gains were small. The gains in Spanish were lower than expected, which put the children further below what was expected for monolingual Spanish speakers. These outcomes did not alter the overall standing of the sample and put the children further below monolingual speakers of either language. The two previous studies demonstrated that early oral language scores of preschoolers can predict later reading achievement, but the direct influence of oral vocabulary by itself is not completely understood.

Family Factors

Family immigration history. In the ECS (the study previously described in the cross-language transfer category), demographic information was compiled through a parent home language and literacy questionnaire. The survey included several questions about the families, such as country of origin, immigration history, income and educational level of the parents, and literacy and language use in the home. The questionnaires showed the children and their families were very diverse in terms of demographics. As part of third research question of the ECS, it was found that “Family immigration history of the preschoolers was a significant predictor for both Spanish and English literacy ability in second grade” (Tabors, Pàez, & Lesaux, 2008, p. 5). Parents who had immigrated more recently and valued the maintenance of Spanish in the home had children who tended to score higher in Spanish. Parents who had been in the U.S. longer and valued the importance of English tended to score higher in English.

Reardon and Galindo (2006) examined data from the Early Childhood Longitudinal Study-Kindergarten Class of 1998-1999 (ECLS-K). This study was conducted by the National Center for Education Statistics (NCES) and contains scores on standardized math and English reading tests. The ECLS-K included data on a nationally-representative sample of about 21,400 children from the kindergarten class of 1998-1999. This large sample size has allowed various researchers to compare the scores of the students at different ages and according to demographic features such as national origin, immigrant generation, SES, and home language. The students were assessed in reading, math, and general knowledge/science skills six times over 6 years. Results showed that second- and third-generation Mexican students' reading scores at kindergarten entry were

below those of White kindergarten students. The gaps between second-generation Mexican students and Whites were larger than for third-plus-generation students. The gaps narrowed sharply later in kindergarten and first grade, and then remained somewhat stable from first to fifth grade. The researchers were unable to make estimates of later reading success of first-generation Mexican students because the ECLS-K only tested those kindergarten children who were proficient in oral English in the fall. Therefore, since very few of the first-generation Mexican students were proficient, estimates could only be made for second- and third-plus-generation Mexican origin students (p. 19). This study, combined with the Tabors, Pàez, and Lesaux (2008) investigation, demonstrated that Hispanic preschoolers who have been living in the United States longer should have more reading success later in school.

Higher education of the parents. In the ECS previously described, the third research question was “What precursor factors from their home and school contexts predict Spanish-speaking children’s Spanish and English literacy abilities in second grade?” (Tabors, Pàez, & Lesaux, 2008, p. 5). The findings from the home language and literacy survey completed by the parents illustrated that, although the levels of parental education ranged from 0-22 years, those children who scored higher in both Spanish and English had parents with higher educational levels. These parents also considered bilingualism as a positive quality for their children.

Spanish is spoken in the home. In a Reardon and Galindo (2006) study, achievement gaps from the ECLS-K were also analyzed by the language used in the home. As expected, kindergarten Hispanic students from homes where Spanish was the predominant language spoken had lower reading skills than students from homes where

mostly English was used. Though the reading scores of students from Spanish dominant homes improved rapidly in kindergarten and first grade, by fifth grade, those scores were still well below those of White students and Hispanic students from English-speaking homes. It was suggested that the "... processes that produce the rapid gains evident in kindergarten and first grade are not sufficient on their own to eliminate the Hispanic-White achievement disparities" (p. 21).

Parents' nation or region of origin. Reardon and Galindo (2006) used data from the previously explained ECLS-K to focus on the reading and math assessments "... in order to describe patterns and trends in cognitive development among Hispanic subgroups" (p. 6). Among Hispanic subgroups, there were large differences in their reading skills. Reardon and Galindo explained that:

Students of Mexican and Central American origins, particularly students whose parents are immigrants to the U.S., enter school with lower math and reading scores than children of Cuban, South American, and other national origins and children of U.S.-born Hispanic parents (third-plus generation students). (p. 2)

The gap between kindergarten students of Mexican and Central American origins and Whites was larger than the gap between kindergarten students of Cuban, Puerto Rican, and South American origins and Whites. Even more noteworthy were the patterns of change in the size of achievement gaps from kindergarten to fifth grade. Overall, the gaps in reading changed little for most of the Hispanic national origin groups from first through fifth grade, and seemed to widen slightly for Mexican origin students. These results showed, at kindergarten entry (though not as early as preschool as this paper was

investigating), the differences in future reading success of Hispanic children from various origins could have been predicted.

Chang et al. (2007) used data from two larger studies to examine the relationship between teacher-child interactions and the social and language development of 345 Spanish-speaking preschoolers. About half of the children's families (48%) were Mexican Americans/Chicanos, 48% were Other Hispanics/Latinos, 3% were Puerto Ricans, and 1% was Cubans. The children attended programs that varied in how much the teachers spoke Spanish in class. The 2 large-scale studies were the National Center for Early Development and Learning's (NCEDL) Multi-State Study and the State-Wide Early Education Programs (SWEEP) study. Assessments were conducted in the fall and spring and included observations to measure teachers' language interactions with the children, ratings of the children on eight dimensions of social behavior, a measure of classroom quality, two language assessments, and teacher and parent questionnaires. While the study illustrated that neither the amount of Spanish nor English spoken in the classroom by the teacher were related to changes in children's English proficiency (as the researchers were examining), it was found that a high proportion of Latinos showed little change on one of the measures for children's receptive vocabulary. Mexican American/Chicano children's scores showed significantly less change on the same vocabulary assessment than the Latinos. These results revealed a slight agreement with those of Reardon and Galindo (2006), that literacy scores can be predicted by a Hispanic family's nation of origin, with Mexican Americans demonstrating lower scores than those of Puerto Ricans and Cubans at preschool and later grades.

Socioeconomic status (SES) levels. In the study by Gormley, Gayer, Phillips, and Dawson (2005), the researchers focused on students from Oklahoma's universal Pre-K program in order to compare the effects of enrollment in a Pre-K program for children varying in race, ethnicity and income and for children in full-day versus half-day programs. In 1998, legislation in Oklahoma was passed that gave state money to school districts that enrolled 4-year-olds in their Pre-K programs. The universal Pre-K programs in Oklahoma were considered high quality because of the low student/teacher ratios, required high qualifications of the teachers, same rate of pay for the Pre-K teachers as for elementary school teachers, and the state's ability to reach "... more 4-year-olds than any other program in the nation" (p. 874). The Pre-K program in Tulsa is particularly appealing to researchers because Tulsa Public Schools is the largest school district in Oklahoma, it is racially and ethnically diverse, and the program completes assessments for the preschoolers at the same point in time at the start of the school year.

The researchers tested 1,567 Pre-K students and 3,149 kindergarten students using three subtests of the Woodcock-Johnson Achievement Test (Woodcock, Mather, & McGrew, 2001). This test is nationally normed and used often in early education studies. The three subtests include Letter-Word Identification, which measures prereading and reading skills, Spelling, which measures prewriting and spelling skills, and Applied Problems, which measures early math reasoning and problem-solving abilities. The conclusions demonstrated that the Pre-K program was "... found to benefit children from diverse income brackets, including children eligible for a full-price lunch, a reduced-price lunch, and no lunch subsidy at all" (Gormley, Gayer, Phillips, & Dawson, 2005, p. 881). This would include Hispanic children, who composed about 13% of the participants.

When test scores were compared between groups of children by income, greater improvements were seen with the reduced-price and free lunch groups than with the unsubsidized group. This study indirectly showed that Hispanics of different SES levels can experience positive literacy test score changes, even though they may start kindergarten at lower reading levels than their peers.

The ECLS-K data that was analyzed by Reardon and Galindo (2006) also examined achievement gaps by socioeconomic status. Hispanic kindergarten students who were of the same socioeconomic status as White kindergarteners scored lower in reading. By the end of fifth grade, these gaps were typically smaller. Some fifth grade students' scores were not different from one another, especially those among students from the lowest SES level. At higher SES levels, Hispanics still scored slightly below White students. These two studies presented basic support for predicting that, although Hispanic preschoolers of lower SES may start preschool or kindergarten with poor reading scores, they tend to make the most gains in their later reading success.

School Factors

Bilingual preschool programs. The study by Rodriguez, Diaz, Duran, and Espinosa (1995) examined the language development in English and Spanish of 50 Spanish-speaking children who were 3-5 years of age. Thirty of the children were enrolled in a bilingual preschool program, and 20 stayed at home during the day. The researchers measured the children's language proficiency from both groups soon after the preschool program started and about 6 months later. The results illustrated that in both groups, the English proficiency of the children increased, but those in preschool learned English at a faster rate and were better able to speak English. Also, all of the children in

the study maintained or improved upon their Spanish proficiency. This study provided evidence that enrollment by a Spanish-speaking child in a bilingual preschool has positive language improvements in both languages, which could lead to future reading success.

The Winsler, Diaz, Espinosa, and Rodriguez (1999) article discussed two investigations that analyzed the bilingual language development of groups of Spanish-speaking Mexican American children who either attended a bilingual preschool or stayed at home. The first study replicated the one done by Rodriguez et al. (1995), in which 46 new participants were recruited from the same school district and community. The Winsler et al. (1999) participants included 26 children who attended a bilingual preschool for one year and a control group of 20 children who stayed at home. The two groups were tested with the same measures used in the Rodriguez et al. study soon after preschool began in the fall, then again 6 months later, both times with an English and Spanish assessment. The results showed that the Spanish-speaking children enrolled in the bilingual preschool program made significant gains in both Spanish and English language abilities over one year. This supported attendance in bilingual preschool programs as a way to maintain a child's first language while he or she is learning English, and also reinforced theories on cross-language transfer.

Winsler et al. (1999) also did a 1-year longitudinal follow-up study with the same subjects from the investigation by Rodriguez et al. (1995), in which they followed 82% of the original sample of Spanish-speaking preschool children of Mexican descent. Twenty-six children attended the bilingual preschool another year while 15 other children continued to stay at home for the second year. The same standardized, objective measures

of the children's receptive and expressive language in English and Spanish were obtained in the fall and spring again. Also, the examiners, setting, and procedures were identical to those implemented in the above study by Winsler et al. It was found that both groups of children continued to show significant gains over the 2-year period in both languages, with the bilingual preschool program group maintaining greater gains in English. These replication studies helped to corroborate the earlier studies done by Rodriguez et al.

In an experimental study by Barnett, Yarosz, Thomas, Jung, and Blanco (2007), children 3-4 years-old were randomly assigned to one of two preschool programs. One was a dual-language program in which children were taught in English one week then in Spanish the next week. The other was an English immersion program where all of the instruction was done in English. Participants included 79 children from the dual language program and 52 from the English immersion program. Students were from both Spanish and English home language backgrounds, though most of them predominantly spoke Spanish at home. The children completed assessments of their literacy and language skills in the fall and spring of 2003-2004. Both groups made substantial gains in language and literacy scores, but there were no significant differences between the two groups on English language measures. The outcomes demonstrated that the children, English-speakers as well as Spanish-speakers, improved their Spanish-language development without losing English skills.

Though this study did not show exclusive support for enrollment in bilingual preschool programs versus English-only programs by Hispanics in order to improve their later reading success in English, it did indirectly show corroboration when the theory of cross-language transfer is considered. Similarly, in the ECS (Tabors, Pàez, & Lesaux,

2008, p. 5), "Use of Spanish in the classroom had a significant impact on changes in the children's ability levels in Spanish." If the child's native language can be strengthened, the literacy skills learned from the first language can be transferred when learning a second language. Overall, the studies reported in this category provided support for the use of bilingual preschool programs to improve the preliteracy skills of Spanish-speaking children.

Center-based programs. Loeb, Bridges, Bassok, Fuller, and Rumberger (2007) used data from the ECLS-K to examine how different child-care arrangements affected children's cognitive and social skills. The ECLS-K included a large and nationally representative sample of young children, in which a wide variety of background data was collected, so other researchers are able to use the children's scores to analyze across races and income levels. Direct assessments were done with five year-olds, and interviews were done with the parents and kindergarten teachers of the children. Loeb et al. (2007) wanted to examine how the relationships between center care and development varied for children from differing income and ethnic groups. They analyzed the data from 11,558 total children; the Hispanic portion included 1,452 children. The results showed that, while the academic gains for the whole sample increased if the kindergarten students had attended a center-based program (not Head Start), the gains were larger for English-proficient Hispanic students. Specifically, the study demonstrated that:

Center care is associated with a 0.23 SD increase in the reading scores of Hispanic students, almost three times the effect size for White children. ... In addition, Hispanic children who attend Head Start do better in reading than those

who receive maternal care, though the Head Start effect is smaller than the center effect. (p. 61)

The 0.23 standard deviation increase in the reading scores was stated to be significant at one percent. This study strengthened the concept for Hispanic children to attend a center-based program versus staying at home, but one limitation of the ECLS-K was that the reading assessments were only administered to students who were minimally proficient in English. Kindergarten students who could not pass an English oral proficiency screening measure were not given the full assessment of prereading skills. Therefore, these results could only be generalized to Hispanic kindergarteners who demonstrate minimal English proficiency.

Bridges, Fuller, Rumberger, and Loan (2004) also made conclusions from the ECLS-K data regarding enrollment in a center-based program. They determined that Latino children were much less likely than White children to attend center-based programs and when they do attend, it is often one year later than Whites. The English-proficient Latinos' prereading scores were about three months behind Whites at the start of kindergarten. The researchers then made an estimate that this early gap "... is equivalent to over 80 percent of the gap observed in reading skills among Latino children at fourth grade" (p. 2). Further estimates were made based on the results that showed children who attended a center-based program prior to entering kindergarten were at least two months ahead cognitively of those who did not attend. Considering Latino kindergartners scored about 17 points below Whites on early language and pre-literacy assessments, it was estimated that "... 8-12 points of this gap could be erased if less-advantaged Latino and Black children entered center-based programs early and attended

regularly” (p. 2). This was a powerful statement in support of more Hispanic children enrolling in center-based programs to help improve their future reading success.

High quality preschool programs. In the Chang et al. (2007) study, as described in the subtopic of parents’ region or nation of origin above, the language spoken in the classroom with Spanish-speaking preschoolers was not related to changes in the children’s English proficiency scores. But, another unintended relation was ascertained after analyzing the data; the classroom quality was associated with greater changes on the children’s receptive vocabulary assessment. The ECERS-R was used to measure the overall classroom quality through observations and interviews with the teachers. The items on the ECERS-R are scored on a scale of 1 to 7, with 1 equal to poor and 7 equal to excellent. It is an acceptable measure of classroom quality due to its high inter-rater reliability, internal consistency for the subscales, and good predictive validity (Early Childhood Measurement and Evaluation Resource Centre, n.d., p. 2-3). Once again, though it was not part of the researchers’ original study questions, this study established support for predicting Hispanic preschoolers’ later literacy outcomes. This time, high quality of the classroom predicted improvements in their language scores. Also, in the ECS (Tabors, Pàez, & Lesaux, 2008), classroom quality was a factor that was found to have significant impact on changes in the children’s literacy levels from kindergarten to second grade in both Spanish and English.

As discussed in the SES levels category earlier, the TPS universal Pre-K program in Oklahoma had several qualities that contributed to its high quality status. According to Gormley and Gayer (2005), all of the Pre-K teachers were required to have a college degree and a certificate in Early Childhood Education. The Pre-K teachers also received

the same salary rate as elementary school teachers. The preschool groups were no larger than 20 students with a child/staff ratio of 10/1. Finally, because the Pre-K program was part of the public schools, it benefitted from having access to staff training, policies, materials, consulting services, and funding. In the Gormley and Gayer (2005) study, the effects of the TPS pre-K program on 4-year-old children's development, as measured by social, knowledge, motor, and language skills assessments, were analyzed. The results revealed widely improved scores in the areas of language and knowledge; the positive effects were the greatest for Hispanic children. The above studies demonstrated that Hispanic children make significant gains in their preliteracy scores when they have the opportunity to attend high quality preschool programs.

State Pre-K programs. Cuèllar, Rodríguez, and García (2007), stated that two studies of the Tulsa, Oklahoma's preschool program suggested that "Young Latino children achieve significant cognitive development when enrolled in high quality state funded preschool programs" (p. 13). In the first study by Gormley and Gayer (2005), the effect of Oklahoma's universal Pre-Kindergarten (Pre-K) program for four-year-olds on children in TPS was examined. "In Oklahoma, 'universal' means that all school districts are eligible to participate in the program, that almost all four-year-olds have access to the program, and that most four-year-olds actually are enrolled in the program" (p. 536). TPS was attractive to the researchers because the schools conducted an annual Early Childhood Skills Inventory on all students entering Pre-K and again at kindergarten entry. The TPS Pre-K program was voluntary so the researchers understood that certain parents were more likely to select the Pre-K program, and the children or parents might have had other characteristics that affected test scores. Therefore, they were able to

compare scores of children who were born just before and after the cutoff date for entry, in order to control for age effects and to replicate randomization. Scores were compared for 2,354 children who were tested upon entering the Pre-K program and again as they were entering kindergarten. It was found, as discussed previously, the positive effects of TPS Pre-K were the most significant for the Hispanic child, who gained considerably in the areas of cognitive and language development. Though this study focused more on school readiness, the researchers planned to examine whether the TPS Pre-K participants continue to show long-term improvement.

In the second study, Gormley, Gayer, Phillips, and Dawson (2005) looked at the same population of students from the TPS Pre-K program with the purpose of estimating the overall effects of attending the Pre-K program for children varying in race, ethnicity and income. The findings showed that improvements were made across all of the racial-ethnic groups (Hispanics, Blacks, Native Americans, and Whites), with the Hispanics making the most gains in test scores in all three subtests. When the researchers compared their findings with other early childhood programs, they concluded that "... the effect sizes reported here fall somewhere in between those of average state-funded pre-K programs and the very best early intervention programs; they substantially exceed those of high-quality child care programs" (p. 881).

If attending a preschool program, especially a quality state-funded one like in Tulsa, is so beneficial for young Hispanics, then participation by this population should be a priority. But according to the Pat Brown Institute for Public Affairs (2006), national trends in preschool participation by ethnicity showed that "... African American children have relatively high participation rates (59%), as do White children (58%), compared

with Asian American (47%) and Latino children (37%)” (p. 2). This may seem surprising when looking at the Latino Public Opinion survey done by Valencia, Pèrez, and Echeveste and Tomàs Rivera Policy Institute (Zarate & Perez, 2006) in which over 96% of the Latino families said they would enroll their child in a free, voluntary preschool program if it was available. Hence, Latinos expressed their interest in preschool through this survey, and studies demonstrated the improvement in literacy achievement of Hispanic preschoolers, yet in “heavily Latino communities, the availability of high quality, publicly funded programs is very limited” (Cuèllar, Rodríguez, & García, 2007, p. 13).

Teacher-child interactions. In their study, which is part of a larger 2-year ethnographic study, Piker and Rex (2008) examined the types of social interactions and communication that the teachers in a Head Start classroom encouraged with their students. The sample included two girls and two boys whose ages ranged from 3-5 years-old. Two of the children had some experience using English, and the other two had minimal English experience at the beginning of the school year. The results demonstrated that the teachers provided limited support of the four children’s oral language in English. The types of detrimental interactions the teachers used with the children included: teacher statements that involved mostly instructions and commands, teacher responses to children’s attempts to share verbally were brief, and many nonverbal responses were made by the children. The researchers stated that these types of interactions:

Prevented the children from experiencing optimal interactions, which prevented them from developing their oral production of English into more complex

forms. ... The limited language support from the teachers adversely affects both L1 [first language] and L2 [second language] language development and general literacy development. (p. 190)

This study, though it included a small sample and was ethnographic in nature, substantiated the theory that optimal teacher interactions in preschool can affect children's later literacy achievement.

Evidence and Ideas Synthesized

As shown by the research in each of the factor areas, the ECLS-K, the TPS pre-K program, and the ECS provided the most quantitative data from which researchers can conduct predictive studies about Hispanic preschoolers. Investigations into the preliteracy skills of young Spanish-speakers are increasing, but they are not keeping pace with the growth in the Hispanic population. The evidence showed that Hispanic preschoolers and kindergarteners start school with preliteracy skills well below those of other populations, which is often correlated with many factors such as SES levels, family immigration status, and parents' nation of origin. The data also illustrated factors, such as high-quality preschool programs that respond to Hispanic children's language needs, especially in light of cross-language theory, can help reduce the reading achievement gaps that occur later in school. In summary, the studies described in this review were strong in their ability to provide discussion on this topic of Spanish-speaking preschoolers who are learning English and how to predict their future reading success. Unfortunately, because the Hispanic population is so diverse in its background, needs, and ways of learning, this topic needs the support of abundant longitudinal research that is beyond the scope of this paper.

Chapter IV

Conclusions and Recommendations

Conclusions

Overall, Hispanic students are achieving at lower levels over the prek-12 school years and in college compared to White students. Also, while the total population of Hispanics in the United States has been climbing, the number of Hispanics enrolled in school has dramatically increased. According to National Center for Education Statistics (2006), the number of White non-Hispanic students enrolled in the United States decreased by about 29,000 in the 2005-06 school year, compared to the 2004-2005 school year. Yet, the number of Hispanics enrolled increased between those two school years by over 490,000. These figures necessitate more research on how to close the achievement gaps for Hispanics, especially those who speak Spanish as their first language.

There is a need to implement effective early childhood education with the growing Hispanic population, and this is made all the more urgent by the fact that almost 40% of Hispanics in the United States do not graduate from high school (Pew Hispanic Center, 2009, Table 21). At higher institutions, about 30% of Whites earn a college degree, while only about 12% of Hispanics earn a college degree. So, it is a population that is growing quickly, but is quite diverse in its ethnicity, income, and education levels of the parents, and the levels of English proficiency by all family members. Most studies do not or cannot control for all of the various factors discussed in Chapter Three so as to make strong conclusions about which factor most influences the later reading success of preschool Spanish speakers. From the studies and reports that were reviewed, it appears that a combination of the following factors would most affect Hispanic preschoolers'

future reading abilities in English: high quality early childhood education programs that assist the child in the native language as he or she is learning important preliteracy skills in both languages.

The predicting or correlating factors in this literature review were difficult to compare because some can be directly influenced by educators (i.e. high quality preschool program), some by policy makers (i.e. state Pre-K programs), and some by the Hispanic families (i.e. parents read to their child). Other factors are the result of a family or generational history (i.e. family immigration), or school or public policy traditions (i.e. English only programs) that are so embedded that changing them has not been thought possible. More effective literature reviews might separately look at the factors that are controllable versus uncontrollable by teachers, school officials, families, the child, and public policies. It was discovered that although there is abundant research on early childhood, emergent literacy, and bilingual education, there is much less that is specific on the subject of this paper, Hispanic preschoolers learning English and future reading outcomes. This is an exciting field in which to study preschool and Hispanic initiatives and to use new strategies in the classroom.

Identify and Synthesize Insights

It is apparent that the numbers of Hispanic preschoolers will continue to climb over the next 20 years, and educators need to prepare for them. Current interventions being used to teach young Hispanics are not working well enough to reduce the achievement gaps in the area of reading and other academics between Hispanic and White students. Early childhood programs have been shown to prepare preschoolers for entering kindergarten so they can experience success in school. But for several reasons,

even when Hispanic families are able to enroll their child in a preschool program, Hispanic children are behind their English-speaking peers and quite often are unable to achieve at the same level.

Recommendations

Several recommendations to improve Hispanic students' English reading skills, especially starting at the preschool age, became apparent from this literature review. The first and foremost is to expand young Hispanics' opportunities to attend preschool programs. They have the least access to center programs and preschools, but appear to be the children who are most in need of early education.

A second recommendation is to improve the existing programs for children 0-8 years-old so they are of high quality, research driven, and value parent involvement. Preschool teachers and others working with the children need to be instructed on strategies that have been proven effective and backed by research studies involving young Hispanics. Educators need the support of their administrators with extra training, supplies, and time for evaluating program effectiveness. Also, involving families in their children's education can help build relationships between the school and home, and reinforce the preliteracy skills that are being taught at school.

Preschools can provide training after a teacher has been hired, but a third recommendation is to improve the teacher preparation in colleges before graduates actually start their jobs with young children. Chang et al. (2007) stated, based on their literature review and own study, more attention needs to be given to the preparation of teachers for working with an increasingly diverse student population. Young Hispanics often speak Spanish as their first language and vary in their socioeconomic and family

backgrounds. New educators in the field of early childhood need to be required to take Spanish language and poverty training courses to become more qualified as preschool teachers of Hispanic children.

A fourth recommendation, especially to ensure a successful preschool program for Hispanic children, is to assess the students early and on a regular basis. Measures that are used at one point in time do not consider the ever-changing development of young learners, especially those who speak Spanish and are learning English at different rates. Hammer, Lawrence, and Miccio (2007, p. 244) demonstrated "... that assessment at a particular point in time does not provide sufficient information about children's language development, and in fact may not provide accurate information." Also, the assessments should not just include standardized instruments that are used for high-stakes decisions. Rather, appropriate tests for preschool ELLs that consider their culture, languages, and age should be combined with performance-based assessments, anecdotal notes, and student portfolios when determining the type of instruction the children need to improve learning outcomes.

The fifth and final recommendation is to provide bilingual preschool and elementary programs where possible and appropriate. Though a controversial subject, when provided with the appropriate teacher and staff training, supplies, and philosophy, bilingual education can be just one more tool that educators have to help improve young Hispanics' preliteracy and later reading skills. Not all children will benefit from this type of programming, nor is it the only factor that will affect their success. It takes careful planning, and knowledge of the research-based strategies and instruction in both Spanish and English to develop and implement high quality bilingual education programs.

Future Research

Research in the area of emergent literacy for Hispanic preschoolers who are learning to speak English is abundantly needed, especially that of the longitudinal kind. While there are more studies available with regards to emergent literacy of monolingual preschoolers and school-age children, there is little to aid in our understanding of how Spanish-speaking preschoolers learn to read in English. This process of literacy acquisition when learning two languages by preschool Hispanics needs to be studied so educators can support the children at school, and families can support them at home.

Better information is needed regarding how young Hispanics learn various developmental skills in Spanish or English and the factors that influence their achievement. This population is very diverse in terms of its ethnicity, family values and background, number of years living in the United States, amount of Spanish used at home, and levels of proficiency in Spanish or English. Research that is designed to study those factors over many years with the Hispanic population would add to what we already know about the reading achievement of monolingual learners and older ELLs.

Research is necessary in order to help prepare the new teachers who will be educating Hispanic preschoolers. This would include examining existing strategies that are successful with English speakers, and designing and assessing new early childhood strategies with different subgroups of young Hispanics. Researchers would also need to complete more studies on various types of preschool bilingual programs to find which ones provide the most success with which kinds of young Hispanics. As mentioned earlier, bilingual education is a hot topic in the United States, especially with some states passing English-only laws. But, López and Greenfield (2004) reported that investigations

must continue to focus on cross-language transfer and the transition to English for Spanish-speaking young children. “Determining that this transfer does occur as well as understanding its relational role between the languages will facilitate the transition to English for these Spanish-speaking children” (p. 13).

Hammer (2008, p. 27-28) stated that more research needs to be done:

1. Investigating preschoolers’ language and literacy development longitudinally.
2. Of children with varying levels of exposure to and proficiency in English and Spanish when entering preschool.
3. With children of differing SES levels.
4. Of children attending differing educational contexts.
5. On various educational models (i.e. dual language, immersion, etc.).
6. Examining home, school and community factors that impact children’s development and potential interactions that may occur among these factors.

Hammer (2009) is currently part of three collaborative projects that center on Hispanic preschoolers; *Tools of the Mind: Promoting ELLs’ Language, Self-regulation & School Readiness*, *Promoting the Emergent Literacy Development of English Language Learners: A Culturally-Informed Approach*, and *Assessing Bilingual Phonological Development in Young Children*. She appears to be a leader in research in the area of literacy for bilingual preschoolers, especially for those who primarily speak Spanish. Researchers like her are leading the way to understanding the language development of young Hispanic preschoolers and developmental interventions to improve their literacy skills later in school.

Educational Policies

It is going to be of utmost importance that educators, administrators, and policymakers educate themselves about the unique and individual needs and backgrounds of these Hispanic preschoolers. Improvements in the services that are provided to this population will not occur without the support and knowledge of those in power to make changes. The implementation of a universal preschool system, especially as a part of the public education system, would offer access to all children, help the program quality, and be free of charge. This would enable preschool Hispanic children the opportunity to improve their preliteracy skills and affect future reading skills that they previously did not possess.

Policies need to be adopted that require preschool programs to be more responsive to the needs of Hispanics and their families. Programs should be developed to benefit the language and culture of all students, and engage families in their child's education. This would be partially completed through the adoption of a bilingual or Spanish preschool curriculum and the hiring of highly qualified bilingual educators. An educational policy that is intended to improve Spanish-speaking students' education was initiated at Arizona State University (ASU) in which all new students in the early education program for teachers "... are required to be able to communicate in Spanish or one of the indigenous languages of Arizona" (Garcia & G6nzalez, 2006, p. 13).

Laosa and Ainsworth (2007, p. 1) summarized the need for important educational policies that respond to the needs of Hispanic preschoolers by stating:

1. States should evaluate their preschool education policies, with Hispanic children in mind.

2. As future programs expand, conducting comparative analyses of targeted programs and pre-K for all children may prove useful. Universal programs can cost less per child and resolve problems of eligibility.
3. States should ensure programs have some support for ELL children in their home language. Programs providing some support in the home language have been shown to foster improved cognitive, linguistic, and social outcomes. More effort is needed to prepare and support teachers to meet the needs of Hispanic children.
4. It should be a high priority at the state and federal levels to develop better reporting systems to ensure quality data for stronger research on Hispanic children and early education policies.

Teacher Practices of Self and Others

For educators in the field of Early Childhood, and especially of preschoolers who speak Spanish as their first language, there is the need to be learning about the culture of the Hispanics that are served. As it is important for all students, it is especially urgent to understand the unique linguistic, learning, and cultural needs of young Hispanics.

Training in this area can assist teachers in utilizing the best strategies for communicating and responding sensitively to the wide differences in these children's behavior and learning styles as they are working to learn preliteracy skills and the English language. Building strong relationships with the families can help teachers learn more about their students, too, and enlist the parents as part of the child's education team.

Also, educators should focus on building quality relationships with their students in order to increase the opportunities for reading success and overall achievement. In the case study of an early childhood teacher, Gillanders (2007) observed how an English-

speaking prekindergarten teacher developed strategies for communicating with her ELLs to improve her relationships with the children. The findings showed the English-speaking children modeled the teacher's nurturing relationship with the Latino children. Thus, the Latinos were viewed as having a higher social status in the classroom, so English-speaking children found it desirable to have them in their play. Also, the teacher was motivated to learn and use Spanish in her classroom to increase the amount of positive interactions she had with the Spanish-speaking children. This, in turn, gave the Latinos more opportunities to engage in play and language interactions with their English-speaking peers. Talking with other children in English will help Spanish-speaking preschoolers improve their language and preliteracy skills early, which can lead to later reading achievement.

In accordance with the previous recommendations, educators need to help Spanish-speaking preschoolers maintain and build their first language while building literacy skills in English. The theory of cross-language transfer provides support for use of Spanish in the classroom as an instructional method. Also, in a national survey of state administrators of early childhood programs, it was reported that "... the lack of Latino or bilingual professionals and the lack of sufficient preparation and training of early childhood professionals as the most urgent challenges in serving the Latino population" (Buysse, Castro, West, & Skinner, 2004, p. 5). Teachers who learn Spanish and take advantage of current research on the subject of proven strategies to improve children's oral language proficiency, vocabulary, and phonological awareness will be leading the way to help Spanish-speaking preschoolers learn the foundational skills necessary for later reading success in English.

References

- Barnett, W., Yarosz, D., Thomas, J., Jung, K., & Blanco, D. (2007). Two-way and monolingual English immersion in preschool education: An experimental comparison. *Early Childhood Research Quarterly*, 22, 277-293. Retrieved July 2, 2009, from <http://researchtools.uni.edu:3210/uni?sid=III:innopac&issn=08852006>
- Bridges, M., Fuller, B., Rumberger, R., & Loan, T. (2004, September). *Preschool for California's children: Promising benefits, unequal access*. Policy Analysis for California Education, PACE, Policy Brief 04-3. Berkeley, CA: University of California. (ERIC Document Reproduction Service No. ED491703). Retrieved July 2, 2009, from <http://www.eric.ed.gov/ERICDocs/>
- Buysse, V., & Aytch, L. (Eds.). (2007). *Early school success: Equity and access for diverse learners. Executive Summary*. Chapel Hill: The University of North Carolina, FPG Child Development Institute. Retrieved July 17, 2008, from <http://www.fpg.unc.edu/~firstschool/>
- Buysse, V., Castro, D. C., West, T., & Skinner, M. L. (2004). *Addressing the needs of Latino children: A national survey of state administrators of early childhood programs. Executive summary*. Chapel Hill: The University of North Carolina, FPG Child Development Institute. Retrieved July 4, 2009, from <http://www.fpg.unc.edu/~nuestros/pdfs/NNExecSummary.pdf>
- Center for Applied Linguistics. (2009). *Acquiring literacy in English*. Retrieved March 8, 2009, from <http://www.cal.org/acquiringliteracy/>
- Chang, F., Crawford, G., Early, D., Bryant, D., Howes, C., Burchinal, M., et al. (2007). Spanish speaking children's social and language development in pre-kindergarten

classrooms. *Journal of Early Education and Development*, 18(2), 243-269.

Retrieved March 19, 2009, from <http://0->

www.informaworld.com.unistar.uni.edu/smpp/title~content=t775653644~db=all

Cuèllar, D., Rodriguez, J., & Garcia, E. (2007). *Latinos and early education: An account of diversity and family involvement*. Draft. Arizona State University. Retrieved

June 17, 2009, from <http://www.ecehispanic.org/work.html>

DiPrete, T., & Eirich, G. (2006). Cumulative advantage as a mechanism for inequality: A review of theoretical and empirical developments. *Annual Review of Sociology*,

32, 271-297. Retrieved July 14, 2009, from

<http://researchtools.uni.edu:3210/uni?sid=III:innopac&issn=0360-0572>

Early Childhood Measurement and Evaluation Resource Centre. (n.d.). *Tool Review:*

Early Childhood Environment Rating Scale, Revised Edition (ECERS-R).

Retrieved July 2, 2009, from [http://www.cup.ualberta.ca/view-document/64-tool-](http://www.cup.ualberta.ca/view-document/64-tool-review-early-childhood-environment-rating-scale-revised-edition)

[review-early-childhood-environment-rating-scale-revised-edition](http://www.cup.ualberta.ca/view-document/64-tool-review-early-childhood-environment-rating-scale-revised-edition)

Garcia, E., & González, D. (2006). *Pre-K and Latinos: The foundation for America's future*. Washington, DC: Pre-K Now.

Garcia, E. & Jensen, B. (2007). *Language development and early education of young*

Hispanic children in the United States. Working Draft. Arizona State University.

Retrieved March 29, 2009, from <http://www.ecehispanic.org/work.html>

Gillanders, C. (2007). An English-speaking prekindergarten teacher for young Latino children: Implications of the teacher-child relationship on second language

learning. *Early Childhood Education Journal*, 35(1), 47-54. Retrieved July 4,

2009, from <http://researchtools.uni.edu:3210/uni?sid=III:innopac&issn=1082-3301>

Gormley, W., & Gayer, T. (2005). Promoting school readiness in Oklahoma: An evaluation of Tulsa's Pre-K program. *The Journal of Human Resources*, 40(3), 533-558. Retrieved June 16, 2009, from <http://www.jstor.org/stable/4129551>

Gormley, W., Gayer, T., Phillips, D., & Dawson, B. (2005). The effects of universal Pre-K on cognitive development. *Developmental Psychology*, 41(6), 872-884. Retrieved March 30, 2009, from <http://www.apa.org/journals/releases/dev416872.pdf>

Gouleta, E. (2004). Hispanic kindergarten students: The relationship between educational, social, and cultural factors and reading readiness in English. *NABE Journal of Research and Practice*, 2(1), 56-76. Retrieved July 14, 2008, from <http://njrp.tamu.edu/>

Hammer, C. S. (2008, April). *The language and literacy development of bilingual Spanish-speaking preschoolers*. Paper presented at the Language Minority Roundtable: Language and Literacy Development in Young Minority Children: Research, Policy, & Practice, Washington, DC. Retrieved March 28, 2009, from <http://www.childcareresearch.org/discover/meetings/ell/Hammer.pdf>

Hammer, C. S. (2009). Professor's website at the Department of Communication Sciences and Disorders. *The College of Health and Human Development, Penn State University*. Retrieved June 28, 2009, from http://csd.hhdev.psu.edu/faculty/hammer_c.html

Hammer, C. S., Lawrence, F., & Miccio, A. (2007). Bilingual children's language

abilities and early reading outcomes in Head Start and kindergarten. *Language, Speech, and Hearing Services in Schools*, 38, 237-248. Retrieved March 30, 2009, from <http://researchtools.uni.edu:3210/uni?sid=III:innopac&issn=0161-1461>

International Reading Association (IRA) & National Association for the Education of Young Children (NAEYC). (1998). *Learning to read and write: Developmentally appropriate practices for young children*. Washington, DC: NAEYC. Retrieved July 3, 2009, from <http://www.naeyc.org/positionstatements>

Laosa, L., & Ainsworth, P. (2007). Is public Pre-K preparing Hispanic children to succeed in school? *National Institute for Early Education Research Policy Brief, 13*. Retrieved June 16, 2009, from <http://nieer.org/resources/policybriefs/13.pdf>

Loeb, S., Bridges, M., Bassok, D., Fuller, B., & Rumberger, R. (2007). How much is too much? The influence of preschool centers on children's social and cognitive development. *Economics of Education Review*, 26(1), 52-66. Retrieved June 30, 2009, from <http://0-www.sciencedirect.com.unistar.uni.edu/science/journal/02727757>

Lonigan, C. (2006). Development, assessment, and promotion of preliteracy skills. *Early Education and Development*, 17(1), 91-114. Retrieved September 25, 2008, from <http://researchtools.uni.edu:3210/uni?sid=III:innopac&issn=1040-9289>

Lopez, L. M., & Greenfield, D. B. (2004). The cross-language transfer of phonological skills of Hispanic Head Start children. *Bilingual Research Journal*, 28(1), 1-18. Retrieved July 11, 2008, from <http://brj.asu.edu/>

Manis, F., Lindsey, K., & Bailey, C. (2004). Development of reading in Grades k-2 in Spanish-speaking English-language learners. *Learning Disabilities Research &*

Practice, 19(4), 214-224. Retrieved March 23, 2009, from

<http://researchtools.uni.edu:3210/uni?sid=III:innopac&issn=0938-8982>

Muter, V., & Diethelm, K. (2001). The contribution of phonological skills and letter knowledge to early reading development in a multilingual population. *Language Learning*, 51(2), 187-219. Retrieved July 1, 2008, from

<http://researchtools.uni.edu:3210/uni?sid=III:innopac&issn=0023-8333>

National Center for Education Statistics. (2006, November). *Common Core of Data (CCD) Selected Findings: Public Elementary and Secondary Schools and Students*. Washington, DC: U.S. Department of Education. Retrieved July 2, 2009, from <http://nces.ed.gov/pubs2007/overview04/01.asp>

National Center for Education Statistics. (2007, September). *National Assessment of Educational Progress, The Nation's Report Card: 2007*. Washington, DC: U.S. Department of Education, Institute of Education Sciences. Retrieved July 3, 2009, from http://nces.ed.gov/nationsreportcard/pdf/main2007/2007496_2.pdf

National Center for Education Statistics. (2009, April). *National Assessment of Educational Progress, The Nation's Report Card: 2007 At a Glance*. Washington, DC: U.S. Department of Education, Institute of Education Sciences. Retrieved July 5, 2009, from

<http://nces.ed.gov/nationsreportcard/about/current.asp#naep2009>

National Task Force on Early Childhood Education for Hispanics. (2007, March). *Para nuestros niños: Expanding and improving early education for Hispanics* (Main Report). Tempe, AZ: Arizona State University, Mary Lou Fulton College of Education. Retrieved July 14, 2008, from <http://www.ecehispanic.org/>

- National Task Force on Early Childhood Education for Hispanics. (2007, June). *The school readiness and academic achievement in reading and mathematics of young Hispanic children in the United States*. Tempe, AZ: Arizona State University, Mary Lou Fulton College of Education. Retrieved July 14, 2008, from <http://www.ecehispanic.org/>
- Pat Brown Institute for Public Affairs (2006). *Preschool after proposition 82: Should spatial targeting be the natural next step?* Brief No. 4. California State University, Los Angeles: CA. Retrieved July 2, 2009, from <http://www.patbrowninstitute.org/publications/documents/PolicyBrief-4.pdf>
- Pew Hispanic Center. (2009). *Statistical Portrait of Hispanics in the United States, 2007*. Washington, DC: Author. Retrieved July 3, 2009, from <http://pewhispanic.org/factsheets/factsheet.php?FactsheetID=35>
- Piker, R., & Rex, L. (2008). Influences of teacher-child social interactions on English language development in a Head Start classroom. *Early Childhood Education Journal*, 36, 187-193. Retrieved March 19, 2009, from <http://researchtools.uni.edu:3210/uni?sid=III:innopac&issn=1082-3301>
- Reardon, S., & Galindo, C. (2006). *Patterns of Hispanic students' math and English literacy test scores in the early elementary grades*. Tempe, AZ: Arizona State University, Mary Lou Fulton College of Education. Retrieved March 30, 2009, from <http://www.ecehispanic.org/>
- Reyes, I. (2006). Exploring connections between emergent biliteracy and bilingualism. *Journal of Early Childhood Literacy*, 6(3), 267-292. Retrieved March 30, 2009, from http://www.fcd-us.org/usr_doc/ReyesExploringConnections.pdf

- Rodriguez, J., Diaz, R., Duran, D., & Espinosa, L. (1995). The impact of Bilingual Preschool Education on the language development of Spanish-speaking children. *Early Childhood Research Quarterly, 10*(4), 475-490. Retrieved March 23, 2009, from <http://researchtools.uni.edu:3210/uni?sid=III:innopac&issn=08852006>
- Shaywitz, B., Holford, T., Holahan, J., Fletcher, J., Stuebing, K., Francis, D., et al. (1995). A Matthew effect for IQ but not for reading: Results from a longitudinal study. *Reading Research Quarterly, 30*(4), 894-906. Retrieved July 13, 2009, from http://www.psychologytoday.com/files/u81/Shaywitz_et_al_1995_.pdf
- Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly, 21*(4), 360-407. Retrieved July 5, 2009, from <http://0www.jstor.org.unistar.uni.edu/stable/pdfplus/747612.pdf>
- Tabors, P., Pàez, M., & Lesaux, N. (2008). Early childhood study of language and literacy development of Spanish-speaking children, subproject 1 of acquiring literacy in English: Crosslinguistic, intralinguistic, and developmental factors. *The Center for Applied Linguistics*. Retrieved March 8, 2009, from <http://www.cal.org/acquiringliteracy/subprojects/project1index.html>
- U.S. Census Bureau. (2007, February). *The American community-Hispanics: 2004*. Washington, DC: Author. Retrieved June 29, 2009, from <http://www.census.gov/prod/2007pubs/acs-03.pdf>
- U.S. Department of Education (2000). *Helping Hispanic students reach high academic standards: An idea book*. Washington, DC: Author. Retrieved June 29, 2009, from <http://www.ed.gov/offices/OUS/PES/Hispanic/chapter1.html>

- U.S. Department of Education. (2002). *No child left behind act of 2001*. Washington, DC: Author. Retrieved June 6, 2009, from <http://www.ed.gov/policy/elsec/leg/esea02/index.html>
- U.S. Department of Health and Human Services. (2003). *Head Start FACES 2000: A whole-child perspective on program performance*. Washington, DC: Author. Retrieved July 3, 2009, from http://www.acf.hhs.gov/programs/opre/hs/faces/reports/faces00_4thprogress/faces00_4thprogress.pdf
- Whitehurst, G., & Lonigan, C. (1998). Child development and emergent literacy. *Child Development, 69*(3), 848-872. Retrieved July 3, 2009, from <http://researchtools.uni.edu:3210/uni?sid=III:innopac&issn=0009-3920>
- Winkleby, M., Jatulis, D., Frank, E., & Fortmann, S. (1992). Socioeconomic status and health: How education, income, and occupation contribute to risk factors for cardiovascular disease. *American Journal of Public Health, 82*(6), 816-820. Retrieved June 23, 2009, from <http://www.ajph.org/cgi/content/abstract/82/6/816>
- Winsler, A., Diaz, R. M., Espinosa, L., & Rodriguez, J. L. (1999). When learning a second language does not mean losing the first: Bilingual language development in low-income, Spanish-speaking children attending Bilingual Preschool. *Child Development, 70*(2), 349-362. Retrieved July 7, 2009, from <http://researchtools.uni.edu:3210/uni?sid=III:innopac&issn=0009-3920>
- Woodcock, R., Mather, N., & McGrew, K. (2001). *Woodcock Johnson III-Tests of Achievement*. Rolling Meadows, IL: Riverside Publishing. Retrieved July 7, 2009, from <http://www.riverpub.com/products/wjIIIAchievement/details.html>

Zarate, M. E., & Perez, P. (2006). *Latino public opinion survey of Pre-Kindergarten programs: Knowledge, preferences, and public support*. Tomás Rivera Policy Institute. Retrieved June 30, 2009, from http://www.trpi.org/PDFs/pre_k_now.pdf