# Early Literacy Practices and Beliefs About Education Among Hispanic Families in Jacksonville, Florida 

Maira Luz Martelo<br>University of North Florida

## Suggested Citation

Martelo, Maira Luz, "Early Literacy Practices and Beliefs About Education Among Hispanic Families in Jacksonville, Florida" (2013).
UNF Graduate Theses and Dissertations. 455.
https://digitalcommons.unf.edu/etd/455

# EARLY LITERACY PRACTICES AND BELIEFS ABOUT EDUCATION AMONG HISPANIC FAMILIES IN JACKSONVILLE, FLORIDA 

by

## Maira Luz Martelo

A dissertation submitted to the Department of Leadership, School Counseling, and Sport Management in partial fulfillment of the requirements for the degree of

Doctor of Education in Educational Leadership

UNIVERSITY OF NORTH FLORIDA

COLLEGE OF EDUCATION AND HUMAN SERVICES

May 2013

The dissertation of Maira Luz Martelo Puerta is approved:
$\begin{array}{lr}\text { Katherine L. Kasten, Ph.D., Major Professor } & \text { Date } \\ \text { Cheryl Fountain, Ph.D. } & \text { Date } \\ \text { Katrina Hall, Ph. D. } & \text { Date } \\ \text { Judy Rodriguez, Ph. D. } & \text { Date }\end{array}$

## Accepting from the Department:

Jennifer J. Kane, Ph.D., Chair Date

Department of Leadership, School Counseling, and Sport Management

## Accepting for the College:

Larry G. Daniel, Ph.D., Dean
Date
College of Education \& Human Services

## Accepting for the University

Len Roberson, Ph.D., Dean
Date
The Graduate School

## Acknowledgement

It has been quite a journey for me to pursue my doctoral degree in a second language. There were many times when I questioned myself about this choice. Writing in English was not only challenging, but also many times painful. However, I love challenge and that is the main reason why I decided to obtain my degree in the United States.

Many people have been important to me along this journey. The list could be long, but I do believe that those who most supported me during these years deserve this recognition.

I first would like to thank my parents. They instilled within me the value and importance of education. Even though my parents did not finish elementary education they always insisted that education was the best legacy, and they were right.

Thanks to Gina, who has been my greatest cheerleader, friend, and my company for the best years of my life. Thank you for always encouraging me, for cooking not only food for my body, but for my soul. Thank you for your patience and for pushing me to become a better person.

My special thanks to my dissertation committee chair, Dr. Kasten, for not only suggesting my dissertation topic, but for her willingness to help me and her encouragement to always improve. Special thanks to Dr. Fountain, who spent many hours asking difficult and uncomfortable questions that later proved to be a lifesaver during my data collection. The support of Dr. Fountain and the Florida Institute of Education was certainly a vital component of my dissertation as they provided not only contacts to the VPK centers but also the books and
reading materials used as compensation for participants in the study. Many thanks to Dr. Hall and Dr. Rodriguez, my other committee members, for bringing a unique perspective to my study and for helping me grow as a researcher.

Very special thanks to Dr. Wehry for all her dedication, time and willingness to teach me more than I could sometimes process. Also, thanks to Dr. Daniel, who patiently spent many hours discussing research issues of my dissertation.

I would like to also acknowledge the support from Susan Main and Cathy Parker from the Early Learning Coalition, for their support in contacting the VPK Centers. Similar thanks to Alba Orozco from Catholic Charities and to members of the Hispanic churches, as well as Hispanic stores where I collected my data.

Finally, there were two people who patiently help me proofread my dissertation in different moments of the process: Peggy Armstrong and Kelly Turner. Both of them invested many hours in reading and making corrections to my writing with such love that I will always be grateful to them. Kelly, for you, words cannot even describe what your support meant to me. You are my sister!

## Table of Contents

Acknowledgements ..... iii
Abstract ..... ix
Chapter 1: Introduction ..... 1
Context ..... 5
Research Questions and Design ..... 6
Significance of the Research ..... 7
Definition of Terms ..... 9
Delimitations and Limitations of the Study ..... 10
Chapter Conclusion ..... 11
Chapter 2: Review of the Literature ..... 12
Structural Factors ..... 14
Social Class ..... 15
Country of Origin, Immigration Status and Level of Education ..... 19
Non-Structural Factors ..... 21
Parents' Beliefs about Education ..... 21
Parenting Style ..... 24
Parental Involvement ..... 26
Level of Bilingualism ..... 29
Family Literacy Practices ..... 35
Childcare Enrollment in Preschool ..... 44
Conceptual Framework ..... 47
Chapter Summary ..... 52
Chapter 3: Research Methodology ..... 53
Research Problem and Questions ..... 57
Research Design ..... 58
Participants ..... 63
Data Analysis ..... 68
Ethical Issues ..... 69
Delimitations and Limitations of the Study ..... 70
Conclusion ..... 71
Chapter 4: Results ..... 72
Study Setting ..... 72
Participants of the study ..... 73
Missing data ..... 74
Descriptive Statistics from PRBI ..... 75
Factor Analysis for PRBI ..... 77
Exploring Differences on the PRBI ..... 84
Descriptive Statistics for Adaptation of the Stony Brooks Reading Survey ..... 90
Factor Analysis for the Stony Brooks Survey ..... 93
Exploring Differences on the Stony Brooks Survey ..... 96
Correlation among Scales from PRBI and the Stony Brooks Survey ..... 100
Logistic Regression ..... 100
Results from the Qualitative Phase ..... 105
Characterization of participants ..... 107
Importance of Education ..... 109
Reading at home ..... 112
Literacy Practices at home ..... 114
Chapter Conclusion ..... 121
Chapter 5: Summary, Discussion and Recommendations ..... 124
Summary of the Study ..... 125
Research Questions ..... 127
Limitations ..... 133
Major Conclusions ..... 134
Recommendations for Practice ..... 136
Recommendations for Research ..... 140
Conclusion ..... 143
Appendix A Surveys and Interview Protocol ..... 145
Appendix B IRB Approval Letter ..... 161
References ..... 162
Vita ..... 169

## LIST OF TABLES

Table 1: Definition of Terms ..... 9
Table 2: Summary of Studies and Policy Papers of Hispanic Children's Literacy Practices ..... 42
Table 3: Respondents' Relationship with Four-Year-Old Children ..... 73
Table 4: Country of Origin ..... 74
Table 5: Parent Reading Belief Inventory-Positively Stated Items ..... 76
Table 6: Parent Reading Belief Inventory-Negatively Stated Items ..... 77
Table 7: Comparison of Cronbach Alpha with PRBI Original Factor Solution ..... 78
Table 8: Fit Indices for Exploratory Factor Analysis (EFA) for PRBI ..... 79
Table 9: Final Scales for the PRBI ..... 81
Table 10: PRBI-Parental Involvement in Reading Skills Factor Structure Coefficient Matrix 8
Table 11: Barriers to Reading Factor Structure Coefficient Matrix ..... 82
Table 12: Correlation Matrix for Items in Parental Involvement in Reading Skills Scale ..... 83
Table 13: Correlation Matrix for Items in Barriers to Reading Scale ..... 83
Table 14: PRBI Independent T-test based on VPK Enrollment ..... 84
Table 15: Levene's Test based on VPK Enrollment-PRBI ..... 85
Table 16: Effect Size for Parental Involvement in Reading Skills and Barriers to Reading based on VPK ..... 85
Table 17: Descriptive Statistics for One-way Anova of PRBI based on Country of Origin ..... 86
Table 18: Anova Results for the PRBI based on Country of Origin ..... 86
Table 19: Holm's Step down Results based on Country of Origin-PRBI ..... 87
Table 20: Descriptive Statistics - Adaptation of the Stony Brooks Reading Survey ..... 90
Table 21: Stony Brooks-Minutes Read ..... 91
Table 22: Stony Brooks-Number of Books ..... 91
Table 23: Stony Brooks- Parents' Reading Time ..... 92
Table 24: Stony Brooks- Starting Age of Reading to your Children ..... 92
Table 25: Stony Brooks-KMO and Bartlett's Test ..... 94
Table 26: Stony Brooks- Factor Analysis Solutions ..... 95
Table 27: Stony Brooks-One factor Solution ..... 95
Table 28: Stony Brooks-Literacy Activities Factor Structure Matrix ..... 96
Table 29: Correlation Matrix Literacy Activities ..... 96
Table 30: Stony Brooks- Descriptive Statistics based on VPK Enrollment ..... 97
Table 31: Levene’s Test based on VPK Enrollment-Stony Brooks ..... 97
Table 32: Descriptive Statistics for One-way Anova of Stony Brooks based on Country of Origin ..... 98
Table 33: Anova Results for the Stony Brooks based on Country of Origin ..... 98
Table 34: Holm's Step down Results based on Country of Origin-Stony Brooks ..... 99
Table 35: Descriptive Statistics for the PRBI and Stony Brooks Scales ..... 100
Table 36: Correlation Matrix for the PRBI and Stony Brooks Scales ..... 100
Table 37: Logistic Regression Results-Model Summary ..... 101
Table 38: Classification Table ..... 102
Table 39: Variables Included in the Logistic Regression Equation ..... 102
Table 40: Participants in the Qualitative Phase ..... 105

## LIST OF FIGURES

Figure 1. Conceptual framework ..... 48
Figure 2. Methodological approach ..... 66
Figure 3. Quantitative research design ..... 67
Figure 4. Scree plot for the PRBI ..... 79
Figure 5. Statistical significance differences based on the Parental Involvement in Reading Skills ..... 88
Figure 6. Statistical significance differences based on Barriers to Reading ..... 89
Figure 7. Scree pot for Stony Brooks factor analysis ..... 95
Figure 8. Statistical significance differences based on Literacy Activities ..... 99
Figure 9. Classification plot ..... 104


#### Abstract

Hispanic children in the United States are more likely to fall behind in several literacy measures even before they enroll in prekindergarten programs. There are some structural and non-structural factors that have a direct impact on Hispanic children's early literacy skills. Among the non-structural factors this mixed-method study explored Hispanic caregivers' beliefs about education as well as their literacy practices at home.

The study compared two groups: diverse Hispanic caregivers with 4-year-old children enrolled in the Voluntary Prekindergarten Program (VPK) and diverse Hispanic caregivers whose 4-year-old children were not enrolled in VPK. A total of 125 diverse Hispanic caregivers responded to two surveys: the Parental Reading Belief Inventory and the Adaptation of the Stony Brooks Reading Survey. Twenty Hispanic parents were later interviewed to better understand their beliefs about education as well as their literacy practices at home. The surveys and interviews revealed playing games, drawing pictures and looking at books with their children were the most common literacy practices in which Hispanic caregivers engaged. All participants in the study stated how much they value their children's education. Some, particularly caregivers whose children were participating in VPK programs, were more likely to engage in their children's education and experience fewer barriers to reading at home.

Country of origin played an important role in differentiating Hispanic parents in their beliefs about education as well as in their literacy practices at home. From the diverse group of participants in the study, Mexican caregivers were less likely to perceive themselves as playing a key role in their children's education and they also shared experiencing more barriers in their literacy activities when compared with parents from Cuba and Puerto Rico. Overall, enrollment


in VPK was dependent upon the type of barriers to reading activities that Hispanic parents experience as well their country of origin.

## Chapter 1: Introduction

Hispanics are the fastest growing minority in the United States (U.S. Census Bureau, 2010b). Among five year old children, Hispanics represent 21 \% (Pre-K Now, n.d.a). Locally, Hispanics represent 7.7\% of the population of Jacksonville, Florida, and $6.8 \%$ of the five- yearold group (U.S. Census Bureau, 2010a). Only 57 \% of Hispanics finish high school and just $10 \%$ obtain a college degree (Laosa \& Ainsworth, 2007).

By the time Hispanic children get to the prekindergarten level, they are already behind their non-Hispanic White counterparts on several literacy measures (National Task Force on Early Education for Hispanics, 2007). The fact that the fastest growing minority is not well prepared to compete in a global environment could have a great impact on the economic development of the country and its competitiveness in the international community. It is estimated that by 2035, one-third of American children and one-third of the total population of the United States will be Hispanic (National Council of La Raza-NCLR, 2010).

There are several factors that impact Hispanic students' academic success in the United States. One of these factors is the cultural background of being Hispanic. However, before defining those particular aspects of the Hispanic cultures that influence the children's academic performance, it is necessary to clearly define these terms.

The terms Hispanic and Latino have different origins. According to Cafferty and Engstrom (2000), the word Hispanic was used for the first time by the American government
during the 1970s to refer to people coming from Spanish speaking countries such as Spain, Mexico, and South America. The term Latino was popularized in California during the 1980s and 1990s to include people from Latin American countries, like Brazil, where Spanish was not the native language. Currently Hispanic or Latino are used as interchangeable terms that allude to a great variety of people that share some cultural elements, but at the same time are highly diverse in their belief systems and practices (Tienda \& Mitchell, 2006). In this study, however, I will refer to participants as diverse Hispanics to reflect the diversity within the group. None of the participants in the study came from Brazil or Belize which supports the use of diverse Hispanics in this context.

The needs of children from low socioeconomic backgrounds, among which Hispanics are one of the biggest groups, have been addressed by national programs such as Head Start and Early Head Start. These programs have targeted at risk children and their families through comprehensive programs including education, health, nutrition, and family support among other services since 1965 (National Head Start Association, n.d.). In the state of Florida, a law to provide free and voluntary prekindergarten services for every four-year-old child was passed in 2004, after a constitutional amendment in 2002, supported by $60 \%$ of the Florida voters. The Florida’s Voluntary Prekindergarten (VPK) program was implemented in 2005, providing 3 hours per day during the regular academic calendar or 300-hours during summer time. Since its creation, VPK has enrolled more than 100,000 children in the state (Pre-K Now, n.d.b). According to the National Institute for Early Education Research (2009), Florida has the second greatest percentage of their four-year-old population served (67\%), after Oklahoma. Much debate is still in place about the quality of education provided by VPK centers and also
regarding teacher credentials.
Even though there are free childhood education programs available under the Early Head Start and the Voluntary Prekindergarten laws, enrollment of Hispanic children has been very low on a national level. According to Kohler and Lazarin (2007), only 36 \% of Hispanic children living in poverty are enrolled in early childhood education programs; moreover, early education teachers are not necessarily well prepared to promote literacy with Hispanic children, due to the fact that most of them are not bilingual and they do not always hold a bachelor's degree, factors which could have an impact on the quality of education they provide (National Task Force on Early Education for Hispanics, 2007). Hispanic parents value their children's education (Ortiz \& Ordoñez-Jasis, 2005), and, if possible, they would enroll their children in free prekindergarten centers (Espinoza, 2007); however, there are several reasons behind the low levels of enrollment in prekindergarten programs of Hispanic children. Among those reasons, the lack of awareness of existing local programs (33\%) and financial constraints to afford programs (21\%) are the most prominent (Pre-K Now, 2006).

Literacy practices such as labeling, singing, storytelling, playing, talking, questioning, and book reading are crucial to promoting early literacy among young children (Ortiz \& OrdoñezJasis, 2005; Pianta, 2006). The Federal Interagency Forum on Child and Family Statistics (2005) found that only $45 \%$ of Hispanic families were reading books daily with their children in comparison to $68 \%$ of White families. This finding may possibly be attributed to the fact that Hispanic mothers have fewer resources and educational materials to promote early literacy (National Task Force on Early Childhood Education for Hispanics, 2007).

Little information is known about literacy practices that promote children's readiness
for school in the family environment of Hispanics (Rodriguez, Scheffner Hammer \& Lawrence, 2009), and even less is known about differences in beliefs about education and literacy practices among diverse groups of Hispanics. If educational researchers are able to identify the current literacy practices of diverse Hispanic families and their beliefs about education, this information could be highly valuable for childcare teachers who can make suggestions to parents about how to improve this type of interaction with their children. An understanding about how diverse Hispanic parents deal with education will benefit early education in general. In order to promote a culturally competent relationship between educational practitioners and Hispanic families, more information and research about home literacy environment and practices is needed (Rodriguez et al., 2009).

Families play an important role in promoting the acquisition of literacy skills, not only by promoting practices like talking, reading, labeling, and questioning but also by modeling those skills they expect their children to master. Family literacy practices are all those activities that promote children's engagement with learning. Among those practices, book reading, storytelling, labeling, and conversations are some of the most popular (Kummerer \& LopezReyna, 2006; Landry \& Smith, 2006; Neuman, 2006).

Researchers have identified a gap between home and school literacy practices. Ortiz and Ordoñez-Jasis (2005) stated that there is a common expectation among teachers that Hispanic parents engage in traditional literacy activities, such as book reading, without understanding that other life activities, such as community engagement and family daily lives, also have value for promoting literacy. Rodriguez et al. (2009) suggested that one solution to bridge the gap is for educational professionals to learn about parents' literacy beliefs and practices at home and
to tailor literacy programs based on those notions.

## Context

Various factors contribute factors to Hispanic students' academic struggles related to both the socioeconomic status of their families, which tends to be low, and to the early literacy practices at home. Several well-known researchers, such as Neuman (2006), have conducted multiple longitudinal studies finding that socioeconomic status is the main predictor of academic success in any child's life. Socioeconomic status generally has an impact on parenting style. In the particular case of Hispanic families and their parenting styles, Rodriguez and Olswang (2003) found that Mexican caregivers tend to be more traditional and authoritarian when compared to mainstream American parents.

The language barrier seems to be one of the most frequent factors that impede the academic success of Hispanic students. A large majority of the English Language Learners population are Hispanic descendants (Dolan, 2009). The lack of English fluency for many Hispanic parents makes their role more difficult in terms of academic support due to the fact that communication with teachers can be challenging.

The existing literature about early literacy among Hispanic children has identified structural factors highly related to the academic struggle of this population: socioeconomic status, ethnicity, country of origin, and immigration status. However, the present study emphasizes some non-structural factors, such as parenting style and parents' beliefs about education, that are factors which also have an impact on Hispanic children's literacy skills. According to Weigel, Martin, and Bennett (2006), parents' beliefs about education and literacy are related to the home literacy environment. The purpose of the present study was to explore
both beliefs about education and literacy practices at home.

## Research Questions and Design

The purpose of this study was to explore the diverse family literacy practices and beliefs about education among Hispanics in Jacksonville, Florida. The overarching research question was the following: What are the family early literacy practices and beliefs about education among diverse Hispanic families in Jacksonville? There were also sub questions that this study addressed:

1. What differences, if any, exist in beliefs about education between diverse Hispanic families that have four-year-old children enrolled in the Voluntary Prekindergarten Program (VPK) and those who do not?
2. What differences, if any, exist in family literacy practices between diverse Hispanic families that have 4-year-old children enrolled in VPK and those who do not?

In order to address these questions, I used a mixed-method approach, combining the use of two surveys and a qualitative follow-up interview. The two surveys used were the "Parent Reading Belief Inventory" (PRBI; DeBaryshe \& Binder, 1994) and an adaptation of Grover J. Whitehurst's "Stony Brook Family Reading Survey" modified by Weigel, et al. (2006). I received permission from both authors to use and adapt their instruments for this project. Copies of the survey are attached in Appendix A.

Participants in the study were local Hispanic caregivers of four-year-old children that were contacted through childcare centers with high Hispanic populations, and Hispanic churches and stores. Data was collected during Spring 2012 at the previously mentioned locations. The quantitative phase was followed by the qualitative interviews that were also conducted at the
childcare centers, churches and Hispanic stores.

Descriptive statistics, $t$-tests, factor analysis, and logistic regression were statistical procedures used to analyze the data coming from the two surveys. Recurring themes were identified from the qualitative data, in order to better inform of similarities and differences identified among Hispanic parents based on their enrollment in VPK programs or their country of origin.

A detailed report of differences in beliefs about education and literacy practices at home based on enrollment in VPK and country of origin is included in Chapter 4.

## Significance of the Research

This study is significant not only because it involved the fastest growing minority in the United States, which is traditionally among the low academic performers, but also because of its practical implications: it can contribute to reducing the recurrent academic gap between Non-Hispanic White and diverse Hispanic students. If the fastest growing minority in the United States is better prepared academically, chances are that their productivity in life will improve, and they will be able to contribute more to the economy of the country. In addition, by focusing on the non-structural factors that impact early literacy, it is possible to make practical recommendations that will help this academically struggling segment of the population, as well as educators and policy makers who are seeking solutions to the academic gap. More information about diverse Hispanic parents' beliefs about education could better orient educational leaders to develop policies and programs that are consistent with these beliefs, bridging the gap between literacy practices at home and in schools. Understanding the educational needs and cultural background of the fastest growing population in the United

States could encourage educational leaders and practitioners to develop programs that better suit Hispanic children in the United States.

Rodriguez et al. (2009) stated that the home literacy environment and the beliefs of Hispanic families about education and literacy are inadequately understood. More research about Hispanic literacy traditions, conceptions, and cultural models is needed so that the link between home and school literacy practices can be strengthened.

Another significant aspect of this study is that it included the "Parent Reading Belief Inventory" (DeBaryshe \& Binder, 1994) in Spanish for only the second time, to my knowledge, in the United States. This use of the instrument in Spanish provided an opportunity to explore the appropriateness of the instrument for a different segment of the population and in a different language setting compared to its original use with African American and EuroAmerican mothers from low-socioeconomic backgrounds. After a discussion with the PRBI authors it was clear they were unaware if the instrument had been used in Spanish in the United States. From my own research the PBRI only appeared to be used once as a Spanish translation. Rodriguez et al. (2009) used this instrument for the first time in Spanish in a study conducted in a southern state of the United States of America with 274 Mexican American mothers. These researchers found statistical properties in the Hispanic population similar to those in other populations of low-income backgrounds, but also some limitations in regard to some of the factors included. Rodriguez et al. (2009) stated that more research is needed in this field, in particular from a mixed method perspective, which can provide more detailed information about home literacy practices and beliefs among Hispanic mothers.

To my knowledge, the Adaptation of the Stony Brooks Reading Survey has not been
used in Spanish before, so the use of this survey in Spanish with a group of the fastest growing minority in Jacksonville is also a significant contribution of this study.

## Definition of Terms

Table 1 presents definitions of key terms used in the study. This table offers a clear orientation about the most important concepts used in this study. Please note that the terms parent and caregiver are used interchangeably in this document.

## Table 1

## Definition of terms

| Term | Definition |
| :--- | :--- |
| Early literacy <br> skills | "Refer to both precursor skills and the conventional literacy skills of preschool and <br> kindergarten children" (National Institute for Literacy, 2009, p. 3). Those skills that children <br> acquire and develop until age five are represented in six well known variables: alphabet <br> knowledge, phonological awareness, rapid automatic naming (RAN) of letters or digits, RAN of <br> objects or colors, writing a name, and phonological memory (National Institute for Literacy, <br> 2009). |
| Hispanic/Latino | Refers to people coming from Latin American countries or countries where Spanish is the <br> native language. In the United States both terms are used interchangeably (Tienda \& Mitchell, <br> 2006). |
| Beliefs about | Established and socially constructed conceptions about the value of education and the role <br> parents have in supporting formal schooling (Weigel et al., 2006) |
| Early Childhood | Early childhood education is defined as the promotion of developmental activities with <br> children from the moment they are born until they turn eight years old. The quality of <br> education that children receive during their first years of existence will have a great impact in <br> their future lives as adults (Camilli, Vargas, Ryan, \& Barnett, 2010; Reyes \& Azuara, 2008). |
| Logistic | Statistical procedure used to determine group membership based on several metric <br> Regression |
| independent variables and binary dependent variable (Meyers, Gamst, \& Guarino, 2006) |  |

Literacy practices Refers to several educational activities such as labeling, singing, book-reading, storytelling, playing, and questioning that promote school readiness among young children (Kummerer \& Lopez-Reyna, 2006; Landry \& Smith, 2006; Neuman, 2006; Pianta, 2006).

Parenting Style $\quad$| Relates to the particular styles in which parents tend to behave and interact with their |
| :--- |
| children. Some researchers have found that parenting style is highly related to socioeconomic |
| status and social class (Landry \& Smith, 2006; Morrison, McDonald Connor \& Bachman, 2006; |
| Lareau, 2003) |

## Delimitations and Limitations of the Study

This was a descriptive mixed-method study that focused on participating Hispanic families from Jacksonville, Florida. Because I used a convenience sample, the results from this study cannot be generalized to other Hispanic populations across the United States.

In addition, the fact that both surveys have seldom been used in Spanish may have affected their robustness as instruments since there is limited existing data available on the Hispanic population. The PRBI was used for the second time in Spanish in the United States, whereas the adaptation of the "Stony Brook Family Reading Survey" was used in Spanish for the first time according to a conversation with the instruments' authors.

In addition, the study was limited to exploring beliefs about education and early literacy practices of diverse Hispanic parents of four-year-old children who volunteered to participate in the study. Data were collected at a single point, which also limited the generalizability of the study.

The fact that the data collected were self-reported posed a limitation to the study due to the fact that self-reported data might reflect social desirability. There are likely limits to the degree of candor that people used in responding to the questions, both on the surveys and interviews. Likewise, some participants had difficulty when trying to understand and answer
some of the questions, which may have to some degree limited completeness and accuracy of the data.

## Chapter Conclusion

The high dropout rate among Hispanics students could have its origin even before they enroll in the kindergarten level. According to several researchers, Hispanic children are already behind in several academic measures by the time they enroll in early childhood programs. A recurrent inquiry among scholars in the United States has been how to overcome structural factors like ethnicity or socioeconomic status. It is clear that socioeconomic context exerts a direct influence on the types and quality of literacy practices that children are exposed to. However, parenting style and parents' beliefs about education may also play an important role in preparing their children for school. The purpose of this study was to explore the literacy practices promoted among a convenience sample of Hispanic families in Jacksonville, Florida, as well as Hispanic parents' beliefs about education.

In chapter 2, a review of the literature about early childhood education is provided. The review is structured in five sections: structural factors, non-structural factors, family literacy practices, childcare enrollment, and the conceptual framework for the study. Chapter 3 includes detailed information about the research problem, research design, data analysis, and delimitations and limitations of the study. Chapter 4 offers the results of the study from both the quantitative and qualitative phase, and in particular addresses the research questions that guided this research project. Finally, Chapter 5 discusses the practical implications of the study offering specific recommendations both for practice and future research.

## Chapter 2: Review of the Literature

In this chapter I examine different theories that explain the complexity of early childhood education, in particular theories relevant to understanding Hispanic parents' beliefs about education and their family literacy practices.

Hispanic children's literacy skills, as well as their academic performance are influenced by structural and non-structural factors. Among the structural factors are socioeconomic status, ethnicity, parents' country of origin, parent immigration status, as well as parent level of education. On the other hand, parenting style, parents' beliefs about education, parental involvement, and level of bilingualism among Hispanic families constitute the non-structural factors that are reviewed in this chapter.

Hispanic academic performance is also influenced by family literacy practices and Hispanic children's enrollment in childcare programs. Those elements are also included in this chapter.

The cultural diversity characteristic of Hispanic cultures also exerts an influence on children's readiness for school and in their early literacy acquisition. Hispanics are the fastest growing minority in the United States, constituting more than 50.5 million people and $16 \%$ of the total population (U.S. Census Bureau, 2010b), but at the same time they are one of the groups with the least amount of formal education. Only 57\% of Hispanics finish high school (Laosa \& Ainsworth, 2007). It is projected that by 2050 the population of the Hispanic children
under age 5 will increase by about $146 \%$, surpassing the population of Non-Hispanic White children and thus becoming the majority group (Espinoza, 2007).

Even though it is common to believe that all Hispanics are the same, the fact is that they are a very diverse group. Just in terms of countries of origin, $66 \%$ of Hispanics have a Mexican background; 15\% are from Central and South American countries; 9\% are Puerto Rican; 4\% Cuban; and 6\% of other Hispanic or Latin American origin (Espinoza, 2007). Their diversity is also present in the ways they come to the United States, the varying degrees to which they are welcome, their level of education, their levels of English fluency, and, of course, their socioeconomic status (Portes \& Rumbaut, 2001). For instance, Cuban people become legal residents as soon as they step on shore in this country, while the majority of immigrants from other Latin-American countries remain undocumented for many years. A recent study from the Pew Hispanic Center found that Mexicans are the largest group of undocumented immigrants, comprising $58 \%$ of the estimated 11.2 million of unauthorized workers in the United States (Passel \& Cohn, 2011). Immigration status makes an enormous difference in the way foreigners live the American experience because those who are undocumented are forced to live in the shadows, while others have full legal rights. Another example is the disparity in socioeconomic status, which is one of the most significant factors that impact academic achievement (VernonFeagans, Scheffner Hammer, Miccio \& Manlove, 2002). Whereas people from South America are typically of middle class origin and have higher levels of education, immigrants from Mexico and Central American countries typically have lower socioeconomic status and education levels (National Task Force on Early Childhood Education for Hispanics, 2007). There is an existing disparity regarding levels of education among the different Latin American countries. A recent
report from the Regional Bureau of Education for Latin America and the Caribbean (2011) substantiated that even though progress has been made regarding access to universal primary education, Central American countries remain behind when compared to South American countries.

Hispanic cultures are family-oriented, which may provide a sense of stability and social security for their children (Espinosa, 2007). The fact that most Hispanic family members are concerned with their children's well-being has been considered by some researchers as a strength. The National Task Force on Early Childhood Education for Hispanics (2007) as well as Espinosa (2007) found that children of Mexican descent enjoy high levels of mental health as a result of this family support: they seem to be more socially and emotionally competent than their Non-Hispanic White peers with similar backgrounds.

However, this family orientation conflicts with the individualistic perspective promoted by the public school systems in the United States (Spring, 2007). This is why it is difficult for some teachers to understand why Hispanic children tend to seek help from other students to resolve some tasks in the classroom setting instead of working by themselves (Rothstein-Fisch \& Trumbull, 2008).

## Structural Factors

Lareau (2003) stated there are several aspects of life, such as ethnicity and Hispanic cultural diversity, towards which human beings have little control over or can exert little influence on. The location that individuals have in the social structure shapes significantly their daily lives. Social class matters, not only in regards to access to material resources, but also in regards to the use of time and type of interaction between parents and children as well as the
type of language they use.
The following section explores different structural factors such as social class, country of origin, immigration status, and level education as well as their impact in academic achievement.

## Social Class

Among the structural aspects that influence Hispanic children's literacy skills, socioeconomic status is probably one of the most relevant and most difficult to change. According to Morrison et al. (2006), socioeconomic status has been directly linked to school performance in several areas. Whether measured according to income, occupation or level of education, socioeconomic status impacts academic achievement in several ways through "direct and mediated pathways of influence" (Morrison et al., 2006, p. 377). For example, likelihood a child will be born prematurely is related to a lack of prenatal care often because of a lack of financial resources. In contrast, an example of the mediated influence of socioeconomic status on student achievement is the impact that race and ethnicity could have on children's lives. Ethnicity could have an impact on academic achievement, even though not directly related. Researchers have found that parents of low socioeconomic backgrounds, who are frequently also African American or Hispanics, tend to speak less to their children, which has an impact on their language development (Neuman, 2006).

In exploring the link between poverty and academic performance, particularly in attaining literacy, Vernon-Feagans et al. (2002) found that poverty is a multidimensional phenomenon that includes biological/health issues, the environment in which these children grow up, and the discrimination they face during their school experience. Children who live in poverty have less access to health services and are more exposed to health risks, factors which
also have an impact on their cognitive development (Morrison et al., 2006). In addition, Espinoza (2007) found that children living in poverty are more likely to experience learning disabilities due to their struggle with literacy.

According to the National Task Force on Early Childhood Education for Hispanics (2007), $26 \%$ of Hispanic children in the 0-8 age range were living in families with incomes below the poverty line in 2000, and Mexican American children comprised the group with the highest percentage living in poverty, $69 \%$. It is important to clarify that the fact that children come from a low socioeconomic status does not mean that they will automatically be low performers academically. But as Laureau (2003) documented, social class matters not only for the possibilities that children have in life, but also for their parents' abilities to promote their development in the most enriching way. Socioeconomic status, particularly poverty, limits the cultural repertoires that parents can provide and model for their children. Because poor parents are so concerned with survival needs, it is challenging for them to take care of emotional and developmental needs of their children (Lareau, 2003; Morrison et al., 2006; Neuman, 2006).

Lareau (2003) provided evidence to support the claim that social class matters and shapes all life experiences. According to this author, it is typical for Americans to believe that they live in an egalitarian society, and that in order to be successful, people will only need to work hard. However, as she found in her qualitative study following the lives of 12 American families, social class determines decisive aspects of family lives: "time use, language use, and kin ties" (p. 236). Each social class (poor, working-class, and middle-class parents) has a dominant perspective about childrearing. Middle-class parents tend to privilege the concerted
cultivation perspective, filling their children's daily lives with numerous activities that will help them to develop vital life skills. On the other hand, working-class and poor parents share the idea of accomplishment of natural growth in which children's agenda is more open, due to the fact that parents have less time and fewer resources to promote activities that will contribute to their children's development. Interestingly enough, Lareau reported that parents in general, no matter which social class they were part of, held a natural understanding about child rearing. In other words, parents lacked awareness about their parenting style and assumed that the way they have chosen to educate their children was the natural way of child rearing.

In addition, Neuman (2006) and Lareau (2003) stated that parents from low socioeconomic backgrounds have fewer resources and less energy to engage in literacy practices with their children because most of their energy is invested in solving basic economic issues. This situation could lead to a more authoritarian parenting style that provides less opportunity for meaningful interaction between low socioeconomic parents and their children.

Espinoza (2007) found that Hispanic children whose first language is not English at the entry level of school tend to live in poverty more frequently than their Non-Hispanic White and African American counterparts. As a consequence, these Hispanic children are exposed to more risks in general due to their poverty. The fact that Hispanic children are most likely to live in poor homes means that they lack the resources to have a sufficiently rich environment to promote learning and that their brains do not receive enough stimulation to promote those learning processes (Garcia \& Jensen, 2009; Hoff, 2006; Neuman, 2006; Vernon-Feagans et al., 2002).

Researchers have found that parents living in poverty tend to struggle academically
themselves and are not necessarily able to help their children in their learning endeavors. Socioeconomic status has an impact not only on the material aspects of children's lives but also on their acquisition of skills and knowledge, which could contribute to the knowledge gap. Parents from low socioeconomic groups usually face so many challenges in acquiring basic needs that they lack both the material resources to promote their children's development and the emotional resources to contribute to their well-being (Neuman, 2006). Neuman also found that low-income parents tend to speak less to their children, are more authoritarian, and promote less interaction with their children. Hoff (2006) found that low-income parents used fewer words in terms of quantity and quality. As a consequence of this, children from lowincome families tend to have fewer early literacy experiences, which makes them less prepared at the school entry level (Landry \& Smith, 2006). Hoff, however, pointed out that the relationship between socioeconomic status and children's vocabulary is mediated through the maternal speech; in other words, socioeconomic status has a direct impact on maternal speech, which in turn has a direct impact on children's vocabulary. Lareau (2003) agreed with this finding. In her study of 12 families, Lareau found that low income parents tend to use more directive language and are less likely to engage in conversations that promote reasoning and questioning. In contrast, middle-class parents not only engage in questioning and reasoning constantly but also play a role in their children's extracurricular activities. Children's vocabulary during their first year at school is very important because it is a predictor of reading and comprehension skills in high school (National Task Force on Early Childhood Education for Hispanics, 2007).

In an effort to explain the knowledge gap among preschoolers in the United States,

Neuman (2006) suggested that middle class parents tend to enroll their children in multiple activities to help them develop their talents and interests. The fact that these parents tend to have higher levels of education means that they are able to engage and interact with professionals who work in these additional services. It is not the same case for low-income parents, who are unable to offer these additional learning experiences to their children and who lack the competencies needed to interact with such professionals. As a consequence, the social interactions beyond the school system of children living in poverty are limited to other family members, which presumably have an impact on their language development due to the lack of contact with people from other socioeconomic backgrounds.

## Country of Origin, Immigration Status, and Level of Education

Socioeconomic status, and country of origin are predetermined for children. Generally, children are born into a social class they do not choose. In the case of Hispanic families, parents were already part of an ethnic group and were born in a particular country or with particular cultural ancestors. There is not much they can do to change any of these factors, and this is why these factors are included in the structural aspects that impact early literacy skills of Hispanic children.

In terms of country of origin, the National Task Force on Early Education for Hispanics (2007) found that Hispanics vary in regard to their culture and country of origin, and this factor seems to have an impact on their academic performance and, possibly, on the literacy practices at home. Based on the test scores in reading and mathematics from the Early Childhood Longitudinal Study (ECLS-B), the researchers established that country of origin plays an important role in the academic performance of Hispanic children in the United States (National

Task Force on Early Education for Hispanics, 2007). The report finding showed that in 2000, Mexican and Central American children had the lowest achievement level, while children from Cuba, Puerto Rico and South America had an achievement level similar to their Non-Hispanic White peers. This could be explained by the fact that parents from South America and Cuba typically have higher educational levels than Hispanics coming from other countries. In general, Hispanic parents are less likely to graduate from high school or to obtain a college degree. In particular, $44 \%$ of mothers of Hispanic children in the 0-8 age group did not graduate from high school; with Mexican mothers comprising the group with the lowest graduation rate ( $64 \% \mathrm{did}$ not finish high school). In contrast, only 9\% of Non-Hispanic White mothers of children in this same age group did not finish high school. This shows that Hispanic mothers tend to have a lower level of education in comparison to their Non-Hispanic White counterparts.

Mothers' level of education is one of the strongest predictors of child academic outcomes (Espinoza, 2007). Researchers have found a similar pattern among Mexican and Central American immigrants. They tend to live in crowded and poor places, to lack any type of medical coverage, to live in housing where they are linguistically isolated, and to fail to enroll their children in existing early education programs (Hernandez, 2006).

As previously stated, the immigration status of Hispanic parents has an impact on both children and parents. Some Hispanic parents restrain their children from participating in early literacy programs because they fear that having legal documentation will be a requirement. According to Kohler and Lazarin (2007), there are approximately 1.6 million undocumented Hispanic children under the age of 18, and 3 million Hispanic children born in the United States have undocumented parents. In addition, the National Task Force on Early Childhood Education
for Hispanics (2007) found that both socioeconomic status and immigration status are important factors in determining Hispanic academic achievement. The fact that a great number of Hispanic children are from immigrant families means that they have a high probability of lacking the required English skills by the time they enroll in the educational system.

## Non-Structural Factors

The line that divides structural factors from those non-structural aspects influencing early literacy is very imprecise. Non-structural factors such as parenting style, parents' beliefs about education, parents' engagement in educational activities, and the level of bilingualism are highly influenced by some of the structural factors. For instance, socioeconomic status seems to influence the type of interaction that parents promote with their children. Neuman (2006) and Lareau (2003) have found that poor parents tend to be more directive and authoritarian with their children and are less likely to engage in extracurricular activities due to financial constraints.

Parents' beliefs about education, as well as parenting style, influence the type of interactions that parent engage in when promoting educational activities with their children. Parents' Beliefs about Education

Parents' beliefs about childrearing, particularly mothers' beliefs, have a great impact on the types of interaction they create with their children. If mothers believe that children need high levels of restrictiveness or control, they are less likely to be nurturing and stimulating in their children's learning processes. Instead, they will emphasize obedience as one of their most important expectations of their children (Landry \& Smith, 2006; Rodriguez \& Olswang, 2003). Authoritarian mothers may overlook their role as the first teachers of their children and that
any activities they engage in will have an impact on their children's literacy competencies (Pianta, 2006).

Child-adult interactions are imbedded in the cultural background where they take place as well as the parenting style and beliefs about education. In the case of Mexican American mothers, Rodriguez and Oslwang (2003) found that they tend to be more traditional and authoritarian than Anglo-American mothers. In this study, Mexican mothers shared their idea of education as the responsibility of the educational system, in preparation for which obedience is an important value for their children to learn. The Mexican mothers did not have the expectation of engaging in their children's education by questioning any teaching methods because they believed that teachers should not be questioned at all. In addition, the Mexican mothers saw themselves more as keepers of discipline and supervision of their children's academic performance than of being engaged in the academic aspects of learning. However, Moreno (2002) found that Mexican mothers' parenting style is highly related to their level of education. The level of education of the mother seems to be related to the type and quality of activities they engage in and provide to their children. Morrison et al. (2006) found that mothers with higher levels of education were able to pay for better childcare programs and to participate directly in more educational activities.

Weigel et al. (2006) noted that parents' beliefs, in particular mothers' beliefs, about literacy are related to the home literacy environment and to their children's literacy outcomes. In a study of 79 mothers and their children, the authors found that mothers comprised two groups: the facilitative group and the conventional group. The facilitative group included the mothers who saw themselves as a vital element in their children's literacy development. These
mothers engaged in book reading, singing songs, storytelling, and other literacy activities that helped their children's development. In contrast, mothers in the conventional group believed that they could do little to help their children's learning processes and relied more in the school system for promoting early literacy. These mothers expressed several difficulties in engaging in literacy activities with their children, which included lack of resources, proper environment, and even lack of experience with those practices in their personal lives. In general, personal experiences with literacy as well as with the academic world seem to influence mothers' beliefs and practices of literacy at home.

An interesting finding from the Weigel et al. (2006) study is the relationship between parents' literacy beliefs and their children's emergent literacy skills. The researchers found that children of mothers from the facilitative group had a greater interest in reading and exhibited greater print knowledge and literacy skills than children of conventional mothers. Moreover, mothers of the facilitative group had higher levels of education and served as role models for their children in regard to literacy activities. In summary, Weigel et al. (2006) found that mothers who held more engaging literacy beliefs helped their children's acquisition of literacy skills on a greater scale. As expected, facilitative mothers provided a richer environment to promote their children's literacy acquisition.

In a study of Mexican-American and Anglo-American mothers' beliefs about child rearing and language impairment, Rodriguez and Olswang (2003) found that Mexican mothers' beliefs varied based on their level of acculturation. Those Mexican-American mothers who had spent less time in the United States tended to be more authoritarian and traditional in their beliefs about education, which meant, among other issues, that they perceived the school
system as responsible for their children's education, and, as a consequence, they did not engage in literacy practices. However, in the case of Mexican mothers who had been in the country longer, Rodriguez and Olswang found that they held a more progressive idea about education which suggests that they saw themselves as a vital element of their children's learning experience. It is important to take into account that the size of the study was quite small (about 60 participants), which limits the generalizability of the findings.

## Parenting Style

The type and quality of interaction between Hispanic parents and their children are non-structural factors that can be influenced through policy making and program implementation. While parenting style is highly influenced by social class and socioeconomic status, the interaction between social structure and personal biography also play an important role. As Lareau (2003) indicated, social class determines the pool of resources that families can access to solve daily matters, but the way each family uses those resources is always a matter of personal choice.

Parenting style, as defined by several researchers, will depend on parental warmth/ responsiveness as well as on parental control/discipline. Parental warmth and responsiveness are defined by how open the parents are about expressing affection to their children, with what kind of reinforcement they respond to different behaviors, and how sensitive they are to the child's feelings and wishes. Research has shown that the warmer and more responsive the parents are, particularly mothers, the higher the pace and growth of childhood early learning are. In addition, more responsive mothers tend to use richer language, which also has a positive impact on their children's early literacy skills. On the other hand, parents who are more
restrictive and place greater emphasis on control and discipline provide less stimulation for learning, and their children tend to make slower developmental progress (Landry \& Smith, 2006; Morrison et al., 2006). Parental control and discipline are based on establishing rules, standards, and limits for children's behaviors. This has a direct impact on creating an appropriate environment for developing literacy skills (Morrison et al., 2006).

Parenting style is at the same time highly influenced by socioeconomic status, which is the main predictor of children's academic success. Several researchers have found that parents from low socioeconomic background speak less to their children, use less rich vocabulary, and engage less in literacy practices in general, all of which impact their children's literacy skills (Landry \& Smith, 2006; Morrison et al., 2006; Neuman, 2006). Lareau (2003) documented that each social class has a predominant childrearing style. Middle-class parents used the concerted cultivation model, assuming a vital role in the transmission of skills and knowledge to their children. As a consequence, middle-class children tend to see themselves as entitled to have their parents' and other adults' attention to their needs. In contrast, working-class and poor parents held the accomplishment of natural growth childrearing perspective, which implies that children receive less attention and are responsible for entertaining themselves. Due to financial constraints, working-class and poor families devote their time to meeting basic needs for their families, and they have less opportunity to enroll their children in extracurricular activities that will help them develop other life skills.

Several researchers have found evidence to suggest that parental involvement in the early stages of a child's life is a predictor of early literacy because of the support parents provide for their child's immature skills. Both parents' self-esteem and health condition seem to
be important factors in their relationship with their children. The assumption is that the higher the self-esteem and the better the health, the more parents can offer to their children in general (Landry \& Smith, 2006). Hoff (2006) suggested that interactions between parents and children are particularly crucial for language development when they are between 9 and 18 months of age. Pianta (2006), on the other hand, argued that this relationship remains critical throughout the elementary school level and goes beyond language and phonological development.

## Parental Involvement

Even though there is a great diversity among Hispanics, they share certain beliefs about education, childrearing, and family values. Changing beliefs and behaviors is a challenging task, but still possible, and this is why parenting style and parental engagement are included in the non-structural aspects that impact literacy.

There are many negative stereotypes about Hispanic parents' participation in their children's academic life. Almarza (2005) and Baldwin, Buchanan, and Rudisill (2007) found that it is common for teachers to believe that Hispanic parents are not engaged in their children's activities or that they do not value education. Studies, however, show a different picture. Ortiz and Ordoñez-Jasis (2005) confirmed that Hispanic parents have high expectations about their participation in their children's academic life, but they do not have enough information or training about how to provide early literacy activities at home. Some of the parents who participated in the study did not know how to interact with the public education system; others did not speak English, which made their interaction with the system difficult; some had previous negative experiences as students within the educational system. Mendez (2000) also
found in an exploratory study that Mexican mothers wanted their children to be enrolled in bilingual programs so the infants could improve their skills in Spanish and English. Some of the Mexican mothers mentioned their expectation of helping their children learn to speak English, even though these mothers spoke little English, and also their hope of learning English from their children.

Another example of Hispanic parent involvement is provided by Mendez's (2002) research. In an exploratory study of Mexican mothers' beliefs about language acquisition, the author found that the mothers saw themselves as important agents in their child's language development and early literacy process. All participants mentioned different activities they did, such as listening to their children, labeling objects, and promoting constant interaction between their children and other members of the family as ways to promote their infants' language acquisition.

Several programs promote parental involvement in early literacy. However, it seems that these programs have failed to address the reality of minority parents because they are based mostly on the Non-Hispanic White middle class family model (Hammer, Miccio, \& Wagstaff, 2003); for instance, these programs expect parents to engage in reading and writing activities without recognizing that engagement in other community or family activities, favored by Hispanic culture, are also promoting learning (Ortiz \& Ordoñez-Jasis, 2005). Also, there is the expectation of parents' active participation in their children's education, which is in contrast to the often-held Hispanic cultural assumption that educators are primarily responsible for children's education (Ortiz \& Ordoñez-Jasis, 2005; Rodriguez \& Olswang, 2003). Rodriguez and Olswang found that Mexican American families, who hold an authoritative perspective towards
education participate in their children's education through reinforcement of discipline and supervision, instead of participating in academic activities.

Rothstein-Fisch and Trumbull (2008) mentioned that Hispanic parents are usually more worried about their children's behavior than their academic performance. The reason for this, according to these authors, is because Hispanic parents have a broader perspective of the purpose of education: It is intended to make good people, an objective which goes further than academic achievement. In a comparison of the values and beliefs about child rearing of Mexican American and Anglo American families, Rodriguez and Olswang (2003) concluded that Mexican mothers were more strongly traditional and authoritarian in their perspective towards education and their role in it.

Hispanic parents' participation and engagement in literacy practices varies not only based on their socioeconomic status but also based on country of origin (National Task Force on Early Childhood Education for Hispanics, 2007). According to Ortiz and Ordoñez-Jasis (2005), some Hispanic parents engage in traditional practices, such as book reading, and nontraditional practices, such as storytelling, that promote learning. According to Landry and Smith (2006), book reading is a key activity in promoting not only language acquisition but early literacy competencies. However, when compared with other groups, Hispanic parents tend to read less frequently than Non-Hispanic White parents: $42 \%$ of Hispanic parents reported reading daily to their children, while $64 \%$ of Non-Hispanic White families reported doing so. Availability of reading resources in Spanish could be a factor that influences this low rate of daily book reading among Hispanic families (Hammer et al., 2003). Espinoza (2007) also mentioned that Hispanic children are less likely to engage in literacy activity practices at home. The consequences of
not engaging in literacy practices like book reading could be detrimental to children because they may not develop the language and literacy skills required when they enroll in the kindergarten level (Vernon-Feagans et al., 2002). This is found more frequently among low socioeconomic Hispanic children.

Hispanic parents engagement in their children's education seems to be passive, as defined by Hoover-Dempsey, Walker, and Sandler (2005) due to the fact that Hispanic parents tend to believe that schools and teachers are responsible for their children's academic outcomes, and their interaction with schools is limited to contacts initiated by teachers and administrators at the schools.

## Level of Bilingualism

One of the factors contributing to the low academic success of Hispanic students seems to be the language barrier. The lack of English fluency of Hispanic parents makes their support role more difficult in terms of academic orientation. Not only do Hispanic students struggle, but Hispanic parents, who are not able to help in their children's academic performance, do as well. Sometime the language barrier impedes Hispanic parents from even knowing about the existence of public preschool programs (Laosa \& Ainsworth, 2007). The problem greatly increases when parents are not even able to read or write in their first language, a condition that has a significant impact on the children's literacy (Ortiz \& Ordoñez-Jasis, 2005). In addition, there is existing research that suggests that young Hispanic children from families where English is not spoken are more likely to live in poverty than their same-age peers (Garcia \& Jensen, 2009).

Even though Hispanic families value education highly, Hispanic children of low
socioeconomic status tend to perform far behind their English-speaking peers in different measures at the kindergarten level (Espinosa \& Lopez, 2007). Furthermore, some authors like Espinosa (2007) suggested that it is possible that those Hispanic children are also behind their Spanish-speaking peers in their native language abilities. Raikes et al. (2006) found that among Hispanic mothers, those who only spoke Spanish read less frequently to their children and had fewer reading materials available in the home. Socioeconomic level, as well as language spoken at home, has an impact not only on the literacy practices at home but also on the level of language development of Hispanic children in the United States (Hoff, 2006). According to Reardon and Galindo (as cited by Garcia \& Jensen, 2009), language spoken at home has a direct impact on the mathematics and reading achievement of children from kindergarten through third grade. Hispanic children who lived in homes where Spanish was the only language used or primarily used were behind not only their Non-Hispanic White counterparts but even behind other Hispanic children who spoke English only or most of the time (Garcia \& Jensen, 2009; Laosa, \& Ainsworth, 2007).

Research has shown that having a solid base in the native language usually facilitates the acquisition of a second language, especially in terms of reading abilities. Several researchers have found that English language learners used their reading abilities in their native language as a resource for learning how to read in a second language (Cardenas-Hagan, Carlson, \& PollardDurodola, 2007; Farver, Lonigan \& Eppe 2009). Cardenas-Hagan et al. (2007), in fact, found that if a child has strong letter name and sound identification in Spanish, this usually helps to build a similar ability in English, whether the student is taught in Spanish or in English. However, one question remains, and it is one of the ways in which early literacy has been promoted in the
education of Hispanic children when parents sometimes lack the necessary skills to support it. Cardenas-Hagan et al. (2007) suggested that early literacy instruction should take into account the skills a Hispanic child has, both in English and Spanish, in order to determine the language of instruction, which seems to be an important factor in terms of academic achievement. In the case of Mexican children with disabilities, Mendez (2000) suggested that speech therapists make all their interventions in the children's native language, not only to enhance their English acquisition but also to facilitate their ability to communicate with family members who only speak one particular language.

The experience of English language learners may vary in terms of the timing of exposure to the different languages. Some of them will be exposed simultaneously to English and Spanish, while others will be instructed in their native language first. The amount of exposure to each language and conditions of language use are relevant to the children's language acquisition and to their academic performance. Research has found that children whose first language is Spanish are at greater risk of poor academic outcomes (Hammer et al., 2003). Regardless of the combination of language use that families may choose to promote bilingualism, several authors have asserted that immigrant parents need to both maintain their home language and to improve it not only as a way to aid in communication with older relatives but also to contribute to their children's success (Kummerer \& Lopez-Reyna, 2006; Ortiz \& Ordoñez-Jasis, 2005; Reyes \& Azuara, 2008).

When examining the language spoken at home, the National Task Force on Early Childhood Education for Hispanics (2007) found the majority of Hispanic families (54\%) spoke mainly Spanish at home. In some cases, Hispanic children's exposure to English is only based on
their interaction with media outlets such as television or radio or with their older siblings (Mendez, 2000). In addition to that, Espinoza (2007) found that the majority of immigrants who do not speak English are from Mexico and can speak only Spanish.

Espinoza (2007) found that 30\% of the Hispanic children enrolled in prekindergarten programs did not speak English. This fact makes this group even more at risk to fall behind their English-speaking peers. Hispanic children tend to be behind their Non-Hispanic White counterparts in several literacy measures by the time they enroll in prekindergarten. This gap tends to be greater if those Hispanic children are of low socioeconomic status and non-English speakers. Researchers concur that young Hispanic children enter prekindergarten at various levels of language proficiency in both languages (Farver et al., 2009). In a study of 12 Mexican preschoolers living in the Southwest of the United States, Reyes and Azuara (2008) found that even when children were bilingual, English was the language for formal interaction with teachers, and Spanish was only used for disciplinary and clarification purposes.

There is little agreement about the impact of bilingual education on student readiness or academic performance in the United States. Some scholars argue that English-only instruction has a stronger impact on student achievement, while others argue that bilingual education is the best option, particularly for children whose first language is not English (Farver et al., 2009; Garcia \& Jensen, 2009; Reyes, \& Azuara, 2008). In the study conducted by Farver et al. (2009), the authors found that bilingual education had a small but significant effect on children's reading measures in English, although the size of the effect was small. Something similar occurs with the language spoken at home. Some parents of bilingual children are not certain about the advantages or disadvantages of speaking in one language or whether mixing
languages is a good idea. By not speaking naturally to their children, these parents are restricting themselves from providing a rich language environment for their children, which is a key factor in their children's early literacy skills (Vernon-Feagans et al., 2002). Mendez (2000) found that the majority of Mexican mothers who participated in a study about language acquisition wanted their children to be bilingual; however, they did not express awareness of the importance of having strong Spanish skills that could be transferable to a second language.

According to the National Task Force on Early Education for Hispanics (2007), a considerable percentage of Hispanic children enrolled at the kindergarten level lack the required literacy competencies in English or Spanish. In the case of the 30\% of Hispanic students who were not proficient in English when they enrolled in kindergarten, it was found that at the end of fifth grade they were not only performing below their Non-Hispanic White counterparts in reading and math measures but also below the other $70 \%$ of Hispanic children who had the required English skills.

According to The National Clearinghouse for English Language Acquisition (NCELA), as cited by Cardenas-Hagan et al. (2007), the English Language Learner (ELL) population has grown about $95 \%$ in the last two decades. Hispanics are the largest and fastest growing group among the ELL in the United States (Cardenas-Hagan et al.; Farver et al., 2009; Laosa \& Ainsworth, 2007); however, as Espinoza (2007) pointed out, there is a great variety among the ELLs in this country, not only because of the language spoken at home, but also due to factors such as levels of education and levels of bilingualism.

As mentioned, the field of bilingual education is highly controversial and filled with contradictory arguments. Some researchers support the idea of transferring skills like
phonological awareness and phonics from Spanish to English (Cardenas-Hagan et al., 2007), which implies that having a good base of knowledge in their native language could help children to acquire similar skills in English. In contrast, authors like Hammer et al. (2003) have suggested that because the children will be schooled and tested in English, it is better for them to be taught in English.

Language spoken at home is also determined by socioeconomic status and level of education. In a study of the home literacy experience of bilingual preschoolers, Hammer et al. (2003) found that children who were learning Spanish and English at the same time and had bilingual mothers were taken more to the library and more frequently engaged in literacy practices at home.

In an effort to provide evidence of the effects of bilingual education, Farver et al. (2009) conducted a randomly assigned study of Spanish-speaking children at the preschool level. The researchers had three groups, classified based on whether or not they had any intervention in their literacy skills: there was a control group with no intervention, one group with English only, and another with a transitional model, which consisted of instruction first in Spanish and later in English. The study included pretest and posttest measures of the early literacy skills. The researchers found that both English only and the transitional model had a positive impact on enhancing early literacy skills outcomes for Spanish-speaking children. However, it seemed that the transitional model of instruction offered some advantages in achieving particular literacy outcomes. The main conclusion of the study is that language of instruction is relevant to the goal that is pursued. If the goal is to enhance English pre-literacy skills, language of
instruction may not be relevant if some English is included. Farver et al. (2009) concluded that small, bilingual group instruction seems to be the best option for promoting early literacy skills for Spanish-speaking children.

Non-structural factors, such as parents' beliefs about education, parenting style, parental involvement, and level of bilingualism among Hispanic families are issues toward which educators can exert influence. Exploring these topics can be beneficial before promoting any type of change on them. Non-structural factors influence, at the same time, the type, quantity, and quality of the literacy practices that Hispanic families engage in. In the following section I will explore the literacy practices occurring at home that are also influenced by structural and non-structural factors related to early literacy. Family Literacy Practices

The academic success of Hispanic children is a complex phenomenon that also depends on the family learning environment, which has a great impact on the family's literacy. According to Ortiz and Ordoñez-Jasis (2005), family literacy should be understood as a multifaceted and changing condition that is impacted not only by economic, social, political, and personal factors, but also by each family member's style of teaching and learning. A study conducted by VernonFeagans et al. (2002) found that Hispanic and African American parents did not engage in asking questions when reading to their children, which has an impact on their children's performance in school when they are asked by their teachers about a story in a book. The National Task Force on Early Childhood Education for Hispanics (2007) concurred with this finding when analyzing the data obtained from the Early Childhood Longitudinal Study (ECLS-B), a study conducted to provide information about children's early stages of life in the United States.

What they found was that Hispanic mothers were less likely than Non-Hispanic White mothers to engage in literacy practices like reading, singing, or telling stories, particularly Hispanic mothers of low socioeconomic status.

What happens in the family learning environment is a result of multiple factors, among which socioeconomic status seems to be the most important one. Socioeconomic status has a direct impact on the material resources that families have access to in general. In the particular case of literacy, researchers have found that poor families lack the proper resources to promote learning: in other words, children living in poverty have less access to print material like books and newspapers in general (Hammer et al., 2003; Neuman, 2006; Vernon-Feagans et al., 2002). According to Neuman (2006), whereas middle class children have about 13 books available per child, the number for children living in poverty is significantly lower - 1 book per 300 children. Landry and Smith (2006) added that financial resources also have an impact on the type of learning activities that children have access to, such as trips to the zoo or park.

Whitehurst and Lonigan (1998) proposed two interconnected domains to understand emergent literacy: outside-in and inside-out. The outside-in sphere refers to all information coming from external sources of the printed word that contribute to children's comprehension of the meaning of print. On the other hand, the inside-out domain includes information directly related to the printed word that promotes children's abilities to decode print into sounds and vice versa. The reason behind naming these domains, not only as inside and outside but as outside-in and inside-out is based on the constant interaction between both spheres.

After using structural equation modeling to draw the relationship between home environment, emergent literacy, and literacy skills of low-income children attending preschool,

Storch and Whitehurst (2001) found that literacy environment, in conjunction with parental expectations for children's success in school and parental characteristics, such as IQ, education, and reading habits, explained $40 \%$ of the variance in preschool children's outside-in skills. In other words, these three factors (home environment, parental expectations, and parental characteristics) have an important influence on children's understanding of the meaning of print, which will later significantly impact inside-out skills during preschool.

Even though the influence of socioeconomic status over literacy development is widely accepted and supported by research, Storch and Whitehurst (2001) argued that home literacy environment exerts a unique influence "on preschool language ability, even in the presence of genetic and family variables (mother IQ, education, language) and the child age variable" (p. 65).

Interaction with family members, particularly with mothers, is also a vital factor in determining children's language and early literacy skills (Kummerer \& Lopez-Reyna, 2006; Pianta, 2006). Book reading, singing, storytelling, playing games, labeling objects as well as modeling and having conversation with children are key literacy practices that help children gain the competencies needed before they enroll in the school system (Kummerer \& LopezReyna, 2006; Landry \& Smith, 2006; Neuman, 2006; Pianta, 2006). Hammer et al. (2003) found that the ideal situation would be for mothers to engage in all these literacy practices with their children, but that even only modeling some of these practices, such as reading books, will have a positive impact on children's academic performance. In fact, in their study of the home literacy experiences of bilingual preschoolers, the authors found that mothers who were more engaged in literacy practices themselves tended to encourage similar practices in their
children's behavior more frequently. However, literacy practices have been found to be closely related to the families' cultural system, which presents a real challenge if the goal is to promote practices that are not part of the family's daily lives (Vernon-Feagans et al., 2002). The family cultural system is, at the same time, part of the sociocultural context in which they live. This context exerts social, economic, and political influences on the type of literacy practices at home (Ortiz \& Ordoñez-Jasis, 2005).

It is important to be aware that children's ability to engage in reading depends not only on their learning experiences with adults and peers at home but also their experiences in childcare or school settings (Pianta, 2006; Reyes \& Azuara, 2008). In the case of Mexican and Central American families, Ortiz and Ordoñez-Jasis (2005) found that kindergarten and firstgrade children were the ones promoting literacy activities at home as they were reading to their siblings and mothers. In a different study in which Mexican American parents taught the alphabet to their children, Moreno (2002) also found that these mothers had to coordinate their literacy activities with other events in their daily life as well as with other family members. This led Moreno to conclude that scaffolding does not only occur in a dyadic model, between mother and child, but that it also includes other family members.

Parental involvement in promoting early literacy goes beyond book reading and providing a rich learning environment. Labeling and describing words and illustrations and the act of promoting storytelling seem to contribute to the children's vocabulary development (Morrison et al., 2006). In a study of emergent biliteracy in immigrant children, Reyes and Azuara (2008) found that even though some Hispanic mothers did not read to their children every night, they engaged in other literacy practices such as writing letters and notes to their
children as well as offering numerous educational resources at home.

Vernon-Feagans et al. (2002) found that it is also important to analyze the type of interaction around books. In other words, although it is important that parents read to their children, it is even more important to ask questions that promote children's cognitive development. In their study of early literacy skills with African American and Hispanic children from low-income families, the authors found that parents in these ethnic groups did not ask questions about the readings, which made their children less prepared to predict the course of a story or to answer questions in general when they enrolled in the school system. In addition, children who are not read to are more likely to have a limited vocabulary and fewer opportunities to learn about the world and to hear more sophisticated words, which in the end will have an impact on their ability to read and write (Neuman, 2006). In contrast, children exposed to book reading become more familiar with written language and tend to be more prepared for the school experience because reading promotes language acquisition as well as cognitive development (Hoff, 2006; National Task Force on Early Childhood Education, 2007; Sénéchal, Ouellette, \& Rodney, 2006).

Conversations and general interactions between parents or caregivers and children at an early age are another important literacy practice that has an impact on academic performance (Landry \& Smith, 2006; Pianta, 2006). However, the National Task Force on Early Childhood Education (2007) and Garcia and Jensen (2009) reported that Hispanic mothers, particularly from low-socioeconomic backgrounds, tend to speak and sing less to their children when compared to Non-Hispanic White mothers. Moreover, mothers from higher social classes not only talk more to their children, but also ask questions that promote critical thinking and
behaviors without being directive. In addition, socioeconomic background also has an impact on the types of comments children receive: that is, children living in poverty are more likely to receive negative comments, which has an impact on their self-esteem.

According to Pianta (2006), children learn and develop their language and cognitive skills from what they hear at home. In that sense, it is important that mothers or caregivers show clear signs that indicate to their children that they are paying attention; they can do this through verbal and nonverbal communication, which will help their children to be more competent in acquiring language (Landry \& Smith, 2006). Landry and Smith (2006) also found that socioeconomic status has a direct impact on the length of utterances parents use: children living in poverty heard less than 100 words in an hour, while their peers from more affluent families heard about 500 words.

The number of words used at home and their complexity play an important role in language acquisition and cognitive development. In a study of environmental support for language acquisition, Hoff (2006) found that children whose mothers used more complex language structures tended to develop more language. This contradicts the common belief that mothers should make their language as simple as possible to help their children's language acquisition, particularly for vocabulary development. The research conducted by Hoff has shown that a more complex and rich speech used by mothers helps their children to achieve better language development. Maternal speech explained at least $25 \%$ of variance in children's vocabulary.

The importance of the number of words a child knows in developing phonological awareness has been documented by Sénéchal et al. (2006) in their study of the predictive role
of early vocabulary in future reading skills. According to the authors, children whose knowledge of words was greater tended to develop greater phonological awareness, which contributed to their ability to read better. Knowing more words exposes the children to the language structure, making it easier for them to establish connections and to comprehend text easily.

Exploring the home literacy practices of 12 Mexican preschoolers in Arizona, Reyes and Azuara (2008) found that children who grow up in bilingual environments or semi- bilingual environments can develop an emergent biliteracy, into which they incorporate their family interactions, even if these are only monolingual. The results of the study showed that children were developing print awareness in both languages, and that family interactions were a key component. For instance, when children were interacting at home, they tended to speak in Spanish, whereas at school they mainly used English. It was clear from the study that children and caregivers chose the language of interaction based on the purpose of the activity; in other words, children were able to determine if the literacy activities in which they were participating were only for entertainment or if they had an academic purpose, and according to that determination, they would use one specific language. It is important to mention that on several occasions, the Hispanic children participating in the study became their parents' teachers by both teaching some words in English and also modeling pronunciation for their caregivers.

Family literacy practices depend on the home environment as well as the resources available for parents to engage in learning activities with their children. Socioeconomic level, as well as parenting style and families' level of bilingualism, will determine the type, quantity, and quality of the literacy practices that Hispanic families promote to their children.

In Table 2, a summary of studies including information about Hispanic families' literacy
practices is provided. The table includes key findings from studies conducted mostly in the

United States published since 2000. The majority of researchers studying this topic concur that the existing diversity among Hispanics and should be incorporated into the promotion of literacy practices among this group.

Table 2

## Summary of Studies and Policy Papers of Hispanic Children's Literacy Practices

| Reference | Findings/Key Points |
| :---: | :---: |
|  | Empirical Studies |
| Farver, J. A., Lonigan, C. J., \& Eppe, S. (2009) | - There is a small, but significant, advantage of bilingual education programs on English outcomes of ELLs. <br> - ELL children enter prekindergarten with various levels of proficiency both in English and Spanish. |
| Garcia, E., \& Jensen, B. (2009). | - Among Hispanic children, those of Mexican origin tend to live in poverty, in linguistically isolated homes, and are less likely to enroll in kindergarten programs. <br> - Hispanic parents read, tell stories, and sing less frequently than Non-Hispanic White parents. |
| Reyes, I., \& Azuara, P. (2008). | - Home environment is vital in the promotion of biliteracy among children. <br> - Hispanic children use the language they speak based on the particular context. At home, they tend to speak Spanish; whereas within the school setting, they prefer to use English, particularly for formal interactions. <br> - Hispanic families provide learning opportunities for their children not only through formal activities. A family meal preparation or writing letters to relatives could also be scenarios used to teach children. <br> - Hispanic parents are aware of the importance and need for their children to be bilingual. Even when they do not speak English, they promote their children learning the language. In many cases, children model pronunciation of English words to their parents. |
| National Task Force on Early Childhood Education for | - Hispanic children are more likely to live in low socioeconomic backgrounds, which have a direct impact on their academic performance. Hispanic children tend to have lower school readiness and lower academic performance. |
| Hispanics. (2007). | - Levels of education among Hispanics vary depending on their country of origin. People from South America and Cuba tend to have a higher level of education, which influences their literacy practices with their children. <br> - Socioeconomic level tends to relate to the language spoken at home. The poorer the family, the more likely it is that they speak only Spanish. <br> - Hispanic children are already behind in literacy measures and mathematics by the time they enroll in prekindergarten. <br> - Hispanic families offer a great emotional and social support to their children. <br> - Even though levels of education among Hispanic parents are low, they place a high value on education. <br> - Country of origin seems to play a role in Hispanic children's academic performance. Children from Central America and Mexico tend to have lower academic |

achievement.

Ortiz, R. W., \& Ordoñez-Jasis, R. (2005).

Hammer, C. S., Miccio, A. W., \& Wagstaff, D. A. (2003).

- Hispanic mothers talk and read less to their children when compared to their NonHispanic White counterparts. They also have fewer literacy resources at home.
- Even though there is abundant research exploring the Hispanic educational experience, there are still many stereotypes and misunderstandings about their interest and engagement in their children's education. Researchers need to understand the complex and great diversity among Hispanics in the United States.
- Any discussion or program in early literacy should incorporate the sociocultural context in which Hispanic families live. Literacy is a complex phenomenon affected not only by economic and social factors, but also by the family environment.
- Hispanic parents engage both in traditional and non-traditional literacy practices with their children.
- Hispanic parents may be hesitant to interact with the school system in the United States due to a lack of understanding about the system and a language barrier.
- There is an urgent need to explore the literacy practices among Hispanic families in the United States, paying close attention to the cultural differences among the members of the group. In particular, it is necessary to explore the home literacy practices because those practices are the basis for more sophisticated literacy skills.
- Financial resources influence the type, quantity, and quality of practices Hispanic parents promote at home.
- Access to literacy resources in Spanish is limited and has a direct impact on the type of literacy activities that mothers who can only speak Spanish can do with their children.

Espinosa, L. M. (2007).

Rodriguez, B. L. \& Olswang, L. B. (2003).

Moreno, R. P. (2002).

Mendez, A. (2000).

- Mexican-American mothers tend to be more authoritarian and traditional in their views about education when compared to Non-Hispanic White American mothers. Mexican-American mothers believe that schools are responsible for children's education and that parents are not required to get involved or participate directly in their children's academic preparation.
- Obedience and politeness are very important for Hispanic mothers.
- Parents' beliefs about education have an impact on the type of literacy practices they engage in with their children.
- Existing research tends to portray a negative image of Hispanic mothers in regards to the promotion of early literacy activities. However, this study found that Mexican mothers use everyday activities, which seem to be very effective in promoting children's learning.
- Many Hispanic families only speak Spanish at home and the only exposure they have to English language is through television. However, they want their children to be bilingual, and they even expect to learn some English from them.
- Mexican mothers participating in the study were aware of their role in promoting their children's development and learning processes.


## Non-Empirical Studies- Policy Papers

Garcia, E., \& Jensen, B. (2009).

- Among Hispanic children, those of Mexican origin tend to live in poverty, in linguistically isolated homes, and are less likely to enroll in kindergarten programs.
- Hispanic parents read, tell stories, and sing less frequently than Non-Hispanic White parents.
- Young Hispanic children who speak Spanish at home tend to perform at lower levels in mathematics and literacy, and are more likely to live in poverty.
- Mexican children have more social and emotional competency when they enter kindergarten when compared with Non-Hispanic White children.
- Hispanic families provide a network of social security and emotional support to their children through their family cohesiveness.
- Hispanic children are less likely to enroll in prekindergarten programs nationally. The rate decreases when children live in houses where no one over the age of 14 speaks English.


## Childcare Enrollment in Preschool

Having families engaged in literacy practices at home seems to be beneficial to their children's academic achievement (Kummerer \& Lopez-Reyna, 2006). But this can also be enhanced if families enroll their children into high quality childcare programs.

If the goal is to improve the academic performance of Hispanic children, it is important to examine their participation in childcare programs throughout the United States. Even though Hispanic children represent about $22 \%$ of children under the age of five, they are not represented to this degree in existing prekindergarten programs (Kohler \& Lazarin, 2007). Several researchers have found that Hispanic preschool children are less likely than any other group to enroll in childcare programs in the nation (Espinoza, 2007; Kohler \& Lazarin, 2007; Laosa \& Ainsworth, 2007), particularly when they are from low socioeconomic backgrounds and when adults living with them do not speak English (Espinosa, 2007). Kohler and Lazarin found that in 2005, only $43 \%$ of Hispanic children three to five years old were enrolled in childcare programs, while $65 \%$ of black and 59\% of Non-Hispanic White children were enrolled. Only 36\% of Hispanics of low socioeconomic status enrolled in early education, in contrast to $45 \%$ of NonHispanic White children of similar backgrounds. It is ironic that those who need more early childhood education seem to be the ones who use the programs the least. Garcia and Jensen (2009) as well as Laosa and Ainsworth (2007) mentioned that existing research has provided evidence to support the observation that Hispanic children enrolled in prekindergarten
programs tend to benefit even more than other groups.
Some researchers have found that stereotypes are often used to explain the Hispanic low enrollment in childcare programs. Although some people believe that Hispanic parents do not value this type of education, the reality is that they often face financial constraints related to transportation and a lack of access to the existing programs due to language barriers, among other factors (Espinoza, 2007). Ortiz and Ordoñez-Jasis (2005) found that Hispanic parents not only value education and in particular literacy, but they see it as the only possible hope for their children to have a better life. In fact, a survey conducted by the Tomas Rivera Policy Institute found that $97 \%$ of Hispanic parents surveyed were willing to enroll their children in early education programs if free voluntary programs were available (Laosa \& Ainsworth, 2007). In contrast, Laosa and Ainsworth found that some of the preschool programs which Hispanic children attend are not necessarily effective in their educational intervention because they do not have highly qualified teachers to work with this particular group.

The positive effects of enrollment in early childhood education have been heavily documented during several decades of research. Recently, Camilli et al. (2010) conducted a meta-analysis of the effects of early education by analyzing 161 studies in the field, and their findings confirmed that early education contributes and makes a difference not only in terms of the cognitive growth but also in the social development and progress in school of the children who participate in these programs. However, Morrison et al. (2006) concluded that enrollment in daycare programs does not necessarily provide these benefits: what matters is the quality of the service provided. If the program is of high quality, it will promote student learning; however, a low quality program could even decrease the children's social outcomes. These
authors defined a high quality childcare program as one that offers strong support for parents, is available all day, starts enrollment at an early age, has highly qualified teachers, and offers a rich literacy environment. In addition, these authors found that if children are more at risk, the type and quality of instruction they receive becomes even more important. Researchers have found that a teacher's credentials, particularly years of education, positively impact student achievement (Morrison et al., 2006). Nevertheless, as Neuman (2006) mentioned, "too often, programs for the poor are, unfortunately, poor programs" (p. 32). Farver et al. (2009) went further when they asserted that even high quality childcare programs may not be able to provide the proper environment for children at risk or struggling with their literacy skills.

Several researchers have agreed that there are at least three vital skills that are developed during the preschool years that constitute the main predictors of the reading ability of children. Those skills are the following: phonological awareness (related to the ability of manipulating sounds), print knowledge (identification of letters and print concepts), and oral language. If children do not acquire those competencies during their preschool years, chances are very high that they will struggle later on (Farver et al., 2009). Reyes and Azuara (2008) have suggested that these skills are not necessarily acquired only through formal schooling, but also through exposure to literacy practices at home or the environment in general.

Finally, early literacy acquisition depends also on Hispanic children's enrollment in high quality childcare programs. Recently, Camilli et al. (2010) confirmed that early childhood education has an impact on cognitive growth, social development, and academic success of children. Other researchers have documented that Hispanic children tend to benefit more than other groups from enrollment in childcare programs (Garcia \& Jensen, 2009; Laosa \&

Ainsworth, 2007). Nevertheless, Hispanic children are less likely to enroll in early childhood education programs when compared to other groups.

## Conceptual Framework

Figure 1 represents and summarizes the conceptual framework of this study. The literature identifies five pillars that impact early literacy skills among Hispanic children: structural factors, non-structural factors, Hispanic cultures, family literacy practices, and childcare enrollment. This study explored Jacksonville Hispanic families' literacy practices as well as parents' beliefs about education. In particular, the study focused on the non-structural factors that impact early literacy because educators can exert influence over those factors, seeking a better academic performance among Hispanic children. In addition, I explored differences in belief systems about education and determined if any discrepancies exist between the literacy practices of Hispanic parents who have their children enrolled in early childhood programs and those who have chosen not to enroll their children in these programs.


Figure 1. Conceptual framework.

Hispanic children's academic performance is the result of a complex relationship of several factors. Literacy skills acquisition starts early in a child's life, even if parents are not completely aware of it. There are several factors that exert an influence on the literacy acquisition and determine the academic performance of any child. In the case of Hispanic children, there are some structural factors that powerfully influence their academic achievement. Among these factors, parents' immigration status, as well as country of origin, seems to have an impact on Hispanic children's academic performance. Several researchers have noted that the undocumented status of some parents of Hispanic children prevents these families from gaining access to existing federal and state childcare programs (National Task Force on Early Childhood Education for Hispanics, 2007). Lack of transportation, financial constraints, and difficulties in providing all required paperwork to enroll their children in childcare programs are some of the factors that force some Hispanic parents to stay in the shadows, even though their children, as citizens of the United States, have the right to participate in and be enriched through these programs (Espinoza, 2007; Kohler \& Lazarin, 2007; Laosa \& Ainsworth, 2007).

Another important variable that could be also classified among the structural factors that impact early literacy is parents' level of education (National Task Force on Early Childhood Education for Hispanics, 2007). Weigel et al. (2006) found that facilitative mothers who promote and engage their children in several literacy activities, like book reading and storytelling, have higher levels of education when compared to those who hold a conventional perspective of early literacy acquisition.

Probably the most well documented variable under the structural factors that influence
early literacy is socioeconomic status. After conducting longitudinal studies, researchers have found that socioeconomic status is the main predictor of academic success (Espinoza, 2007; Morrison et al., 2006; Neuman, 2006). Some authors go even further suggesting that it is not only socioeconomic status that matters, but social class. Lareau (2003) stated that even though Americans like to believe that all children are born with the same opportunities, the reality is that they live in an unequal world. Lareau (2003), however, explained that the fact that some parents are poor or from a working-class environment does not mean that their children will not develop appropriately. Nevertheless, it is clear that social structure plays a key role in determining resources and cultural repertoires for parents. As Lareau documented, the interaction between social structure and personal biography determines the type of interaction and language development of children in America.

As included in Figure 1, the great cultural diversity and family orientation of Hispanic children in the United States are also aspects that should be included in an analysis of the status of literacy skills among this population. Hispanic families offer a great network of emotional and social support to their children, but at the same time parents do not perceive themselves as key players in their children's education (Espinoza, 2007; National Task on Early Childhood Education for Hispanics, 2007).

Literacy acquisition and academic achievement are also contingent upon non-structural factors such as parenting style, parents' beliefs about education, and parental academic engagement (Hoff, 2006; Neuman, 2006; Ortiz \& Ordoñez-Jasis, 2005). Even though some of these factors are highly influenced by socioeconomic status, Neuman (2006) pointed out that even though poor parents have less resources and less energy to engage in academic activities,
it is possible to promote change through policy making and educational programs. A particular emphasis on Hispanic parents' beliefs about education in conjunction with parents' engagement in literacy practices will orient the design of this study. The selection of these two non-structural factors related to early literacy is based on the fact that as non-structural elements, they are easier to change. Additional elements, such as level of bilingualism, contribute either positively or negatively to the literacy practice at home. If Hispanic parents lack English fluency, getting involved in their children's education becomes a problem because parents are less able to interact with members of the school system (Laosa \& Ainsworth, 2007; Ortiz \& Ordoñez-Jasis, 2005).

As Weigel et al. (2006) remarked, mothers' beliefs about education and literacy are related to their engagement in literacy practices. These researchers found that mothers participating in their study comprised two groups: facilitative, which included those mothers who saw themselves as key players in their children's education; and conventional, mothers who did little to promote their children's learning processes. Not surprisingly, mothers from the facilitative group had higher levels of education and engaged themselves in literacy activities. As shown in Figure 1, these family literacy practices were also explored in this study. In this element, the number of books and print materials as well as the frequency and quality of literacy practices at home were analyzed.

Finally, the fifth pillar of the conceptual framework of this study is childcare enrollment. Enrollment in childcare seems to contribute to the cognitive development of children (Camilli et al., 2010). Based on this, I examined the enrollment of Hispanic children in local VPK centers. Moreover, a contrast was established in beliefs about education and home literacy practices
between Hispanic parents who have their children enrolled and those who do not.

## Chapter Summary

In summary, helping Hispanic children to have the required early literacy skills will depend on structural factors, non-structural factors, the diversity of their culture, and their enrollment in early childcare programs in addition to the type, quantity and quality of family literacy practices, as shown in Figure 1.

Previous research has provided evidence that supports that socioeconomic status greatly determines students' academic performance. It is also known that parents' level of education contributes directly to the literacy practices that parents promote at home. Those two aspects are part of a bigger group of elements that constitute the structural factors related to early literacy. However, the emphasis of this study is on Hispanic parents' beliefs about education and the literacy practices they promote with their children at home. The selection for investigating those two factors is based on the fact that they are part of the non-structural aspects related to early literacy. In other words, if it is possible to identify diverse Hispanic parents' beliefs system about education and the literacy practices at home, it would be easier to contribute some recommendations about how to improve Hispanic children's academic performance in general.

In the following chapter, information about the research design as well as research questions is included. Additionally, ethical issues as well as limitations of the study are discussed.

## Chapter 3: Research Methodology

The fact that many Hispanic students are already behind their peers in several literacy measures by the time they enroll in prekindergarten programs suggests that it is worthwhile to study what is happening in their diverse family learning environments. Researching this topic is pertinent because Hispanics are the fastest growing minority in the United States (U.S. Census Bureau, 2010b), and represent 21 \% of children under age five (Pre-K Now, n.d.). In Duval County, Hispanics represent 7.7\% of the total population (U.S. Census Bureau, 2010a), and 6.9\% of the student population in the county (Duval County School Board, 2011). Locally, the Hispanic community follows a trend similar to that of other cities in the country: every day new people from different Latin American countries, but especially from Mexico, come to Jacksonville looking for a better life. Even though this group is the fastest growing minority, there is a lack of information locally about this community in general, particularly about their early literacy activities or other education-related practices.

I have chosen to investigate this topic using a mixed-method approach to gain a more comprehensive and complete perspective about Hispanic parent's beliefs about education and their literacy practices at home. As Johnson and Onwuegbuzie (2004) remarked, mixed-method approaches provide an ample view of the research topic because both methodologies (qualitative and quantitative) complement each other. The possibilities from mixing these two types of research methodology are very broad, and could be overwhelming for beginning researchers (Onwuegbuzie et al., 2011). In an effort to help researchers better understand the
complexity of using mixed analyses, Onwuegbuzie and Combs (as cited by Onwuegbuzie et al., 2011) defined 13 criteria, which are summarized below:

1) Identification of the rationale/purpose for conducting the mixed analysis. The authors based this criterion on the typology for mixing proposed by Greene, Caracelli and Graham (1989): triangulation, complementarity, development, initiation, and expansion.
2) The philosophy behind the mixed analysis. The idea behind this criterion is for the researcher to be able to select the most appropriate method of analysis, accepting there is not a one-to-one correspondence between the researcher's philosophical posture and the type of analysis chosen for a study.
3) The number of data types included in the analysis. In this element the authors suggested that even when researchers have collected only one type of data (qualitative or quantitative) they still can transform that data into the other type, enriching the complexity of the analysis.
4) The number of data analysis types. It refers to the number of combinations of analyses type (whether qualitative or quantitative).
5) The time sequence of the mixed analysis. Some researchers could choose to have a concurrent analysis, which implies that both quantitative and qualitative phases are independent of one another. On the other hand, the option to choose a sequential analysis is also valid for those researchers seeking to utilize the results from one phase to inform the other.
6) The level of interaction between the quantitative and qualitative analyses. The most common example of this is the parallel mixed analysis which requires that researchers collect and analyze each type of data separately.
7) Priority of analytical components. Because scholars using mixed-method research usually collect both types of data, they have to decide about a dominant emphasis for the analysis.
8) Number of analytical phases. It refers to the number of phases or steps that will be included in the analysis.
9) Linking to other design components. For this component the authors stated that the design of the study is what determines the type of analysis performed.
10) The phase(s) of the research process when all analysis decisions are made. Scholars can decide a priori, a posteriori, or during the study when to make analysis decisions.
11) The type of generalization. According to Onwuegbuzie and Combs (as cited by Onwuegbuzie et al., 2011) there are four types of generalization: external (statistical) generalization; internal (statistical) generalization; analytical generalization, and case-to case transfer.
12) Analysis orientation, which has three possible choices: case-oriented, variableoriented, and process/experience-oriented.
13) Crossover nature of the analysis. This last criterion refers to the possibility of analyzing one form of data (qualitative or quantitative) with techniques typically used for the other paradigm.

The authors highly recommend taking this crossover analysis approach to enrich the complexity of the data. By doing so researchers can increase the level of complexity and understanding of the social phenomena they are studying because it requires an iterative way of thinking that goes from one paradigm to the other.

By selecting a mixed-method approach, I was able to identify the belief system about education among Hispanic parents and tendencies about the most common literacy practices at home. Based on the results from the survey, I used interviews to explore more deeply the particular practices and beliefs about education among participants in the study and also particular variables included in the PRBI in specific scales that needed more clarification. Based on the parental beliefs about the education, a logistic regression was conducted to identify groups among Hispanic parents. The groups were formed by taking into account enrollment in early education programs.

From the 13 criteria proposed by Onwuegbuzie and Combs (as cited by Onwuegbuzie et al., 2011), I used the following in my research design: The purpose of using a mixed analysis approach was based on the complementarity of both qualitative and quantitative approaches.

Findings from one strand were used to enhance and interpret results from the other paradigm. The research question oriented the type of analysis that I used to study data coming from each particular approach. With the quantitative data, I used two types of analysis: the first two were descriptive analyses to summarize and describe Hispanic parents' beliefs about education and their literacy practices at home and a descriptive logistic regression to determine group membership among Hispanic parents based on several predictors extracted from the two surveys used in this project. From the PRBI (DeBaryshe \& Binder, 1994) the following predictors were used: Parental Involvement in Reading Skills and Barriers to Reading.

Based on the adaptation of the "Stony Brook Family Reading Survey" (Weigel et al., 2006), the factor called Literacy Activities was included in the predictive model to determine group membership based on enrollment in VPK. I used a sequential analysis, processing first quantitative data, and later qualitative information, to inform the quantitative results. In particular, findings from some of the scales from the PRBI were explored in the qualitative phase of the study. I used multiple strands from both research paradigms to enrich the complexity of the study. I placed equal priority on both types of analysis in an effort to better answer my research questions. In terms of the number of analytical phases, I followed Onwuegbuzie et al.'s (2011) proposed steps: (a) data reduction, (b) data display, (c) data transformation, (d) data correlation, (e) data consolidation, (f) data comparison, and (g) data integration. As mentioned before, the type of data analysis depended on the research design; in other words, because the data collection was sequential, the analysis was also sequential. Even though I used a priori decision making about the type of analysis, I also made decisions iteratively as the study required it. Because the limited sample size and other limitations of the
study, generalizing to a broader population was limited. The analysis orientation for this study was case-oriented and focused exclusively on participants of the study. Finally, in regard to the crossover nature of the analysis, I aimed for a higher level of integration between both quantitative and qualitative perspectives. This allowed quantitative data to be analyzed from the alternative viewpoint and vice versa.

## Research Problem and Questions

The purpose of this study was to explore the family literacy practices and beliefs about education among a convenience sample of Hispanics in Jacksonville, Florida coming from different countries of origin. The relevance of conducting this study in Jacksonville, Florida, was based on the fact that Hispanic population is growing rapidly, similar to the national trends. At the time of the present study, Hispanics represented $7.7 \%$ of the Jacksonville population. However, there is scarce information about educational practices among local diverse Hispanic families, in regards to their enrollment in childcare programs and the challenges they are facing to get their children ready for school. Rodriguez et al. (2009) documented a mismatch between home and school literacy practices and the cultural model behind each approach among Hispanic families. In addition, Rodriguez et al. stated that there is a lack of understanding about the Hispanic perspective pertaining to literacy. If the goal is to engage Hispanic families in a collaborative relation with education practitioners, more information is needed so educators can promote particular approaches about literacy.

The overarching research question of this study was the following: What are the family early literacy practices and beliefs about education among diverse Hispanic families in Jacksonville? The study also addressed two sub-questions:

1. What differences, if any, exist in beliefs about education between diverse Hispanic families that have four-year-old children enrolled in the Voluntary Prekindergarten Program (VPK) and those who do not?
2. What differences, if any, exist in family literacy practices between diverse Hispanic families that have 4-year-old children enrolled in VPK and those who do not?

Comparing and contrasting the differences of the beliefs about education as well as the literacy practices among diverse Hispanic families based on their enrollment on childcare program was relevant because it was plausible to think that families who enroll their children in early education programs hold a different belief system about education and engage in different educational activities with their children, when compared to those families who do not enroll their children in such programs. Several researchers have found a correlation between the belief system about literacy and the type and frequency of literacy activities that parents engage in. Parents who value their role in their children's literacy acquisition tend to engage more in literacy activities at home and tend to be more consistent with literacy practices at school (DeBaryshe \& Binder, 1994; Rodriguez et al., 2009). It is important to mention that the question about why parents decided not to enrolled their children in VPK programs was not included in the surveys because it was not part of my research questions and also because I did not want parents to feel judged for their decisions. I did include that question in the qualitative interviews with those parents who had not enrolled their children in VPK.

## Research Design

This was a non-experimental study that used a mixed-method approach combining qualitative and quantitative methods (Johnson \& Onwuegbuzie, 2004). I worked with the
following groups: diverse Hispanic parents of four-year-old-children enrolled in Voluntary Prekindergarten programs and diverse Hispanic parents whose children were not enrolled in VPK. By comparing these two groups, differences and similarities in beliefs about education and literacy practices were observed among diverse Jacksonville Hispanic parents.

I used existing instruments to explore beliefs about education and home literacy practices: the PBRI (DeBaryshe \& Binder, 1994) and an adaptation of Grover J. Whitehurst's "Stony Brook Family Reading Survey," created by Weigel et al. (2006). The latter survey measures parental demographics, parent literacy habits, and parent-child literacy and language activities. I received permission from both groups of researchers to use and adapt their instruments.

The PRBI was developed in 1994 to explore parents' beliefs about reading aloud for the first time. The psychometric quality of the instrument was assessed with a group of 155 parents of children ages 2 to 5 years. Scores on the instrument "had acceptable internal consistency (coefficients alpha for the scales ranged from . 50 to .85 ) and short-term test-retest reliability of .79" (DeBaryshe \& Binder, 1994, p. 1303). The PRBI contains 7 scales and 42 items. The scales are as follows: (a) Positive Affect: emotional impact related to reading; (b) Verbal Participation: related to the value of children's engagement in verbal participation when reading, (c) Resources: impact of limited resources on reading, (d) Teaching Efficacy: parents' view of their role as teachers in regard to school-related abilities, (e) Knowledge Base: the extent to which children gain moral guidance or real-world knowledge from books, (f) Environmental Input: the flexibility of language growth, and (g) Reading Instruction: the pertinence of direct reading instruction. Parents indicate the extent of their agreement to each statement on a 4-point

Likert scale (1=strongly disagree to 4= strongly agree). The 42 items are grouped into these 7 scales and do not include an overall scale (DeBaryshe \& Binder, 1994; Rodriguez et al., 2009).

Only five of the seven scales yielded scores with acceptable internal consistency. Scores on the other two scales (i.e., Reading Instruction and Environmental Input) had low coefficient alphas (below .60). After conducting a principal component analysis (PCA), DeBaryshe and Binder (1994) found that a single component accounted for $52.2 \%$ of the variance in participants' responses. In addition, the researchers measured reading practices at home. DeBaryshe and Binder (1994) found a correlation between literacy practices at home and high scores on the PRBI. In other words, mothers who valued their role as teachers in their children's education engaged more frequently in literacy practices such as book reading and had more reading material available at home.

Rodriguez et al. (2009) translated the PRBI into Spanish and used it with a group of 274 Mexican American mothers in a southern state of the United States. The instrument was available in Spanish and English, so participants were able to choose. These researchers found similar internal consistency reliability in the Spanish version for five of the seven scales developed by DeBaryshe and Binder (1994). Rodriguez et al. (2009) found similar issues with scores on the Reading Instruction and Environmental Input scales, both of which had low reliability when tested with Mexican American mothers. These researchers suggested that one of the possible reasons for this unreliability may be related to the fact that the Environmental Input scale attempts to measure two constructs instead of one, a factor that may have confused the respondents. In the case of Reading Instruction, the researchers claimed that even though the scale measures the importance of direct reading instruction, Mexican

American mothers had conflicting opinions, which were probably caused by the incorporation of new reading models. In other words, even though Mexican mothers asserted that they read to their children so they could learn letters and words before enrolling in school, thus reflecting the importance of direct reading instruction, they also held views that reflect the goal of enjoyment, knowledge, and oral language development.

The main difference between the studies conducted by DeBaryshe and Binder (1994) and Rodriguez et al. (2009) can be found in the obtained factor structures. Both studies found that the PRBI had a unitary factor structure, with one component explaining the majority of the variance of data. However, Rodriguez et al. (2009) obtained factor structure coefficients about half as large as what DeBaryshe and Binder (1994) had found with a sample of African Americans and Euro-Americans, which Rodriguez et al. (2009) attributed to the data collection methods used in each study. DeBaryshe and Binder (1994) used two methods (self-report and observations), whereas Rodriguez et al. (2009) only used self-report as the data collection method. Both studies used an additional survey to measure literacy practices at home, and a correlation analysis of the scores coming from each instrument was conducted in each study, finding a correlation between beliefs about literacy and literacy practices themselves. Mothers who scored high on the PRBI reported that they read books more frequently. In both cases, mothers who held beliefs about literacy similar to the educators from the school system tended to engage more in literacy activities at home.

The PRBI has been used by several researchers interested in the topic of beliefs about literacy or reading aloud to children. Rodriguez et al. (2009) as well as Weigel et al. (2006) are among some of the authors that have used the PRBI with results similar to those obtained by

DeBaryshe and Binder (1994).
The adaption of the "Stony Brook Family Reading Survey" by Weigel et al. (2006) was used to assess literacy and language activities at home with 79 mothers and their children in the United States. With that particular group, the Stony Brooks scores had an acceptable internal consistency, with a coefficient alpha of .71. The instrument not only focuses on literacy practices with children such as reading books, drawing, singing, storytelling, and playing games but also explores mothers' level of education as well their individual engagement in literacy activities. The "Stony Brook Family Reading Survey" has been used extensively in the United States by several researchers in the field of reading and literacy (Weigel et al., 2006). Specifically, the adaptation created by Weigel et al. (2006) was used in this study.

I translated the adaptation of the "Stony Brook Family Reading Survey" into Spanish, and I asked another bilingual professional to translate it back into English, to check for the quality of the translation. A Spanish version of the surveys is included in Appendix A. The most recent version of this instrument includes interval scores for each question. However, I used the survey with an open-ended approach so I could capture discrete values for variables such as frequency of weekly reading, which provided more precise information about time spent in each literacy activity. By capturing discrete values, I was able to later cluster them into intervals to add more meaning to the data.

In addition, Rodriguez et al. (2009) suggested a mixed method approach for continuing the improvement and development of the PRBI with Hispanic participants, in particular with the two scales that showed low reliability. By conducting interviews, it was possible to explore diverse Hispanic parents' understanding of the questions included in two specific scales:

Environmental Input and Reading Instruction.
From the qualitative paradigm, I used a structured interview guide to explore beliefs about education and literacy practices among Hispanic parents, using 10 of the questions included in the PBRI and some additional questions that were based on the conceptual framework of early literacy for Hispanic families. Also, I included questions from some of the troublesome scales from the PBRI. The purpose of using existing question on the survey to prompt a qualitative approach was based on the notion that when participants are able to express their point of view, without the influence of the researcher scheme (based on preset possible answers), richer and complementary data emerge (Gobo, 2011). If participants expand their answers from the survey, they can explain and elaborate their responses in a conversational fashion, which is more conducive to finding people's real perspectives. Using what is known as the conversational survey, a term introduced by Galtung (as cited by Gobo, 2011), allowed me to use a single instrument, with both qualitative and quantitative approaches, enriching the complexity of the data. Some critics have found drawback to using the conversational survey, such as the risk of interviewers influencing participants' responses, but as Gobo (2011) mentioned, there are more advantages because the interviewers can be trained to avoid biases and to stimulate the emergence of participants' viewpoints.

## Participants

Diverse Hispanic parents with children enrolled in VPK were contacted through the centers their children attended. Diverse Hispanic parents whose children were not enrolled in VPK were contacted through the various Hispanic organizations in Jacksonville, mainly through churches in the city and local Hispanic stores. A descriptive variable measuring enrollment in

VPK was included in the surveys to allow participants recruited from churches and other Hispanic organizations with children enrolled in VPK to also participate in the study. In addition, the variable of country of origin was included in both surveys to explore if country of origin is related to Hispanic parents' beliefs about education and literacy practices at home. Both surveys and interviews were conducted in the VPK centers, churches, and stores where Hispanic parents attend. The surveys were collected in groups, when possible, to facilitate the speed of data collection. I read the questions to the group so they could answer all items in the surveys. Both surveys were available in Spanish and English. The majority of participants answered the surveys in Spanish (at least $85 \%$ of them).

I used a convenience sampling procedure to select participants in the study. Because this was a descriptive study, there were no particular requirements about the number of participants. However, I expected to have 75 Hispanic parents or caregivers of four-year-old children enrolled in VPK programs, and 75 Hispanic parents whose children were not enrolled in VPK, for a total of 150 Hispanic caregivers. Each PRBI survey had a number that served as identifier for participants; this was relevant when selecting participants for the qualitative phase. The last page of the PRBI survey included a section in which parents interested in participating in the qualitative phase were able to express their willingness to participate and contact information. A list with names of interested participants and assigned numbers was created and password protected. Original papers with the real names of Hispanic caregivers were shredded to protect their identities.

After analyzing the information coming from the quantitative phase, 20 diverse Hispanic caregivers were selected from those who participated in the quantitative phase to participate in
the qualitative interviews. The criterion for selection was based on the enrollment of their four-year-old children in VPK: 10 Hispanic caregivers of children enrolled in VPK and 10 Hispanic caregivers who have not enrolled their children in VPK. The interview lasted around 30 minutes and was conducted individually. The interviews were audiotaped. I included maximum variability of country of origin in the interviews as it was possible.

To conduct the qualitative phase I designed an interview guide based on the results from the quantitative phase, exploring troublesome questions from the PRBI and also some findings of early literacy research. I emphasized country of origin to explore if this factor made any difference in the belief system about education and the literacy practices among diverse Hispanic caregivers participating in the study. Participants had the opportunity to choose if they prefer to have the interview in English or Spanish; 16 participants were interviewed in Spanish and four in English. Figure 2 represents the methodological approach for the whole study, with specific information about each phase.


Figure 2. Methodological approach.

The quantitative phase is represented in Figure 3. As mentioned before, the quantitative phase of the study was based on the use of two existing instruments: the PRBI developed by DeBaryshe and Binder (1994), and the adaptation of the "Stony Brook Family Reading Survey", by Weigel et al. (2006). Each instrument initially provided specific predictor variables as follows:


Figure 3. Quantitative research design.

Each subscale coming from the PBRI is composed of several items as follows: the Teaching Efficacy subscale includes items 1-9, the Positive Affect subscale includes items 10-20, the Verbal Participation subscale includes items 20-27, the Reading Instruction subscale includes items 28-31, the Knowledge Base subscale includes items 32-36, the Resources subscale includes items 37-40, and the Environmental Input subscale includes items 41-42. Predictor variables from the "Stony Brook Family Reading Survey" come from specific questions included in the survey.

## Data Analysis

For the analysis of the quantitative data I used multivariate statistics, in particular conducting a logistic regression that allowed me to classify Hispanic parents in different groups based on their beliefs about education, as well as their literacy practices at home and country of origin. In addition, I reported descriptive statistics such as means and standard deviations.

In regards to the qualitative data, all interviews were transcribed and coded into relevant categories. When participants spoke about their immigration status voluntarily, the information was not transcribed or used for the purpose of the study in order to protect participants' private information. Themes were identified and analyzed based on the conceptual framework that served as foundation of the study. For the analysis of qualitative data, I followed the seven steps suggested by Marshall and Rossman (2006): "organization of data; immersion in the data; generation of categories and themes; coding the data; offering interpretations; searching for alternative understandings, and writing the report" (p.156). To strengthen the reliability of the coding process I had the assistance of an independent coder who coded a sample of the qualitative interviews. Both coding systems were compared to
verify the accuracy.

## Ethical Issues

The potential risk for participants in the study was psychological discomfort, and the anticipated cost was related to the invasion of privacy because the interview asked about participants' personal early literacy practices with their children, their beliefs about education and also the time invested in participating in the study. This risk was minimized by clearly explaining that there were no wrong or right answers for any of the questions. In addition, this risk was minimized by the fact that I am Hispanic and I speak fluent Spanish. Participants were able to select the language of preference for both the surveys and the interviews. Another important step taken to minimize risks was to keep participants' identities confidential.

All participants' names were replaced with a number to protect their identity. Names were collected only to sign the informed consent and to determine who was interested in participating in the qualitative phase of the study. Names of participants in the surveys that were interested in being interviewed during the qualitative phase were collected and listed on a separate and final page of the surveys. A new list crosschecking numbers and names of participants was created and password protected. The original sheets with names of participants were shredded after this to protect participants' identities.

Before collecting any data I obtained letters of support from the VPK centers and churches where Hispanic parents would be contacted. In addition, I obtained approval from the Institutional Review Board at the University of North Florida before the data
collection phase. See Appendix B.
As a Hispanic researcher I was vigilant of my own biases when conducting the qualitative interviews, as well as when interpreting the qualitative data.

This study could benefit preschool providers with a better understanding about how diverse Hispanic families in Jacksonville view education, their role, and also the type of literacy practices they are promoting at home.

## Delimitations and Limitations of the Study

The present study is a descriptive study limited to a convenience sample of Hispanic families participating in it in Jacksonville, Florida. The study contributes to knowledge about early literacy practices among diverse Hispanic families in the United States, but the specific results cannot be generalized due to the sampling procedure. In addition, this study used a Spanish version of the PRBI (DeBaryshe \& Binder, 1994) for only the second time, which resulted in issues with the reliability and validity of the instrument as there was not much existing data from the Hispanic population to compare results to. The "Stony Brook Family Reading Survey" was used in Spanish for the first time, to my knowledge, which posed a threat to its robustness.

The data collection was limited to diverse Hispanic caregivers of four-year-old children who decided to participate in the study voluntarily. All data was collected at a single-point, which limited the generalizability of the study. Another important limitation of the study is that data was self-reported. Self-report is often linked to the risk of participants providing social desirable responses, which threatens the validity of the data (Rodriguez et al., 2009).

## Conclusion

As mentioned before I used a mixed-method research study to explore the beliefs about education and literacy practices among Hispanic families in Jacksonville, Florida. The quantitative phase preceded the qualitative phase of the study and the analysis of the data was also sequential. In Chapter 4 I include a detailed description of the results of the study for each of the phases, answering each of the research questions that guided the project.

## Chapter 4: Results

This chapter includes detailed information about the results from both the Parental Reading Belief Inventory and the adaptation of the Stony Brooks Family Reading Survey as well as the qualitative interviews. Both surveys and the qualitative interviews were used for the purpose of finding similarities and differences among Hispanic caregivers in regard to their beliefs about education and their early literacy practices at home. Even though this study did not include a hypothesis, it was expected that caregivers who had chosen to enroll their children in the Voluntary Prekindergarten Program (VPK) may hold different beliefs about education compared to those who had not enrolled their children in this type of program. To make the results easier to understand I will report all descriptive statistics for each survey separately and will later include the results from the logistic regression, which includes both instruments. Results from the qualitative phase will be included at the end of this chapter.

## Study Setting

The surveys were collected in three settings: six preselected VPK centers with high Hispanic children enrollment, five Hispanic churches, and two local Latin stores in Jacksonville. Whenever possible the data from Hispanic caregivers who had their children enrolled in VPK were collected in groups. Data collection at the Hispanic churches, where both caregivers of children enrolled in and not enrolled in VPK programs attended, was challenging because many people who attended were ready to leave after the service concluded and did not want to spend time filling out a survey. For that reason, a decision was made to reach Hispanic
caregivers at local Latin stores, which are another gathering place for Hispanics. Qualitative interviews were conducted both at the VPK centers and churches where Hispanic caregivers attend.

## Participants of the Study

A sample of 150 Hispanic caregivers ( 75 with children enrolled in VPK and 75 with children not enrolled in VPK) was the target of the study. However, I was able to collect 137 surveys from caregivers ( 86 with children enrolled in VPK and 51 without children enrolled in VPK). Of the 137, 12 Parental Reading Belief Inventory (PRBI) surveys from caregivers with children enrolled in VPK had to be discarded due to a missing survey page which resulted in missing data for 16 questions. The final sample of the remaining 125 surveys was distributed as follows: 74 caregivers with children enrolled in VPK and 51 without children enrolled in VPK. It is important to mention that not all participants filled out both surveys; therefore, differences in sample size for each survey were expected.

The majority of respondents were Hispanic female caregivers of 4 -year-old children (80\%) as shown in Table 3, and 60\% reported being bilingual. In regard to the bilingual question, this item was difficult for some caregivers to understand which could have revealed different levels of education among participants.

Table 3

Respondents' Relationship with Four-Year-Old Children

|  | $n$ | $\%$ |
| :--- | :---: | :---: |
| Mother | 92 | 74.2 |
| Father | 24 | 19.4 |
| Other Relatives | 8 | 6.4 |
| Total | 124 | 100.0 |

Table 4

Country of Origin

|  | $n$ | $\%$ |
| :--- | :---: | :---: |
| Mexico | 35 | 28.0 |
| Puerto Rico | 25 | 20.0 |
| Cuba | 12 | 9.6 |
| Other Central American Countries | 33 | 26.4 |
| South America | 14 | 11.2 |
| United States of America | 3 | 2.4 |
| Unspecified | 3 | 2.4 |
| Total | 125 | 100.0 |

Note. Other Central American countries: Honduras, Dominican Republic, El Salvador, Costa Rica, Guatemala and Nicaragua. South America: Colombia, Peru, Venezuela, Chile and Ecuador

Participants in the study were from different countries of origin, with those from Mexico and Puerto Rico as the largest groups in the sample as shown in Table 4.

I initially planned to interview 30 Hispanic caregivers to gain a deeper understanding of their beliefs about education and early literacy practices at home. However, I was only able to interview 20 of them: 10 with children enrolled in VPK and 10 without children enrolled.

Participants were selected based on their country of origin, VPK enrollment of their children, and their willingness to be part of the qualitative phase of the study. A detailed description of participants in the interviews will be found in the qualitative results section.

## Missing Data

As mentioned, 12 surveys from the sample of Hispanic caregivers with children enrolled in VPK were discarded because the surveys were missing a page of responses.

When other item responses were missing, mean substitution imputation was used.
Mean imputation has drawbacks: impeding the ability to capture the true variance of the data,
changing the actual distribution, and impacting the correlation between variables. However, after analyzing the descriptive statistics for this instrument before any imputation was done, I noticed that in most cases Hispanic caregivers tended to answer the questions of the survey in a similar pattern. The majority of standard deviations for the PRBI are less than one, which allows one to conclude that the response pattern is consistent. In this regard, mean substitution is an acceptable solution for missing data (Hair, Black, Babin \& Anderson, 2010). Descriptive Statistics from PRBI

Tables 5 and 6 include the descriptive statistics for the PRBI organized by positively and negatively stated items in the survey.

## Table 5

## Parent Reading Belief Inventory-Positively Stated Items

| Positively Stated Items | $n$ | M | SD |
| :---: | :---: | :---: | :---: |
| Q1 I play an important role in my child's development | 124 | 3.85 | 0.36 |
| Q3 My child learns many important things from me | 125 | 3.74 | 0.49 |
| Q5 I am my child's most important teacher | 123 | 3.41 | 0.69 |
| Q7 Parents need to be involved in their children's education | 122 | 3.79 | 0.43 |
| Q9 Children do better in school when their parents also teach them | 122 | 3.75 | 0.46 |
| Q11 I enjoy reading with my child | 122 | 3.57 | 0.53 |
| Q12 I have good memories of being read when I was a child | 123 | 3.15 | 0.85 |
| Q13 Reading with my child is a special time | 123 | 3.70 | 0.48 |
| Q15 I feel warm and close to my child when we read | 124 | 3.68 | 0.55 |
| Q17 I want my child to love books | 124 | 3.46 | 0.74 |
| Q19 I read to my child whenever he or she wants | 124 | 3.15 | 0.85 |
| Q20 When we read I try to sound excited so my child's stays interested | 124 | 3.56 | 0.53 |
| Q21 Children learn new words, colors, names, from books | 124 | 3.79 | 0.43 |
| Q22 Reading helps children be better talkers and better listeners | 124 | 3.77 | 0.44 |
| Q23 My child knows the names of many things she has seen in books | 124 | 3.59 | 0.56 |
| Q24 When we read, I want my child to help me tell the story | 125 | 3.49 | 0.58 |
| Q25 I ask my child a lot of questions when we read | 125 | 3.32 | 0.63 |
| Q26 When we read, I want my child to ask questions | 125 | 3.46 | 0.56 |
| Q27 When we read we talk about the pictures as much as we read the story | 125 | 3.46 | 0.63 |
| Q31 When we read, I have my child point out different letters or numbers that are printed in the book | 125 | 3.47 | 0.53 |
| Q32 I try to make the story more real to my child by relating to his or her life | 125 | 3.22 | 0.60 |
| Q33 Stories help build my child's imagination | 125 | 3.63 | 0.50 |
| Q34 My child learns lessons and morals from the stories we read | 125 | 3.48 | 0.56 |
| Q35 Reading helps children learn about things they never see in real life (like Eskimos and polar bears) | 125 | 3.44 | 0.56 |
| Q36 My child learns important life skills from books (like how to follow a cooking recipe, how to protect themselves from strangers) | 124 | 3.23 | 0.76 |

Note. Response Scale: Strongly Disagree (1), Disagree (2), Agree (3), Strongly Agree (4)

Table 6

## Parent Reading Belief Inventory-Negatively Stated Items

| Negatively Stated Items | $n$ | $M^{*}$ | $S D$ |
| :--- | :---: | :---: | :---: |
| Q2 There is little I can do to help my child get ready to do well in school | 123 | 2.26 | 1.21 |
| Q4 I would like to help my child learn, but I don't know how | 123 | 2.49 | 1.01 |
| Q6 Schools are responsible for teaching children, not parents | 125 | 2.21 | 1.15 |
| Q8 When my child goes to school, the teacher will teach my child everything my child | 120 | 2.06 | 0.96 |
| needs to know so I don't need to worry |  |  |  |
| Q10 I find it boring or difficult to read to my child | 122 | 1.59 | 0.65 |
| Q14 My child does not like to be read to | 121 | 1.80 | 0.87 |
| Q16 I have to scold or discipline my child when we try to read | 124 | 2.02 | 0.86 |
| Q18 I don't read to my child because he or she won't sit still | 123 | 1.73 | 0.75 |
| Q28 I read with my child so he/she will learn letters and how to read simple words | 125 | 3.58 | 0.51 |
| Q29 Parents should teach children how to read before they start school | 125 | 3.50 | 0.59 |
| Q30 My child is too young to learn about reading | 124 | 1.57 | 0.67 |
| Q37 Even if I would like to, I'm just too busy and too tired to read to my child | 124 | 1.69 | 0.70 |
| Q38 I don't read to my child because we have nothing to read | 122 | 1.48 | 0.63 |
| Q39 I don't read to my child because there is no room an no quiet place in the house | 123 | 1.45 | 0.60 |
| Q40 I don't read to my child because I have other, more important things to do as a | 123 | 1.43 | 0.60 |
| parent | 123 | 2.12 | 0.82 |
| Q41 Some children are natural talkers, others are silent. Parents do not have much | 120 | 2.74 | 0.88 |
| influence over this |  |  |  |
| Q42 Children inherit their language ability from their parents, it's in their genes |  |  |  |

Note. Response Scale: Strongly Disagree (1), Disagree (2), Agree (3), Strongly Agree (4)

* Means reflect the survey scores without reversing the scales.

Scores on the PRBI items that were negatively stated were reversed prior to the analysis of the data, as suggested by the PRBI creators, DeBaryshe and Binder (1994).

## Factor Analysis for PRBI

DeBaryshe and Binder (1994) defined seven a priori scales that formed the construct of parental beliefs about reading. A unitary factor solution for the PRBI was found by the authors with reliable alpha coefficients after testing the seven scales, as shown in Table 7. The same
scales were tested with the data from the present study. Due to the fact that the reliability data indicated lack of internal consistency of scores for some of the scales I decided to run an exploratory factor analysis (EFA) with these data using the software Mplus (Muthén \& Muthén, 2007).

Table 7
Comparison of Cronbach Alpha with PRBI Original Factor Solution

| Scale | Number of Items | Items | Original* <br> $\alpha$ | Current * <br> * |
| :--- | :---: | :---: | :---: | :---: |
| Teaching Efficacy | 9 | $1-9$ | 0.73 | 0.69 |
| Positive Affect | 11 | $10-20$ | 0.85 | 0.75 |
| Verbal Participation | 8 | $20-27$ | 0.83 | 0.88 |
| Reading Instruction | 4 | $28-31$ | 0.63 | -0.97 |
| Knowledge Base | 5 | $32-36$ | 0.82 | 0.79 |
| Resources | 4 | $37-40$ | 0.79 | 0.86 |
| Environmental Input | 2 | $41-42$ | 0.50 | 0.01 |

Note. Original alphas refers to measures found by DeBaryshe and Binder. Current alphas refer to the present study.

Before extracting factors, I used the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) and Bartlett's Test to explore if the data were even suitable for a factor analysis, as suggested by Garcia-Santillan et al. (2012), and Dziuban and Shirkey (1974). A statistically significant result ( $\mathrm{p}<.05$ ) in the KMO and Barlett's Test and a value closer to 1 (.8710) confirmed that a factor analysis was appropriate for the data.

To define which EFA model was most appropriate for the PRBI data, several models were tested to define which offered the best fit for the data. Table 8 displays the models. The
scree plot (Figure 4) was also used as guidance to determine the number of factors to extract.


Figure 4. Scree plot for the PRBI.

Table 8
Fit Indices for Exploratory Factor Analysis (EFA) for PRBI

| Factors | $\mathrm{X}^{2}$ | df | p | RMSEA | CFI | TLI | SRMR |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1744.411 | 819 |  | 0.10 | 0.63 | 0.61 | 0.10 |
| 2 | 1342.442 | 778 | 1.000 | 0.08 | 0.77 | 0.75 | 0.07 |
| 3 | 1155.526 | 738 | 1.000 | 0.07 | 0.83 | 0.80 | 0.06 |
| 4 | 1014.950 | 699 | 1.000 | 0.06 | 0.87 | 0.84 | 0.05 |
| 5 | 896.657 | 661 | 0.999 | 0.05 | 0.91 | 0.88 | 0.05 |

Several factor analysis models were tested using the software Mplus (Muthén \&
Muthén, 2007) to define which one offered the best goodness of fit for these particular data.
Based on the fact that this study used a small sample size (<200), the Root Mean Squared Error
of Approximation (RMSEA) as well as the Comparative Fit Index (CFI) are appropriate indexes to consider because they are less sensitive to sample size (Fan, Thompson, \& Wang, 1999). The RMSEA is one of the most frequently reported measures of model. Steiger (as cited by Savalei, 2012) suggested that values of RMSEA less than . 05 indicate a good fit and less than .01 represent an outstanding fit. The threshold for CFI has been established to be $>.95$ (Hu \& Bentler, 1999). On the other hand, the Tucker-Lewis Index (TLI) is also an appropriate measure of goodness fit due to the fact that it is independent of sample size (Marsh, Balla, \& McDonald, 1988). Similar to CFI, TLI measures are scaled between 0 and 1, the ideal index being closer to 1 . The Standardized Root Mean Square Residual (SRMR) is an absolute measure of fit. For that reason a value of zero is considered a perfect fit. Any value less than .08 is generally considered to be a good fit for SRMR (Hu \& Bentler, 1999). When testing different factor models, the ideal is that each added factor increases the robustness of the data or that the model is improved. In order for that to be determined special attention should be devoted to the $p$ value. Whenever a solution decreases the $p$ value, it is a clear indication that no more factors should be added. This was the case for this data set when a fifth factor was added. As indicated in Table 8, both $\mathrm{X}^{2}$ and $p$ value decreased in the five-factor model, and that was a clear indication no more factors should be added.

Based on the different criteria of goodness of fit, the five-factor model had the best fit statistics; however, because the five-factor solution yielded factors that were not interpretable, I rejected that model and chose the four-factor solution as the most appropriate model.

In addition, factor coefficients of all 42 items included in the PRBI instrument were reviewed. When reviewing the coefficients for items within the two models (four and five-
factor solutions), I followed the suggested criteria by Costello and Osborne (2005) that there should be a gap of at least .2 between any primary and secondary coefficient values for "doublet" items.

From the four-factor solution, only two scales were interpretable: Parental Involvement in Reading Skills and Barriers to Reading. Scores on both scales had a large coefficient alphas, above .80, as shown in Table 9, which implies that the items grouped into each scale are measuring with high internal consistency (Hair et al., 2010).

Table 9

Final Scales for the PRBI

| Scales | Items | Name | $\alpha$ |
| :---: | :--- | :--- | ---: |
| Scale 1 | $3,5,15,20,21,22,23,26,27,31$, | Parental Involvement in Reading | 0.89 |
|  | 33,34 <br> Scale 2 | $2,4,10,14,16,18,30,37,38,39$, | Barrills |
|  | 40 |  | 0.88 |

Tables 10 and 11 include the structure coefficients for the items within the Parental Involvement in Reading Skills and Barriers to Reading scales. It is important to mention that in both scales there are some items with low coefficients __below 0.40 (see item 5 in the Parental Involvement in Reading Skills, and items 2 and 4 in the Barriers to Reading). However, I decided to keep them in the scales because they improved the alpha coefficients and they fit conceptually with the construct measured.

## Table 10

## PRBI-Parental Involvement in Reading Skills Factor Structure Coefficient Matrix

| Item | Structure <br> Coefficient |
| :--- | :--- |
| Q3 My child learns many important things from me | 0.43 |
| Q5 I am my child's most important teacher | 0.34 |
| Q15 I feel warm and close to my child when we read | 0.53 |
| Q20 When we read I try to sound excited so my child's stays interested | 0.70 |
| Q21 Children learn new words, colors, names, from books | 0.64 |
| Q22 Reading helps children be better talkers and better listeners | 0.62 |
| Q23 My child knows the names of many things she has seen in books | 0.64 |
| Q26 When we read, I want my child to ask questions | 0.56 |
| Q27 When we read we talk about the pictures as much as we read the story | 0.59 |
| Q31 When we read, I have my child point out different letters or numbers that are printed | 0.57 |
| in the book |  |
| Q33 Stories help build my child's imagination | 0.59 |
| Q34 My child learns lessons and morals from the stories we read | 0.48 |

Table 11

## Barriers to Reading Factor Structure Coefficient Matrix

| Item | Structure <br> Coefficient |
| :--- | :---: |
| Q2 There is little I can do to help my child get ready to do well in school | 0.39 |
| Q4 I would like to help my child learn, but I don't know how | 0.37 |
| Q10 I find it boring or difficult to read to my child | 0.69 |
| Q14 My child does not like to be read to | 0.51 |
| Q16 I have to scold or discipline my child when we try to read | 0.43 |
| Q18 I don't read to my child because he or she won't sit still | 0.68 |
| Q30 My child is too young to learn about reading | 0.74 |
| Q37 Even if I would like to, I'm just too busy and too tired to read to my child | 0.66 |
| Q38 I don't read to my child because we have nothing to read | 0.79 |
| Q39 I don't read to my child because there is no room an no quiet place in the house | 0.79 |
| Q40 I don't read to my child because I have other, more important things to do as a parent | 0.75 |
|  |  |
| After reviewing the factor structures, correlations between items were examined to |  |
| explore how items correlated with each other in each of the scales from the PRBI. Tables 12 and |  |
|  |  |

## Table 12

Correlation Matrix for Items in Parental Involvement in Reading Skills Scale

|  | Q3 | Q5 | Q15 | Q20 | Q21 | Q22 | Q23 | Q26 | Q27 | Q31 | Q33 | Q34 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Q3 | - | 0.25 | 0.34 | 0.44 | 0.43 | 0.36 | 0.27 | 0.30 | 0.29 | 0.26 | 0.35 | 0.32 |
| Q5 | - | - | 0.11 | 0.26 | 0.24 | 0.25 | 0.15 | 0.32 | 0.22 | 0.31 | 0.25 | 0.22 |
| Q15 | - | - | - | $0.56^{*}$ | $0.51^{*}$ | 0.47 | 0.49 | 0.43 | 0.36 | 0.41 | 0.48 | 0.32 |
| Q20 | - | - | - | - | $0.51^{*}$ | $0.50^{*}$ | 0.48 | 0.57 | 0.50 | $0.53^{*}$ | 0.50 | 0.43 |
| Q21 | - | - | - | - | - | $0.70^{*}$ | $0.65^{*}$ | 0.47 | 0.42 | 0.44 | $0.55^{*}$ | 0.39 |
| Q22 | - | - | - | - | - | - | $0.58^{*}$ | 0.46 | 0.40 | 0.39 | $0.58^{*}$ | 0.41 |
| Q23 | - | - | - | - | - | - | - | 0.47 | 0.46 | 0.40 | $0.52^{*}$ | 0.44 |
| Q26 | - | - | - | - | - | - | - | - | $0.58^{*}$ | 0.48 | 0.47 | 0.41 |
| Q27 | - | - | - | - | - | - | - | - | - | 0.48 | 0.41 | 0.29 |
| Q31 | - | - | - | - | - | - | - | - | - | - | $0.51^{*}$ | $0.50^{*}$ |
| Q33 | - | - | - | - | - | - | - | - | - | - | - | 0.46 |

Note. ${ }^{*} p<.05$
Table 13
Correlation Matrix for Items in Barriers to Reading Scale

|  | Q2 | Q4 | Q10 | Q14 | Q16 | Q18 | Q30 | Q37 | Q38 | Q39 | Q40 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Q2 | - | $0.51^{*}$ | 0.26 | 0.35 | 0.30 | 0.27 | 0.33 | 0.31 | 0.31 | 0.33 | 0.34 |
| Q4 | - | - | 0.33 | 0.36 | 0.31 | 0.31 | 0.35 | 0.38 | 0.30 | 0.29 | 0.32 |
| Q10 | - | - | - | $0.54^{*}$ | 0.41 | $0.53^{*}$ | $0.52^{*}$ | $0.51^{*}$ | $0.56^{*}$ | $0.60^{*}$ | 0.50 |
| Q14 | - | - | - | - | $0.52^{*}$ | 0.45 | 0.38 | $0.52^{*}$ | 0.44 | 0.48 | 0.46 |
| Q16 | - | - | - | - | - | $0.57^{*}$ | 0.32 | 0.38 | 0.29 | 0.31 | 0.26 |
| Q18 | - | - | - | - | - | - | $0.53^{*}$ | 0.47 | $0.59^{*}$ | $0.63^{*}$ | $0.55^{*}$ |
| Q30 | - | - | - | - | - | - | - | $0.54^{*}$ | $0.67^{*}$ | $0.5^{*}$ | $0.57^{*}$ |
| Q37 | - | - | - | - | - | - | - | - | $0.60^{*}$ | $0.54^{*}$ | $0.57^{*}$ |
| Q38 | - | - | - | - | - | - | - | - | - | $0.88^{*}$ | $0.79^{*}$ |
| Q39 | - | - | - | - | - | - | - | - | - | - | $0.80^{*}$ |
| Note. ${ }^{*} p<.05$ |  |  |  |  |  |  |  |  |  |  |  |

It was expected that correlations among items within each scale would be high because they are measuring the same construct. It is noticeable that in the Parental Involvement in Reading Skills scale item 21 is highly correlated with items 22 and 23 . A similar case happens in the Barriers to Reading scale where item 39 is highly correlated with items $30,38,18,10$, and 40. In summary, some items within each scale were more closely related to each other, which means they had a stronger association.

## Exploring Differences on the PRBI

Before collecting any data, and based on existing research, I expected that enrollment of children in VPK might be related to some differences in the belief system of Hispanic parents; for that reason, I decided to explore some group differences. I found that there were some statistically significant differences in the Parental Involvement in Reading Skills, as well as in the Barriers to Reading. Hispanic caregivers who have their children enrolled in VPK tended to score higher on both scales, especially in the Barriers to Reading scale, as shown in Tables 14 and 15. Higher scores in the Parental Involvement in Reading Skills meant that Hispanic caregivers with children enrolled in VPK believed more in the importance of their engagement in early literacy practices. On the other hand, higher scores in the Barriers to Reading reflected that caregivers experienced fewer obstacles when engaging in literacy activities with their children or that they felt more capable of helping their children in their learning experience. Even though there are statistically significant differences among Hispanic caregivers who had their children enrolled in VPK with those who have chosen not to enroll their children, the differences were moderate in the scale of Parental Involvement in Reading Skills (0.36), and small for Barriers to Reading (0.12), as indicated in Table 16 (Wiersma \& Jurs, 2008).

Table 14

PRBI Independent T-test Based on VPK Enrollment

| Scale | VPK <br> Enrollment | $n$ | $M$ | SD | SEM |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Parental Involvement in Reading Skills | Yes | 74 | 43.72 | 4.06 | 0.47 |
| Barriers to Reading | No | 51 | 42.04 | 4.60 | 0.64 |
|  | Yes | 74 | 37.14 | 4.90 | 0.57 |
|  | No | 51 | 32.90 | 6.41 | 0.90 |

Table 15
Levene's Test Based on VPK Enrollment-PRBI

| Scale | Equal <br> Variances <br> Assumed | F | Sig | t | df | Sig (2- <br> tailed) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Parental Involvement in Reading | Yes | 4.45 | 0.04 | 2.15 | 123.00 | 0.03 |
| Skills | No |  |  | 2.10 | 98.56 | 0.04 |
| Barriers to Reading | Yes | 2.30 | 0.13 | 4.18 | 123.00 | 0.00 |
|  | No |  |  | 3.98 | 88.57 | 0.00 |

Table 16
Effect Size for Parental Involvement in Reading Skills and Barriers to Reading Based on VPK

| Independent <br> Variable | Dependent Variable | Mean Squared | F | Sig | n2 |
| :--- | :--- | :---: | :---: | :---: | :---: |
| VPK | Parental Involvement in Reading | 84.91 | 4.62 | $0.03^{*}$ | 0.36 |
| Enrollment | Skills |  |  |  |  |
| VPK | Barriers to Reading | 541.03 | 17.49 | $0.00^{*}$ | 0.12 |
| Enrollment |  |  |  |  |  |
| Note. ${ }^{*} p<.05$ |  |  |  |  |  |

In addition, to explore differences based on country of origin, a one-way ANOVA test was used. Before conducting this test, groups were modified from the original list based on the number of participants. Mexicans, Cubans, and Puerto Ricans were kept as independent groups because there were enough participants from those countries but also because they represent the biggest country-of-origin groups among Hispanics living in Jacksonville. Two groups were omitted (USA and unknown) because they did not have enough participants in them. Table 17 presents the descriptive statistics based on the country of origin of participants in the study. Table 18 presents the results of the one-way ANOVA test that indicated that there are some group differences based on country of origin.

Statistically significant differences were found for both scales which indicated that at least two groups are different, as shown in Table 16. In order to find which of these groups
were different, the Holm's step-down procedure was used to find where the differences occurred.

Table 17

Descriptive Statistics for One-way ANOVA of PRBI Based on Country of Origin

| Scale | Country | n | M | SD | SE |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Parental Involvement in Reading Skills | Mexico | 35 | 41.09 | 4.72 | 0.80 |
|  | Puerto Rico | 25 | 44.84 | 3.63 | 0.73 |
|  | Cuba | 12 | 45.08 | 2.02 | 0.58 |
|  | Other Central American | 33 | 42.48 | 4.18 | 0.73 |
|  | South America | 14 | 45.00 | 3.61 | 0.97 |
|  | Mexico | 35 | 32.66 | 5.43 | 0.92 |
|  | Puerto Rico | 25 | 38.76 | 4.27 | 0.86 |
|  | Cuba | 12 | 38.75 | 4.77 | 1.37 |
|  | Other Central American | 33 | 33.70 | 6.60 | 1.15 |
|  | South America | 14 | 37.64 | 4.56 | 1.22 |

Table 18
ANOVA Results for the PRBI Based on Country of Origin

| Scale |  | Sum of <br> Squares | Df | Mean <br> Square | F |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Parental Involvement in Reading Skills | Between groups | 327.89 | 5 | 65.57 | $3.94^{*}$ |
| Barriers to Reading | Between groups | 856.88 | 5 | 172.37 | $5.76^{*}$ |

Note. ${ }^{*} p<.01$
I decided to manually use the Holm's step-down procedure, as part of the multiple comparison procedures, due to its ability to reduce a risk for Type 1 error, its accuracy, and its power. Multiple comparison procedures were performed to test multiple null hypotheses
without increasing the risk of Type 1 error (Ludbrook, 1998).
To calculate the Holm's step-down procedure, I conducted several independent $t$-tests comparing the different countries of origin of Hispanic caregivers participating in the study against each other on the two scales Parental Involvement in Reading Skills and Barriers to Reading.

After comparing the groups based on country of origin, $10 p$-values were ordered from lowest to highest and each $p$-value was multiplied by its correspondent pair number. Those results lower than .05 were considered statistically significant (Wiersma \& Jurs, 2008). Table 19 includes the results.

## Table 19

Holm's Step Down Results Based on Country of Origin-PRBI

| Countries | Parental Involvement in Reading Skills | Barriers to Reading |
| :--- | :--- | :--- |
| M vs. PR | Yes | Yes |
| M vs. CU | Yes | Yes |
| M vs. CA | No | No |
| M vs. SA | No | Yes |
| PR vs. CU | No | No |
| PR vs. CA | No | Yes |
| PR vs. SA | No | No |
| CU vs. CA | No | No |
| CU vs. SA | No | No |
| CA vs. SA | No | No |

Note. M: Mexico, PR: Puerto Rico, CU: Cuba, CA: Central America, SA: South America
Yes: Statistically Significant Difference; No: Not Statistically Significant Difference

As shown in Figure 5, caregivers from Mexico differed in their beliefs about their role in
early literacy education with their children when compared with caregivers from Cuba and Puerto Rico on the Parental Involvement in Reading Skills scale. Mexican caregivers were less likely to perceive themselves as important actors in their children's learning experiences. Mexican caregivers did not differ in their beliefs about education from caregivers coming from other Central and South American countries.


Figure 5. Statistical significance differences based on the Parental Involvement in Reading Skills scales.

In the Barriers to Reading Scale, caregivers coming from Mexico reported experiencing more barriers to engage in reading activities with their children, especially when compared with caregivers coming from Puerto Rico, Cuba and South America. No differences were found when caregivers from Mexico were compared with caregivers coming from Central American countries, as reflected in Figure 6.


Figure 6. Statistical significance differences based on Barriers to Reading scale.

In both scales from the PRBI, there is a clear distinction between caregivers from Mexico and caregivers from Cuba and Puerto Rico. There are several factors to consider in these differences. One of them is the level of education of those countries. Mexico has a lower national average level of education when compared to Cuba and Puerto Rico (National Task Force on Early Education for Hispanics, 2007). Another factor is the legal status of caregivers coming from Cuba and Puerto Rico. People coming from Puerto Rico are already citizens of the United States, and Cubans typically become legal residents as soon as they step on shore in this country (Portes \& Rumbaut, 2001). A very different story is that which Mexicans experience when living in the United States. A great majority of immigrants coming from Mexico remain undocumented for many years, and that could have limited their ability to access educational programs available for their children. Also, the fact that caregivers' level of education tends to be very limited could also have had an impact in the repertoire of activities they engage in to promote learning with their children.

The previous section included all results of both descriptive statistics for the PRBI as well as the results from the EFA and the tests of group differences based on the country of origin of

Hispanic caregivers. A four- factor solution with two scales was the best model for this particular data: Parental Involvement in Reading Skills and Barriers to Reading. Based on the Holm's step down test, the responses of caregivers from Mexico were statistically different when compared with the responses of caregivers from Cuba and Puerto Rico in both scales. The next section will include the descriptive statistics as well as the EFA for the Adaptation of the Stony Brooks Family Reading Survey.

## Descriptive Statistics for Adaptation of the Stony Brooks Reading Survey

The Adaptation of the Stony Brooks Reading Survey is an inventory of the literacy practices caregivers are engaged in at home. Table 20 includes the frequency of responses to items in the survey.

Table 20

Descriptive Statistics - Adaptation of the Stony Brooks Reading Survey

|  | Hardly Ever |  | Once or twice a month |  | Once or twice a week |  | Almost daily |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $n$ | $\%$ | $n$ | $\%$ | $n$ | $\%$ | $n$ | $\%$ |
| Reading Frequency | 7 | 5.60 | 6 | 4.80 | 60 | 48.00 | 52 | 41.60 |
| Ask to be Read | 10 | 8.00 | 11 | 8.80 | 39 | 31.20 | 65 | 52.00 |
| Look at Books | 2 | 1.60 | 6 | 4.80 | 31 | 24.80 | 86 | 68.80 |
| Drawing Pictures | 3 | 2.40 | 2 | 1.60 | 27 | 21.60 | 93 | 74.40 |
| Singing or Rhymes | 18 | 14.40 | 10 | 8.00 | 34 | 27.20 | 63 | 50.40 |
| Telling Stories | 11 | 8.80 | 13 | 10.40 | 46 | 36.80 | 55 | 44.00 |
| Playing Games | 0 | 0.00 | 2 | 1.60 | 18 | 14.40 | 105 | 84.00 |
| Library Visits | 62 | 49.60 | 34 | 27.20 | 25 | 20.00 | 4 | 3.20 |
| Watching T.V. | 13 | 10.40 | 8 | 6.40 | 30 | 24.00 | 74 | 59.20 |

Note. $n=125$
It is notable that among the almost daily literacy activities, playing games (84\%), drawing pictures (74.4\%), and looking at books (68.8\%) were the most common among Hispanic caregivers in Jacksonville. In contrast, few caregivers went to the public library with their
children regularly.
Table 21

Stony Brooks-Minutes Read

| Minutes Read | VPK |  | NO VPK |  |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $n$ | $\%$ | $n$ | $\%$ | $n$ | $\%$ |  |
| 1: 0 minutes | 5 | 4.00 | 7 | 5.60 | 12 | 9.60 |  |
| 2: 1-10 minutes | 14 | 11.20 | 9 | 7.20 | 23 | 18.40 |  |
| 3: 11-20 minutes | 34 | 27.20 | 12 | 9.60 | 46 | 36.80 |  |
| 4: More than 20 minutes | 31 | 24.80 | 13 | 10.40 | 44 | 35.20 |  |
| Total | 84 | 67.20 | 41 | 32.80 | 125 | 100.00 |  |

As indicated in Table 21, caregivers with children enrolled in VPK spent more time reading to their children than caregivers who had not enrolled their children in childcare programs. A similar case happened with the number of books that caregivers had at home, considering caregivers with children enrolled in VPK had more books at home (as shown in Table 22).

Table 22

Stony Brooks-Number of Books

| Number of Books | VPK |  | NO VPK |  |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $n$ | $\%$ | $n$ | $\%$ | $n$ | $\%$ |  |
| 1: 0-2 | 10 | 8.00 | 6 | 4.80 | 16 | 12.80 |  |
| 2: 3-10 | 33 | 26.40 | 19 | 15.20 | 52 | 41.60 |  |
| 3: 11-20 | 11 | 8.80 | 9 | 7.20 | 20 | 16.00 |  |
| 4: $21-40$ | 12 | 9.60 | 3 | 2.40 | 15 | 12.00 |  |
| 5: More than 40 | 18 | 14.40 | 4 | 3.20 | 22 | 17.60 |  |
| Total | 84 | 67.20 | 41 | 32.80 | 125 | 100.00 |  |

In regard to the time caregivers spend reading by themselves, Hispanic caregivers in both groups said that they read between 16-30 minutes daily, as shown in Table 23.

Table 23
Stony Brooks- Parents' Reading Time

| Parents' Reading Time | VPK | NO VPK |
| :--- | :--- | :--- |


|  | $n$ | $\%$ | $n$ | $\%$ | $n$ | $\%$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 1: Hardly anytime | 5 | 4.00 | 6 | 4.80 | 11 | 8.80 |
| 2: 2-15 minutes | 13 | 10.40 | 9 | 7.20 | 22 | 17.60 |
| 3: 16-30 minutes | 46 | 36.80 | 17 | 13.60 | 63 | 50.40 |
| 4: 31-60 minutes | 15 | 12.00 | 5 | 4.00 | 20 | 16.00 |
| 5: More than an hour | 5 | 4.00 | 4 | 3.20 | 9 | 7.20 |
| Total | 84 | 67.20 | 41 | 32.80 | 125 | 100.00 |

The data pertaining to the starting age when caregivers read to their children showed no clear trends among any of the Hispanic parent groups, as indicated in Table 24. These data may suggest that there was not a clear understanding about the importance of starting to read to children as early as possible and the impact that this could have on literacy skills in general. As Hoff (2006) mentioned, children who are read to at an early age and with regularity have some advantages when they enroll in school because they are familiar with written language and because reading has a positive impact in their language acquisition. A great majority of both groups of caregivers (those with and without children enrolled in VPK) started to read to their children after they were 13 months of age.

Table 24

Stony Brooks- Starting Age of Reading to Children

|  | VPK |  | NO VPK |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $n$ | \% | $n$ | \% | $n$ | \% |
| 0-6 months | 24 | 19.20 | 7 | 5.60 | 31 | 24.80 |
| 7-12 months | 9 | 7.20 | 5 | 4.00 | 14 | 11.20 |
| 13 months to $11 / 2$ years | 17 | 13.60 | 12 | 9.60 | 29 | 23.20 |
| $1 \frac{1}{2}$ to 2 years | 10 | 8.00 | 6 | 4.80 | 16 | 12.80 |
| Later than second birthday | 24 | 19.20 | 11 | 8.80 | 35 | 28.00 |
| Total | 84 | 67.20 | 41 | 32.80 | 125 | 100.00 |

The adaptation of the Stony Brooks Survey also collected information about Hispanic caregivers' years of schooling, their academic performance, and their own literacy practices at home. The data suggested that overall the Hispanic caregivers participating in this study had low levels of education, regardless of their children's enrollment in VPK programs. In their selfreported academic performance, it is clear they did not have strong academic experience. Hispanic parents who participated in this study reported a moderate enjoyment of reading and scarce time spent in writing activities during their daily lives.

In general, results from the Stony Brooks Family Reading survey provided evidence that at the time of the study Hispanic parents engaged in literacy activities such as playing games, drawing pictures, and looking at books. Hispanic parents who participated in the study were not using the library as a tool to work in educational activities at the time of data collection. Hispanic caregivers who had their children enrolled in VPK programs reported reading more frequently to their children and having more books available at home. Writing and reading books were not activities that Hispanic parents engaged in frequently or said they enjoyed. These facts when combined with a low level of education and a weak academic performance (both self-reported measures) could have explained why the majority of participants in the survey mentioned that they started to read to their children after the first year of age, which is considered to be late based on existing research (Hoff, 2006).

## Factor Analysis for the Stony Brooks Survey

The adaptation of the Stony Brooks Survey has been mainly used to assess literacy and language activities at home similar to the use of an inventory (Weigel et al., 2006). No factor
analysis had been conducted before on data collected using this instrument. However, in order to explore differences among Hispanic caregivers participating in the study, I explored how the items in this survey grouped together and whether some scales could be defined. Specifically, I conducted an EFA using the same criteria applied to the Parental Reading Belief Inventory.

The first step to determine if a factor analysis was appropriate was to run the KMO and Bartlett's Test (included in Table 25). Because the result of this test was statistically significant, I decided to proceed with the exploratory factor analysis (Garcia-Santillan et al., 2012).

Table 25
Stony Brooks-KMO and Bartlett's Test

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | 0.78 |  |
| :--- | :--- | :---: |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 147.98 |
|  | df | 21.00 |
|  | Sig. | $0.00^{*}$ |

Note. ${ }^{*} p<.05$
Using the same criteria for fitness models that was used in the PRBI and also the scree plot for the instrument (Figure 7), two factor solutions (i.e., one and two factors) were explored to determine which model better fit the data collected in this project. Table 26 includes both factor solutions.


Figure 7. Scree plot for Stony Brooks factor analysis.

Table 26

Stony Brooks- Factor Analysis Solutions

| Factors | $\mathrm{X}^{2}$ | df | p | RMSEA | CFI | TLI | SRMR |
| :--- | ---: | ---: | :--- | :--- | :--- | :--- | :--- |
| 1 | 11.40 | 14 |  | 0.00 | 1.00 | 1.03 | 0.03 |
| 2 | 3.49 | 8 | 0.24 | 0.00 | 1.00 | 1.09 | 0.02 |

Based on these criteria, it was determined that a one-factor solution best fit the data.

Only one scale was determined, Literacy Activities, which had a strong coefficient alpha, as shown in Table 27.

Table 27

Stony Brooks--One Factor Solution

|  | Items | Scale | $\alpha$ |
| :--- | :--- | :--- | :---: |
| Factor 1 | $1,3,4,5,6$ | Literacy Activities | 0.72 |

Table 28
Stony Brooks-Literacy Activities Factor Structure Matrix

| Items | Structure Coefficients |
| :--- | ---: |
| Q1Reading frequency | 0.68 |
| Q3Look at books | 0.38 |
| Q4Drawing pictures | 0.47 |
| Q5Singing or Rhymes | 0.64 |
| Q6Tell stories | 0.79 |

Structure coefficients for the majority of items within this scale are high, as shown in Table 28, with the exception of item 3. Even though this item does not follow the recommended criteria of being at least . 40 (Costello \& Osborne, 2005), I decided to keep it in the scales because it contributed to the robustness of the alpha for the scale.

Table 29
Correlation Matrix for Literacy Activities Items

|  | Q1 | Q3 | Q4 | Q5 | Q6 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Q1 | - | 0.36 | 0.31 | 0.38 | $0.54^{*}$ |
| Q3 | - | - | 0.12 | 0.25 | 0.24 |
| Q4 | - | - | - | 0.33 | 0.36 |
| Q5 | - | - | - | - | $0.52^{*}$ |

Note. ${ }^{*}$ < 05
Table 29 includes the correlation matrix of the items included in the Literacy Activities scale. Correlations between most items are moderate, but particularly high for items 1 and 6, and 5 and 6, which indicate that those items are strongly associated.

## Exploring Differences on the Stony Brooks Survey

Acknowledging the research questions of this study, group differences were explored in the Literacy Activities scale based on VPK enrollment. I expected to find some differences based on enrollment in VPK, assuming that parents who have their children enrolled in childcare
programs are engaging in more literacy activities at home. However, no differences were found based on children's participation in childcare programs for the Literacy Activities scale, as there was not statistically significant difference among the groups (0.07). Table 30 incorporates the descriptive statistics for both groups based on enrollment in VPK and Table 31 includes the results of the significance test based on enrollment.

Table 30

Stony Brooks-- Descriptive Statistics Based on VPK Enrollment

| Scale | VPK <br> Enrollment | $n$ | $M$ | SD | SEM |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Literacy Activities | Yes | 84 | 17.18 | 2.61 | 0.29 |
|  | No | 41 | 16.15 | 3.32 | 0.52 |

Table 31

Levene's Test Based on VPK Enrollment-Stony Brooks

| Scale | Equal <br> Variances <br> Assumed | F | Sig | t | df |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yes | 3.32 | 0.07 | 1.90 | 123.00 |
| Literacy Activities | No |  |  | 1.75 | 64.87 |

Differences based on country of origin were also explored for the Stony Brooks instrument. A statistically significant result in the one-way ANOVA based on country of origin confirmed that there are statistically significant differences among at least one pair of groups. Tables 32 and 33 include the descriptive statistics for this test as well as the statistically significance results.

## Table 32

Descriptive Statistics for One-way ANOVA of Stony Brooks Based on Country of Origin

| Scale | Country | $n$ | M | SD | SE |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Literacy Activities | Mexico | 41 | 15.73 | 3.21 | 0.50 |
|  | Puerto Rico | 26 | 17.85 | 2.14 | 0.42 |
|  | Cuba | 12 | 18.67 | 1.23 | 0.36 |
|  | Other Central American | 31 | 16.61 | 3.20 | 0.58 |
|  | South America | 13 | 17.46 | 1.66 | 0.46 |
|  |  |  |  |  |  |

Table 33
ANOVA Results for the Stony Brooks Based on Country of Origin

| Scale |  | Sum of <br> Squares | Df | Mean <br> Square | F | Sig |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Literacy Activities | Between groups | 123.23 | 4 | 30.80 | 4.10 | $0.00^{*}$ |
| Note. ${ }^{*} p<.05$ |  |  |  |  |  |  |

The Holm's step down procedure was used to determine which groups of Hispanic caregivers were different in regards to their literacy practices at home. As shown in Table 34 and Figure 8 it is clear that the mean score for caregivers from Mexico was different to a statistically significant degree from the mean scores for caregivers from Puerto Rico and Cuba. These differences may be due to the fact that parents coming from this country engaged less in literacy activities at home, such as reading, drawing pictures or singing rhymes. Also, Mexican caregivers performed in a similar pattern to Central Americans parents in regards to literacy activities. Again, these results revealed a similar pattern to results from the PRBI, which suggested that level of education could play an important role in the type of educational engagement and children's academic performance. The National Task Force on Early Education
for Hispanics (2007) found that 64\% of Mexican American children had a mother who did not complete high school, which may have limited the type of educational interactions they promoted with their children.


Figure 8. Statistical significance differences based on Literacy Activities scale.

Table 34

Holm's Step Down Results Based on Country of Origin-Stony Brooks

| Countries | Literacy Activities |
| :--- | :---: |
| $M$ vs. PR | Yes |
| M vs. CU | Yes |
| M vs. CA | No |
| $M$ vs. SA | No |
| PR vs. CU | No |
| PR vs. CA | No |
| PR vs. SA | No |
| CU vs. CA | Yes |
| CU vs. SA | No |
| CA vs. SA | No |

Note. M: Mexico, PR: Puerto Rico, CU: Cuba, CA: Central America,
SA: South America
Yes: Statistically Significant Difference; No: Not Statistically Significant Difference

## Correlation among Scales from PRBI and the Stony Brook Survey

Because both the PRBI and Stony Brooks were used with the same Hispanic caregivers, it was reasonable to explore the correlations among the scales from the instruments. Also, this step was needed before running a logistic regression, which was originally planned in this project. As expected, there was a high correlation between the scales measuring beliefs about literacy (Parental Involvement in Reading Skills and Barriers to Reading), and low correlations with the scale measuring behaviors related to Literacy Activities. Table 35 includes the descriptive statistics for each of the scales. Table 36 shows that Parental Involvement and Barriers to Reading had a moderately high correlation (.52).

## Table 35

Descriptive Statistics for the PRBI and Stony Brooks Scales

|  | Mean | Std. Deviation | $n$ |
| :--- | :---: | :---: | :---: |
| Parental Involvement in Reading Skills | 43.03 | 4.35 | 125 |
| Barriers to Reading | 35.41 | 5.92 | 125 |
| Literacy Activities | 20.11 | 3.57 | 125 |

Table 36

Correlation Matrix for the PRBI and Stony Brooks Scales

|  |  | PI | BR | LA |
| :--- | :--- | :---: | :---: | :---: |
| PI | - | $0.52^{* *}$ | -0.15 |  |
| BR | - | - | -0.01 |  |
| LA | - | - | - |  |

Note. PI: Parental Involvement in Reading Skills, BR: Barriers to Reading, LA: Literacy Activities. ${ }^{* *} p<0.01$

## Logistic Regression

Initially, a discriminant analysis to determine group membership was planned; however, due to the fact that the dependent variable (VPK enrollment) is binary, logistic regression was
the most appropriate choice for this data set. Logistic regression requires a model in which the dependent variable is dichotomous (binary); in discriminant analysis, the dependent variable may have more than two categories. Logistic regression allows researchers to predict group membership based on the probability that a case falls into one of the two groups, in other words, that the outcome is binary (Meyers, Gamst, \& Guarino, 2006). To explore group membership, four predictors were used: the two scales coming from the PRBI factor analysis (Parental Involvement in Reading Skills and Barriers to Reading), the scale adapted from the Stony Brooks Family Survey (Literacy Activities), and finally country of origin. This last variable was included because, as previously mentioned, it had a relationship to differences in the belief systems about education, as well as the literacy activities at home. Due to the fact that country of origin is a categorical variable, I included it as such in the model, assigning each particular country of origin into a binary category using "dummy" coding. The four "country of origin" variables resulting from these recordings were Mexico, Puerto Rico, Cuba, and Central America. Table 37

Logistic Regression Results-Model Summary

|  | Model Summary |  |  |
| :--- | :---: | :---: | :---: |
| Step | -2 Log likelihood | Cox \& Snell R Square | Nagelkerke R Square |
| 1 | 129.40 | 0.24 | 0.32 |

Note. Estimation terminated at iteration number 5 because parameter estimates changed by less than . 001 .

In Table 37, the Nagelkerke R Square is the effect size, which indicates 32\% explained variance. This is considered to be a moderate effect size (Wiersma \& Jurs, 2008). This explained variance combined with a $70.6 \%$ of correct prediction (as shown in Table 38) indicates that this is a meaningful model, which implies that this prediction model is better than the null model
due to the fact that predictive accuracy is at least 1.25 higher than chance, as indicated in the chance "cut value" of . 500 (Hair et al., 2010). In addition, a Chi Square of 32.525 that is statistically significant at the .001 level indicates that this model is better than the null model to a statistically significant degree.

Table 38

Classification Table

|  | Observed |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  | VPK Enrollment |  | Percentage |
| Step 1 | VPK Enrollment | Yes | Yes | No |

Note. The cut value is . 500

Table 39

Variables Included in the Logistic Regression Equation

|  |  | B | S.E. | Wald | df | Sig. | Exp(B) |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | ---: |
| Step 1 $^{\text {a }}$ | Parental Involvement in Reading Skills | 0.03 | 0.06 | 0.33 | 1 | 0.56 | 1.04 |
|  | Barriers to Reading | -0.09 | 0.05 | 3.98 | 1 | $0.05^{*}$ | 0.91 |
|  | Country recoded |  |  | 13.54 | 4 | $0.01^{*}$ |  |
|  | Mexico | 1.57 | 0.79 | 4.01 | 1 | 0.05 | 4.82 |
|  | Puerto Rico | -0.27 | 0.87 | 0.09 | 1 | 0.76 | 0.77 |
|  | Cuba | -1.02 | 1.24 | 0.68 | 1 | 0.41 | 0.36 |
|  | Central America | 1.51 | 0.79 | 3.63 | 1 | 0.06 | 4.53 |
|  | Literacy Activities | -0.01 | 0.08 | 0.02 | 1 | 0.88 | 0.99 |
|  | Constant | 0.73 | 3.23 | 0.05 | 1 | 0.82 | 2.08 |

Note. Variable(s) entered on step 1: Parental Involvement in Reading Skills, Barriers to reading, Country recoded, Literacy Activities.

Based on the results included in Tables 37, 38 and 39, it is possible to confirm that the four variables used as predictors or independent variables (Parental Involvement in Reading

Skills, Barriers to Reading, Literacy Activities and Country of Origin) were able to predict group membership for $70 \%$ of the cases. This is considered to be a good level of prediction for logistic regression models, especially when taking into account the effect size as measured by Nagelkerke R Square (.322), which is considered to be moderate. In Table 39, I included the four independent variables or predictors that are part of the equation. However, it is important to mention that the variable called "Country Recoded" is a composite variable formed by taking into account the different values of this categorical variable. The four "country of origin" variables, Mexico, Puerto Rico, Cuba and Central America, were included in the equation with specific contributions to the predictive model as measured by the Wald statistic. Based on the results of Wald statistics (included in Table 39), it is clear that Barriers to Reading (3.98) and Country of Origin as a composite (13.54) were the variables that do a better job of predicting group membership due to the fact that they had the highest values for these statistics and that they were also statistically significant. A detailed review of the country of origin variable reveals that Mexico played a more important role among the different countries when it came to predicting group membership based on its odds ratio 4.82-as included in column Exp (B) and its statistical significance level (.05). Barriers to Reading was the other variable with a bigger role of predicting enrollment in VPK, based also on the combination of an odds ratio of .91 and a statistical significance level of 0.05 .

Figure 9 represents the classification plot of all cases. Cases identified with $Y$ represent those cases enrolled in VPK, whereas cases identified with an N refer to the non-enrolled cases. In an ideal case, it is expected that cases will fall in one of the extremes of the classification plot based on the cutoff point (.50). However, as shown in Figure 6, a great number of enrolled
cases $(\mathrm{Y})$ were misclassified with the non-enrolled (to the right of the plot). I conducted a review of the 35 misclassified cases using the classification plot in Figure 6 to explore if they follow any particular pattern. Based on this figure it was possible to identify that this exploration did not reveal a specific pattern for the misclassified cases.


Figure 9. Classification plot.

Note. The Cut Value is .50. Symbols: $\mathrm{Y}-\mathrm{Yes}$ and $\mathrm{N}-\mathrm{No}$ (Each Symbol Represents . 5 Cases)

The results from the logistic regression suggest that enrollment of Hispanic children in VPK was related to their parents' beliefs about education, their literacy activities at home, parents' barriers to reading, and also parents' country of origin. In particular, enrollment in VPK is especially related to the type of barriers Hispanic parents experience in reading to their children and also to their country of origin. It is plausible to think that parents who came from Mexico may not have felt as comfortable as Hispanic parents coming from other countries to enroll their children in VPK programs, possibly based on their legal status in this country.

Mexicans represent 58\% of the undocumented population in the United States (Passel \& Cohn, 2011) and tend to live in poverty, in households where Spanish is the only language spoken, and also are among the groups that are less likely to enroll in prekindergarten programs. These findings are consistent with data collected at the national level (Garcia \& Jensen, 2009). The combination of these factors seemed to play a role in the enrollment of Mexican descendent children in local childcare programs.

## Results from the Qualitative Phase

As mentioned previously, 20 Hispanic caregivers were interviewed to gain a deeper understanding of their literacy practices at home. Ten of the interviewees had children enrolled in VPK and 10 did not. The majority of participants in the qualitative phase were mothers of four-year-old Hispanic children. Only one male participated in this phase of the study. Interviews were conducted at the VPK centers and Hispanic churches where surveys were collected. Table 40 includes details about participants in the qualitative phase of the study.

Table 40

## Participants in the Qualitative Phase

| Country of Origin | VPK | NON-VPK |
| :--- | :---: | :---: |
| Mexico | 2 | 4 |
| Puerto Rico | 3 | 0 |
| Cuba | 1 | 0 |
| Dominican Republic | 2 | 0 |
| El Salvador | 0 | 1 |
| Honduras | 1 | 4 |
| Guatemala | 0 | 1 |
| Peru | 1 | 0 |
| Total | 10 | 10 |

All interviews were digitally recorded and transcribed into a word document. Sixteen interviews were conducted in Spanish because that was the only language spoken by parents
participating in the study or their preferred language, and four were in English. I translated the interviews conducted in Spanish into English. The accuracy of the translation was verified by another bilingual professional. It is important to mention that when participants voluntarily spoke about their immigration status, that the information was not included in the transcripts or the analysis of information, as established in the Institutional Review Board protocol.

Responses to each question were later transferred into an Excel sheet so they could be filtered and analyzed by enrollment in VPK and also by country of origin. Each question had a tab in the spread sheet that included country of origin, VPK enrollment, and the response to each specific question. The analysis of responses was based on the conceptual framework of the study, in particular around the family literacy practices at home. I decided to compile the answers to different questions around themes such as importance of education, reading at home, conversations and use of words, and literacy practices. To analyze the data, I read the answer for each particular question, filtering by enrollment in VPK, and I identified common themes and differences on the big ideas related to literacy practices at home.

Taking advantage of the fact that I am bilingual and that the majority of the interviews were conducted in Spanish, I decided to include some sentences in the original language to better represent Hispanic parents' perspective about literacy practices and education. I also offer an English version of those sentences so a broader audience can understand. The selection of excerpts or quotes was based most of the time on exemplifying typical responses among the two groups: parents with children enrolled in VPK and parents whose children are not enrolled in VPK. Other times, the selection was based on atypical responses either from one person or from a parent representing one of the groups.

## Characterization of Participants

Hispanic parents participating in the qualitative phase of this study had between two to five children who are less than 5 years of age. Some of the parents who had not enrolled their children in VPK programs reported having other children in their country of origin. A majority of parents, both with children enrolled and not enrolled in VPK, reported that they had not visited their families in their country of origin in a while for different reasons, some of them because their families lived here in the United States or others because they had not been able to go back since they left.

In regard to their level of education, the majority of parents with children enrolled in VPK reported to have at least a high school diploma, and some of them had some years of college, but not a degree. In contrast, level of education for parents who had not enrolled their children in VPK was very mixed. Some parents reported not having a high school diploma, some did not finish elementary school, and others had some years of college. One mother who had not enrolled her child in VPK held a bachelor's degree.

Half of the interviewees were not currently working at the time of the present study. Of those who were working, the majority reported to be doing cleaning services or housekeeping duties. Only two mothers reported to have a professional job as a grant specialist and translator. The majority of parents who participated in the interviews received food stamps. From the population not enrolled in VPK, few parents reported to be fully bilingual; however, they all said that they recognized the importance of learning English and also the need for strong Spanish so their children can be fully bilingual. As a parent from El Salvador indicated:

Yo hablo un poco de inglés, no es perfecto, pero yo entiendo mucho. Yo no hablo inglés con mis hijos porque yo quiero que ellos conserven un español fuerte. Ellos quieren hablar inglés en casa, pero yo trato de forzarlos a que hablen español también.

## English translation:

Yes, I do speak English a little bit, it's not perfect but I do understand a lot. I don't speak English with my children because I want them to keep Spanish as a strong language. They want to speak English at home, but I try very hard to force them to speak Spanish too (Parent from El Salvador with a child enrolled in VPK).

In contrast, there was the expectation of some parents whose children were enrolled in VPK to learn English from their children. They saw VPK programs as a great resource not only for their children but for themselves to improve their English skills, as a Mexican parent whose child was enrolled in VPK stated:

No, yo no hablo inglés, necesito estudiarlo y aprenderlo. Yo solo hablo español a mis hijos, pero a veces yo les pido que me hablen en inglés para yo aprender algunas palabras de ellos.

English translation:
No, I don't speak English, I need to study and learn, though. I only speak in Spanish to my children, but sometimes I ask them to talk to me in English so I can learn some words from them (Mexican parent with a child enrolled in VPK).

There was not a clear trend in regard to which language should be spoken at home, especially among parents who had chosen to enroll their children in VPK programs. Whereas some of them said that they made a great effort to keep their native language, others mentioned that they preferred to enforce English as the primary language, so their children can feel better prepared for school. An example of that was expressed by a Puerto Rican mother whose child was enrolled in VPK:

Yes, I speak English, but we have a rule that we don't speak English at home, only Spanish (Puerto Rican parent with a child enrolled in VPK).

Hispanic parents who participated in this study were very diverse in their level of bilingualism, working status and especially in their level of education. Parents who had their children enrolled in VPK seemed to have higher levels of education since the majority of them reported to have a high school diploma; whereas some parents whose children were not participating in childcare did not finish elementary school. In contrast, all parents who were interviewed indicated that they valued education very highly, as indicated in the next section.

## Importance of Education

Regardless of their children's enrollment in VPK, all Hispanic parents interviewed agreed that education was the only way to succeed in life. The majority of them were adamant about the importance of their children having a quality education and they reported that they saw themselves playing an important role in their children's education. Participants interviewed stated that they wanted their children to have the opportunities many of them never had by getting a good education. Education, as they stated, was for them the key to having a successful life and to improving the quality of life. A typical example of this sentiment was what a mother from Honduras expressed:

La educación es muy importante para mí porque yo no estudié y yo quiero que mis hijos estudien para que tengan una mejor vida y no sufran tanto como yo he sufrido. Yo vine de Honduras por la pobreza, y si hubiese tenido educación las cosas serían diferentes. Yo creo que mis hijos tendrán un mejor futuro con la educación. Yo quiero que mi hija vaya a la escuela para que aprenda inglés y pueda hablar con todo el mundo; yo también quiero aprender inglés. Mis hijos me enseñan inglés. A mí me gusta leer cualquier cosa que encuentre.

English translation:

It is very important to me [education] because I did not study and I want them to study so they can have a better life and they don't suffer as much as I have. I came from Honduras because of poverty, and with education could have been different. I believe that my children will have a better future with education. I want my daughter to go to school so she can learn English and can talk to anybody, and I want to learn English too. My children also teach me. I love to read anything I find (Parent from Honduras with a child not enrolled in VPK).

The importance of education was a message that had been instilled in many of the parents participating in this study. A comment from a parent of Dominican Republic clearly represents what most parents thought about their engagement in education:

Education is number one. It is something that my mom taught me very well. When I was in school, my mom always insisted in the importance of education. She insisted that I get good grades so I can improve my life with her help. Parents' participation in children's education is very important. For me it is very important to be close to my children's schools, so they can see that I am involved in their education and they do the same. It is important for parents to know that it's important that they teach things to their children at home. They should not expect schools to be in charge of everything. Parents need to know that children learn a lot from their homes, they learn from all they see, listen. It's important that parents get involved in their children's education, so they can see them as heroes. Education is number one. My children cannot complain that I'm not there for them in their education. If I do not know something, I Google it. If they don't know something, they should go to the school and ask the teacher or go to the library, so the children can say that their parents participate in their education. Parents need to do their job when their children are at school, at least until they finish high school. That's their job (Parent from Dominican Republic with a child enrolled in VPK).

Parents' involvement in their children's education seemed to also be a topic in which most participants agreed. Their role in their children's education varied based on enrollment in childcare programs. Parents who had their children in VPK programs reported that they were directly engaged in helping their children to do homework; several of them indicated that they saw themselves as their children's first teachers, even in those cases when they could not help them due to the language barrier. Parents with children participating in childcare programs seemed aware of the importance of establishing schedules for their children at home but also
providing a moral education for them. A typical example of that was what a Mexican parent indicated:

I always make them to study and to make an effort to be good students. I make sure they do their homework, even though I cannot help them. When they come from school I first ask them to do their homework, and later they can play for a while. I would like that my daughter goes to college, so she can be more independent and have a better future. I would like my children to have the opportunities I did not have. I would have liked to study, but we did not have as many opportunities as the ones they have in this country. In Mexico, sometimes we could not even afford a pencil, and my parents had so many children that they couldn't support education (Mexican parent with a child enrolled in VPK).

In contrast, some parents who had not enrolled their children in VPK were not as engaged in preparing their children to be ready for school due to the fact that they had more than one job and expressed not having time for these activities, even though they recognized the importance. It is significant to mention that I never questioned why parents were not engaged in educational activities, and yet some of them volunteered information about their personal circumstances. A specific response related to this was offered by a Mexican mother:

I am not that involved in my children's education because I really do not have time. When I am not working, I get involved a little bit more. Now, my husband is staying with my children because his job is slow now. I do my best to stay and share time with my children. I help them to do homework because I have more patience than my husband. We help them with school depending on who is busier (Mexican mother with a child not enrolled in VPK).

Offering a good quality of education was a common theme among Hispanic parents, regardless of their children's enrollment in VPK programs. Education was seen as a way to improve quality of life, as one Mexican mother expressed:

La educación es muy importante para mí. Yo quiero que mis hijos puedan hacer lo que yo no pude. Yo quiero que él tenga buenas calificaciones y le vaya bien en la escuela. Yo quiero que él sea alguien. Yo quiero que él tenga la posibilidad de escoger lo que quiere hacer y no que se vea obligado a tomar un trabajo como limpieza de casas. Yo no quiero eso para mis hijos.

## English translation:

Education is very important to me. I want my children to be able to do what I couldn't. I want him to get good grades and to perform well at school. I want him to be somebody. I want him to be able to choose what to do, and not be forced to take any type of job, cleaning houses; I don't want that for my children (Mexican parent with a child enrolled in VPK).

All parents who participated in the interviews agreed about the importance of education as the avenue for improving their children's quality of life; however, their level of engagement in educational activities varied based on enrollment in VPK programs. I found a similar trend in the engagement of parents in reading activities at home. Even though the majority of parents interviewed stated that they read daily with their children, there were some differences based on enrollment in VPK that I included in the next section.

## Reading at Home

All parents who had their children enrolled in VPK assured that they read daily to their children. Some of them even mentioned that older siblings also take an active role in reading to the four-year-old child. Language of reading depended on the level of bilingualism of the caregivers. Those who only spoke Spanish only read in that language to their children and relied on older siblings for readings in English. A typical response about reading was what a mother from the Dominican Republic mentioned:

I read to him sometimes, I do not do it every day, but I do read to him. His siblings also read to him. My son asks to be read to, and sometimes his sisters are the one reading to him. I usually read to him in English, and usually before he goes to bed (Parent from Dominican Republic with a child enrolled in VPK).

On the other hand, non-VPK parents reported less frequency of reading to their children
along with less structured time for reading. Some parents stated that they only read in Spanish because that was the only language they spoke. It seemed that there was an awareness of the importance of reading and preparing children to be ready for school, yet some parents expressed not having the time or skills to do it.

Yo sólo le leo algunas veces a mi hijo. Yo sé que necesito enseñarle muchas cosas antes de que él entre a la escuela porque el solo habla español. Yo también escuché que yo debo dejarlo ver TV en inglés para que aprenda. A veces nosotros leemos por 30 minutos o una hora, dependiendo de la situación. Yo solo le leo en español.

## English translation:

I only read sometimes to him. I know that I need to teach him many things before he goes to school because he only speaks Spanish. I also heard that I should let him watch TV in English, so he can learn. Sometimes we read 30 minutes or 1 hour, depending on the situation. I only read to him in Spanish (Mexican parent with a child not enrolled in VPK).

Most parents with their children enrolled in childcare programs stated that they asked questions to their children while reading. Further, most of them stated that they ask questions about the characters in the story and actions performed by those characters. However, the majority of parents mentioned that they do not ask their children to repeat the story because they felt their children were too young for that task. A typical example of that was mentioned by a Puerto Rican parent:

Sometimes I ask questions while we are reading. If it is a story about a dog, I ask him what is the dog doing or the child, simple questions. I don't ask him to repeat the story that I just read because he is too little to comprehend that (Puerto Rican mother with a child enrolled in VPK).

Most parents whose children were not enrolled in VPK also indicated that they asked questions to their children while reading, but some of them stated that they did not ask questions, even though they said they understood it was an important step to prepare their
children to go to school. This was not a common theme among parents who had not enrolled their children in VPK, but was important evidence of the constraints some parents face when engaging in educational activities with their children.

No, I don't ask him questions nor do I ask him to repeat the stories. I know that I should ask him questions about what we read, but I don't do it (Mexican parent with a child not enrolled in VPK).

In regard to print material, most parents assured that they had books for their children to read in both languages, Spanish and English. However, print material for them as adults tended to be scarce. Only some of them mentioned magazines and newspapers as part of their daily lives.

I only have few magazines in Spanish, but that is not frequent (Parent from Honduras with a child not enrolled in VPK).

Reading at home seemed to be a common literacy practice among Hispanic caregivers participating in this study, even though there were differences in the type of questions they ask their children, language use, and time and structure of the reading activities based on their children's participation in early childhood education. In the next section, I included results for other literacy practices at home, such as conversations and use of language among Hispanic caregivers.

## Literacy practices at home

There are several literacy practices that researchers have shown are vital to prepare children to be ready for their school experience. I selected some of those practices to explore Hispanic caregivers' opinion about their personal involvement in activities such as conversations, storytelling, labeling, teaching shapes, colors, numbers and the alphabet.

All parents, regardless of their children's enrollment in VPK, stated that they talk
constantly to their children. Reported topics of conversation varied but often involved daily life and children's behavior at school, if applicable. Parents reported that they told stories about their lives back in their own country. A typical example of this is what a mother from Honduras shared:

Yes, I talk to her. I tell her that she needs to behave. I tell them stories I experienced when I was a child in my country. I tell them about the importance of behaving when you are outside of your house. I talk to my youngest daughter every day, in particular when she comes back from school I ask her about her day at school. Some days I talk to her more than others, depending if I'm working or not (Parent from Honduras with a child enrolled in VPK).

Even though the majority of parents interviewed said they mostly used adult words, some of them admit to be using baby talk when talking to their four-year-old.

I mixed the baby talk with adult words, depending on the situation. When I need to discipline her, I use adult words, but I also play with her using baby talk (Parent from Honduras with a child enrolled in VPK).

Conversations between Hispanic caregivers and their four-year-old children were a common literacy practice among all participants in this phase of the study. The most common topic of conversation was daily life and school experience for those who had their children enrolled in VPK. Some parents reported the use of baby talk when they engaged in conversation with their children.

Storytelling was reported as part of the daily lives for both children enrolled and not enrolled in VPK in which a recurring theme is parent's childhood experience back in their country of origin. A typical example of that was shared by a Cuban mother:

Sí, yo le cuento historias. Yo invento historias y también le muestro fotos de mi familia en Cuba y le cuento historias sobre ellos.

English translation:

Yes, I tell them stories. I make up stories and I also show them pictures of my family in Cuba, and tell them stories about them (Cuban parent with a child enrolled in VPK).

More parents whose children were not enrolled mentioned that they did not create stories to tell their children, either because they did not know stories or they did not feel their children were ready for them.

I don't know many stories so I don't tell him so much. Sometimes I repeat the stories we read (Honduras mother with a child not enrolled in VPK).

The majority of parents had not used labels around the house to teach new words to their children, as a Puerto Rican parent mentioned:

No, we tell them the words and they ask us how to spell it. She likes to spell words. We don't label (Puerto Rican parent with a child enrolled in VPK).

Also, the majority of parents said they sing to their children mostly in Spanish, especially with religious music. A characteristic example of that was offered by a parent from Guatemala:

Yes, I am part of the chorus of my church, so I really like to sing. I sing to my children frequently. They even like to sing. Recently they sang at church during an activity we had there. I usually sing to them more in Spanish, but I also do it in English. I sing to them during the day and also before they go to bed (Guatemalan parent with a child not enrolled in VPK).

Few parents who had their children enrolled in VPK sang songs the children were
learning at school.
I used to sing to him when he was a baby, but not anymore. Sometimes I sing the songs my daughters bring from school and he learns them too. I sing in both languages (Puerto Rican mother with a child enrolled in VPK).

Most parents with children attending VPK had taught the alphabet to their children in English and Spanish and had reinforced their teaching with songs and flash cards. Some parents mentioned that this could be confusing for some children as they prefer to practice it in English, as a parent from Honduras mentioned:

Sí, yo le he ensenado el alfabeto en español. Cuando ella trae el alfabeto de la escuela, ella repite las letras en inglés y yo le enseño cómo decirlas en español. Yo he notado que esto es algunas veces confuso para ella. Yo le pido que repita las letras después de mí, pero a veces ella sólo quiere hacerlo en inglés.

English translation:
Yes, I taught the alphabet in Spanish. When she brings the alphabet from school she repeats the letters in English, and I teach her how to say them in Spanish. I noticed that sometimes that can be confusing for her. I ask her to repeat the letters after me, but a lot of times she only wants to do it in English (Parent from Honduras with a child enrolled in VPK).

In contrast, parents whose children were not in childcare indicated that they were more
hesitant to teach the alphabet as they expressed that they felt their children were too little to learn it all.

Yes, I taught the alphabet in Spanish/English. I do it little by little. I teach them five letters at the time; I am also teaching them when letters are capitals and lower case and when to use them. I write the letters in their notebooks. I teach to both of my daughters, I write the letters, I pronounce them and ask them to repeat. I do it in both languages. I also ask them to cut the letters we are learning from the magazines that we have at home. They really like that activity, they love to cut and glue things in their notebooks (Mexican parent with a child not enrolled in VPK).

Some of these parents whose children were not participating in childcare programs stated they overcame the language barrier by having educational tools that repeat the letters in English so their children could learn. A typical example of that was offered by a mother from Honduras:

Yes, she is learning it, not completely yet. She is learning in English. I have a toy that is an apple that has the alphabet with music, so she repeats after the toy, and that's how she is learning (Parent from Honduras with a child not enrolled in VPK).

Shapes seemed to be a more difficult subject for parents to teach. Not only were parents unclear in regard to the best language to use for teaching this concept, but some of them thought it was too confusing for their children's age, as stated by a parents coming from

Peru and Honduras:

Yes, I have taught her, but she is still confused with the shapes. We have painted it, colored it, she draws shapes (Peruvian parent with a child enrolled in VPK).

Yes, I have taught her this in Spanish, but when I ask her, she always says it in English. She only remembers them in English. I reinforce these concepts when she had homework about it. My oldest daughter has explained to me that since they spend most time at school it's normal for them to know things better in English (Parent from Honduras with a child enrolled in VPK).

Among the strategies to teach shapes, most parents used objects at home with different figures while others preferred to draw the different shapes as they were teaching this concept to their children. A typical example of that was mentioned by a parent from the Dominican Republic:

Sí, yo le he enseñado las formas a él en todos lados. Yo le pido que encuentre un objeto con una forma en particular, un triángulo, etc. Yo le enseñé en inglés.

## English translation:

Yes, I have taught that to him everywhere. I ask him to go and find an object with a particular shape, a triangle, etc. I taught that in English (Parent from the Dominican Republic with a child enrolled in VPK).

Teaching the colors seemed to be a more common practice among all parents. Some of them even got the support from their older children to teach colors in English when parents were not bilingual. Educational toys, as well as objects present both at home and at stores, were part of the strategies parents used to teach the colors. An example was offered by parents from Peru and from El Salvador:

Yes, she knows the primary colors very well in English. Sometimes we play as she is the teacher and she teaches me the colors. I sometimes say the wrong colors, so she can correct me (Peruvian parent with a child in VPK).

Yes, I'm trying that she learns the colors in both languages. She has not memorized them yet. She has lots of toys and books to color, and I buy them crayons for her to color (Parent from El Salvador with a child not enrolled in VPK).

Numbers were also another concept parents stated they engaged in teaching to their children, both those enrolled and not enrolled in childcare programs. Most parents were teaching numbers both in Spanish and English but putting a big emphasis on English because it is the dominant language spoken in the United States. A typical exemplification of this was offered by a parent from the Dominican Republic:

Yes, I have posters with the numbers. I have bought flash cards with the numbers and objects so he can count. He also has some small cars that he organizes and counts them. He makes a line and counts, so it's more interesting for him. I have to look for different activities so he can learn and enjoy because it's easy for him to get bored. I do all of that in English because I want him to get to kindergarten with good English. Spanish is very necessary and I want him to know it because I'm bilingual. I want my children to be bilingual also, but we live here and English is the dominant language, so I want my children to be comfortable with the language. I want them to be able to communicate well with teachers and students (Parent from the Dominican Republic with a child enrolled in VPK).

Participants indicated that there was a great variety in regard to how much children knew about counting. Some parents said their child knew numbers up to 100 in both languages, whereas others only were able to count up to 10 . There was the belief among some parents who had not enrolled their children in VPK that teaching more things can be confusing to their children, as a mother from Honduras expressed:

Sí, yo le he ensenado los números en español e inglés. Él sabe contar hasta 10. Yo no le enseno más porque no quiero que se confunda. Él es muy pequeño para entender todo eso. Él sabe los números en los dos idiomas.

English translation:

Yes, I have taught him the numbers in Spanish and English. He knows how to count up to 10 . I do not teach him more because I don't want him to get confused. He is too little to understand all of that. He knows the numbers in both languages (Honduras mother
with a child not enrolled in VPK).

Having a computer at home was not common, according to the Hispanic parents who participated in this study. Those who said they had a computer at home sometimes did not have Internet access, which created a barrier in the use of educational tools for their children. Those who did have Internet access said they allowed their children to use it for educational purposes, something especially useful for parents who did not speak English.

Yes, we have a computer at home and she knows how to use it. She uses it to learn the alphabet, the numbers, in particular the pronunciation of it. She watches educational programs in the computer (Peru Mother with a child enrolled in VPK).

Hispanic caregivers mentioned that they tell stories to their children, especially about the lives they had in their countries of origin. They also said that they sang constantly to their children, particularly religious music. It seemed that teaching the alphabet was a more common practice among Hispanic caregivers who had their children enrolled in VPK. However, some parents whose children were not participating in childcare programs were very resourceful to overcome the language barriers by using educational tools that could help them with the pronunciation of the English alphabet. All parents stated that they have taught colors and numbers to their children, but some of them expressed difficulties in teaching shapes.

Even though it was not included in the purpose of the study, I explored the reasons why Hispanic caregivers did not enroll their children in VPK programs during the interviews.

Lack of transportation, as well as children's age requirements, were the main reasons Hispanic caregivers mentioned regarding their decision not to enroll their children in these programs.

## Chapter Conclusion

This chapter included the results of both the quantitative and qualitative phase of the
study of Hispanic parents' beliefs about education and literacy practices at home. The study compares belief systems about education and literacy practices at home between Hispanic parents who have their children enrolled in VPK to those whose children were not participating in early childhood education. A total of 125 surveys were collected and 20 interviews were conducted including parents from both groups.

In general, Hispanic caregivers participating in this study engaged mostly in literacy practices such as playing games, drawing pictures, and looking at books. Diverse Hispanic caregivers who had their children enrolled in VPK spent more time reading to their children and had more resources for reading activities.

There were statistically significant differences between parents who had enrolled their children in VPK and those who had not. Diverse Hispanic parents who had their children in early childhood programs seemed to feel more engaged in their children's education and reported experiencing fewer barriers to reading than those parents whose children were not benefiting from the VPK programs. It is important to note that the differences were at most moderate because the effect size was moderate for both scales from the PRBI.

Differences were also found based on country of origin in both surveys. Mexican caregivers were less likely to perceive themselves as key actors in their children's learning experiences when compared to parents from Cuba and Puerto Rico. Following the same pattern, Mexican caregivers experienced more barriers when engaging in literacy activities than Cuban and Puerto Rican caregivers.

The three scales coming from the factor analysis of each survey (Parental Involvement in Reading Skills, Barriers to Reading, Literacy Activities), and the variable, Country of Origin were
strong predictors of enrollment in VPK programs because they classified 70\% of cases correctly. Among the variables, Country of Origin and Barriers to Reading seemed to be best at predicting enrollment in VPK. In other words, enrollment in VPK was dependent upon the type of barriers to reading that diverse Hispanic parents experience and also their country of origin.

Results from the qualitative phase indicate that diverse Hispanic parents who participated in the interviews varied in their level of education, level of bilingualism, and working status. All parents agreed that education is the best, and probably the only way, to improve their children's quality of life. However, parents whose children were not participating in early childhood education programs seemed to be less engaged in educational activities at home. In contrast, parents whose children were enrolled in VPK seemed to have a more structured routine, helping their children to do homework, whereas parents whose children were not participating in VPK seemed to experience more time constraints in helping their children to become prepared for school.

Reading, talking to their children, teaching the alphabet, identifying numbers and shapes, and singing were described as part of the daily routine of most parents, with some differences based on enrollment. The language used during literacy practices was dependent on the parents' ability. It is important to mention that most parents who had not enrolled their children in VPK only spoke Spanish, which limited their ability to use English as the primary language for educational activities at home.

Chapter 5 presents a summary of the results of the study based on the research questions, a discussion of those results based on the literature review, recommendations for practice and future research, and also some conclusions about the findings.

## Chapter 5: Summary, Discussion and Recommendations

By the year 2035, it is expected that one-third of the population of the United States will be Hispanic (National Council of La Raza-NCLR, 2010). This segment of the population is growing at a very fast pace, and yet their educational attainment is considerably less in most categories when compared with other subgroups of the national population. Only 57\% of Hispanics finish high school and just 10\% pursue and obtain a college degree (Laosa \& Ainsworth, 2007). Academic struggles for Hispanics in this country start even before they formally enroll in the educational system. The National Task Force on Early Education for Hispanics (2007) found that Hispanic children are already behind in several literacy measures before they register in prekindergarten programs.

Several educational programs, both at the federal and state level, have targeted Hispanic children with the purpose of preparing them for formal schooling. Head Start, Early Head Start, as well as the Voluntary Prekindergarten Program (VPK) in Florida, have enrolled millions of Hispanic children, and yet only $36 \%$ of those children who live in poverty are benefiting from these programs. Behind this low level of enrollment, lack of knowledge about the existence of these programs, lack of transportation, and financial limitations are some of the reasons why many Hispanic parents have not enrolled their children in these childcare programs (Pre-K Now, 2006).

Hispanic parents value their children's education; they have high expectations of what they can accomplish, but yet they do not engage in educational activities at the same pace as their White counterparts. Only 45\% of Hispanic parents read to their children compared to $68 \%$ of White parents (Federal Interagency Forum on Child and Family Statistics, 2005). Little information is available about differences in the beliefs about education and literacy practices at home among diverse groups of Hispanic parents (Rodriguez, Scheffner Hammer \& Lawrence, 2009). For that reason, the purpose of this study was to explore differences and similarities among Hispanic parents in regard to their beliefs about education and the literacy practices at home.

## Summary of the Study

The overarching question that guided this research was stated as follows: What are the family early literacy practices and beliefs about education among diverse Hispanic families in Jacksonville? Two specific questions were also addressed:

1. What differences, if any, exist in beliefs about education between diverse Hispanic families that have four-year-old children enrolled in the Voluntary Prekindergarten Program (VPK) and those who do not?
2. What differences, if any, exist in family literacy practices between diverse Hispanic families that have 4-year-old children enrolled in VPK and those who do not?

In order to answer these questions I selected a mixed method approach that combined the use of two surveys, one measuring parents' beliefs about education (the Parental Reading

Belief Inventory, PRBI) and the other measuring literacy practices at home, (an adaptation of the Stony Brooks Family Reading Survey), with a follow-up qualitative interview.

As previously mentioned, two groups were compared: Hispanic parents who had their four-year-old children enrolled in VPK programs with Hispanic parents who had not enrolled their four-year-old children in this type of program. Information was collected in six VPK centers with high Hispanic concentration, five Hispanic churches, and two Hispanic stores.

A total of 125 surveys were collected: 74 from diverse Hispanic caregivers whose children were enrolled in VPK and 51 from caregivers whose children were not enrolled in childcare programs. A total of 20 interviews were conducted: 10 with Hispanic parents whose children were participating in VPK programs and 10 with parents who had not enrolled their children in these programs.

After the analysis of all data, I found that in general diverse Hispanic caregivers who participated in this study engaged in literacy practices such as playing games, drawing pictures, and looking at books with their children. Hispanic caregivers who had their children participating in VPK programs spent more time reading to their children at home and had more material resources to promote reading. They were also more likely to engage in their children's education and to experience fewer barriers in their reading activities at home.

Another important difference was found based on country of origin. Mexican parents participating in the present study were less likely to see themselves playing an active role in their children's education, and they tended to report experiencing more barriers to reading when compared to caregivers from Cuba and Puerto Rico.

## Research Questions

This study was guided by several research questions. I will now include the findings per research question and, at the end the results, from the overarching research question.

1. What differences, if any, exist in beliefs about education between diverse Hispanic families that have four-year-old children enrolled in the Voluntary Prekindergarten Program (VPK) and those who do not?

The beliefs about education and early literacy practices were explored using the PRBI. Based on the results of a $t$-test using enrollment in VPK as the differentiating variable, I found that parents who had their children enrolled in VPK were more likely to report that they engaged in several literacy practices at home and were more involved in their children's education. Also, parents whose children were enrolled in VPK tended to feel more capable of helping their children get ready for school due to the fact that they experienced fewer barriers to engaging in literacy activities.

In the present study, country of origin also played an important role in differentiating Hispanic parents in regard to their beliefs about education. Mexican parents, in particular, were differentiated from Cuban and Puerto Rican parents in regards to helping children with their learning experience. Mexican parents in the present study were less likely to believe that they play an important role in their children's education. They also reported more barriers to engaging in reading and literacy activities at home.

As explained before, differences in the levels of education, as well as immigration status, could explain why Mexican parents experienced more barriers to engaging in their children's
education. Mexican parents tend to have lower levels of education when compared to their Cuban and Puerto Rican peers (National Task Force on Early Childhood Education for Hispanics, 2007). Also, Mexicans are among the largest undocumented groups in the United States, whereas Cubans and Puerto Ricans are both legal residents of this country. These two characteristics may have made local Mexican parents' experience in learning activities more challenging. Not only have many Mexican parents struggled themselves with their own schooling experience, but, like many other diverse Hispanic parents, they lacked the knowledge of how the school system works (Ortiz \& Ordoñez-Jasis, 2005). These factors, in conjunction with their language barrier, make their participation in their children's academic experience more challenging. If Mexican parents are less likely to believe that they can play an important role in their children's education and feel less capable of helping their children in their learning experience, this could have serious implications for the academic performance of Hispanic children in Jacksonville because Mexicans are one of the largest minority groups in the city (U.S. Census Bureau, 2010a).
2. What differences, if any, exist in family literacy practices between diverse Hispanic families that have 4- year-old children enrolled in VPK and those who do not?

No statistically significant differences were found regarding the literacy practices at home based on enrollment in VPK. However, I found statistically significant differences on the literacy practices based on country of origin. Similar to the differences found based on the PRBI, Mexican parents were less likely to report being engaged in literacy activities when compared to Cubans and Puerto Rican parents. The fact that Mexican parents in general tend to have
lower levels of education, tend to remain undocumented for many years, and also tend to experience more barriers to reading could explain why in the case of this study, Mexican parents were less involved in their children's education and also felt less capable of helping their children to become ready for school. An important further exploration of this issue could be found in the expectations that Mexican parents and Hispanic parents have in regard to their engagement in their children's education. Hispanic parents in general tend to see themselves as the moral educators of their children and they tend to leave the academic aspect of education to the teachers and the school system (Rodriguez \& Olswang, 2003).

The overarching question that guided this research was: What are the family early literacy practices and beliefs about education among diverse Hispanic families in Jacksonville?

The most common literacy practices among Hispanic families participating in this study were playing games, drawing pictures, and looking at books. These literacy practices were common across all participants, regardless of children's enrollment in VPK. In contrast, visits to the library were a rare practice among Hispanic families, which reveals an area of opportunity for the near future.

Reading was described as part of the literacy activities of Hispanic families participating in the present study. However, parents who enrolled their children in VPK programs reported reading for more time and having more books at home. The majority of diverse Hispanic parents participating in this research stated that they started to read to their children after they were 13 months of age. This is considered to be a late start for reading, especially when
research has shown the advantages of reading at an early age to prepare children for their schooling experience and their language development (Hoff, 2006).

In terms of the beliefs about education and about literacy practices at home, I found that diverse Hispanic parents in the present study who had their children enrolled in VPK tended to believe that their engagement in their children's education plays an important role in their academic performance. Also, they seemed to feel more capable of overcoming barriers, such as a lack of resources for reading activities among others. These differences were statistically significant with a moderate effect size.

Finally, beliefs about education and literacy practices at home combined with country of origin provided a good prediction model in regard to enrollment in VPK. In other words, enrollment in VPK was related to the beliefs Hispanic parents hold about education, the type of literacy practices they engaged in, and the country of origin. It is important to mention that even though the combination of these four variables created a meaningful model of prediction, Barriers to Reading and Country of Origin were the two variables that best predicted VPK enrollment.

These results were confirmed by the results in the qualitative phase in which parents expressed differences in the type of engagement in educational activities based on enrollment in VPK. Even though all parents agreed that they play an important role in their children's education, parents whose children were already participating in the formal education system had a better understanding about how to help their children and reported having more structured routines to help them with their learning experience. Activities such as doing
homework with their children, despite the language barrier, seemed to be part of the daily routine of parents whose children were already in VPK. In the case of parents who had not enrolled their children in childcare programs, they reported experiencing more barriers to engaging in educational activities due to time and financial constraints, even though they recognized the importance of these activities. An important element that could be influencing the type of educational activities for both groups of parents has to do with the availability of resources. Even though some parents said they have some print material at home, these resources tended to be scarce or only available in Spanish. The findings do not indicate a clear awareness by the parents that reading to their children, even if only in Spanish, could benefit their children's learning experience because they can transfer the skills learned from one language to the other; this finding reinforces what Mendez (2000) found in a study with Mexican mothers who were not aware of the fact that strong Spanish skills could benefit their children.

Other literacy activities such as singing seem to be another area where differences among diverse Hispanic parents emerged. Those parents whose children were attending a VPK center said that they usually sing songs that their children were learning at school, which reinforced their learning experience. In contrast, parents who had not registered their children in VPK were more limited in the availability of resources, such as songs to reinforce learning, but they did sing religious songs with their children, which is also a type of literacy practice. In other words, both groups of parents engaged in singing, but used different kinds of songs.

Diverse Hispanic parents participating in this study did not agree about the use of both languages, Spanish and English, when teaching or promoting learning with their children. Some of them expressed that is better to teach only in one language so children do not get confused in their learning experience, while others wanted their children to be bilingual. The majority of Hispanic parents whose children were not participating in childcare program only spoke Spanish at the moment of data collection. This is another example of a barrier that those parents experienced when engaging in educational activities with their children as there were not many reading resources in Spanish that they had access to. Language barriers have been documented as one of the main barriers for enrollment of Hispanic children in preschool programs (Laosa \& Ainsworth, 2007).

Participants in the study in both groups, with children enrolled in VPK and not enrolled in VPK, self-reported low levels of education and a weak academic performance in their schooling experience. They also expressed low levels of enjoyment of reading themselves and little time spent on writing during their daily lives. These elements, combined with lowsocioeconomic status, could explain the type and quality of interaction that those parents can offer to their children. As Neuman (2006) has found, socioeconomic status has a direct impact on the material world of children, determining access to resources but also affecting their language acquisition. Neuman found that parents from a low-socioeconomic background have a limited repertoire of learning activities to engage in because many face challenges to meet their basic needs. They also tend to struggle academically and are often unable to help their children in their learning experience because they lack the required skills. Even though all parents who were interviewed expressed that they talk daily to their children, it seems that
those who had their children enrolled in VPK had a bigger repertoire of meaningful topics to choose from because they had the school environment as part of their conversation.

## Limitations

One of the most important limitations of this study has to do with the use of existing instruments with non-English speakers. The PRBI was originally created by DeBaryshe and Binder (1994) and was translated to Spanish by Rodriguez et al. (2009) to be used in a study with Mexican mothers. Translation issues, as well as participants' level of education, constitute part of the limitations of the study. Some participants had a difficult time understanding particular questions, especially those written as reverse questions, those regarding being bilingual, or those asking participants to determine their equivalent level of education in the American system. The adaptation of the Stony Brooks was used for the first time in Spanish, to my knowledge, which could also pose some limitations about the appropriateness of the instrument. The instrument failed to account for some cultural aspects of the Hispanic population, such as the role of extended families and siblings when preparing children in literacy. Limitations on the use of the instruments posed a challenge to the way data performed when conducting the factor analysis, which generated the need to explore for many models that fit this data set.

Another limitation of the study is that the surveys used to collect information were both self-reported measures which limits the ability to determine what was really happening in the family environment. Self-reported measures may produce socially desirable responses rather than accurate responses.

In the data collection process I expected to have equal groups of parents with children enrolled in VPK and parents who had not enrolled their children ( 75 parents in each group). However, this was not possible as parents who had not enrolled their children in childcare programs were harder to find. Initially, I planned to recruit these parents through the Hispanic churches, but I had to change the data collection centers to include Latin stores due to the fact that level of participation in the churches was low and also because most churches had the service at the same time, which would have extended the period of data collection appreciably. Sample size was another limitation of the study that could have impacted the results, especially in regard to finding group differences.

The fact that I used a convenience sample of parents with four-year-old children in Jacksonville and the data collection limited to a single-point in time limited my ability to generalize results to a broader Hispanic community.

## Major Conclusions

Five major conclusions were drawn from this study. One of the major conclusions of this study was that Hispanic children's literacy skills is influenced by structural and non-structural factors related to literacy, as well as enrollment in childcare, family literacy practices and the cultural diversity among the Hispanic population.

Diverse Hispanic caregivers who participated in this study seemed to care deeply about their children's education and said they view education as the path for their children to improve their quality of life, yet some of them expressed feeling not fully capable in their effort to support their children's learning experience. The study participants were aware of the
importance of reading to their children and engaging in other literacy activities, such as storytelling; however, some of them did not have the time or the knowledge to do it. Most diverse Hispanic parents participating in this study stated that they play games, draw pictures, and look at books with their children at home.

The study found that from the structural factors, country of origin was the variable establishing clearer differences, both in the belief systems about education and early literacy practices at home. As mentioned before, Mexican caregivers in the present study tended to report being less involved in their children's education and experiencing more barriers to reading when compared with caregivers coming from Cuba and Puerto Rico.

The results suggest that if Hispanic parents had struggled themselves with their own education and lacked the proper English language skills, their ability to help their children to become ready for school is reduced as they encounter more barriers, not only in their reading experience but with educational activities in general. Level of bilingualism, as well as parents' beliefs about education, were also part of the non-structural factors that were related to early literacy skills that were specifically explored in the present study.

Another conclusion was that there were differences in the amount of time spent reading to children as well as in the type and quality of engagement in literacy activities based on Hispanic children's enrollment in VPK. Hispanic caregivers who had their children enrolled in VPK reported being more engaged in their children's education and experienced fewer barriers to reading.

As stated in the conceptual framework of this study, it is easier to create programs that influence non-structural factors, such as parenting style, involvement, and beliefs about education, than making changes in structural factors, such as socioeconomic status. Special attention should be given to diverse Hispanic caregivers coming from Mexico as they currently appear in the study to be less involved in their children's education and to experience more barriers to reading activities.

## Recommendations for Practice

There is a sense of urgency to encourage the enrollment of Hispanic children in prekindergarten programs. Even though the effectiveness of prekindergarten programs had been recently questioned by several policy makers and researchers, there seems to be an understanding of the fact that targeted programs yield positive outcomes in the lives of lowincome children particularly (Camilli et al., 2010). The reality of many Hispanic children is not only characterized by poverty but also by numerous constraints that come with it, such as parents' low level of education, language barriers, and financial limitations. The combination of these factors probably explains why nationally only $36 \%$ of Hispanic children living in poverty are currently enrolled in early childhood education programs (Kohler \& Lazarin, 2007). Even though programs such as Head Start, Early Head Start, and VPK are available in Jacksonville, there were still barriers for Hispanic families; among them are a lack of transportation, language barriers, and legal status, which were some of the factors that emerged during the qualitative interviews. Even though I decided not to explore the variable of immigration status, some participants still talked openly about it. In the particular case of VPK, even though the
registration form was available in Spanish, I found that a particular section related to providing "proof of residency," although translated correctly, had an association in Spanish to the legal status of parents. A simple issue like this could play a role in some Hispanic parents' decision about enrolling their children in VPK.

Hispanic organizations, such as churches, associations from the different countries, as well as the Hispanic Mayor's Advisory Board and the Hispanic Chamber of Commerce, could initiate campaigns to promote the importance of early childhood education, especially among those parents who have not enrolled their children in childcare. For many children, their first exposure to learning activities happens when they enroll in programs such as VPK. During my data collection, several early childhood educators informally mentioned that many of the Hispanic children came to the childcare centers without knowing basic concepts, such as colors, numbers and shapes. However, one difficulty for VPK teachers may be that many of the Hispanic children's literacy skills are in Spanish and may be not as easily accessed for English speaking teachers. Therefore it would be beneficial for these educators to be aware of the literacy practices which are taking place in these children's homes. A transition model is more appropriate and beneficial for Hispanic children because it allows teachers to understand the existing literacy practices and knowledge that may differ from the traditional practices. In this regard, in-service training for VPK teachers would benefit diverse Hispanic families because it would help teachers to bridge differences between homes and school environment in regards to literacy.

Hispanic organizations should use different informational strategies to promote that parents should start engaging in learning activities with their children at a young age, and not to wait until their children are enrolled in formal schooling. Results from this study indicated that diverse Hispanic parents in general were reading, singing, playing games, and encouraging the importance of education to their children. These at-home literacy practices should be viewed as a positive contribution to Hispanic children's learning and should therefore be used as a springboard to expand upon for future research. These ideas would benefit the parents whose children were not enrolled in early childhood education programs who seemed to have a less structured home environment to promote learning. The promotion of literacy activities at home among Hispanic families should include diverse practices such as community and family activities in addition to traditional practices, such as book reading, labeling, and teaching the alphabet (Ortiz \& Ordoñez-Jasis, 2005).

All diverse Hispanic parents who participated in this study said that they want their children to have a better life, and they identified education as the best pathway for their children to achieve this goal. However, many of them said they lack information about what they can do to help their children to be ready for school. Hispanic organizations could start an initiative with the support of local Hispanic media and churches to provide information with specific recommendations so diverse Hispanic parents can clearly understand what they can do to help their children even within their constraints. In informal conversations with parents before the interviews, many of them expressed their frustration to help their children, either because they did not understand the school system or due to their language barriers. A series
of workshops about early literacy practices targeting diverse Hispanic parents could be beneficial to improve their children's literacy skills.

For early childhood educators, communication with parents appears to be as a potential area of development. Hispanic parents in general were seeking guidance about how to better engage in their children's education. During my data collection at the Hispanic stores, I found that the topic of education really interested the Hispanic community in general. My first filtering question was to ask if they had a four-year-old child. Several parents said that they did not but were really interested in learning about anything related to education.

All stakeholders, policy makers, community organizations, and early childhood educators should pay close attention to the diversity within the Hispanic population. Hispanic children tend to be behind in several literacy measures even before they enroll in prekindergarten programs. However, researchers have pointed out that children with Mexican and Central American ancestors tend to be lower performers when compared with their other Hispanic peers (National Task Force on Early Education for Hispanics, 2007). The results from this study reinforce the need for differentiated strategies when approaching the topic of early literacy. Even though all diverse Hispanic parents could potentially benefit from any educational initiative, it is clear that Mexicans and Central American parents will need to be especially targeted as they experienced more barriers to helping their children to be ready for learning. The family-orientation characteristic of Latin families could be used as leverage to help them to be engaged more productively in their children's education.

Beliefs tend to be the basis for people's actions. If diverse Hispanic parents, especially Mexicans, believe that there is little they can to do to help their children to be ready for school, they will experience more barriers as they feel less capable. These findings, combined with findings of Rodriguez and Oslwang (2003) in regards to the prevalent authoritarian style of Mexican mothers, could explain why Mexicans tended to believe that education is a main responsibility of the school system and were less likely to engage in educational practices in the home. Level of education, which in this study was self-reported, seems to play an important role in parenting style, as well as the type, quantity, and quality of literacy activities that parents can provide. The lower the level of education, the more difficulty parents have in engaging in quality literacy practices (Moreno, 2002).

When reaching the diverse Hispanic communities, it is important to collaborate with local agencies that are trusted by this population, but also to include all possible strategies and places, such as churches, local Hispanic media, stores, and laundromats due to the fact that those are the places where Hispanics congregate in the city. By reaching out to the diverse Hispanic communities in various places known for congregation, local agencies can make sure they are contacting as many people as possible within this group.

## Recommendations for Research

More research is needed to better understand the diverse literacy practices that diverse Hispanic parents are promoting within their homes, particularly exploring for differences based on country of origin. In particular, Mexican and Central American families should be targeted as they are among the lower academic performers among Hispanic children.

In regard to the Spanish translation of the surveys, future research could address the issues when translating existing instruments to fit the need of the participant population. Researchers could possibly overcome these barriers by validating the translated instrument with people from different countries of origin prior to survey distribution. It is also important that future research about literacy practices include traditional practices such as oral tradition among diverse Hispanic families and also the role of other family members, besides parents, in educational activities at home. Existing instruments, such as the PRBI and the Adaptation of the Stony Brook may have failed to capture some literacy practices that are traditional in Hispanic families; for that reason existing instruments need to be modified and adapted to reflect cultural differences among diverse Hispanic participants.

Exploring the family environment of diverse Hispanic families regarding literacy practices is imperative because Hispanics are the fastest growing minority in the United States. By better understanding the diverse academic experience of Hispanic children at home, researchers could inform educational practitioners so they can help those children to become better prepared to compete in a global environment and to improve their academic performance. Detailed information about Hispanic parents' beliefs about education and their literacy practices at home could help educators and Hispanic organizations to better engage and connect with this diverse group.

Making the results of this study available for early childhood educators could be helpful in an effort to diminish preconceptions about Hispanic parents' involvement in their children's education. Many educators tend to believe that diverse Hispanic parents are not interested or
engaged in their children's education (Almarza, 2005; Baldwin, Buchanan, \& Rudisill, 2007). But in reality, Hispanic parents have high expectations about their children's academic performance but feel less capable of helping them achieve their academic goals because they do not understand how the educational system works (Ortiz \& Ordoñez-Jasis, 2005).

There is an existing disconnect between homes and what happens in the school system. Diverse Hispanic parents with children enrolled in VPK stated that they were helping their children with homework and other literacy activities at home, but little is known about how those practices take place, their frequency and quality.

For future research, it would be ideal to have enough participants for each country of origin so this variable could be further explored, as the results from this study pointed out it is an important variable in differentiating beliefs about education and early literacy practices at home. Also, it would be beneficial to explore if within a particular group of caregivers, for instance, Mexicans, that socioeconomic status and level of education play a role in differentiating beliefs about education and literacy practices at home. Another important exploration for future research would be to explore the language used at home to determine if beliefs about education and literacy practice at home vary depending upon language. In addition, observations of the literacy practices at home would be a complementary research method to explore what really happens in the family environment and would not limit the research to self-reported data.

## Conclusion

In this chapter, I included a summary of the literature review as well as the main findings of the study with specific recommendations for both practice and future research.

Exploring beliefs about education and early literacy practices among Hispanic caregivers in Jacksonville is relevant as the Hispanic population constitutes the fastest growing minority in the United States and remains among the lowest academic performers.

All Hispanic caregivers participating in this study appeared to value education as the pathway for their children to improve their quality of life; however, many of them said that they struggled in helping their children to be successful at school because of time and knowledge constraints. Diverse Hispanic parents who had their children participating in VPK programs appeared to be more engaged in their children's education and reported experiencing fewer barriers to reading activities. The challenge for early childhood educators and Hispanic organizations is how best to promote enrollment in VPK and also how to engage diverse Hispanic caregivers who have not enrolled their children yet in VPK in literacy practices at home that would help their children to become ready for school. In addition, early childhood educators should be aware of the barriers that inhibit participation of children from Hispanic families. Special attention and programs should be devoted to Mexican parents because they were the ones most likely to struggle to help their children in their educational endeavors.

Research has shown that there is a disconnect between what happens in the Hispanic family environment and what occurs in schools. The present study explored Hispanic parents' beliefs about education and their literacy practices at home using two existing instruments that
have been designed for English speakers. A translated version of both surveys was used with the local Hispanic caregivers in Jacksonville, which could have been one of the limitations of the study as it possibly affected the reliability of both instruments. However, having instruments available both in Spanish and English was the right strategy as some parents only spoke one language. This facilitated the data collection process.

Data collection with diverse Hispanic caregivers who had not enrolled their children in VPK programs was challenging. A change from Hispanic churches to Latin stores was necessary in order to collect a large enough sample of surveys due to the fact that at the churches there were few people who decided to participate. Unfortunately, the expected number of surveys for diverse Hispanic caregivers who had not enrolled their four-year-old children in VPK was not met, which created some limitations for the statistical procedures used to analyze the quantitative data.

Even though the results from the present study are not generalizable to the whole Hispanic population in Jacksonville or to Hispanic parents generally, the present study offers an initial insight into what is happening in the family learning environments of the fastest growing minority in this country. This information could be helpful to reduce the existing gap between what is happening at the childcare centers and what occurs in the families' home environment with regard to literacy. Informing early childhood educators, policy makers, Hispanic organizations, as well as Hispanic caregivers, about the results of this study could be a first step into enhancing Hispanic children's literacy skills.

# Appendix A-Surveys and Interview Protocol (English \& Spanish) 

Parent Reading Belief Inventory<br>Barbara D. DeBaryshe<br>University of Hawai'i at Manoa Center on the Family<br>103 Miller Hall, Honolulu, HI 96822<br>Copyright, 1990

Listed below are several statements about parent's attitudes and beliefs. Circle the answer that is closest to your feelings. Please answer each question in response to your preschool child. There are no right or wrong answers. Your own opinions are important to us.

1) As a parent, I play an important role in my child's development.

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :--- | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |
| $2)$ | There is little I can do help my child get ready to do well in school. (Reverse) |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |


| 3 3) My child learns many important things from me. |  |  |
| :---: | :---: | :---: |
| Strongly Disagree | Disagree | Agree |
| 1 | 2 | 3 |


| 4) I would like to help my child learn, but I don't know how. | (Reverse) <br> Strongly Disagree <br> Disagree | Agree |
| :--- | :---: | :---: |
| 1 2 | 3 | Strongly Agree |
| 5) I am my child's most important teacher. |  | 4 |
| Strongly Disagree | Disagree | Agree |

6) Schools are responsible for teaching children, not parents. (Reverse)

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

7) Parents need to be involved in their children's education.

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :--- | :---: | :---: |
| 1 | 2 | 3 | 4 |

8) When my child goes to school, the teacher will teach my child everything my child needs to know so I don't need to worry. (Reverse)
Strongly Disagree $\quad$ Disagree $\quad$ Agree $\quad$ Strongly Agree

12
3
4
9) Children do better in school when their parents also teach them things at home.
Strongly Disagree $\quad$ Disagree Agree Strongly Agree

12
3
4
10) I find it boring or difficult to read to my child. (Reverse)

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :--- | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |
| $11)$ I enjoy reading with my child. |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |

12) I have good memories of being read to when I was a child.

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

13) Reading with my child is a special time that we love to share.

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |
| 14) My child does not like to be read to. (Reverse) |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |
| 15) I feel warm and close to my child when we read |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |
| 16) I have to scold or discipline my child when we try to read. (Reverse) |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |
| 17) I want my child to love books. |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |
| 18) I don't read to my child because he or she won't sit still. (reverse) |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |
| 19) I read to my child whenever he or she wants. |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |
| 20) When we read I try to sound excited so my child stays interested. (two scales) |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |

21) Children learn new words, colors, names, etc. from books.

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

22) Reading helps children be better talkers and better listeners.

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |
| 23) My child knows the names of many things he or she has seen in books. |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |
| 24) When we read, I want my child to help me tell the story. |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |
| 25) I ask my child a lot of questions when we read. |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |

26) When we read, I want my child to ask questions about the book.
Strongly Disagree $\quad$ Disagree Agree Strongly Agree

12
3
Strongly Agree
4
27) When we read we talk about the pictures as much as we read the story.

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

28) I read with my child so he/she will learn the letters and how to read simple words. (reverse)

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

29) Parents should teach children how to read before they start school. (reverse)

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

30) My child is too young to learn about reading. (reverse)

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

31) When we read, I have my child point out different letters or numbers that are printed in the book.

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |
| 32) I try to make the story more real to my child by relating the story to his or her life. |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |
| 33) Stories help build my child's imagination. |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |
| 34) My child learns lessons and morals from the stories we read. |  |  |  |
| Strongly Disagree | Disagree | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 |

35) Reading helps children learn about things they never see in real life (like Eskimos and polar bears).

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

36) My child learns important life skills from books (like how to follow a cooking recipe, how to protect themselves from strangers).

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |

37) Even if I would like to, I'm just too busy and too tired to read to my child. (reverse)

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |

38) I don't read to my child because we have nothing to read. (reverse)

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

39) I don't read to my child because there is no room and no quiet place in the house. (reverse)

| Strongly Disagree | Disagree | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

40) I don't read to my child because I have other, more important things to do as a parent. (reverse)
Strongly Disagree
1
41) Some children are natural talkers, others are silent. Parents do not have much influence over this. (reverse) Strongly Disagree Disagree Agree Strongly Agree

1
2
3
4
42) Children inherit their language ability from their parents, t's in their genes. (reverse)
Strongly Disagree Disagree Agree Strongly Agree

1
2
3
4

Purpose: The PRBI is designed to measure parents' beliefs about reading aloud to preschool-age children. It measures the extent to which parents endorse tenets consistent with current models of environmental influences on language development and developmentally appropriate teaching practices in emergent literacy.

Scoring Instructions: Reverse items as indicated. Questions were written to fit seven a priori scales. Since the scales form a single factor, it suggested that item scores be summed to form a total. Note that item 20 is associated with two a priori scales.

| Scale | Items | Alpha | Loading |
| :--- | :---: | :--- | :--- |
| Teaching efficacy | $1-9$ | .73 | .76 |
| Positive affect | $10-20$ | .85 | .88 |
| Verbal participation | $20-27$ | .83 | .81 |


| Reading instruction | $28-31$ | .63 | .31 |
| :--- | :--- | :--- | :--- |
| Knowledge base | $32-36$ | .82 | .64 |
| Resources | $37-40$ | .79 | .76 |
| Environmental input | $41-42$ | .50 | .52 |

Normative sample: See DeBaryshe, B. D., \& Binder, J. C. (1994). Development of an instrument for measuring parental beliefs about reading aloud to young children. Perceptual and Motor Skills, 78, 1303-1311.
$\qquad$

## Inventario de opiniones de los padres con respecto a la lectura

A continuación se mencionan varias actitudes y opiniones que los padres de familia podrían tener con respecto a la lectura. Encierre en un círculo la respuesta que más se parezca a la opinión que usted tenga. Conteste cada pregunta con respecto a su hijo/a de edad preescolar. No hay respuestas correctas ni incorrectas. Sus opiniones son importantes para nosotros.

1) Como padre de familia, tengo una función importante en cuanto al desarrollo de mi hijo/a.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

2) Es poco lo que puedo hacer para preparar a mi hijo/a, a fin de que le vaya bien en la escuela.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

3) Mi hijo/a aprende de mí muchas cosas importantes.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

4) Me gustaría ayudar a mi hijo/a a aprender, pero no sé cómo hacerlo.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

5) Soy el / la maestro/a más importante de mi hijo/a.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

6) Las escuelas, y no los padres, tienen la responsabilidad de enseñarles a los niños.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

7) Los padres deben participar en la educación de sus hijos.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

8) Cuando mi hijo/a va a la escuela, el / la maestro/a le enseña todo lo que él / ella debe saber, de modo que no debo preocuparme por eso.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

9) A los niños les va mejor en la escuela cuando los padres también les enseñan cosas en el.
Muy en desacuerdo En desacuerdo De acuerdo Muy de acuerdo
10) Se me hace aburrido o difícil leerle a mi hijo/a.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

11) Me gusta leer con mi hijo/a.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

12) Tengo recuerdos agradables de cuando me leían a mí cuando yo era niño/a.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

13) Leer junto con mi hijo/a es un momento especial que nos encanta disfrutar juntos.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

14) A mi hijo/a no le gusta que le lean.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

15) Cuando leemos juntos me siento cariñosamente unido a mi hijo/a.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

16) Tengo que regañar o disciplinar a mi hijo/a cuando tratamos de leer.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

17) Quisiera que a mi hijo/a le gustaran mucho los libros.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

18) No le leo a mi hijo/a porque no se queda quieto/a.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

19) Le leo a mi hijo/a cada vez que él / ella así lo desea.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

20) Cuando leemos juntos, trato de hacerlo con entusiasmo, a fin de que mi hijo/a se mantenga interesado/a en la lectura.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

21) En los libros los niños aprenden palabras, colores, nombres nuevos, etc.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

22) La lectura ayuda a que los niños hablen mejor y escuchen con más atención.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

23) Mi hijo/a sabe el nombre de muchas cosas que ha visto en los libros.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

24) Cuando leemos, quiero que mi hijo/a me ayude a contar el cuento.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

25) Le hago muchas preguntas a mi hijo/a cuando estamos leyendo.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

26) Cuando leemos, me gustaría que mi hijo/a hiciera muchas preguntas acerca del libro.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

Cuando leemos, hablamos de los dibujos a la vez que leemos el cuento.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

28) Leo con mi hijo/a para que aprenda las letras, así como a leer palabras sencillas.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

29) Los padres deberían enseñarles a leer a sus hijos antes de que ellos empiecen a ir a la escuela.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

30) Mi hijo/a está demasiado joven para aprender acerca de la lectura.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

31) Cuando leemos, le pido a mi hijo/a que señale las letras o los números que estén impresos en el libro.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

32) Para que el cuento le parezca más real a mi hijo, trato de relacionarlo con su vida.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

33) Los cuentos sirven para desarrollar la imaginación de mi hijo/a.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

34) Mi hijo/a aprende lecciones de buen comportamiento y de buenas costumbres en los cuentos que leemos.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

35) La lectura ayuda a los niños a aprender acerca de cosas que nunca ven en la vida real (por ejemplo: dinosaurios).

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

36) Mi hijo aprende en los libros conocimientos prácticos para la vida diaria (por ejemplo: cómo preparar una receta de cocina).

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

37) Aunque me gustaría hacerlo, estoy demasiado ocupado/a o cansado/a para leerle a mi hijo/a.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

38) No le leo a mi hijo/a, porque no tenemos nada que leer.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

39) No le leo a mi hijo/a, porque en la casa no hay espacio ni un lugar tranquilo.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

40) No le leo a mi hijo/a porque tengo otras cosas más importantes que hacer como padre de familia.
Muy en desacuerdo En desacuerdo De acuerdo Muy de acuerdo
41) Hay niños que, por naturaleza, les gusta hablar. Hay otros que son callados. Los padres no tienen mucho que ver en eso.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

42) Los niños nacen con la capacidad para aprender a hablar, la cual heredan de sus padres.

| Muy en desacuerdo | En desacuerdo | De acuerdo | Muy de acuerdo |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |

## Datos Demográficos

43. Género
44. Femenino
45. Masculino
46. Cuál es su relación con el niño en edad prescolar?
47. Madre
48. Padre
49. Abuela
50. Abuelo
51. Tía
52. Tío
53. Otra familiar
54. Cuál es su país de origen?
55. Usted es bilingüe?
56. Si
57. No
58. Su hijo asiste al programa de prekinder voluntario?
59. Si
60. No

# Adaption of the "Stony Brook Family Reading Survey" 

Weigel, D. J., Martin, S. S., \& Bennett, K. K. (2006)

How often do you or another family member read a picture book with your child?
How often does your child ask to be read to?
How often does your child look at books by himself or herself?
How often does your child draw pictures?
How often do you or another family member sing or recite rhymes to your child?
How often do you or another family member tell stories with your child?
How often do you or another family member play games with your child?
How often do you go to the library with your child?
(Response scale for the above items was:)

1. Hardly ever
2. Once or twice a month
3. Once or twice a week
4. Almost daily

How many minutes did you or another family member read to your child yesterday?

1. 0 minutes
2. 1-10 minutes
3. 11-20 minutes
4. more than 20 minutes

Approximately how many picture books do you have in your home for your child's use?

1. 0-2
2. 3-10
3. $11-20$
4. 21-40
5. more than 40

How often does your child watch educational television programs like Sesame Street?

1. hardly ever
2. occasionally, but not more than once per week
3. one or two times a week
4. nearly every day

At what age did you or another family member begin to read to your child?

1. 0-6 months
2. 7-12 months
3. 13 months to $1_{1} / 2$ years
4. $1_{1} / 2$ to 2 years
5. later than second birthday

How many years of schooling have you completed?

1. less than ninth grade
2. some high school, but didn't finish
3. high school degree
4. high school + some college or trade school
5. 4-year college degree
6. college +

How well did you do in school? (reverse scored)a

1. Mostly got As
2. Mostly got Bs
3. Mostly got Cs
4. Mostly got Ds
5. Mostly got Fs

How many minutes per day do you spend reading (not counting time spent reading with your children)?

1. hardly any
2. 2-15 minutes
3. 16-30 minutes
4. 31-60 minutes
5. more than an hour

How much do you enjoy reading?

1. not at all
2. some
3. moderately
4. very much

How often does your child see his/her parents writing on a weekly basis?

1. never
2. 1-2 times
3. 3-4 times
4. 5-6 times
5. daily

Note. All items from the Stony Brook Family Reading Survey (Whitehurst, 1992) except a, which were developed by the authors.

# Adaptación de la Encuesta de Lectura Familiar de Stony Brook 

Weigel, D. J., Martin, S. S., \& Bennett, K. K. (2006)

A continuación usted encontrará preguntas acera de sus actividades educativas en casa. Seleccione la respuesta que mejor refleje lo que usted hace con su niño en edad prescolar en casa. No hay respuestas correctas o incorrectas. Sus opiniones son importantes para nosotros.

1. Con qué frecuencia usted $u$ otro miembro de su familia lee un libro de dibujos con su hijo?
2. Muy rara vez
3. Una o dos veces al mes
4. Una o dos veces a la semana
5. Casi todos los días
6. Con qué frecuencia su hijo le pide que le lean?
7. Muy rara vez
8. Una o dos veces al mes
9. Una o dos veces a la semana
10. Casi todos los días
11. Con qué frecuencia su hijo mira u observa libros por si mismo(a)?
12. Muy rara vez
13. Una o dos veces al mes
14. Una o dos veces a la semana
15. Casi todos los días
16. Con qué frecuencia su hijo hace dibujos?
17. Muy rara vez
18. Una o dos veces al mes
19. Una o dos veces a la semana
20. Casi todos los días
21. Con qué frecuencia usted o algún miembro de su familia canta o recita rimas a su hijo?
22. Muy rara vez
23. Una o dos veces al mes
24. Una o dos veces a la semana
25. Casi todos los días
26. Con qué frecuencia usted o algún miembro de su familia le cuenta historias a su hijo?
27. Muy rara vez
28. Una o dos veces al mes
29. Una o dos veces a la semana
30. Casi todos los días
31. Con qué frecuencia usted o algún miembro de su familia juega con su hijo?
32. Muy rara vez
33. Una o dos veces al mes
34. Una o dos veces a la semana
35. Casi todos los días
36. Con qué frecuencia usted va a la biblioteca publica con su hijo?
37. Muy rara vez
38. Una o dos veces al mes
39. Una o dos veces a la semana
40. Casi todos los días
41. Cuántos minutos usted $u$ otro miembro de su familia le leyó ayer a su hijo? $\qquad$
42. Aproximadamente cuántos libros de dibujos tiene en casa para que su hijo use? $\qquad$
43. Con qué frecuencia su hijo ve programas educativos en televisión como Plaza Sésamo?
44. Muy rara vez
45. Ocasionalmente, pero no más de una vez por semana
46. Una o dos veces por semana
47. Casi todos los dias
48. A qué edad usted u otro miembro de su familia comenzó a leerle a su hijo?
49. 0-6 meses
50. 7-12 meses
51. 13 meses a $11 / 2$ año
52. $11 / 2$ a 2 años
53. Después de los 2 años
54. Cuántos años de educación formal tiene usted?
55. Menos de grado noveno
56. Algo de bachillerato, pero no completo
57. Bachillerato
58. Bachillerato y algo de universidad o escuela técnica
59. Licenciatura o Carrera universitaria (4 años)
60. Estudios de posgrado
61. Qué tan bien le fue en la escuela?
62. Mayoría de calificaciones fueron $A$
63. Mayoría de calificaciones fueron $B$
64. Mayoría de calificaciones fueron $C$
65. Mayoría de calificaciones fueron $D$
66. Mayoría de calificaciones fueron $F$
67. Cuántos minutos diarios dedica usted a la lectura (sin contar el tiempo que invierte leyendo con su hijo)?
68. Qué tanto disfruta leer?
69. No me gusta para nada
70. Algo
71. Un poco
72. Muchísimo
73. Con qué frecuencia su hijo ve a sus padres escribiendo durante la semana?
74. Nunca
75. 1-2 veces
76. 3-4 veces
77. 5-6 veces
78. Diariamente

## Datos Demográficos

18. Género
19. Femenino
20. Masculino
21. Cuál es su relación con el niño prescolar sobre el cual usted respondió esta encuesta?
22. Madre
23. Padre
24. Abuela
25. Abuelo
26. Tía
27. Tío
28. Otro familiar
29. Cuál es su país de origen?
30. Usted es bilingüe?
31. Si
32. No
33. Su hijo asiste al programa de prekinder voluntario?
34. Si
35. No

## Interview Guide Early Literacy Practices in the Hispanic Community in Jacksonville Interview Protocol

The following questions are arranged by topic and not necessarily will be asked in this order. Be aware also that Hispanics culture tends to be less formal than American culture, so the questions are not necessarily rude, as they may be if they were asked to American people.
Previously to starting the interview, I will provide a brief explanation about the project to establish rapport with participants.

## MOTHERS' OR CAREGIVERS' INFORMATION

1. How many children do you have? How many under 5 years of age?
2. Which country are you originally from?
3. How frequently do you go to visit your family in your country? If they don't go, explore why not?
4. What is your highest level of education?
5. Do you work? If so, where and what do you do? For how long?
6. In the U.S. families of 3 that make less than 440 a week can apply for food stamps, will your family fall under that group?
7. Do you speak English? How frequently and how much? Do you speak English to your children?

## LITERACY PRACTICES

8. Do you read to your children? In what language? When? For how long? How frequent?
9. Do you ask your children questions when you read to them? What type of questions? Do you ask them to repeat what you just read?
10. How many books do your children have at home approximately?
11. What other print materials do you have at home (newspapers, adult books, magazines)? In which language?
12. Do you have conversations with your children? If so, what type of conversations? When and for how long?
13. What type of words do you usually use when talking to your children? (adult words, or baby talk)
14. Do you tell stories to your children? What type of stories? How frequent?
15. Do you label objects at home? If so, how? In which language?
16. Do you sing to your children? When? In which language? How frequent?
17. Have you taught the alphabet to your children? If so, how? In which language?
18. Have you taught types of shapes to your children? If so, how? In which language?
19. Have you taught the colors to your children? If so, how? In which language?
20. Have you taught the numbers to your children? If so, how? In which language?
21. Do you have a computer at home? Do your children use it? If so, for what?

## Prácticas de Educación Temprana en la Comunidad Hispana de Jacksonville Guía de Entrevista

Las siguientes preguntas están agrupadas por temas y no necesariamente serán presentadas en este orden. Por favor tenga en cuenta que las culturas hispanas tienden a ser menos formales que la cultura Americana, de manera tal que ciertas preguntas no son consideradas groseras o incómodas, aún cuando para los americanos podrían serlo.
Antes de iniciar la entrevista, el investigador hará una breve explicación sobre el proyecto para establecer confianza con los entrevistados.

## INFORMACIÓN SOBRE MADRES O PERSONAS A CARGO DE LOS NIÑOS

1. Cuántos hijos tiene? Cuántos son menores de 5 años?
2. De qué país es usted originalmente?
3. Con qué frecuencia visita a su familia en su país de origen? Si no visita a su familia, por qué?
4. Cuál es su nivel educativo más alto?
5. Usted trabaja? Si trabaja, dónde, qué hace en su trabajo? Cuánto tiempo trabaja?
6. En los Estados Unidos familias de tres personas que ganan menos de 440 dólares a la semana pueden aplicar para estampillas de comida, su familia estaría dentro de ese grupo?
7. Usted habla inglés? Con qué frecuencia y qué tanto inglés habla? Usted habla inglés con sus hijos?

## PRACTICAS EDUCATIVAS Y CREENCIAS ACERCA DE LA EDUCACION

8. Qué tan importante es la educación de sus hijos para usted?
9. Cuál es su papel en la educación de sus hijos?
10. Usted le lee a sus hijos? En qué idioma? Cuándo, qué tanto les lee, con qué frecuencia?
11. Usted le hace preguntas a sus hijos mientras les lee? Qué tipo de preguntas les hace? Usted les pide que le repitan lo que acaba de leerles?
12. Cuántos libros tienen sus hijos aproximadamente?
13. Qué otros materiales impresos tiene en casa (periódicos, revistas, libros para adultos)? En qué idioma?
14. Usted conversa con sus hijos? Qué tipo de conversaciones tiene con ellos, cuándo y por cuánto tiempo?
15. Qué tipo de palabras utiliza normalmente cuando habla con sus hijos? (palabras de adultos o de niños)
16. Usted le cuenta historias a sus hijos? Qué tipo de historias, con qué frecuencia?
17. Usted hace letreros con los nombres de las cosas en casa? Cómo, en qué idioma?
18. Usted le canta a sus hijos? Cuándo, en qué idioma, con qué frecuencia?
19. Usted le ha enseñado el alfabeto a sus hijos? Cómo, en qué idioma?
20. Usted le ha enseñado los tipos de formas de los objetos a sus hijos? Cómo, en qué idioma?
21. Usted le ha enseñado los colores a sus hijos? Cómo, en qué idioma?
22. Usted le ha enseñado los números a sus hijos? Cómo, en qué idioma?
23. Usted tiene una computadora en casa? Sus hijos la usan? Para qué la usan?

## Appendix B

## IRB Approval


#### Abstract

$=3$ UNF UNIVERSITY of NORTH FLORIDA. Office of Research and Sponsored Programs 1 UNF Drive Jacksonville, FL 32224-2665 904-620-2455 FAX 904-620-2457 Equal Opportunity/Equal Access/Affirmative Action Institution

\section*{MEMORANDUM}

DATE: March 27, 2012 TO: Ms. Maira Martelo VIA: Dr. Katherine Kasten LSCSM FROM: Dr. Krista Paulsen, Vice Chairperson On behalf of the UNF Institutional Review Board

RE: Review of new project revisions by the UNF Institutional Review Board IRB\#307524-2: "Early Literacy Practices and Beliefs about Education Among Hispanic Families in Jacksonville Florida"


This is to advise you that your project, "Early Literacy Practices and Beliefs about Education Among Hispanic Families in Jacksonville Florida" underwent "Exempt Category 2" review on behalf of the UNF Institutional Review Board Your reviewer recommended approval.

This approval applies to your project in the form and content as submitted to the IRB for review. Any variations or modifications to the approved protocol and/or informed consent forms that might increase risk to human participants must be submitted to the IRB prior to implementing the changes. Please see the UNF Standard Operating Procedures for additional information about what types of changes might elevate risk to human participants. Any unanticipated problems involving risk and any occurrence of serious harm to subjects and others shall be reported promptly to the IRB within 3 business days.

Your study has been approved as of March 27, 2012. Because your project was approved as exempt, no further IRB oversight is required for this project unless you intend to make a change that might elevate risk to participants. As an exempt study, continuing review will be unnecessary. When you are ready to close your project, please complete a Closing Report Form which can also be found in the documents library in IRBNet.

Should you have questions regarding your project or any other IRB issues, please contact the research integrity unit of the Office of Research and Sponsored Programs by emailing IRB@unf.edu or calling (904) 620-2455.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within UNF's records. A copy of this approval may also be sent to the dean and/or chair of your department.

## References

Almarza, D. J. (2005). Connecting multicultural education theories with practice: A case study of an intervention course using the realistic approach in teacher education. Bilingual Research Journal, 29(3), 527-727.

Baldwin, S. C., Buchanan, A. M., \& Rudisill, M. E. (2007). What teacher candidates learned about diversity, social justice, and themselves from service-learning experiences. Journal of Teacher Education, 58(4), 315-327. doi:10.1177/0022487107305259.

Cafferty, P. S., \& Engstrom, D. (2000). Hispanics in the United States: An agenda for the twentyfirst century. New Brunswick, NJ: Transaction Publishers.

Camilli, G. , Vargas, S., Ryan, S., \& Barnett, W. S. (2010). Meta-analysis of the effects of early education interventions on cognitive and social development. Teachers College Record, 112, 579-620.

Cardenas-Hagan, E., Carlson, C. D., \& Pollard-Durodola. S. D. (2007). The cross-linguistic transfer of early literacy skills: The role of initial L1 and L2 skills and language of instruction. Language, Speech \& Hearing Services in Schools, 38, 249-259.

Costello, A. B., \& Osborne, J. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. Practical Assessment Research \& Evaluation, 10 (7), 1-9. Retrieved from http://pareonline.net/getvn.asp?v=10\&n=7

DeBaryshe, B. D., \& Binder, J. C. (1994). Development of an instrument for measuring parental beliefs about reading aloud to young children. Perceptual and Motor Skills, 78, 13031311.

Dolan, S. L. (2009). Missing out: Latino students in America's school. Washington, D.C.: National Council of La Raza (NCLR). Statistical Brief. Retrieved from http://www.nclr.org/index.php/publications/missing_out_latino_students_in_americas _schools/

Duval County School Board. (2011). Student population by ethnicity. Retrieved September 25, 2011, from
http://www.duvalschools.org/reseval/Student Information/StudentPopulation.asp

Dziuban, C. D., \& Shirkey, E. C. (1974). When is a correlation matrix appropriate for factor analysis? Some decision rules. Psychological Bulletin, 81, 358-361.
doi:10.1037/h0036316

Espinosa, L. M. (2007). English-language learners as they enter school. In R. C. Pianta, M. J. Cox, \& K. L. Snow (Eds.), School readiness and the transition to kindergarten in the era of accountability (pp.175-195). Baltimore, MD: Paul H. Brookes Publishing Co.

Espinosa, L. M., \& López, M. L. (2007). Assessment considerations for young English language learners across different levels of accountability. The National Early Childhood Accountability Task Force. Retrieved from http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Prek education/Assessment\%20for\%20Young\%20ELLs-Pew\%208-11-07-Final.pdf

Fan, X., Thompson, B., \& Wang, L. (1999). Effects of sample size, estimation methods, and model specifications on structural equation modeling fit indexes. Structural Equation Modeling, 6, 56-83.

Farver, J. A., Lonigan, C. J., \& Eppe, S. (2009). Effective early literacy skill development for young Spanish-speaking English language learners: An experimental study of two methods. Child Development, 80, 703-719.

Federal Interagency Forum on Child and Family Statistics. (2005). American children: Key national indicators of well-being. Retrieved from http://www.childstats.gov/americaschildren/edu1.asp

Florida Department of Education. (n.d.). Early learning/Prekindergarten. Retrieved July 21, 2011, from http://www.fldoe.org/earlylearning/

Garcia, E., \& Jensen, B. (2009). Early educational opportunities for children of Hispanic origins. Social Policy Report, 23(2), 1-19.

Garcia-Santillan, A., Moreno-Garcia, E., Castro, J. C., Zamudio-Abdala, J., \& Garduno-Trejo, J. (2012). Cognitive, affective and behavioral components that explain attitude toward statistics. Journal of Mathematics Research, 4 (5). Retrieved from http://www.ccsenet.org/journal/index.php/imr/article/view/20494/13464

Gobo, G. (2011). Back to Likert: Towards the conversational survey. In M. Williams \& P. Vogt (Eds.), The Sage handbook of innovation in social research methods (pp.228-248). London, UK: Sage

Greene, J. C., Caracelli, V. J., \& Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. Educational Evaluation and Policy Analysis, 11, 255274.

Hair, J. F., Black, W. C., Babin, B. J., \& Anderson, R. E. (2010). Multivariate data analysis (7 ${ }^{\text {th }}$ ed.). Upper Saddle River, New Jersey: Prentice Hall.

Hammer, C. S., Miccio, A. W., \& Wagstaff, D. A. (2003). Home literacy experiences and their relationship to bilingual preschoolers' developing English literacy abilities: An initial investigation. Language, Speech \& Hearing Services in Schools, 34(1), 20-30.

Hernandez, D. (2006). Young Hispanic children in the US: A demographic portrait based on Census 2000. Albany, NY: University of Albany. A report to the National Task Force on Early Childhood Education for Hispanics.

Hoff, E. (2006). Environmental supports for language acquisition. In S.B. Neuman \& D. Dickinson (Eds.), Handbook of early literacy research (Vol. 2, pp. 163-172). New York, NY: Guilford Press.

Hoover-Dempsey, K. V., Walker, J. M. T., \& Sandler, H. M. (2005). Parents' motivations for involvement in their children's education. In E. N. Patrikakou, R. P. Weissberg, S. Redding, H. J. Walberg (Eds.), School-family partnerships for children's success (pp.4056). New York, NY: Teachers College Press.

Hu, L., \& Bentler, P.M. (1999) Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6, 1-55.

Johnson, R. B., \& Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. Educational Researcher, 33(7), 14-26. doi: 10.3102/0013189X033007014

Kohler, A. D., \& Lazarin, M. (2007). Hispanic education in the United States (Statistical Brief No.8.). National Council of La Raza. Retrieved from http://www.nclr.org/images/uploads/publications/file SB8 HispEd fnl.pdf

Kummerer, S., \& Lopez-Reyna, N.A. (2006). The role of Mexican immigrant mothers' beliefs on parental involvement in speech-language therapy. Communications Disorders Quarterly, 27(2), 83-94.

Landry, S., \& Smith, K. (2006). The influence of parenting on emergency literacy skills. In S.B. Neuman \& D. Dickinson (Eds.), Handbook of early literacy research (Vol. 2, pp. 135-148). New York, NY: Guilford Press.

Laosa, L. M., \& Ainsworth, P. (2007). Is public Pre-K preparing Hispanic children to succeed in school? (Preschool Policy Brief).Retrieved from http://nieer.org/resources/policybriefs/13.pdf

Lareau, A. (2003). Unequal childhoods. Class, race, and family life. Los Angeles, CA: University of California Press.

Ludbrook, J. (1998). Multiple comparison procedures updated. Clinical and Experimental Pharmacology and Physiology, 25, 1032-1037.

Marsh, H. W., Balla, J. R., \& McDonald, R. P. (1988). Goodness of fit indexes in confirmatory factor analysis: The effect of sample size. Psychological Bulletin, 103, 391-410.

Marshall, C., \& Rossman, G. B. (2006). Designing qualitative research. Thousand Oaks, CA: Sage.

Mendez, A. (2000). Mexican American mothers' perceptions and beliefs about language acquisition in infants and toddlers with disabilities. Bilingual Research Journal, 24(3), 277-294.

Meyers, L. S., Gamst, G., \& Guarino, A. J. (2006). Applied multivariate research. Design and interpretation. Thousand Oaks, CA: Sage.

Moreno, R. P. (2002). Teaching the alphabet: An exploratory look at maternal instruction in Mexican American families. Hispanic Journal of Behavioral Sciences, 24(2), 191-205.

Morrison, F. J., McDonald Connor, C., \& Bachman, H. J. (2006). The transition to school. In S.B. Neuman \& D. Dickinson (Eds.), Handbook of early literacy research (Vol. 2, pp. 375-394). New York, NY: Guilford Press.

Muthén, L. K., \& Muthén, B. O. (2007). Mplus User's Guide. Fifth edition. Los Angeles, CA: Muthén \& Muthén.

National Council of La Raza (NCLR). (2010). America's future. Latino child well-being in numbers and trends. Retrieved from http://www.nclr.org/index.php/publications/americas future latino child wellbeing in numbers and trends/

National Head Start Association. (n.d.). Basic Head Start facts. Retrieved July 21, 2011, from http://www.nhsa.org/files/static_page_files/48BADE30-1D09-3519ADED347C39FA16A4/Basic_Head_Start_Facts_rev02212011.pdf

National Institute for Early Education Research. (2009). The state of preschool 2009. Executive summary. Retrieved from http://nieer.org/yearbook2009/

National Institute for Literacy. (2009). Developing early literacy: Report of the National Early Literacy Panel. Retrieved from http://lincs.ed.gov/publications/pdf/NELPSummary.pdf

National Task Force on Early Childhood Education for Hispanics. (2007). Expanding and improving early education for Hispanics. Main Report. Retrieved from http://ecehispanic.org/work/expand_MainReport.pdf

Neuman, S. (2006). The knowledge gap: Implications for early education. In S.B. Neuman \& D. Dickinson (Eds.), Handbook of early literacy research (Vol. 2, pp. 29-40). New York, NY: The Guilford Press.

Onwuegbuzie, A. J., Leech, N. L., \& Collins, K. T. (2011). Toward a new era for conducting mixed analyses: The role of quantitative dominant and qualitative dominant crossover mixed analyses. In M. Williams \& P. Vogt (Eds.), The Sage handbook of innovation in social research methods (pp.353-384). London, UK: Sage

Ortiz, R. W., \& Ordoñez-Jasis, R. (2005). Leyendo juntos (reading together): New directions for Latino parents' early literacy involvement. The Reading Teacher, 59(2), 110-121.

Passel, J.S., \& Cohn, D. (2011). Unauthorized immigrant population: National and state trends, 2010. Washington, DC: Pew Hispanic Center. Retrieved from http://www.pewhispanic.org/2011/02/01/unauthorized-immigrant-population-brnational-and-state-trends-2010/

Pianta, R.C. (2006). Teacher-child relationships and early literacy. In S.B. Neuman \& D. Dickinson (Eds.), Handbook of early literacy research (Vol. 2, pp. 149-162). New York, NY: Guilford Press.

Portes, A., \& Rumbaut, R. G. (2001). Legacies: The story of the immigrant second generation. Berkeley, CA: University of California.

Pre-K Now. (n.d.a). Fact sheets. Pre-K and Latinos. Retrieved June 29, 2011, from http://www.preknow.org/advocate/factsheets/latinos.cfm

Pre-K Now. (n.d.b). State profiles. Retrieved June 29, 2011, from http://www.preknow.org/resource/profiles/florida.cfm

Pre-K Now. (2006). Public opinion research. Latino poll. Retrieved July 21, 2011, from http://www.preknow.org/advocate/opinion/latinopoll.cfm

Raikes, H., Luze, G., Brook-Gunn, J., Raikes, H. A., Alexander Pan, B., Tamis-LeMonda, C. S., Constantine, J., Banks Tarullo, L., \& Rodriguez, E. T. (2006). Mother-child bookreading in low-income families: Correlates and outcomes during the first three years of life. Child Development, 77, 924-953.

Regional Bureau of Education for Latin America and the Caribbean. (2011). Progress toward education for all in Latin American and the Caribbean. Retrieved from http://www.orealc.cl/informe-ept-2011/wpcontent/blogs.dir/5/files_mf/progresstoward1ingweb92.pdf

Reyes, I., \& Azuara, P. (2008). Emergent biliteracy in young immigrant children. Reading

Research Quarterly, 43, 374-398.
Rodriguez, B. L., \& Olswang, L. B. (2003). Mexican-American and Anglo-American mothers' beliefs and values about child rearing, education, and language impairment. American Journal of Speech-Language Pathology, 12, 452-462.

Rodriguez, B.L., Scheffner Hammer, C., \& Lawrence, F. R. (2009). Parent reading belief inventory: Reliability and validity with a sample of Mexican American mothers. Early Education and Development, 20, 826-844.

Rothstein-Fisch, C., \& Trumbull, E. (2008). Managing diverse classrooms. How to build on students cultural strengths. Alexandria, VA: Association for Supervision and Curriculum Development.

Savalei, V. (2012). The relationships between root mean square error of approximation and model specification in confirmatory factor analysis models. Educational and Psychological Measurement, 72, 910-932. doi: 10.1177/0013164412452564

Sénéchal, M., Ouellette, G., \& Rodney, D. (2006). The misunderstood giant: On the predictive role of early vocabulary to future reading. In S.B. Neuman \& D. Dickinson (Eds.), Handbook of early literacy research (Vol. 2, pp. 173-182). New York, NY: Guilford Press.

Spring, J. (2007). Deculturalization and the struggle for equality. A brief history of the education of dominated cultures in the United States. New York, NY: McGraw-Hill.

Storch, S. A., \& Whitehurst, G. J. (2001). The role of family and home in the literacy development of children from low-income backgrounds. New Directions for Child and Adolescent Development, 92, 53-71.

Tienda, M., \& Mitchell, F. (Eds). (2006). Multiple origins, uncertain destinies: Hispanics and the American future. National Research Council. Washington, DC: The National Academies Press. Retrieved July 25, 2009 from http://ehis.ebscohost.com/eds/detail?vid=2\&hid=5\&sid=de6f57fa-a41e-40cc-88b0f13695683e7c\%40sessionmgr14\&bdata=JnNpdGU9ZWRzLWxpdmU\%3D\#db=cat00488a \&AN=unf. 000673313
U.S. Census Bureau. (2010a). Hispanic or Latino by type: 2010. Retrieved September 23, 2011, from http://factfinder2.census.gov/faces/tableservices/isf/pages/productview.xhtml?pid=DEC 10 SF1 QTP10 \&prodType=table
U.S. Census Bureau. (2010b). The Hispanic population: 2010. 2010 Census Briefs. Retrieved September 23, 2011, from http://www.census.gov/prod/cen2010/briefs/c2010br04.pdf

Vernon-Feagans, L., Scheffner Hammer, C., Miccio, A., \& Manlove, E. (2002). Early language and literacy skills in low-income African American and Hispanic children. In S. B. Neuman \& D. Dickinson (Eds.), Handbook of early literacy research (Vol. 2, pp.192-210). New York, NY: Guilfrod Press.

Weigel, D. J., Martin, S. S., \& Bennett, K. K. (2006). Mothers' literacy beliefs: Connections with the home literacy environment and pre-school children's literacy development. Journal of Early Childhood Literacy, 6(2), 191-211. doi:10.1177/1468798406066444

Wiersma, W., \& Jurs, S. G. (2008). Research methods in education. An Introduction (9 ${ }^{\text {th }}$ ed.). Needham Heights, MA: Pierson Education.

Whitehurst, G. J., \& Lonigan, C. J. (1998). Child development and emergent literacy. Child Development, 69, 848-872

## VITA

## Maira Luz Martelo Puerta

## EDUCATION

2013 Ed.D. Educational Leadership, University of North Florida
2005 Masters Degree in Communication, Universidad Iberoamericana, Mexico
1996 Bachelors Degree in Communication, Universidad Autonoma de Occidente, Colombia

## EXPERIENCE

2013-Present Research Analyst, Jacksonville Public Education Fund, Jacksonville, FL 2009-2013 Graduate Associate of Assessment, University of North Florida, Jacksonville, FL 2007-2009 Graduate Research Assistant, University of North Florida, Jacksonville, FL 2005-2008 Contributor, Hola Noticias, Jacksonville, FL

## PUBLICATIONS

Martelo, M. (2011). Use of bibliographic systems and concept maps: Innovative tools to complete a literature Review. Research in the Schools, 18(1), 62-70.

Martelo, M. (2007). The projects of environmental education: An analysis of the social representations of the actors who participate in the Festival of Migratory Species. Revista Iberoamericana de Comunicacion, 13, 67-94. (In Spanish)

Martelo, M. (2005). Information systems in Excel: A tool for qualitative analysis. Datos, Diagnósticos y Tendencias (Magazine of the Mexican Association of Market Research and Public Opinion Agencies), 12(3), 20-21. (In Spanish)

## PRESENTATIONS

Martelo, M. (2011, November). Use of Bibliographic Systems and Concept Maps: Great Tools to Complete a Literature Review. Workshop presented at the annual meeting of the MidSouth Educational Research Association, Oxford, Mississippi.

Martelo, M. (2010, November). Use of Bibliographic Systems and Concept Maps: Great Tools to Complete a Literature Review. Paper presented at the annual meeting of the Mid-South Educational Research Association, Mobile, Alabama.

Martelo, M. (2009, November). A Comparison of Predictive Accuracy in Logistic Regression and Discriminant Analysis. Paper presented at the annual meeting of the Mid-South Educational Research Association, Baton Rouge, Louisiana.

