ASSESSING THE EFFECTS OF DIALOGIC READING ON THE ORAL LANGUAGE SKILLS OF MIGRANT PRESCHOOLERS AT RISK FOR READING DIFFICULTIES

By

JOYCE MARIE TARDAGUILA-HARTH

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2007
© 2007 Joyce Marie Tardáguila-Harth
To Julio Luis Tardáguila and Michael Harth with eternal love
ACKNOWLEDGMENTS

I owe a tremendous amount of gratitude to the chairperson of my dissertation committee, Dr. Vivian I. Correa. Dr. Correa has been a mentor, teacher, and above all, a friend. I cannot thank her enough for her unfaltering support and patience throughout my doctoral program and dissertation process.

I would also like to thank my mother, Sonia Tardáguila, for her constant words of encouragement, for making me laugh and for providing a shoulder to cry on when I needed it.

I give special thanks to my husband, George Harth, for his love and for believing in me at all times.

I would also like to thank the families who were willing to participate in this research. They allowed me into their homes and their lives for many months. Without their commitment this study would not have been possible.

Last, but most important, I thank God. It is my hope that He will continue to guide me and use this accomplishment for His glory.
TABLE OF CONTENTS

ACKNOWLEDGMENTS .................................................................................................................................4

LIST OF TABLES ........................................................................................................................................8

LIST OF FIGURES ......................................................................................................................................9

ABSTRACT ............................................................................................................................................10

CHAPTER ...............................................................................................................................................12

1 INTRODUCTION ...................................................................................................................................13

Migrant Children At-Risk .........................................................................................................................13
Importance of Language in Literacy Development ..................................................................................14
Home Literacy Activities ..........................................................................................................................14
Statement of the Problem ..........................................................................................................................15
Purpose of the Study ................................................................................................................................16
Experimental Questions ............................................................................................................................16
Summary ..................................................................................................................................................16

2 REVIEW OF THE LITERATURE .........................................................................................................18

Conceptual Framework .............................................................................................................................18
The Migrant Profile: Children at Risk .........................................................................................................21
Importance of Language in Literacy Development ..................................................................................26
Second Language Learners and Language Development .........................................................................28
Importance of Early Literacy Activities/Shared Book Reading ................................................................29
Dialogic Reading .......................................................................................................................................31
Review of the Empirical Literature on the Efficacy of Dialogic Reading .................................................32
Dialogic Reading and Children with Developmental Delays ....................................................................33
Dialogic Reading and Children From Low SES Backgrounds .................................................................38
Dialogic Reading and Children Learning English as a Second Language ................................................42
Summary of Findings ..................................................................................................................................45
Limitations ..................................................................................................................................................47
Rationale of the Study ...............................................................................................................................49
Research Questions .................................................................................................................................50

3 METHODS AND PROCEDURES .........................................................................................................57

Participants ...............................................................................................................................................57
Settings .....................................................................................................................................................58
Materials ...................................................................................................................................................59
Dependent Measures ...............................................................................................................................61
Definitions ................................................................................................................................................62
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Procedures</td>
<td>62</td>
</tr>
<tr>
<td>Data Recording</td>
<td>68</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>68</td>
</tr>
<tr>
<td>Interobserver Agreement</td>
<td>68</td>
</tr>
<tr>
<td>Treatment Integrity</td>
<td>69</td>
</tr>
<tr>
<td>Social Validity</td>
<td>69</td>
</tr>
<tr>
<td>Pilot Study</td>
<td>70</td>
</tr>
<tr>
<td><strong>4 RESULTS</strong></td>
<td></td>
</tr>
<tr>
<td>Dyad 1</td>
<td>75</td>
</tr>
<tr>
<td>Dyad 2</td>
<td>81</td>
</tr>
<tr>
<td>Dyad 3</td>
<td>87</td>
</tr>
<tr>
<td>Dyad 4</td>
<td>93</td>
</tr>
<tr>
<td>Treatment Integrity</td>
<td>100</td>
</tr>
<tr>
<td>Social Validation</td>
<td>100</td>
</tr>
<tr>
<td>Summary</td>
<td>101</td>
</tr>
<tr>
<td><strong>5 DISCUSSION</strong></td>
<td></td>
</tr>
<tr>
<td>Overview of the Study</td>
<td>110</td>
</tr>
<tr>
<td>Summary of Findings</td>
<td>111</td>
</tr>
<tr>
<td>Discussion of Findings</td>
<td>113</td>
</tr>
<tr>
<td>Social Validity</td>
<td>125</td>
</tr>
<tr>
<td>Limitations</td>
<td>126</td>
</tr>
<tr>
<td>Implications for Research</td>
<td>128</td>
</tr>
<tr>
<td>Implications for Practice</td>
<td>131</td>
</tr>
<tr>
<td>Summary</td>
<td>132</td>
</tr>
<tr>
<td><strong>APPENDIX</strong></td>
<td></td>
</tr>
<tr>
<td>A IRB APPROVAL AND CONSENT FORMS</td>
<td>134</td>
</tr>
<tr>
<td>B PARENT QUESTIONNAIRE</td>
<td>141</td>
</tr>
<tr>
<td>C FLYER FOR THE STUDY</td>
<td>143</td>
</tr>
<tr>
<td>D RESEARCHER’S TRAINING GUIDE</td>
<td>144</td>
</tr>
<tr>
<td>E PARENT HANDBOOK ON DIALOGIC READING</td>
<td>146</td>
</tr>
<tr>
<td>F PEER HANDOUT</td>
<td>150</td>
</tr>
<tr>
<td>G CROWD/FRASE HANDOUT</td>
<td>152</td>
</tr>
<tr>
<td>H BOOKS</td>
<td>154</td>
</tr>
<tr>
<td>I GUIDELINES FOR MLU</td>
<td>158</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1</td>
<td>Dialogic reading and children with developmental delays</td>
<td>52</td>
</tr>
<tr>
<td>2-2</td>
<td>Dialogic reading and children from low SES backgrounds</td>
<td>54</td>
</tr>
<tr>
<td>2-3</td>
<td>Dialogic reading and children learning English as a second language</td>
<td>56</td>
</tr>
<tr>
<td>3-1</td>
<td>Demographic data on mother participants</td>
<td>71</td>
</tr>
<tr>
<td>3-2</td>
<td>Demographic data on child participants</td>
<td>72</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1</td>
<td>Conceptual framework</td>
<td>51</td>
</tr>
<tr>
<td>4-1</td>
<td>Mother 1–Child 1/Mother 2-Child 2: Mother implementation of PEER</td>
<td>103</td>
</tr>
<tr>
<td>4-2</td>
<td>Mother 1–Child 1/Mother 2-Child 2: Mother implementation of FRASE</td>
<td>104</td>
</tr>
<tr>
<td>4-3</td>
<td>Mother 1–Child 1/Mother 2-Child 2: Children’s oral language production</td>
<td>105</td>
</tr>
<tr>
<td>4-4</td>
<td>Mother 3–Child 3/Mother 4-Child 4: Mother implementation of PEER</td>
<td>106</td>
</tr>
<tr>
<td>4-5</td>
<td>Mother 3–Child 3/Mother 4-Child 4: Mother implementation of FRASE</td>
<td>107</td>
</tr>
<tr>
<td>4-6</td>
<td>Mother 3-Child 3/Mother 4-Child 4: Children’s oral language production</td>
<td>108</td>
</tr>
</tbody>
</table>
This study investigated whether mothers from migrant populations could be trained to implement dialogic reading techniques during reading interactions with their children. The study also examined the effects of the mothers’ implementation of the techniques on the oral language development of migrant preschoolers with language delays. Four mother/child dyads from north central Florida participated in the research. Participating mothers used predominately Spanish in the home and agreed to read aloud to their children at least four times a week. The children who participated in this study had low language skills. The Mothers were trained to implement dialogic reading techniques during shared book reading sessions conducted in the homes of the participants. Data regarding the mothers’ implementation of the techniques and the effect of the implementation of dialogic reading on the children’s oral language production were collected using a multiple baseline design across participants. Analyses of the data indicated that the migrant mothers increased their use of dialogic reading techniques following training. Likewise, the children’s production of oral language increased following the mothers’ implementation of the techniques. In addition, the mothers’ implementation of dialogic reading techniques and the children’s increase in oral language production were maintained two weeks after the conclusion
of the intervention. Furthermore, results of social validity measures indicated that migrant mothers were satisfied with the intervention and agreed that it was effective and practical.
CHAPTER 1
INTRODUCTION

The United States is currently undergoing a dramatic change in its cultural and linguistic composition. In the year 2000, the Hispanic population was estimated at 35,305,818, representing an increase from 9% to 12.5% of the total population since 1990 (U.S. Census Bureau, 2000). Immigrants from Mexico along with those from other Latin American countries constitute the largest proportion (nearly 38%) of legal immigrants and an estimated 80% of undocumented immigrants (Garza, Reyes & Trueba, 2004). The population of children also reflects these demographic changes as the number of students who speak Spanish as a first language increases in schools all over the country. According to the National Center for Educational Statistics (2000), Hispanic students comprise 12% of the total school population in the country. A significant number of these children fall into the category “migrant”.

Federal law defines migrant workers as agricultural, dairy or fishing workers who migrate in order to obtain temporary or seasonal employment and who “have moved from one school district to another within the preceding 36 months” (Public Law 103-382, 1994, as cited in Riley, 2002). According to Cranston-Gingras (2003), there are between three and five million migrant farm workers in the United States. The majority of these workers travel in family groups and 50% are accompanied by their children (National Agriculture Workers Survey, 2000). There were approximately 628,150 migrant children in 1992 and as many as 800,000 in 1994 (U.S. Department of Commerce, 1995). Garza et al. (2004) add that the number of migrant children rose by 17% during the 1980s. Migrant children are among the students with the highest risk factors for developing reading difficulties and failing to complete their education due to the difficult circumstances that characterize migratory work (Cranston-Gingras, 2003; Martinez & Cranston-Gingras, 1996).
Migrant Children At-Risk

While educational success or failure cannot be predicted with a 100% accuracy, research suggests that certain variables are associated with higher incidences of reading and academic failure. Group risk factors such as low socioeconomic background, minority ethnic status, and limited English proficiency are considered reliable predictors of future reading and writing difficulties for preschool children (Jones & Fuller, 2003; Snow, Burns, & Griffin, 1998).

Children from migrant populations share the group risk factors mentioned above in addition to facing other variables which heighten their risk of developing reading problems and cause them to have the highest school dropout rates in the United States (Garza et al., 2004; Gouwens, 2001; Romanowski, 2003).

Migrant children face numerous obstacles in their path to academic achievement. Compounding the effects of poverty, minority status, and a lack of English proficiency are the high mobility rates that characterize migrant farm work, and the low levels of education prevalent among migrant parents (Henderson, 1992; Lopez, 2004). The constant need to move often makes it impossible for migrant families to participate in the preschool and family literacy programs that will help them prepare their children for school. Approximately 75% of all migrant families often find themselves in dire financial stress just to meet basic survival needs (Diaz, 1991; Garza et al., 2004). Acquiring literacy materials that can be used at home to prepare children for school becomes a secondary priority. Even in the event that literacy materials were provided to the families, many migrant parents do not feel confident enough to prepare their children for school due to their own lack of educational attainment (Lopez, 2004; Valdez, 1999). Due to these factors, numerous migrant children begin school without the skills they need to become successful readers (Henderson, 1992). Such lack of skills might result in
migrant children’s inability to become literate and to continue reading at grade level (Cranston-Gingras, 2003; Garza et al., 2004; Henderson, 1992).

Given migrant children’s vulnerability for academic failure, it is critical to find interventions that will prepare them for formal reading instruction before they begin kindergarten. Accomplishing this is the first step towards breaking the cycle of illiteracy and academic failure prevalent among the migrant population.

**Importance of Language in Literacy Development**

Research suggests that the most effective way to ensure that young children are ready to begin formal reading instruction is to support and enhance their early language development (Dickinson & Tabors, 2001; Tabors, 1997). Children’s level of oral language at school entrance is a strong predictor of reading skill development during the elementary school years, and can ultimately predict academic success as defined by high school graduation (Snow et al., 1998).

In the case of young children from non-English backgrounds, it is vital to continue fostering the development of first language skills as these skills will facilitate the acquisition of English (Cummins, 1976; Hakuta, 1986; Krashen, 1981). A solid foundation in the first language will allow young children to acquire a second language and to prepare for early literacy in the second language (Cummins, 1980; Krashen, 1991). One of the most effective ways of helping young children develop the language skills they need to be ready for reading instruction is by offering a supporting interaction between parents and children and by offering a language rich environment at home (Vygotsky, 1978; Wells, 1987).

**Home Literacy Activities**

Early literacy activities at home are crucial to foster the development of oral language skills and other literacy skills that set the foundation for future reading achievement (Wells, 1987). Shared book reading, especially shared book reading that involves the active
participation of the child, improves the expressive and receptive language of young children (Hargrave & Sénéchal, 2000). One shared reading strategy that has shown great promise for helping children from all socioeconomic backgrounds develop the language they need to be successful readers is dialogic reading (Whitehurst et al., 1988).

Dialogic reading is a joint storybook reading practice between the child and the caregiver (Whitehurst & Lonigan, 1998). This intervention promotes the use of evocative or interactive techniques by the caregiver that will encourage the young child to talk about the pictures in the book and will allow him/her to have an active role during shared book reading (Whitehurst, Arnold, Epstein, Angell, Smith, & Fishel, 1994; Whitehurst, Epstein, Angell, Payne, Crone & Fishel, 1994; Whitehurst, Falco, Lonigan, Fishel, DeBaryshe, Valdez-Menchaca, & Caufield, 1988). Several studies have demonstrated that dialogic reading can have powerful effects on the oral language and emergent literacy skills development of monolingual young children from all socioeconomic backgrounds (Crain-Thoreson & Dale, 1999; Hardgrave & Sénéchal, 2000; Lonigan & Whitehurst, 1998; Whitehurst et al., 1994; Whitehurst et al., 1988).

**Statement of the Problem**

Evidence supports the statement that children from migrant populations are among the most educationally vulnerable students in the nation (Garza et al., 2004; Gouwens, 2001; Romanowski, 2003). Due to poverty, lack of English proficiency and other factors that characterize migratory farm work, migrant children often begin school without the skills they need to become successful readers. The lack of reading skills will set these students on a path of academic failure that might lead to leaving school before high school graduation. Teaching migrant parents a strategy that will help them prepare their children for formal reading instruction may prove to be an effective intervention tool that will break the cycle of academic failure prevalent among migrant populations.
Purpose of the Study

The current study aims to increase knowledge about the effects of dialogic reading on a population of linguistically diverse families from migrant backgrounds. First, this investigation examined whether Spanish-speaking parents from a low SES and with minimal education could be trained to implement dialogic reading techniques during shared book reading interactions with their children. Next, the investigation examined the effects of the parents’ implementation of dialogic reading techniques on the oral language development of their preschool children.

Experimental Questions

1. Can migrant mothers with a low educational level be trained to implement dialogic reading techniques?

2. What is the effect of the mothers’ implementation of dialogic reading techniques on the oral language production of migrant preschool children?

3. Will the effects of dialogic reading on the oral language development of preschool children be maintained following the conclusion of the intervention?

Summary

The number of young children who speak Spanish as a first language is increasing rapidly in classrooms all over the United States. A large number of these children are part of the migrant farm worker population. Migrant children are at a high risk of developing reading difficulties and experiencing academic failure due to the high mobility rates, poverty and other factors that characterize the migrant lifestyle (Cranston-Gingras, 2003; Romansowski, 2003). Therefore, it is crucial to find interventions that will set migrant children on the path to academic success by preparing them for formal reading instruction before they enter kindergarten.

The most effective way to ensure that children are ready for reading instruction is to foster their early language development. Shared book reading interactions that involve the active participation of the child have been found to be very effective in fostering the development of
early language skills needed for reading success. One shared book reading strategy that has proven to be very effective with children from different backgrounds is dialogic reading.

The goal of this study was to determine whether migrant mothers could be trained to implement dialogic reading techniques during shared book reading interactions with their children and whether the parents’ implementation of these techniques improved the oral language development of the preschoolers.
CHAPTER 2
REVIEW OF THE LITERATURE

Migrant children often begin reading instruction without the skills they need to become successful readers. Such lack of skills may result in the students’ inability to become literate. One way to ensure that migrant children are ready to begin reading is by enhancing and supporting their early language development. Shared book reading and particularly shared book reading techniques that encourage the active participation of the child have proven to be effective tools for fostering the development of early language.

Conceptual Framework

The conceptual framework underlying this investigation is influenced by the works of Vygotsky (1978) and Bronfenbrenner (1979) (Figure 2-1). The sociocultural theory of learning emphasizes the importance of social interactions in stimulating children’s development (Vygotsky, 1978). According to Vygotsky, young children’s cognitive, linguistic and social development is supported and enhanced through social interactions with others (Ibid., 1978). An important component of Vygotsky’s work is the concept of the zone of proximal development (Ibid., 1978). The zone of proximal development refers to “the area of development into which children can be led in the course of interactions with a more competent partner” (Ibid., 1978, p. 36). In terms of language, children reach the zone of proximal development when they interact with adults who mediate the children’s attempts to communicate by responding to the children’s linguistic level. This is accomplished when adults provide a linguistic scaffold by modeling, questioning, and explaining during conversations with the child. The use of such scaffolding techniques will give children the opportunity to engage in conversation thus fostering the development of receptive and expressive language skills (Otto, 2002; Vygotsky, 1979).
Bronfenbrenner’s ecological systems theory (Bronfenbrenner, 1979) focuses on child development within the context of environment. Bronfenbrenner (1979) describes four layers or systems of a child’s environment. The microsystem includes the settings that impact the child in a direct manner such as the home environment, the classroom, and/or the childcare center. The mesosystem consists of the linkages among the components of the different settings such as the connection between parents and teachers. The exosystem is composed of the larger social system that affects the child but does not impact him directly such as the child’s community, and the parents’ workplace. The outermost layer of the child’s environment is the known as the macrosystem and is comprised of the cultural values, customs, and laws. Bronfenbrenner (1979) proposes that interactions between the child and his environment, particularly the mycrosystem will shape every aspect of the child’s development.

The conceptual framework underlying this investigation incorporates components from the two models discussed previously and provides a basis for how training migrant parents to promote the first language development of their children may prevent future reading difficulties thus improving the children’s chances for achieving academic success. As in Bronfenbrenner’s ecological model the child is the focus of this framework. The way in which migrant families help prepare their children for school and formal reading instruction is going to be influenced by the constant interactions between the characteristics of the child, the characteristics of the other components in the child’s ecological system such as the parents, and the environment.

The interactions between the migrant child and the members of his/her microsystem at home are impacted by the high mobility rates and long hours that characterize migrant farm work. In addition, the constant need to move often makes it impossible for migrant families to participate in the preschool and family literacy programs that will help them prepare their
children for school. The high levels of poverty, along with the low educational levels of these families, constitute another major obstacle to getting children ready for school. Migrant families often find themselves in dire financial stress just to meet basic survival needs (Diaz, 1991; Garza et al., 2004). Therefore, acquiring literacy materials that can be used at home to prepare children for school becomes a secondary priority. Even in the event that literacy materials were provided to the families, many migrant parents do not feel confident enough to prepare their children for school due to a lack of educational attainment (Lopez, 2004).

These factors along with child characteristics that will place the child at an increased risk for future reading difficulties (such as low first language skills and disabilities) make it crucial to intervene in order to ensure that migrant children are ready for formal instruction once they begin school.

A promising form of intervention is to teach parents how to interact with their children in a manner that fosters language development. When the parents are taught to interact with their children in a supportive manner that encourages children to be active participants in the interaction, children have the opportunity to develop a strong base on their first language. Having a strong foundation in the first language will facilitate the acquisition of English and subsequent literacy development (Cummins, 1980).

In keeping with this framework, the investigation provides a structure for selecting participants from migrant populations that have been identified as being at risk for reading failure due to factors such as delays in the first language (L1), poverty, and limited educational levels. The investigation involves training parents to implement dialogic reading, a shared book reading intervention that will lead to more effective language interactions and to the
development of a stronger foundation in the child’s first language. Such a foundation will ensure a greater likelihood of future reading success.

**The Migrant Profile: Children at Risk**

The migrant population constitutes the most academically vulnerable subgroup in the United States, making the education of migrant children and their families an issue of utmost concern in today’s society (Gouwens, 2001; Romanowski, 2004). Of all children in the nation, migrant children are the most undereducated and the least likely to complete high school and go on to postsecondary education (Garza et al., 2004; Gouwens, 2001). Chief among the factors that hinder the academic success of migrant students are the lack of stability, poverty, and lack of English proficiency (Cranston-Gingras, 2003; Gouwens, 2001). It is important to point out that these risk factors are usually overlapping and interactive.

**High Mobility Rate**

The lives of migrant families revolve around working and moving. These families move often in order to secure job opportunities and usually follow one of three well-established migrant routes (Gouwens, 2001). The routes include the East Coast Stream, the Midcontinent Stream, and the West Coast Stream (Shotland, 1989). The East Coast Stream includes the states along the eastern seaboard and the southern region of the United States. The Mid-continent Stream begins in south of Texas and expands north through the Midwestern and western states. The West Coast Stream starts in California and moves up through Oregon and Washington.

The constant mobility serves as one of the most significant impediments to the educational success of migrant children (Romanowski, 2004). As families migrate from one work site to the next, migrant preschoolers have very limited opportunities to participate in the early childhood programs that will prepare them for school entrance (Lopez, 2004). As a result, many migrant children begin school without the early literacy skills they need to become successful students.
During the elementary and secondary school years, migrant students attend an average of two to three schools a year (Garza et al., 2004). In addition, they often miss valuable days of instruction and academic content by enrolling late in the year and leaving early. These disruptions place migrant children at a high risk of failing to perform at grade level (Gouwens, 2001). The Migrant Education Secondary Assistance Project (1989) points out that by second grade, 50% of migrant students nationally are already below grade level, compared with 19% of the general population. It is estimated that migrant children’s academic performance is usually 6-18 months behind grade level and over 40% of these children are achieving below the 35th percentile in reading (Cranston-Gingrass, 2003; Garza et al., 2004; Hinojosa and Miller, 1984). There is no doubt that the high mobility of migrant farm work sets migrant children on a path of academic failure. The previous is demonstrated by the high drop-out rates of migrant students, which range from 45 to 90% (Cranston-Gingrass, 2003).

Poverty

The high levels of poverty prevalent among migrant families also have a dismal effect on the education of these students (Díaz, 1991; Cranston-Gingrass, 2003). Approximately 75% of all migrant families in the United States live well below the national poverty level with an income of less than $10,000 annually (Garza et al., 2004). This amount often includes the contributions of migrant children who work along side their parents in order to help the family earn enough money to subsist.

Most migrant children begin working in early adolescence, however, it has been reported that children as young as four or five are working with their parents instead of attending preschool programs (Cranston-Gingrass, 2003; Whitener, 1985). The previous is due to severe economic necessity, which along with high mobility rates and a lack of available early childhood programs restricts migrant children’s access to preschool instruction.
The need to work plays a crucial role in the high dropout rates of migrant children. Martinez and Cranston-Gingrass (1996) found that among the 300 migrant adolescents they studied, the predominant reason (37%) cited for dropping out of school was to work in order to contribute to the family’s finances.

Parents’ Low Educational Levels

The lack of economic resources combines with the low educational levels of migrant parents to further complicate the educational outcomes of migrant children. Children from homes that foster the development of early literacy by providing access to books and opportunities to engage in literacy activities have better academic outcomes than those from homes where these opportunities are not available (Dickinson & Tabors, 2001). Migrant families want their children to be successful and view education as their children’s way out of the cycle of migrancy (Henderson, 1992; Whitaker, Salend, & Gutierrez, 1997). However, they must utilize all their financial resources to meet basic needs, relegating the acquisition of books and other literacy related materials to a low priority (Garza et al., 2004; Henderson, 1992). Migrant children usually do not have access to books, encyclopedias, computers or other learning materials in their homes (Ezell, Gonzales, & Randolph, 2000; Garza et al., 2004). Furthermore, the low educational levels of migrant parents make it very difficult for them to engage their children in literacy-related activities. Over 75% of migrant adults have had limited educational opportunities, resulting in marginal reading skills and a lack of knowledge about the significant contribution of preschool literacy activities to later school success (Henderson, 1992; Romanowski, 2004).

Lack of English Proficiency

Another obstacle that migrant children and their families face on their path to academic success is the lack of English proficiency. Approximately 90% of migrant children come from
homes where a language other than English is spoken (Garza et al., 2004). The vast majority of these families speak Spanish as a first language. Spanish-speaking children, and particularly, Spanish-speaking children from low-income backgrounds are twice as likely as non-Hispanic whites and African Americans to read below grade level and to drop out of school (Snow et al., 1998; Jones & Fuller, 2003). When the high level of poverty experienced by migrant families is added to these variables, the risk of academic failure is further exacerbated.

Approximately 40% of migrant children have academic difficulties due to a lack of English proficiency (Whitaker et al., 1997). These children are not able to participate and achieve academic success unless they receive adequate language support (Gouwens, 2001). Unfortunately, a large proportion of migrant children do not receive the support they need due to their lack of stability (Whitaker et al., 1997). As mentioned previously, migrant children attend an average of two to three schools every school year. By the time the schools receive the records they need to make instructional decisions, it is time for the children to move on to another school. Thereby, missing the instructional language support they need throughout their school careers.

A large number of migrant parents speak little or no English at all, making communication with their children’s schools difficult at best, and nonexistent at worst (Gouwens, 2001). School officials often interpret this lack of communication as the parents’ lack of interest in the education of their children. Such interpretations lower teachers’ expectations for migrant students, which will affect their educational performance.

**Limited Access to Health Care Services**

The migrant lifestyle is also characterized by a lack of access to health care services and vast health problems (Ibid., 2001). Although migrant farm work is considered the second most dangerous occupation in the United States, the vast majority of migrant families do not have
health insurance and very few receive services through Medicaid (National Center for Farmworker Health, 2004). It is estimated that only one sixth of all migrant children are served in health care programs making them less likely to be fully immunized than other children (Ibid., 2004; Garza et al., 2004). The health profile of migrant children is not encouraging. The infant mortality rate for migrants is 125% higher than the national average (Gouwens, 2001). The rate of parasitic infections among migrant children is 59 times higher that that of the general population and the incidence of malnutrition and dental disease is higher than among any other subpopulation in the country (Diaz, 1991). Furthermore, the substandard housing typically available to migrant families leads to an increased prevalence of lead poisoning, respiratory illnesses, otitis media and diarrhea among children (National Center for Farmworker Health, 2004).

The constant exposure to dangerous chemicals, the lack of prenatal care, and poor living conditions place migrant children at high risk for disabilities (Cranston-Gingrass, 2003). Yet, they are often not identified for special education services and fall behind their peers academically (Ibid., 2003; Lozano-Rodriguez, & Castellano, 1999). Although, migrant children have not attracted much attention from researchers in the field of special education, migrant students with disabilities may be the most severely affected by physical and mental conditions resulting from poverty, and multiple health issues (Baca & Harris, 1988).

Given the numerous obstacles faced by migrant children in their path to academic achievement it is critical to intervene early by helping them acquire the skills they need to become successful readers before they begin school. Research has demonstrated that the most effective way to prepare young children to become effective readers is by supporting their early language development (McGee & Richgels, 2003).
Importance of Language in Literacy Development

The first years of life comprise the most important developmental period for language and literacy skills that serve as the foundation for formal reading instruction (Dickinson & Tabors, 2003; Hargrave & Sénéchal, 2000; McGee & Richgels, 2003). Children who begin school with limited early literacy skills, such as general verbal abilities, phonological awareness and letter knowledge, are at a high risk for future reading failure as these skills are predictive of reading performance during the latter elementary school years (Hart & Risley, 1995; Snow et al., 1998). According to Dickinson and Tabors (2001), language plays a crucial role in the acquisition of letter knowledge and phonological awareness. They explain that in order to learn about letters and sounds, children need to have knowledge about the “internal structure of words”, and this knowledge cannot be acquired without knowing numerous words in the first place (Dickinson & Tabors, 2001). Therefore, the most effective way to ensure that young children develop the literacy skills they need for future reading success is to support and enhance their early language development (Ibid., 2001; Tabors, 1997).

Children develop language skills by engaging in social interactions with more competent language users (Vygotsky, 1962, 1978). Several studies examining the influence of the home environment on the acquisition of literacy have shown that young children who have numerous opportunities to interact with adults who facilitate language are more likely to develop the literacy-related knowledge necessary for future reading achievement (Chall, Jacobs, & Baldwin, 1990; Hart & Risley, 1995; Snow & Tabors, 1996; Tabors, Snow, & Dickinson, 2001).

These research findings support the sociocultural learning theory formulated by Lev Vygotsky (1978). According to Vygotsky, children’s mental, language, and social development is supported and enhanced through social interactions with other children, older peers, and adults. An important component of this theory is the concept of the zone of proximal
development (Vygotsky, 1978). The zone of proximal development refers to “the area of
development into which children can be led in the course of interactions with a more competent
partner” (Ibid., 1978, p. 36). In other words, children are able to perform at a higher cognitive
and linguistic level when they have the guidance of a supportive adult (Morrison, 2003; Ibid.,
interactions support the idea that adults play an important role in scaffolding children’s language
development. Hart and Risley (1995) compared the interactions within families from
professional, working-class, and welfare backgrounds. They found that differences in the length
and nature of the parent-child interactions resulted in dramatic differences in the language
development of the children. Parents from the professional category averaged 42 minutes of
interaction with their children per hour, while parents from the welfare category averaged 18
minutes of interaction. The nature of the interactions was very different as well. The children of
parents who used more affirmations (or encouraging statements) and a greater variety of words
had more extensive vocabularies than the parents of children who were not as supportive in their
interactions (Hart & Risley, 1995). Furthermore, the differences in the language skills of the
children were predictive of differences in literacy achievement in the third grade (Hart & Risley,
2002). These findings support the role of language as a critical precursor to literacy.

The level of children’s oral language development at school entry is a strong predictor of
later reading achievement (National Reading Panel, 2000; Snow et al., 1998). Moreover, reading
ability in kindergarten is highly predictive of reading skills in third and fourth grade, which is
highly correlated with academic success as defined by high school graduation (Sénéchal &
emphasize the importance of supporting language development and point out that having an
extensive vocabulary at the time of school entrance will set children on the path to reading success. The role of vocabulary is so critical for long-term reading achievement that elementary school children with limited language skills continue to lag behind their peers despite having adequate decoding skills (Davies & Brembers, 1997).

Most children acquire oral language at a very fast rate during the preschool years (Dickinson & Tabors, 2001). However, for children who are learning English as a second language and come from impoverished backgrounds, acquiring the language they need to ensure good reading outcomes may be more problematic (Snow et al., 1998; Tabors & Snow, 2002).

Second Language Learners and Language Development

During the preschool years, monolingual children expand their oral language by 6 to 10 new words a day (Tabors & Snow, 2002). Most native speakers of English have a vocabulary of approximately 7,000 words by the time they begin formal reading instruction (August & Hakuta 1997). However, for some children language acquisition is a more complicated issue. The previous statement is particularly true for young children learning English as a second language. According to Tabors & Snow (2002), the development of precursor abilities for literacy, particularly the acquisition of new vocabulary, could be problematic for children who experience a change in their language environment during the preschool period.

Most children learning English as a second language have their first formal and extensive exposure to English when they begin participating in early childhood programs. It is also at this time that many parents are advised to stop using the first language at home and to interact with their children in English. Although well intentioned, such advice can be detrimental to the first and second language development of young children (Cummins, 1984; Krashen, 1968; Wong-Fillmore, 1992). An extensive body of research in the field of second language acquisition has demonstrated that development in the child’s first language facilitates the development of the

Furthermore, home language ability has been found to be a significant predictor of second language acquisition (Cummins, 1980; Green, 1998; Snow, 1990). Cummins (1980) proposes that language and preliteracy skills transfer from one language to another. However, Tabors and Snow (2002) cautioned that for these skills to transfer, “they must have been developed in the first place. And if there has been a discontinuity in the first language environment leading to truncated development of these aspects of preliteracy development in the child’s first language, there may be nothing to transfer to the new language” (p. 171). This situation will require young second language learners to attain these preliteracy skills in a new language they may not yet have under sufficient control to use in the service of literacy acquisition. By continuing to use the first language at home, parents are preparing their children for both school and for acquiring English.

**Importance of Early Literacy Activities/Shared Book Reading**

Early literacy activities play an important role in the development of literacy-related knowledge that will set the foundation for future reading success (Hammer, Wagstaff, & Miccio, 2003). Children who have many high-quality literacy experiences at home and in preschool are more likely to become proficient readers and writers (Hammer et al., 2003; McGee & Richgels, 2003; Neuman & Dickinson, 2002; Snow et al., 1998). Experiences that influence the future literacy success of children include: watching the parents or caregivers engage in reading and writing independently, parents engaging in activities with their children such as writing notes, and shared book reading (parents listening to children read and parents reading to children) (Auerbach, 1989).

Shared book reading has proven to have a significant effect on children’s reading outcomes (Wells, 1987). A study conducted by Wells (1987) suggested that children’s reading
achievement at the end of elementary school could have been predicted by differences in the early literacy experiences they possessed upon kindergarten entrance. After analyzing the different kinds of literacy activities the children had experienced during the preschool period, Wells (1987) concluded that the primary influence on the differences in later achievement could be the frequency of exposure to shared book reading. Engaging young children in shared book reading promotes their language and literacy skills (Dickinson & Tabors, 2002; Dickinson & Sprague, 2001). Shared book reading has numerous benefits some of which include learning about the concepts of print, knowledge of the alphabet, familiarity with the language of books, and the acquisition of new vocabulary (Hargrave & Sénéchal, 2000). For example, Sénéchal and Cornell (1993), and Robbins and Ehri (1994) found that young children acquire receptive and expressive vocabulary after a single reading of a book. There is no doubt that children who participate in book reading with their parents or caregivers are better prepared for formal reading instruction than those without such experiences (Sawyer, 2000; Vernon-Feagans, Hammer, Miccio, & Manlove, 2001).

Inquiry in the area of shared book reading has led to an increased interest in the nature of interactions between children and their caretakers during this activity. As a result, there is more information on different techniques that may be utilized to enhance the benefits of shared-book reading (Dale & Cole, 1996; Hockenberger, Goldstein, & Haas, 1999).

Parents and/or caregivers read to their children in different ways. Some see the child as a passive participant in the activity while others encourage interaction (Anglum, Bell, & Roubinek, 1990; Moustafa, 1997). Although, shared book reading in general has been found to promote the language and literacy skills of young children (Hargrave & Sénéchal, 2000; Vernon-Feagans et al., 2002), its effects are more powerful when it involves the active participation of the child
(Whitehurst et al., 1988; Lonigan & Whitehurst, 1998; Arnold, Lonigan, Whitehurst & Epstein, 1994). Findings of a study conducted by Hammer, Miccio and Wagstaff (2003) suggest that the traditional way in which most parents read to children (with the child as a passive participant) might not be enough to support the literacy development of young Spanish/English bilinguals. Yaden, Tam, Madrigal, Brassell, Massa, Altamirano, and Armendariz (2000) found similar results when they implemented a shared book reading program for Spanish/English bilingual four year olds in a poor neighborhood of Los Angeles, California. Both Hammer et al. (2003) and Yaden et al. (2000) suggest that a more interactive way of reading between child and caregiver might be needed to foster the early literacy skills of these children. One shared reading approach that involves interaction between adults and young children and holds considerable potential for promoting early language and literacy skills is dialogic reading.

**Dialogic Reading**

Dialogic reading is a shared book reading intervention that incorporates discussion between the caregiver and the child. Designed by Whitehurst and colleagues, dialogic reading involves active participation from the child and provides numerous opportunities for language development (Arnold et al., 1994; Lonigan & Whitehurst, 1998; Whitehurst et al., 1988; Whitehurst et al. 1994). The three guiding principles of dialogic reading include: (a) encouraging the child to participate by using prompts, (b) providing feedback to the child, and (c) adapting the reading style of the adult to the child’s linguistic abilities (Whitehurst et al., 1988; Whitehurst et al., 1994). Based on Vygotsky’s zone of proximal development, dialogic reading provides a natural context for scaffolded adult-child interactions that facilitate the language development of the young child (Zevenbergen & Whitehurst, 2004). Contrary to typical shared book interactions, in dialogic reading, the child is taught gradually to become the storyteller (Whitehurst et al., 1988; Zevenbergen & Whitehurst, 2004).
The acronym PEER is utilized to help parents remember the steps they will follow when engaging their children in dialogic reading: Prompt and wait, Evaluate the child’s response, Expand the child’s answer, and Repeat what the child says and encourage him/her to repeat it. The acronym CROWD is used to describe the different kinds of prompts that may be utilized by the adult: Completion prompts, Recall prompts, Open-ended prompts, Wh- prompts and Distancing prompts (see training section for more details). Whitehurst and colleagues (1988) discourage the use of “yes/no” questions during dialogic reading, as they do not stimulate the children’s use of language. Once the child provides an answer to the prompt, the adult provides feedback by recasting what the child has said and by expanding with more information, praising, or correcting errors. During a dialogic reading interaction, it is important for the adult to adjust his reading style to the language level of the child. As the child becomes more adept at talking about the story, the adult provides less support (Whitehurst et al., 1988; Lonigan & Whitehurst, 1998; Valdez-Menchaca & Whitehurst, 1992).

**Review of the Empirical Literature on the Efficacy of Dialogic Reading**

Research conducted over the last 15 years provides convincing evidence of a positive correlation between dialogic reading and the development of oral language skills of children at-risk for future reading problems (Dale, Crain-Thoreson, Notari-Syverson, & Cole, 1996; Valdez-Menchaca & Whitehurst, 1992; Whitehurst et al., 1988; Whitehurst et al., 1994). In establishing this relationship, researchers have examined the effects of dialogic reading on preschool children with developmental delays, children from low socioeconomic backgrounds and children with limited English proficiency.

The articles chosen for review in this section were identified through a comprehensive search in the Psych Info, ERIC, Wilson, Prodigital Dissertation and EBSCO databases. The key words dialogic reading, oral language, vocabulary, early literacy, emergent literacy, storybook
reading, shared book reading, and parent involvement were combined for the searches. Other articles were obtained through a hand search of relevant studies by Whitehurst, Senechal and Lonigan. Finally, a review of the references within selected studies provided additional articles. The search concentrated on empirical studies that met the following criteria: (a) articles were published in English from 1985 to the present (b) dissertations were written in English from 1985 to the present (c) participants included children between the ages of 2.5 and 6 years old. (d) study focused specifically on dialogic reading (e) study participants included children considered to be at-risk for future reading difficulties (children from low socioeconomic backgrounds, children with disabilities, children learning English as a second language). An initial search yielded a total of 17 articles and 6 unpublished dissertations. Once the exclusionary criteria were applied, 11 articles and 1 unpublished dissertation were chosen for inclusion in this review. The studies were divided for discussion based on the characteristics of the participants: developmental delays, low socioeconomic status, and English language learners.

**Dialogic Reading and Children with Developmental Delays**

The use of dialogic reading techniques as a treatment for improving the language and emergent literacy skills of preschool children with developmental delays was first posited by Whitehurst, Fischel, Lonigan, Valdez-Menchaca, Arnold, and Smith (1991). These researchers proposed that a shared book reading program that incorporated prompts and open-ended questions would have a powerful impact on the language skills of preschool children with expressive language delays (ELD). The results of the study confirmed the previous hypothesis and demonstrated that a dialogic reading program implemented at home by the caregivers could accelerate the vocabulary skills and increase the oral language production of children with ELD.

Similarly, Dale, Crain-Thoreson, Notari-Syverson, and Cole (1996) compared the effects of a dialogic reading program to those of a conversational language training program on the
expressive language development of young children with language delays. Study participants included thirty-three (33) mother-child dyads that were randomly assigned to the book-reading program or to the conversational program for eight weeks of intervention. The children ranged in ages from 3 to 6 years old and were primarily male (24 males and 9 females). All of them had mild-to-moderate language delays, functioning at the 2 to 4 year old level. The researchers utilized the McCarthy Scales of Children’s Abilities General Cognitive Index (GCI) and the Preschool Language Assessment Instrument (PLAI) as pre- and post-intervention measures. In addition, every dyad was videotaped reading a book and playing before and after the implementation of the treatments. The videotapes were transcribed and a computerized language analysis program was used to calculate the mean length of utterance (MLU) and the total number of different words used by the child. The results of this study revealed that the language production of both groups increased as measured by MLU and the number of words produced by the children. However, children in the dialogic reading group experienced greater gains in both measures than those assigned to the conversational language training program.

Another important finding of this study, suggests that the effects of dialogic reading on the children’s literacy skills are related to their level of language functioning. Upon comparison of pre- and post-test measures it was found that children functioning at the lower level made greater gains in verbal engagement and vocabulary skills, whereas children at the higher levels of functioning showed greater gains in their knowledge of grammar. Dale et al. (1996) concluded that dialogic reading has considerable potential for facilitating the language production and literacy skills of children with language delays, but add that the intervention needs to be monitored for a longer period of time in order to determine its full effects on this population.
Continuing to investigate the effects of dialogic reading on the emergent literacy skills of children with language delays, Crain-Thoreson and Dale (1999) conducted a study that included thirty-two children, their parents and preschool teachers. The children ranged in age from 39 to 66 months and were enrolled in special needs preschool programs in the Pacific Northwest region of the country. All children had been diagnosed with mild to moderate language delays. Upon completion of the Peabody Picture Vocabulary Test –Revised (PPVT-R) and the Expressive Once-Word Vocabulary Test-Revised (EOWPVT-R), the children were randomly assigned to one of three treatment groups: One-on-one dialogic book reading with the parent, One-on-one dialogic book reading with the teacher, and Conversational interaction with the teacher without book reading (control). Children assigned to dialogic reading groups participated in the activity at least four times a week for 10-minute sessions. All children were videotaped during a shared book interaction at the beginning and at the end of the eight-week study. Results showed that children in all three groups displayed an increase in language production and lexical complexity during the interactions. However, children in the dialogic reading interventions used a greater variety of words than children in the conversational interactions group. In addition, the degree of treatment fidelity of the adult reader was related to changes in children’s linguistic performance during the sessions. Children in dyads that followed the dialogic reading techniques as outlined showed greater improvement in the post-intervention measures. Crain-Thoreson and Dale (1999) conclude that dialogic reading can help improve the language skills of young children with language delays and suggest the need for more rigorous longitudinal studies testing the effect of the technique on the literacy skills of these children.

More recently, Hargrave and Sénéchal (2000) examined whether implementing a dialogic reading program in a preschool setting would improve the vocabulary of children with poor
expressive language skills. These researchers included two reading conditions in their study: a typical reading condition in which teachers read in their customary manner, and a dialogic reading condition in which teachers were taught to read in a dialogic manner. Regardless of condition, all of the participants were exposed to the same books over the four-week intervention. One important feature of this study is that the reading did not take place in a one-on-one situation but in a small group setting. Hargrave and Sénéchal (2000) added that using a ratio of 8 students per every teacher facilitated the implementation of the intervention within the existing structures of the preschool programs. The participants were 36 children (21 girls and 15 boys) between the ages of 3 and 5. The expressive vocabulary skills of the children averaged 13 months behind their chronological ages. In addition, one of the children had been diagnosed with a learning disability. Pre- and post-test measures included the Peabody Picture Vocabulary Test-Revised (PPVT-R), the Expressive One Word Picture Vocabulary Test-Revised (EOWPVT-R) and a test of new words labeled Book Vocabulary test. The results revealed that children participating in the dialogic reading condition made greater gains in language than children in the typical reading condition. The gains were notable in expressive language skills, but not in receptive language. Hargrave and Sénéchal (2000) explained that, over the course of the four-week study, children in the dialogic reading condition experienced an increase in expressive vocabulary that would normally occur in four months. Furthermore, the results showed that these preschoolers were able to acquire expressive vocabulary after listening to two readings of books in which the words were introduced in print and illustrations. A novel contribution of this study is that it demonstrates that conducting a dialogic reading session is both feasible and effective within the teacher/children ratio found in most preschools. Hargrave and Sénéchal (2000) concluded that although, children in both reading conditions benefited from
storybook reading, the benefits were more extensive for the children in the dialogic reading condition.

The important effect of dialogic reading on the language knowledge of children with language delays has been well established in the literature (Crain-Thoreson & Dale, 1999; Dale et al., 1996; Hargrave & Sénéchal, 2000; Whitehurst et al., 1991). Fielding-Barnsley and Purdie (2003) expanded this body of research by examining the effects of dialogic reading on the phonological awareness and print awareness of children with developmental delays and a family history of reading disabilities. The experimental group included 26 children ranging in age from 4 to 5 years old. Twenty-three children in the same age range were part of the control group. All the children were enrolled in preschool programs and had been identified as having developmental delays by their teachers. In addition, the children’s families indicated that one or more members of the household had been diagnosed with a reading disability. Fielding-Barnsley and Purdie (2003) conducted home visits to train the experimental group parents on dialogic reading techniques and provided them with pictures books, and literature on how to foster the literacy development of the children. Families were asked to engage in dialogic book reading with their children at least five times during the eight-week intervention. Families of children in the control group did not receive any support. Post-test results revealed that children in the experimental group scored significantly higher than the control group in phonological awareness skills such as rhyme awareness, and recognition of initial and final consonant sounds. The print awareness of children in the experimental group was also significantly higher than that of children in the control group as measured by the Concepts about Print Test (CAP). Fielding-Barnsley and Purdie (2003) emphasize the importance of involving parents in early intervention
efforts and add that a dialogic reading program implemented by parents can improve the emergent literacy skills of children with developmental delays.

These studies reveal that dialogic reading can improve the oral language skills, grammar knowledge, print awareness and phonological awareness of young children with developmental delays (particularly language delays). This technique appears to be particularly beneficial for increasing oral language production. An overview of studies examining the effects of dialogic reading on the language skills of children with developmental delays is presented in Table 2-1.

**Dialogic Reading and Children From Low SES Backgrounds**

The efficacy of dialogic reading on improving emergent literacy skills was initially examined on European-American children from upper and middle class backgrounds (Whitehurst et al., 1988; Arnold et al., 1994). These studies demonstrated that dialogic reading increased the language production (as measured by MLU), vocabulary skills, and print awareness of typically developing preschoolers (Whitehurst et al., 1988; Arnold et al., 1994). In order to determine whether dialogic reading could also benefit young children from low-income families and different cultural backgrounds, Valdez-Menchaca and Whitehurst (1992) implemented the technique in a preschool for working class families in Monterey, Mexico. Twenty monolingual speakers of Spanish ranging in age from 27 to 35 months participated in the study. A graduate assistant implemented dialogic reading techniques while reading to the children in the experimental group on an individual basis. The children in the control group received instruction on arts and crafts. Children receiving the dialogic reading intervention experienced significant gains in both their receptive and expressive language skills, as measured by Spanish translations of the EOWPVT, PPVT-R and the Illinois Test of Psycholinguistic Abilities (ITPA). Furthermore, children in the treatment group produced longer utterances, had a higher level of sentence complexity, and used a greater variety of nouns and verbs than children in the control
Valdez-Menchaca and Whitehurst (1992) concluded that dialogic reading had a positive effect on the language knowledge of young children from low SES and different language backgrounds. They added that dialogic reading training programs hold promise in developing countries that lack the resources to conduct more intensive interventions programs such as Head Start.

Whereas the previous study investigated the effects of dialogic reading on the skills of Spanish speaking children in Mexico, Whitehurst, Arnold, et al. (1994) analyzed the effectiveness of the technique with low-income families in the United States. Their study included 73 preschool children (3 years old) from families that qualified for publicly subsidized daycare in Long Island, New York. The children were randomly assigned to one of three conditions: daily dialogic reading in groups of five or less by the daycare teacher, daily dialogic reading at home and in a small group at school, and group play activities on a daily basis. Children in the first condition engaged in small group dialogic reading sessions with their teachers (or the teacher’s aides). These interactions lasted ten minutes per day and were conducted five times a week. The group in the second condition experienced the classroom dialogic reading sessions described previously. In addition, this group participated in individual dialogic reading interactions with their parents at home. The third group (control) participated in small group play activities under the supervision of a teacher or aide. Results of the six-week intervention revealed that dialogic reading had a positive impact on the language knowledge of the participants. Children in the intervention conditions obtained higher scores on the measures of expressive language (EOWPVT) and vocabulary (Our Word) than children in the control group. Furthermore, children who engaged in dialogic reading at home and at school scored significantly higher on the language knowledge measure than children who were only exposed to
the intervention at school. The gains made by the students in the dialogic reading conditions were maintained six months after the treatment had ended.

Continuing their research with families from low socioeconomic backgrounds, Whitehurst, Epstein, et al. (1994) assessed the effectiveness of dialogic reading with families participating in a Head Start program in Suffolk County, New York. These researchers investigated the efficacy of a yearlong dialogic reading program to enhance the emergent literacy skills of 153 preschool students in several Head Start centers. Parents and Head Start teachers received training on dialogic reading techniques. In addition, teachers also received training on Sound Foundations (Byrne & Fielding-Barnsley, 1991), a phonemic awareness curriculum. Students were randomly assigned to a treatment or a control group. Students in the treatment group received small group dialogic reading two to five times a week for one year, Sound Foundations curriculum instruction in the classroom for five months, and storybooks which were sent home following parent training on dialogic reading. Students in the control group received general education curriculum instruction. All children were administered the PPVT-R, the EOWPVT-R, the ITPA, and 18 subscales from the Developing Skills Checklist (DSC; CTB, 1990) at the beginning and at the end of the school year. Results of this study demonstrated that children in the treatment condition performed better at the end of the year on print awareness, and language skills. It is important to note that the children who experienced an improvement in language skills were those whose parents had actually implemented the dialogic reading program at home.

Whitehurst, Epstein, et al. (1994) hypothesized that the group dialogic reading interactions offered in the classroom were not sufficient to foster the language skills of preschoolers from low-income backgrounds. They added that the language skills of this group of children would be enhanced by one-on-one interactions with an adult. Although, children in the dialogic reading
condition showed robust gains in the ability to identify the first sounds in words, there were no significant differences between groups on phonological awareness skills.

The question of whether or not the effects of a dialogic reading program implemented during preschool can endure into the elementary school years was investigated by Whitehurst, Zevenbergen, Crone, Schultz, Velting, & Fishel (1999). These researchers conducted a longitudinal inquiry focusing on the participants of the study led by Whitehurst, Epstein, et al. (1994) and a replication cohort from different Head Start centers in the New York area. Whitehurst et al. (1999) found that the effects of dialogic reading reported by Whitehurst, Epstein, et al. (1994) were replicated with the new cohort of Head Start students. The gains in print awareness, and language skills attained by the children in the dialogic reading conditions were maintained through the end of the kindergarten year. In addition, children with the dialogic reading advantage performed better in phonological awareness tasks than children who had not experienced the intervention. Unfortunately, the effects did not generalize to reading scores at the end of first or second grade. Whitehurst et al. (1999) concluded the following:

It may be that dialogic reading and other similar shared reading interventions conducted in the preschool years will yield more advantages for children during the later elementary school years, when they are reading to learn, than in the early elementary school years, when they are learning to read. (p.269)

Expanding the research on the effects of dialogic reading on the literacy skills of children from poor backgrounds, Lonigan, Anthony, Bloomfield, Dyer, & Samwel (1999) analyzed how typical shared book reading compared to dialogic reading. They used three conditions that included (a) typical shared reading condition (teacher read while the children listened), (b) dialogic reading condition, and (c) no treatment control. The assessment measures included the PPVT-R, EOWPVT-R, ITPA Verbal Expression, Woodcock-Johnson Listening Comprehension subtest (WJ-LC), and four phonological sensitivity measures (rhyme, blending, elision, and
Upon completion of these pretest measures, 95 children between the ages of 2 and 5 years old were randomly assigned to one of the study’s conditions. The two reading conditions, dialogic and typical, were conducted by undergraduate college students and were scheduled daily for 10 to 15 minutes. Lonigan et al. (1999) found that both treatment conditions had positive effects on the emergent literacy skills of the children. However, the nature of the improvements was related to the type of shared book reading condition, dialogic or typical. Children in the typical reading group had higher scores on listening comprehension skills and phonological awareness skills whereas children in the dialogic reading condition had an improvement in the use of descriptive language. Based on the results, Lonigan et al. (1999) hypothesized that the effects of shared book reading on children’s phonological awareness skills might have been underestimated. However, they warned that the effect was found on only one of the four measures (alliteration), so it must be interpreted with caution.

The research has shown that dialogic reading has a positive effect on the language knowledge, print awareness and phonological awareness skills of children from low socioeconomic backgrounds (Whitehurst, Arnold, et al., 1994; Whitehurst, Epstein et al., 1994; Whitehurst et al., 1999; Valdez-Menchaca & Whitehurst, 1992). Like with the previous group of children (children with developmental delays) the strongest effect of dialogic reading appears to be on language particularly oral language production. The technique’s influence on phonological awareness remains unclear. An overview of studies examining the effects of dialogic reading on the language and emergent literacy skills of children from low socioeconomic backgrounds is presented in Table 2-2.

**Dialogic Reading and Children Learning English as a Second Language**

Although several dialogic reading studies have been conducted with children and caregivers from diverse linguistic backgrounds (Chow & McBride-Chang, 2003; Valdez-
Menchaca & Whitehurst, 1992), there is a scarcity of research that examines the effects of the intervention on the literacy skills of children learning English as a second language and living in the United States. The limited amount of dialogic reading research concentrating on bilingual children suggests that dialogic reading can have a positive effect on the vocabulary of young children growing up in bilingual environments (Lim & Cole, 2002; Brickman, 2002).

Lim and Cole (2002) examined the impact of dialogic reading on the first language knowledge of Korean children living in Seattle, Washington. The researchers worked with twenty-one mother-child dyads. The children ranged in age from 2 to 4 years old and were reported to be developing in a typical manner. All of them were growing up bilingual, learning Korean at home and English in their preschools. Dyads were randomly assigned to a treatment condition or to a control condition. The treatment condition consisted of training the mothers on dialogic reading techniques and discussing information on the importance of first language and literacy development. Parents in the control group received information about the importance of the first language and literacy development. The mothers in the experimental group were asked to engage their children in dialogic reading every day. After four weeks of intervention, the children in the experimental group produced more language, longer utterances and used a greater variety of words than the children in the control group. Lim and Cole (2002) note that although the dialogic reading interaction was carried out in Korean, the children used both Korean and English words during the events. They concluded that the dialogic reading intervention had a positive effect on the children’s expressive vocabulary in both Korean and English.

In contrast, Brickman (2002) analyzed whether a dialogic reading program conducted in the second language could benefit the development of bilingual children’s receptive and expressive language skills in English. This study focused on thirty-four mother-child dyads that
spoke Spanish as a first language. The children were between the ages of three and five and were eligible for participation in the Even Start program of Norman, Oklahoma. Like in the previous study, dyads were randomly assigned to an experimental or a control group. Mothers of children in the experimental group participated in a workshop that taught them how to implement dialogic reading techniques during shared book reading and received free storybooks. The mothers in the control group received free storybooks but were not allowed to participate in the workshop until the data collection process was finalized. Participating mothers were asked to implement dialogic reading techniques during daily reading sessions with their children. After six weeks of intervention, the children in the experimental group showed noticeable improvement in print awareness skills. Children in this group also showed larger gains in receptive language skills than the children in the control group. There were no significant differences between the experimental and control groups in expressive language skills. As found in the Lim and Cole (2002) study, the children in Brickman’s experimental group used both their first and second language during dialogic reading interactions with their mothers. Brickman (2002) added that a longer intervention period might be necessary to assess the full effects of dialogic reading on the second language skills of young children.

The scarce literature available in this area suggests that dialogic reading can result in the growth of first and second language knowledge as well as print concepts of young children from non-English backgrounds. There is a definite need for more attention and research on how dialogic reading can foster the language skills of young children growing up in bilingual environments. An overview of studies examining the effects of dialogic reading on the emergent literacy skills of children with Limited English Proficiency is presented in Table 2-3.
Summary of Findings

The research demonstrates that dialogic reading can have a positive effect on the language and early literacy skills of young children at-risk for developing reading difficulties. The most important effect of dialogic reading appears to be on language knowledge (Brickman, 2000; Hargrave & Sénéchal, 2000; Whitehurst, Epstein, et al., 1994; Whitehurst et al., 1999; Whitehurst et al., 1991). Dialogic reading stimulates the oral language production of children with developmental delays (Crain-Thoreson & Dale, 1999; Dale et al., 1996; Hargrave & Sénéchal, 2000; Whitehurst et al., 1991), children from low-income families (Lonigan et al., 1999; Valdez-Menchaca & Whitehurst, 1992; Whitehurst, Arnold, et al., 1994; Whitehurst, Epstein, et al., 1994; Whitehurst et al., 1999) and children learning English as a second language (Lim & Cole, 2002). Results showed that preschool children at educational risk who received dialogic reading intervention experienced an increase in the mean length of spoken phrases and exhibited greater gains in expressive vocabulary scores than the children in the control groups. Only one study, Brickman (2002), found that children in the control group experienced higher gains in expressive language skills. Brickman attributed this result to pre-existing differences between the experimental and control groups such as the children’s length of time in the Even Start program.

The influence of dialogic reading on receptive language skills was not clearly established. Only one of the studies (Brickman) asserted that dialogic reading had a positive effect on young children’s receptive language skills. However, the difference between the control and dialogic reading group in the PPVT-R scores did not reach statistical significance.

It is important to point out that the context of the intervention can magnify the influence that dialogic reading has on language knowledge. Children in home-plus-preschool conditions demonstrated greater gains in language measures than children in classroom conditions.
Whitehurst, Epstein, et al. emphasized that the dialogic reading effects on language were impressive but only for children whose parents had implemented the at-home component of the program. Moreover, these findings point to the importance of one-to-one dialogic reading interactions that are more likely to happen at home than in the classroom. It is possible that individual interactions may not be sufficient to produce significant improvements in the oral language skills of children from low-income backgrounds. This is also important for children with developmental delays as research demonstrates that they need more individual attention in order to develop language and early literacy skills (Hammer et al., 2003).

Most of the research on dialogic reading has focused on the effects of the intervention on language knowledge. However, a small number of studies suggest that dialogic reading might also foster the development of other emergent literacy skills such as print and phonological awareness. Children across the three categories of risk for reading failure showed an improvement in print awareness skills such as knowledge of standard print format (left-to-right, front-to-back orientation), and understanding the form and function of print (Brickman, 2002; Fielding-Barnsley & Purdie, 2003; Whitehurst, Epstein, et al., 1994).

The findings regarding the effects of dialogic reading on phonological awareness also suggest that the intervention can help children with developmental delays and low-income backgrounds improve their alliteration awareness, rhyme awareness, and recognition of initial and final consonants (Fielding-Barnsley & Purdie, 2003; Lonigan et al., 1999; Whitehurst, Epstein, et al., 1994; Whitehurst et al., 1994). An interesting trend is that although Whitehurst, Epstein, et al. (1994) did not find significant differences between the treatment and control groups in this measure, the follow-up study conducted by Whitehurst et al. (1999) showed that
by the end of kindergarten, children who had received dialogical reading performed better in phonological awareness tasks than children who had not been exposed to the technique. Another surprising result was obtained by Lonigan et al. (1999), who pointed out that the type of shared book reading interaction made a difference in preschool children’s phonological awareness skills. The results of their study suggested that typical shared book reading might have a small effect on the phonological awareness skills of children. Children in the typical shared book reading group had higher scores than children in the dialogic reading group in the alliteration measure. No between group differences were found in the remaining three phonological awareness measures. The results of Whitehurst, Epstein, et al., Whitehurst et al., and Lonigan et al., raise significant questions about the long-term effects of dialogic reading on the phonological awareness skills of preschool children.

The effects of dialogic reading on the first and second language skills of bilingual children are also promising. The studies surveyed (Brickman, 2002; Lim & Cole, 2002) showed that bilingual children used both their first and second language during the intervention regardless of the language in which it was implemented and that the technique had significant results in the English print awareness of Spanish/English bilinguals. These results suggest that dialogic reading can promote the second language acquisition of young English language learners. The research on dialogic reading proposes that relatively simple changes in the way adults conduct shared reading interactions can make an important contribution to the expressive language development of young children at-risk for reading failure.

**Limitations**

Any interpretation of the outcomes obtained by these studies must be viewed with caution due to several limitations. The magnitude of the effects of dialogic reading depends on the degree of fidelity with which the intervention is carried out. The fact that one third of the studies
did not include fidelity measures or relied on logs completed by the parents and teachers to determine fidelity level represents a problem (Brickman, 2002; Dale et al., 1996; Lim & Cole, 2002; Whitehurst, Epstein, et al., 1994). Research shows that parents and teachers who engage in frequent reading interactions with children have preferred reading styles that become ingrained part of their routines and are not easy to change (Teale, 1986). Therefore, any subtle adjustments to the standard dialogic reading routine by parents and teachers might have gone unnoticed and not recorded on the logs. Other treatment fidelity issues relate to the duration and reported frequency of the book reading episodes. Upon revision of dialogic reading videotaped interactions, it was found that teachers in the treatment conditions were reading for longer periods of time than accorded. The previous made it difficult to determine if any effects were due to the implementation of dialogic reading or to an increase in the duration of book reading interactions. An example of this problem is offered by Hargrave and Sénéchal (2000), who point out that there was substantial variability in teacher compliance with the dialogic reading intervention schedule. In addition, parent and caregivers’ reported frequency of shared book reading interactions might have been influenced by a “social desirability effect”. Shared book reading is promoted as a practice that sets children in the path to academic success, therefore, parents who want successful children need to engage in shared book reading as often as possible (Brickman, 2002; Teale, 1986). Additional limitations pertain to the facts that one third of the studies (Dale et al., 1996; Hargrave & Sénéchal, 2000; Whitehurst et al., 1991) did not include a no-treatment control group, and 66% utilized small samples that might have led to low power in the statistical significance of analyses (Brickman, 2002; Crain-Thoreson & Dale, 1999; Dale et al., 1996; Fielding-Barnsley & Purdie, 2003; Hargrave & Sénéchal, 2000; Lim & Cole, 2002; Valdez-Menchaca & Whitehurst, 1992; Whitehurst et al., 1991).
With regard to external validity, it must be noted that in two of the studies (Lonigan et al., 1999; Valdez-Menchaca & Whitehurst, 1992) college students implemented the reading treatments. In the case of Valdez-Menchaca and Whitehurst, the implementer was a doctoral student who interacted with participants on an individual basis, whereas in the Lonigan et al. study, undergraduate students implement the two reading conditions to groups of five or less children. This raises concerns about the degree to which typical preschool teachers and parents from low income backgrounds can be trained and motivated to engage in dialogic reading.

**Rationale of the Study**

There is a critical dearth of research in the area of language development of students from migrant populations. Migrant students are at risk for beginning formal schooling without the skills needed for future reading achievement. The area of oral language development is of particular interest as it is a strong predictor of future reading skills.

Dialogic reading is a shared reading technique that has proven to promote the oral language development of young learners from all socioeconomic backgrounds. However, most of the dialogic reading studies have been conducted with monolingual speakers of English. Although many of the studies included children from diverse backgrounds (European-American, African-American, and Hispanic), none of them concentrated on the language development of children from migrant populations and only two (Chow & McBride-Chang, 2003; Valdez-Menchaca & Whitehurst, 1992) examined the skills of monolingual speakers of other languages (Chinese and Spanish). The Valdez-Menchaca and Whitehurst (1992) study is of particular interest as it is the only study that focused on the language development of native speakers of Spanish. However, this particular study was conducted with children who lived outside the United States and who had not been exposed to a second language.
The current study aimed to determine whether Spanish speaking migrant mothers with minimal formal education could be trained to facilitate their children’s oral language development through the implementation of dialogic reading techniques during shared book reading. The findings of the study will offer information that will help parents from language minority and low SES backgrounds prepare their children for future reading achievement.

**Research Questions**

1. Can migrant mothers with a low educational level be trained to implement dialogic reading techniques?

2. What is the effect of the mothers’ implementation of dialogic reading techniques on the oral language production of migrant preschool children?

3. Will the effects of dialogic reading on the oral language development of preschool children be maintained following the conclusion of the intervention?
Figure 2-1. Conceptual framework
## Table 2-1. Dialogic reading and children with developmental delays

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Children’s Age (in months) and Type of Delay</th>
<th>Training Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whitehurst,Fischel, Lonigan, Valdez-Menchaca, Arnold, &amp; Smith (1991)</td>
<td>25</td>
<td>24 to 36</td>
<td>Video, group discussion</td>
</tr>
<tr>
<td><strong>Details/Findings:</strong> Storybook interactions that included open-ended questions and prompts increased the oral language production and vocabulary skills of the children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dale,Crain-Thoreson, Notari-Syverson, &amp; Cole (1996)</td>
<td>32</td>
<td>36 to 72</td>
<td>Video, group discussion</td>
</tr>
<tr>
<td><strong>Details/Findings:</strong> Increased oral language production and greater vocabulary variety. Lower functioning children responded to dialogic reading with increased verbal engagement and vocabulary skills. Higher functioning children used input as a source for gaining in MLU and to learn about grammar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crain-Thoreson &amp; Dale (1999)</td>
<td>32</td>
<td>39 to 66</td>
<td>Video, modeling, role-play</td>
</tr>
<tr>
<td><strong>Details/Findings:</strong> Children in treatment group used a greater variety of words than children in a conversation program group</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2-1. continued

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Children’s Age (in months) and Type of Delay</th>
<th>Training Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hargrave &amp; Sénéchal (2000)</td>
<td>36</td>
<td>36 to 60</td>
<td>Video, group discussion, role-play</td>
</tr>
</tbody>
</table>

Details/Findings: Children experienced gains in oral language production and vocabulary

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Children’s Age (in months) and Type of Delay</th>
<th>Training Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fielding-Barnsley &amp; Purdie (2003)</td>
<td>26</td>
<td>48 to 60</td>
<td>Group training</td>
</tr>
</tbody>
</table>

Details/Findings: Gains in print awareness and phonological awareness skills-rhyme awareness, and recognition of initial and final consonant sounds
Table 2-2. Dialogic reading and children from low SES backgrounds

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Children’s Age (in months)</th>
<th>Training Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valdez-Menchaca &amp; Whitehurst* (1992)</td>
<td>20</td>
<td>27 to 35</td>
<td>Intervention delivered by the researcher</td>
</tr>
</tbody>
</table>

**Details/Findings:** Children in treatment showed greater expressive and receptive vocabulary, longer utterances, and greater vocabulary complexity than children in the control group.

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Children’s Age (in months)</th>
<th>Training Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whitehurst, Arnold, et al. (1994)*</td>
<td>73</td>
<td>36 to 41</td>
<td>Video, practice session with direct feedback</td>
</tr>
</tbody>
</table>

**Details/Findings:** Children in treatment conditions showed greater expressive vocabulary scores than children in the play group. Children who received dialogic reading at home and school made greater gains than children in other groups. Six-month follow-up indicated expressive vocabulary growth was maintained.

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Children’s Age (in months)</th>
<th>Training Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whitehurst, Epstein, et al. (1994)</td>
<td>153</td>
<td>36 to 41</td>
<td>Video, practice session with direct feedback</td>
</tr>
</tbody>
</table>

**Details/Findings:** Children receiving dialogic reading showed gains in print awareness and language skills. Gains in language skills were exhibited by children receiving dialogic reading at home and school.
Table 2-2. continued

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Children’s Age (in months)</th>
<th>Training Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whitehurst, Zevenbergen, Crone, Schultz, Velting &amp; Fischel (1999)</td>
<td>153</td>
<td>36 to 41</td>
<td>Video, group discussion</td>
</tr>
</tbody>
</table>

Details/Findings: Replication of Whitehurst, Epstein, et al. (1994) study. Children receiving dialogic reading performed better at the end of the preschool year in language and print awareness. No difference in phonological awareness. Gains in print awareness and language were maintained through the end of kindergarten. Gains did not generalized to first and second reading scores.

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Children’s Age (in months)</th>
<th>Training Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lonigan, Anthony, et al. (1999)</td>
<td>95</td>
<td>25 to 64</td>
<td>Video, direct instruction, role-play, group discussion</td>
</tr>
</tbody>
</table>

Details/Findings: Children in dialogic reading condition made gains on the measure of descriptive language, whereas results favoring typical shared book reading were found on a phonological awareness measure and on listening comprehension.

* Study included children with language delays
Table 2-3. Dialogic reading and children learning English as a second language

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Children’s Age (in months)</th>
<th>Training Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lim &amp; Cole (2002)</td>
<td>21</td>
<td>24 to 48</td>
<td>Direct teaching, video</td>
</tr>
<tr>
<td>Brickman (2002)</td>
<td>34</td>
<td>36 to 60</td>
<td>Video, direct instruction</td>
</tr>
</tbody>
</table>

**Details/Findings:** Participants were native speakers of Korean from working class backgrounds. Effects in the first language - children participating in the dialogic reading condition produced more language, longer utterances and displayed greater vocabulary complexity than children in the control group. Effects on production of English words increased during interactions.

**Details/Findings:** Participants were native speakers of Spanish from low-income backgrounds. Children in the treatment group made greater gains in Spanish language receptive skills. No significant differences between groups in expressive language skills (Spanish). Children in treatment group produced showed an increase in English language words.
CHAPTER 3
METHODS AND PROCEDURES

The purpose of this chapter is to describe the procedures that were utilized during the implementation of the current study. The criteria for selecting the participants, the setting of the study, and the materials needed to conduct the study will be discussed in the first section of the chapter. A description of the dependent measures, data analysis, experimental procedures and study design will follow. Details about interobserver agreement, treatment integrity and social validity will be presented in the last part of the chapter.

Participants

The purpose of this study was to determine whether mothers from the migrant population could be trained to implement dialogic reading techniques while reading to their children and to further investigate the effects of such implementation on the oral language skills of the children. The participants of the study were four parent/child dyads who speak Spanish as a first language and are members of the migrant workers population.

Mother Participants

Four migrant mothers of children between the ages of 48 and 67 months participated in the investigation. Mothers identified as migrant under federal guidelines were nominated and contacted by Alachua County’s Office of Migrant Education regarding their initial eligibility to participate in the study. Once the mothers agreed, they were visited by the primary investigator who determined whether the mothers met all the criteria to be included in the study. Further eligibility criteria included the following:

1. The mother signed an informed parent consent form (Appendix A).

2. The mother used predominately Spanish to communicate with the child at home as indicated by a parents’ questionnaire (Appendix B).
3. The mother was able to read in Spanish at a second grade level as observed by the researcher during the initial meeting.

4. The mother gave permission to evaluate the child’s language skills.

Two of the participating mothers lived in the city of Gainesville while the others lived in the cities of Newberry and High Springs. Demographic information about each parent and family was obtained from the mother (Table 3-1).

Child Participants

Four children between the ages of 48 and 67 months participated in the investigation. In addition, every child participating in the study met the following selection criteria:

1. The child spoke Spanish as a first language.

2. The child’s formal exposure to the second language (English) as determined by participation in a day-care, preschool, or community enrichment program happened after the age of two (if at all).

3. The child displayed a language delay in the first language as demonstrated by scores at least 1 standard deviation below the mean on two standardized instruments.

4. The child did not exhibit significant behavior problems as indicated by the parents.

5. The child’s parent signed an informed consent form (Appendix A).

6. The child gave assent.

Demographic information about each child was obtained from the parent (Table 3-2).

Settings

The pre-baseline, baseline, intervention and maintenance phases of the study were conducted in the homes (living room or child’s bedroom) of the participants. The living rooms and bedrooms had either a sofa or a bed and adequate lighting so that the parent/child dyad could sit next to each other and be able to see the books during the reading sessions. The pre- and post-study administrations of the PLS-4 Spanish (Zimmerman, Steiner, & Pond, 2002.), the Peabody Picture Vocabulary Test-Revised (PPVT-R; Dunn & Dunn, 1981), and the "Test de
Vocabulario en Imagenes Peabody” (TVIP; Dunn, Padilla, Lugo & Dunn, 1986) also took place at the dyads’ homes. Pre- and post-study language samples were collected in the homes of the participants while the children played.

**Materials**

During the initial meeting with prospective participants (mothers) flyers (Appendix C) describing the study were distributed. Parent questionnaires in Spanish regarding the families’ use of the first language, exposure to the second language and home literacy practices were also utilized during this meeting. Other materials needed for the baseline, intervention and maintenance phases of the study included an audiotape recorder and 90-minute audiotapes.

**Assessment Instruments**

During the prebaseline phase of the study, the researcher evaluated the first and second language oral skills of the children. To accomplish this, the researcher utilized the Spanish version of the Preschool Language Scale (PLS-4, Zimmerman et al., 2004), the Peabody Picture Vocabulary Test-Revised (PPVT-R, Dunn & Dunn, 1981), and the Spanish version of the PPVT-R named the Test de Vocabulario en Imagenes Peabody (Dunn et al., 1986). The researcher and the children sat on a sofa or on the floor of the homes’ living room during the administration of these assessments.

The Preschool Language Scale-4 Spanish (Zimmerman et al.) is an individually administered standardized test for use with infants and children from 2 days to 6 years, 11 months. It assesses young children’s receptive and expressive language abilities using two subscales: Auditory Comprehension and Expressive Communication. The standardization sample of the PLS-4 Spanish was composed of 1,188 children (2 days to 6 years, 11 months). Approximately 50% of the sample within each age level was male and 50% was female. The test-retest reliability coefficients ranged from .73 to .86 for the subscale scores and .80 to .89 for
the total language score. The assessment yields a raw score, standard score, percentile rank, and age equivalent for auditory comprehension (AC), expressive communication (EC) and total language. In this investigation, language skills were considered delayed when children obtained a total language standard score below 85 (one standard deviation below the mean).

The Peabody Picture Vocabulary Test-Revised (Dunn & Dunn, 1981) is an individually administered norm referenced test of single-word receptive vocabulary. The child’s performance on the assessment yields a raw score, standard score, percentile rank, stanine, and age equivalent score. Children with scores below 85 (one standard deviation below the mean for the normative sample) were considered to have low language skills.

The Test de Vocabulario en Imagenes Peabody (Dunn, Padilla, Lugo & Dunn, 1986) is an individually administered norm referenced test of single-word receptive vocabulary for use with children ranging from 2 years, 6 months to 17 years, 11 months. The norming samples for the TVIP included 1,219 Mexican children ranging from 2 years, 6 months to 15 years, 11 months and 1,488 Puerto Rican children ranging from 2 years, 6 months to 17 years, 11 months. Children’s performance on the TVIP yields a raw score, standard score, percentile rank, and an age equivalent score. Children with scores below 85, one standard deviation below the mean for the normative sample, were considered to have language delays.

**Language Sample Materials**

Language samples were collected at the beginning and end of the study as alternate measures. Materials needed for the collection of the children’s language samples included an audiotape recorder, 90-minute tapes, and the child’s favorite toys.

**Parent Training Materials**

During the parent training component of the intervention phase, the researcher employed a videotape/DVD of a parent demonstrating the dialogic reading techniques in Spanish (“Lectura
Interactiva” by Circle Videos), a researcher’s training guide (Appendix D), copies of a parent handbook explaining the basics of dialogic reading in Spanish (Appendix E), and flyers with Spanish versions of the PEER sequence and the types of prompts, FRASE (Whitehurst et al., 1994, Landry, 2002; Appendices F and G). Papers and pencils were also be utilized for the parent training comprehension checks. To analyze the data, the researcher utilized a computer software program (Excel), graphing materials (grid, paper, pencils, rulers), and a calculator.

Books

During the baseline, intervention and maintenance phases of the study the dyads received children’s books in Spanish. The dyads received two books for every week of participation in the study for a total of approximately 17 books. The books selected for the study included books translated from English to Spanish (e.g. “The Very Hungry Caterpillar” by Eric Carle) and books that were originally written in Spanish (e.g. “Tortillas de Barro” by Barbara Flores). The selection criteria for the books were as follows: (a) books had colorful illustrations, (b) texts were at a second grade reading level or below and were not excessively long, (c) books were appropriate the age range of children participating in the study. For a complete list of books utilized during the investigation and the books chosen by every dyad see Appendix H.

Dependent Measures

During the baseline, intervention, and maintenance phases of the study, data were collected on three dependent measures:

1. The PEER steps implemented by the mothers during the shared book interactions.
2. The different kinds of prompts (FRASE) utilized by the mothers.
3. The nouns, verbs, and others uttered by the child during the shared book interactions.

The researcher utilized rate of response to record the occurrence of the dependent variables.
Definitions

The following definitions were utilized by the researcher to identify the occurrence of the target behaviors:

PEER. Acronym for the steps of dialogic reading: prompt, evaluate, expand, repeat. The Spanish equivalents of the PEER steps are: preguntar, evaluar, expandir and repetir.

FRASE. The Spanish version of the acronym CROWD which summarizes the different kinds of prompts that can be utilized during dialogic reading sessions: finalizar (completion prompts), recordar (recall prompts), abrir (open-ended prompts), seleccionar (Wh-prompts), experiencia (distancing prompts).

Nouns. A word used to name a thing, animal, or person. Unintelligible utterances are not counted as nouns.

Verbs. A word used to express existence, action, or occurrence. Non-intelligible utterances are not counted as verbs.

Others. Any intelligible word that cannot be classified as a noun or a verb. Includes articles, adjectives, adverbs, pronouns, etc. Unintelligible sounds such as ah, oh, hah, mmm, etc…were not counted.

Experimental Procedures

Prebaseline Phase

Prior to beginning the investigation, the researcher conducted an initial visit to the homes of the potential participants to talk to the parents about the study and to ask for permission to assess the children’s first language skills.

After securing parental consent, the children’s language skills were evaluated. The language skills were assessed using the Spanish version of the Preschool Language Scale-Fourth Edition (PLS-4; Zimmerman, Steiner, & Pond, 2002), the Peabody Picture Vocabulary Test-R
(PPVT-R; Dunn & Dunn, 1981), and the “Test de Vocabulario en Imagenes Peabody” (TVIP; Dunn et al., 1986). In addition, a language sample was collected while the child was engaged in a play session with the investigator.

Before the beginning of the intervention and after its conclusion, language samples were collected in order to detect any changes that might have taken place during the duration of the investigation. In order to elicit verbalizations from the child, the researcher asked the child to bring his/her favorite toys and encouraged him/her to play. The researcher played with the children and asked questions accordingly. The language samples were audio taped. The researcher listened to the audiotapes, transcribed the dialogue and then calculated the Mean Length of Utterance using to the guidelines designed by Linares (1979). The guidelines used to analyze the language samples are included in Appendix I.

Baseline

During the baseline home visits, the researcher provided Spanish language children’s books to the parents (2 per week) and instructed them to read to their children. Books chosen by the dyads during the baseline of the investigation can be found in Appendix H. The researcher observed and audiotaped the reading sessions. Baseline data were gathered for a minimum of four sessions per dyad or until it reached stability. The tapes were analyzed by the researcher to determine the rate of PEER steps, the different types of prompts (FRASE) utilized by the mothers, the rate of words uttered by the children during the shared reading sessions, and the rate of nouns, verbs, and others the children produced during the sessions. The baseline phase of the investigation began on the same day for Dyads 1 and 2 and continued until the intervention phase began for Dyad 1. Baseline data collection continued with Dyad 2 until the rate of words uttered by the child was stabilized and until Dyad 1 demonstrated a consistent trend in the intervention
data. At that time, Dyad 2 began the intervention phase of the experiment. The same general pattern was replicated for Dyads 3 and 4.

**Intervention Phase**

The intervention phase of the study consisted of two components. The components included parent training and implementation of the intervention.

**Parent training**

Once a stable baseline trend was established, every mother participated in two individual training sessions that lasted approximately one hour each. Once training was completed implementation of dialogic reading techniques during shared book interactions began a day following the training. The mother in Dyad 2 received the training once the baseline data for the rate of words uttered by the child were stable and once the intervention data for Dyad 1 demonstrated an upward trend. Similarly, the mother in Dyad 4 received the training once its baseline data were stable and after the intervention data for Dyad 3 displayed an upward trend.

A number of guidelines were established in order to ensure consistent training across parents. A detailed description of the training sessions is provided in Appendix D. Parent training consisted of the following elements:

1. A brief overview of the benefits of shared book reading: “Why should we read to young children?” was offered.

2. The researcher introduced the dialogic reading method and discussed its benefits.

3. The mothers watched a video and/or DVD demonstration of dialogic reading (“Lectura Interactiva” by Circle Videos), which was followed by a discussion about the content of the video.

4. The researcher described the steps in the dialogic reading technique.

   a. The researcher and the mother discussed the PEER sequence (Prompt, Evaluate, Expand, Repeat). A handout with the acronym was provided to the parents (See Appendix F).
b. The researcher explained the five different kinds of prompts that can be utilized during dialogic reading (FRASE) and the parents were asked to verbally provide an example of each one before they practiced the technique. A handout was also provided to the mothers (Appendix G).

5. The mothers were asked to implement the dialogic reading techniques during two practice sessions. During those sessions the researcher played the child’s role if the child was not present in the room. At this time mothers received feedback from the researcher and were allowed to ask questions. The parents received a dialogic reading guide they could utilize to review the procedure (Appendix E).

6. A written or verbal (depending on the mothers’ preference) assessment of understanding was conducted wherein mothers identified the four components of the dialogic reading sequence and provided an example for every one of the five kinds of prompts (FRASE). Mothers were required to get 8 out of the 9 items correct before proceeding with the next phase of the investigation. Mothers that did not obtain a score of 88% (8/9) participated in a coaching session. Two mothers indicated that they preferred the verbal assessment of understanding while the other two completed the written assessment.

**Coaching session**

If the mother did not obtain a score of 88% (8/9 correct answers) in the written/verbal comprehension check, she participated in a coaching session. During the coaching session, the researcher reviewed the PEER and FRASE sequences. The mother was asked to offer information as to what sections of the dialogic reading program were most difficult and why. The researcher and the mother discussed strategies to make following the sequence easier, (such as posting the handout with the acronyms in a visible place) and the researcher offered examples for every one of the five prompts (FRASE). After the coaching session the mother was asked to take another written/verbal comprehension check. Two of the four mothers (Mothers 2 and 3) participating in the current study required a coaching session before proceeding with the implementation component of the intervention phase.

**Implementation**

After participating in the training, mothers were asked to engage in dialogic reading sessions with the preschoolers a minimum of four times a week. Every session took place at the
dyads’ homes. Every week, the dyads received two new children’s books in Spanish. The child was allowed to choose which book(s) he/she wanted to read during every session. Mothers chose the best time for implementation, which remained the same during the remainder of the investigation. During those sessions they were asked to read to their children utilizing the dialogic reading techniques they had learned during training. The researcher observed and audiotaped every reading session.

The post administration of the Preschool Language Scale-Fourth Edition (PLS-4; Zimmerman, Steiner, & Pond, 2002), the Peabody Picture Vocabulary Test-R (PPVT-R; Dunn & Dunn, 1981), and the “Test de Vocabulario en Imagenes Peabody” (TVIP; Dunn et al., 1986) was conducted immediately after the intervention phase to compare the pre- and post-intervention language scores. A language sample was also obtained at this time.

Once the intervention data for Dyad 1 were stable and once the rate of words produced by the child in Dyad 2 was stabilized, intervention began with Dyad 2. Once the intervention phase was completed for Dyads 1 and 2, the procedures were replicated with Dyads 3 and 4.

**Maintenance**

The purpose of the maintenance phase was to determine if the mothers would continue implementing dialogic reading techniques during reading sessions after the conclusion of the intervention phase and to determine if there had been any post-intervention changes in the children’s language skills. Follow-up observations were conducted two weeks after the termination of the intervention phase. For this phase of the study, the dyads were provided with an additional two new children’s books in Spanish. The children were still allowed to choose which book they wanted to read out of all the books they had received. Three to four reading maintenance sessions were audiotaped for each dyad.
Study Design

A multiple baseline design across participants was utilized in this study in order to establish the effects of the treatment on the mothers’ shared book reading styles and on the children’s oral language skills. Data collection began with the baseline phase for two of the dyads. Once the baseline data were stable for Dyad 1, intervention began for Dyad 1. Dyad 2 remained in baseline until it displayed a stable trend in (a) the number of PEER steps utilized by the mother, (b) the rate of words produced by the child and (c) until Dyad 1’s intervention data showed an upward trend. Once this was evidenced, Dyad 2 began the intervention phase of the study. Data on maintenance was collected two weeks after the conclusion of the intervention. A replication began with Dyads 3 and 4 after the completion of the investigation with the first two dyads. Staggering the experimental procedures in such manner provided with a replication within a single experiment, which strengthened the internal validity of the study. Kucera and Axelrod (1995) confirm the previous when they state “repeating like phases within experiments not only confirms that response changes can be made to occur more than once and are therefore reliable, but also adds more assurances that the intervention, rather than extraneous variables, was decisive in these changes” (p. 27).

In order to examine the effectiveness of the intervention on the mothers’ shared book reading styles and on the children’s oral language skills, the baseline, intervention and maintenance data were graphically displayed for visual inspection of the results. Visual inspection of the data was used to determine the effectiveness of the intervention. Each graph was inspected for the magnitude of change in means across experimental phases, the level of stability within the data points across phases and the trend of the data (Kazdin, 1982).
**Data Recording**

The researcher utilized rate of response per minute for this investigation (Kazdin, 1982). The type of data recorded included: (1) the rate of PEER steps implemented by the mothers, (2) the rate of different prompts (FRASE) utilized by the mothers, and (3) the rate of nouns, verbs and others uttered by the children during the sessions.

**Data Analysis**

The audiotapes were transcribed and coded by the researcher after every reading session. The data obtained during this study were graphed using a multiple baseline across subjects design. Baseline and intervention phases were graphed using the Excel computer program and visually inspected every day to analyze the mother’s and children’s progress. Visual inspection comparing the baseline and intervention phases were completed to determine whether mothers were implementing the PEER and FRASE sequences and to investigate whether the implementation of dialogic reading techniques was increasing the rate of nouns, verbs and others uttered by the child. The baseline and intervention phases were evaluated graphically via visual analysis in terms of (a) the magnitude of change in means from baseline to intervention (b) the level of stability within the data points across phases and (c) the trend of the data (Kazdin, 1982).

The data obtained during the maintenance phase were utilized to determine if the mothers had continued to implement dialogic reading techniques during shared book reading after the intervention had ended. These data were also used to determine if there had been any changes in the participating children’s utterances since the conclusion of the study.

**Interobserver Agreement**

Kazdin (1982) defines interobserver agreement (IOA) as the extent to which observers agree on the occurrence of a particular behavior. To assess interobserver agreement the researcher and a trained assistant, who is also an English/Spanish bilingual early childhood
professional with over 31 years of experience, scored the transcripts for approximately 30% of
the sessions. The researcher and the assistant scored randomly selected transcripts of the
sessions independently and completed the following steps:

1. Counted the number of PEER steps utilized by the mother and obtained a rate,
2. Counted the number of different types of prompts (FRASE) implemented by the
   mothers and computed a rate for every type of prompt,
3. Counted the number of nouns, verbs and others produced by the child and computed a
   rate for each one of them.

Reliability estimates were conducted using the point-by-point agreement method in
which the number of agreements is divided by the number of agreements plus disagreements,
multiplied by 100 (Point-by Point Agreement=A/A+D x100) (Kazdin, 1982). An agreement of
at least 80% was required. For more information on interater reliability see Chapter 4.

**Treatment Integrity**

Parent training was conducted using guidelines developed by the researcher in order to
ensure the consistency of training among participating mothers. The researcher observed the
mothers conducting all the dialogic reading sessions and utilized the audiotapes to conduct
treatment integrity checks at least twice a week. A task analysis checklist was utilized for the
treatment integrity checks (Appendix J).

**Social Validity**

In an effort to establish the social validity of the intervention, every mother was asked to
complete a questionnaire at the end of the maintenance phase. The purpose of the questionnaire
was to obtain the mothers’ opinions on five questions regarding the usefulness of the dialogic
reading techniques and its effect on the children’s vocabulary development. Each question was
completed using a 5-point Likert scale. The social validity questionnaire can be found in
Appendix K.
Pilot Study

Prior to beginning the experimental phases of the investigation, a pilot study was conducted to determine whether the parent training, data collection procedures, and data recording system chosen for implementation during the experiment needed any modifications. The pilot study included one migrant mother/child dyad nominated by the Migrant Education Office of the School Board of Alachua County. The materials, design, and procedures used in the pilot study were similar to those described in this chapter. However, there were differences in the eligibility criteria for the child participant. Although, the mother reported that her child displayed language delays in the first language, the language skills’ of the child were not formally evaluated and language samples were not collected.

Modifications made as a result of the pilot study were minimal. No changes were made to the parent training protocol and the data collection system was varied only slightly. While the actual data collection procedures did not change, it was determined that the time assigned for the mother/child reading interactions (10 minutes per session) was not reasonable. The duration of the pilot baseline sessions ranged from 1.5 to 3.2 minutes per session. During the intervention phase of the pilot study the duration of the sessions ranged from 11.6 to 16.7 minutes per session. Therefore, there was no pre-established duration for the reading interactions of the current investigation. All sessions were timed as they occurred naturally for the mother/child dyads. Finally, the data recording system was changed from frequency counts to rate of response per minute. This change was made because of the difference in duration between sessions during the baseline and intervention phases of the pilot study.
Table 3-1. Demographic data on mother participants

<table>
<thead>
<tr>
<th>Parent Participant</th>
<th>Age</th>
<th>Ethnic Background*</th>
<th>Gender†</th>
<th>Highest Level of Education</th>
<th>Income Level</th>
<th>Size of Family</th>
<th>Years with Migrant Status</th>
<th>Type of work</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>M</td>
<td>F</td>
<td>Grade 5</td>
<td>$13,000/year</td>
<td>4</td>
<td>2</td>
<td>Agricultural/Construction</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>M</td>
<td>F</td>
<td>Grade 10</td>
<td>$9,000/year</td>
<td>4</td>
<td>3</td>
<td>Agricultural</td>
</tr>
<tr>
<td>3</td>
<td>37</td>
<td>M</td>
<td>F</td>
<td>Grade 3</td>
<td>$14,000/year</td>
<td>5</td>
<td>4</td>
<td>Agricultural/Construction</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>M</td>
<td>F</td>
<td>Grade 12</td>
<td>$12,000/year</td>
<td>5</td>
<td>2</td>
<td>Agricultural</td>
</tr>
</tbody>
</table>

*Ethnic Background: M=Mexican †Gender: F=Female

Note:
<table>
<thead>
<tr>
<th>Child</th>
<th>Age</th>
<th>Gender</th>
<th>Ethnicity†</th>
<th>Health Issues</th>
<th>PLS-4 (Spanish) Pre-intervention</th>
<th>PLS-4 (Spanish) Post-intervention</th>
<th>TVIP (Spanish) Pre-intervention</th>
<th>TVIP (Spanish) Post-intervention</th>
<th>PPVT-R (English) Pre-intervention</th>
<th>PPVT-R (English) Post-intervention</th>
<th>Language Samples: Pre- and Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5-2</td>
<td>F</td>
<td>M</td>
<td>Seizure Disorder</td>
<td>AC: 76 EC: 93 Total: 83</td>
<td>AC: 86 EC: 101 Total: 93</td>
<td>84</td>
<td>88</td>
<td>Failed to establish a basal. Did not answer any item correctly (0/11)</td>
<td>Failed to establish a basal</td>
<td>Pre-intervention MLU: 2.8 Post-intervention MLU: 3.1</td>
</tr>
<tr>
<td>2</td>
<td>4-2</td>
<td>M</td>
<td>M</td>
<td>Severe Asthma</td>
<td>AC: 52 EC: 69 Total: 52</td>
<td>AC: 52 EC: 72 Total: 55</td>
<td>77</td>
<td>82</td>
<td>Failed to establish a basal. Answered 13 items. All of them incorrectly</td>
<td>Failed to establish a basal</td>
<td>Pre-intervention MLU: Approximately 0.7 Post-intervention MLU: 1.68</td>
</tr>
<tr>
<td>3</td>
<td>5-7</td>
<td>M</td>
<td>M</td>
<td>Asthma</td>
<td>AC: 61 EC: 75 Total: 64</td>
<td>AC: 61 EC: 77 Total: 65</td>
<td>77</td>
<td>79</td>
<td>Failed to establish a basal. Answered one item (out of eight) correctly</td>
<td>Failed to establish a basal</td>
<td>Pre-intervention MLU: 2.5 Post-intervention MLU: 3.1</td>
</tr>
<tr>
<td>4</td>
<td>4-3</td>
<td>F</td>
<td>M</td>
<td>Severe Asthma</td>
<td>AC: 62 EC: 75 Total: 64</td>
<td>AC: 61 EC: 77 Total: 65</td>
<td>72</td>
<td>73</td>
<td>Failed to establish a basal. Answered a total of 6 items. None of them correctly</td>
<td>Failed to establish a basal</td>
<td>Pre-intervention MLU: Approximately 0.5 Post-intervention MLU: 0.6</td>
</tr>
</tbody>
</table>

Note: *Gender: F=Female; M=Male †Ethnicity: M=Mexican
CHAPTER 4
RESULTS

The purpose of this investigation was to determine the effectiveness of an intervention provided to mothers from migrant populations to use with their preschool children who are at-risk for reading difficulties. The research questions were (a) Will mothers from migrant populations with a minimal amount of education implement dialogic reading techniques following a brief training? (b) What is the effect of the mothers’ implementation of dialogic reading techniques on the oral production of children at risk for reading difficulties? (c) Will the effects of dialogic reading on the oral language development of the children be maintained following the conclusion of the intervention?

To investigate these questions, 4 mother/child dyads participated in the research. The participants were selected with the help of the Migrant Education Office of the School Board of Alachua County. Participating dyads were members of the migrant worker population, and spoke Spanish as their first language. The children were evaluated using standardized measures to determine the presence of delays in the first language. Baseline data were collected regarding the mothers’ use of dialogic reading techniques and the children’s oral language production during shared book reading sessions.

Dialogic reading techniques for children 4 to 5 years of age include four steps that mothers implement during the reading sessions. The acronym PEER was developed to help mothers remember the following steps: Prompt, Evaluate, Expand and Repeat (Whitehurst, Epstein, et al., 1994). The participants of this study were migrant mothers who spoke Spanish, therefore, the PEER sequence was taught in Spanish (Preguntar, Evaluar, Expandir, and Repetir). The acronym FRASE (Landry, 2002) was utilized to help mothers remember the different types of prompts they can use. These prompts are as follows:
1. **Finalizar:** Completion prompts. Fill-in-blank questions (e.g., “Good night_______”)

2. **Recordar:** Recall prompts. Prompts that require the child to remember details of the story (e.g., Who said “Good night moon”?)

3. **Abrir:** Open-ended prompts. Prompts that require the child to talk about the story using his/her own words (e.g., “Tell me what happen in this page”)

4. **Seleccionar:** Wh-prompts. Prompts that begin with wh- and require the child to talk about a picture in the story (e.g., “What color is the car in the picture?”)

5. **Experiencia:** Distancing prompts. Prompts that require the child to relate the content of the story to an aspect of his/her life (e.g., “Do you have a dog like the one in the story?”)

During the intervention phase, the mothers were trained to use dialogic reading techniques during book reading sessions with their children. The effectiveness of the intervention was measured by comparing mothers’ use of dialogic reading techniques (PEER/FRASE) and children’s oral language production (nouns, verbs and others) during reading sessions prior to training with mothers’ use of the techniques and children’s oral language production during the intervention phase. Data were also collected two weeks following the conclusion of the intervention to examine maintenance.

A single-subject multiple baseline across participants was utilized. The dependent variables across all phases of the study were the mothers’ use of prompts, evaluations, expansions and repetitions (PEER), the kinds of prompts they were implementing (FRASE), and the children’s language production. The effectiveness of the intervention was determined by measuring the shift in the average rate of performance across experimental phases also referred to as the change of magnitude in means. Baseline, intervention, and maintenance data were completed with two dyads first. Data collection with the remaining two dyads was initiated approximately 8 weeks later.
This chapter is organized by dyads and experimental phases (baseline, intervention and maintenance). Interobserver agreement information has been provided, treatment integrity and the results of the procedures have been addressed. In addition, data have been graphically displayed in Figures 4-1 through Figure 4-6.

**Dyad 1**

**Baseline**

During baseline sessions, Dyad 1 was audiotaped during shared book reading sessions conducted in the dyad’s home. Data were collected from the audiotapes on the mother’s use of PEER and FRASE, and on the oral language production of the children during the reading session. Baseline data were collected for 6 sessions until a stable trend occurred in the mother 1’s rate of prompts, evaluations, expansions, repetitions (PEER) and the child’s oral language production (Figures 4-1 to 4-3). The duration of baseline reading sessions ranged from 3.18 minutes to 7.2 minutes with a mean reading session duration of 5.59 minutes.

**PEER**

During Baseline, Mother 1’s use of the PEER sequence occurred at a low rate with prompts ranging from 0.0/minute to 1.80/minute, with a mean occurrence of 0.30/minute (Figure 4-1). The rate of evaluations ranged from 0.0/minute to 0.69/minute, with a mean occurrence of 0.12/minute. Expansions ranged from 0.16/minute to 1.25/minute, with a mean occurrence of 0.29/minute. While the rate of repetitions ranged from 0.0/minutes to 0.13/minute, with a mean occurrence of 0.022/minute.

**FRASE**

Mother 1’s implementation of FRASE during baseline was very low (Figure 4-2). The rate of “Finalizar” prompts utilized by this mother remained at 0.0/minute during baseline while the rate of “Recordar” prompts ranged from 0.0/minute to 0.69/minute, with a mean occurrence of
0.115/minute. The rate of “Abrir” prompts implemented by Mother 1 during baseline ranged from 0.0/minute to 0.28/minute with a mean rate of 0.047/minute. Mother 1’s use of “Seleccionar” prompts ranged from 0.0/minute to 0.14/minute. The mean rate for “Seleccionar” prompts during baseline was 0.023/minute. The rate of “Experiencia” prompts ranged from 0.0/minute to 0.69/minute with a mean occurrence of 0.115/minute.

Child’s oral language

The oral language production of Child 1 was low during baseline and will be described in terms of nouns, verbs and others (Figure 4-3). The rate of production of nouns ranged from 0.0/minute to 2.22/minute, with a mean occurrence of 0.99/minute. Verb production ranged from 0.0/minute to 1.81/minute, with a mean occurrence of 0.59/minute. Finally, the rate of others during baseline was variable and ranged 0.16/minute to 6.25/minute, with a mean occurrence of 1.71/minute.

Intervention

Once baseline data on Mother 1’s use of PEER and on the child’s oral language production were stable, the mother participated in two individual training sessions conducted by the researcher. Each session lasted for approximately one hour (for a total of two hours) and took place in the dyad’s home. The researcher used trainer and parent manuals (Appendices D and E) to train the mother to use Dialogic Reading techniques (PEER and FRASE). The mother was asked to provide verbal examples of the PEER steps and examples of the different kinds of prompts that can be implemented (FRASE). Upon completion of the training the mother completed a written evaluation with 100% (9/9) accuracy. Intervention commenced a day after the last training session.
**PEER**

Intervention data for Dyad 1 was collected over six sessions (Figures 4-1 to 4-3). During intervention, Mother 1’s use of Dialogic Reading techniques (PEER and FRASE) increased dramatically (Figures 4-1, 4-2). The rate of prompts during intervention ranged from 3.13/minute to 6.6/minute, with a mean occurrence of 5.27/minute (Figure 4-1). The magnitude of change in means for Mother 1’s use of prompts was 4.97/minute. Mother 1’s use of evaluations ranged from 1.38/minute to 2.78/minute, with a mean occurrence of 2.51/minute. From baseline to intervention, there was a magnitude of change of 2.39/minute. During intervention, the rate of expansions ranged from 0.31/minute to 4/minute, with a mean occurrence of 2.60/minute. The magnitude of change in expansions was 2.31/minute. There was little difference between Mother 1’s use of repetitions during the baseline and intervention phases of the investigation. During intervention, the rate of repetitions ranged from 0.0/minute to 0.32/minute, with a mean occurrence of 0.10/minute. From baseline to intervention, the magnitude of change in means was 0.3/minute for repetitions.

**FRASE**

The kinds of prompts utilized by Mother 1 changed as well (Figure 4-2). There was a modest increase in the rate of “Finalizar” prompts utilized by Mother 1. That rate ranged from 0.0/minute to 0.66/minute with a mean occurrence of 0.265/minute. Mother 1’s use of “Finalizar” prompts displayed a slight magnitude of change of 0.265/minute. The rate of “Recordar” prompts increased during intervention. The intervention rate of “Recordar” prompts ranged from 0.20/minute to 3.2/minute. The mean level for “Recordar” prompts during intervention was 1.39/minute. Mother 1’s use of “Recordar” prompts had a magnitude of change of 1.27/minute from baseline to intervention. This mother’s use of “Abrir” prompts also increased during the intervention phase of the study. The intervention rate of “Abrir” prompts
ranged from 0.22/minute to 1.78/minute with a mean occurrence of 1.00/minute. The magnitude of change for Mother 1’s use of “Abrir” was 0.95/minute from the baseline mean rate to the intervention mean rate. The mother’s implementation of “Seleccionar” prompts showed a more notable increase during the intervention phase. Mother 1’s use of “Seleccionar” prompts ranged from 0.93/minute to 3.19/minute with a mean occurrence of 1.78/minute. From baseline to intervention, Mother 1’s implementation of “Seleccionar” displayed a notable magnitude of change of 1.76/minute. Mother 1’s use of “Experiencia” prompts also evidenced a rate increase during intervention ranging from 0.18/minute to 1.58/minute with a mean level of 0.61/minute. There was a magnitude of change of 0.49/minute from baseline to intervention.

**Child’s oral language**

The child’s oral language production increased during intervention (Figure 4-3). Child 1’s use of nouns during intervention ranged from 1.81/minute to 6.16/minute, with a mean occurrence 4.22/minute. The magnitude of change for Child 1’s use of nouns, as measured by the shift in means from baseline intervention, was 3.23/minute. During intervention, the rate of verbs ranged from 2.82/minute to 4.5/minute, with a mean of 3.49/minute. The rate of verbs from baseline to intervention displayed a change of magnitude of 2.9/minute between the two phases of the investigation. The child’s use of others during intervention ranged from 9.05/minute to 18.35/minute. The mean rate of others during intervention was 14.06/minute. This represents a positive magnitude of change of 12.35/minute.

**Maintenance**

Maintenance data collection with Dyad 1 commenced two weeks after the conclusion of the intervention study (Figures 4-1 to 4-3). Maintenance data for Dyad 1 were collected over 4 sessions. Maintenance sessions ranged in duration from 10.2 minutes to 12.26 minutes with an average duration of 11.34 minutes.
PEER

During the maintenance phase Mother 1’s use of the PEER Dialogic Reading techniques was variable, decreasing slightly for two of the steps and remaining constant for the remaining two (Figure 4-1). Mother 1’s use of prompts decreased slightly after the two-week hiatus and recovered quickly after the first maintenance session. The rate of prompts during maintenance sessions for this mother ranged from 5.14/minute to 6.1/minute with a mean occurrence of 5.74/minute. Similarly, the rate of evaluations decreased slightly after two weeks but recovered after the first maintenance session. Mother 1’s use of evaluation during maintenance ranged from 2.13/minute to 3.09/minute with a mean level of 2.73/minute. The maintenance rate of expansions appeared to remain constant after the conclusion of the intervention. Mother 1’s use of expansions during maintenance ranged from 2.15/minute to 3.43/minute with a mean of 2.76/minute. Finally, Mother 1’s use of repetitions remained constant during maintenance ranging from 0.0/minute to 0.2/minute with a mean occurrence of 0.05/minute.

FRASE

During maintenance, Mother 1’s use of different type of prompts was very variable (Figure 4-2). Mother 1’s use of “Finalizar” prompts appeared to increase after the two weeks hiatus and then remained constant during the remainder of the maintenance phase. The mother’s implementation of “Finalizar” prompts ranged from 0.2/minute to 0.65/minute with a mean of 0.345/minute. Similarly, the maintenance rate of “Recordar” prompts increased during the first maintenance session and decreased during the second before reaching a constant level. The rate of “Recordar” prompts during maintenance ranged from 0.78/minute to 1.77/minute with a mean of 1.43/minute. Mother 1’s use of “Abrir” prompts increased during the first session of maintenance and then remained constant during the remainder of the maintenance phase ranging from 0.78/minute to 1.77/minute. The mean for “Abrir” prompts during maintenance was
1.37/minute. Mother 1’s use of “Seleccionar” prompts decreased after the two week hiatus and then proceeded to recover remaining stable during the rest of the maintenance sessions. The maintenance rate of “Seleccionar” prompts for Mother 1 ranged from 0.65/minute to 2.67/minute with a mean occurrence of 1.99/minute. The implementation of “Experiencia” prompts by this mother was variable during maintenance; decreasing after the two week break, increasing after the first maintenance session and then decreasing again. Mother 1’s rate of “Experiencia” prompts ranged from 0.16/minute to 0.88/minute with a mean of 0.585/minute.

**Child’s oral language**

Child 1’s oral language production as evidenced by the use of nouns, verbs, and others decreased slightly after the conclusion of intervention remaining constant during the maintenance session (Figure 4-3). Child 1’s production of nouns ranged from 5.95/minute to 9.05/minute with a mean level of 7.3/minute. The rate of verbs ranged from 3.91/minute to 6.73/minute with a mean occurrence of 5.59/minute during maintenance. Finally, Child 1’s production of others during maintenance ranged from 15.41/minute to 18.8/minute. The mean rate level of others was 17.6/minute during maintenance.

**Language Samples and Supplemental Measures**

In addition to the rate of nouns, verbs and others, language samples were obtained before and after the intervention in order to determine any differences in the mean length of utterance (MLU) produced by the children. There was a difference of .3 between the pre and post-intervention MLU’s for child 1. The results of the PLS-4, and TVIP did show a difference between their pre- and post-intervention administrations (Table 3-2). The measure utilized to measure any changes in English, the PPVT-R Form M (Dunn & Dunn, 1981), failed to show any differences between its pre and post-administrations.
Dyad 2

Baseline

During baseline sessions, Dyad 2 was audiotaped during shared book reading sessions conducted in the dyad’s home. Data were collected from the audiotapes on the mother’s use of PEER and FRASE, and on the oral language production (Nouns, verbs, others) of Child 2 during the reading sessions. Baseline data were collected for 10 sessions until a downward and stable trend in the child’s oral language production was evidenced (Figures 4-1 to 4-3). During baseline, the duration of the reading sessions ranged from 3.5 minutes to 11.73 minutes with a mean duration of 7.627 minutes for all baseline sessions.

PEER

Mother 2’s use of the PEER sequence during baseline occurred at a stable rate (Figure 4-1). The rate of prompts used by Mother 2 was variable ranging from 0.0/minute during baseline to 3.34/minute, with a mean of 1.421/minute. Mother 2’s use of evaluations during baseline was low, ranging from 0.18/minute to 1.024/minute, with a mean of 0.566/minute. The rate of expansions was very low. The use of expansions by this mother ranged from 0.0/minute to 1.36/minute and the mean of occurrence from expansions was 0.583/minute. Mother 2’s use of repetitions during the book reading sessions remained constant at a rate of 0.0/minute.

FRASE

Mother 2’s implementation of FRASE during baseline was very low (Figure 4-2). The rate of “Finalizar” prompts utilized by Mother 2 remained at 0.0/minute during baseline while the rate of “Recordar” prompts ranged from 0.0/minute to 0.62/minute, with a mean occurrence of 0.125/minute. The rate of “Abrir” prompts implemented by this mother during baseline ranged from 0.0/minute to 1.39/minute with a mean rate of 0.44/minute. Mother 2’s use of “Seleccionar” prompts ranged from 0.0/minute to 1.82/minute. The mean rate for “Seleccionar”
prompts during baseline was 0.647/minute. The rate of “Experiencia” prompts ranged from 0.0/minute to 0.89/minute with a mean occurrence of 0.21/minute.

**Child’s oral language**

Child 2’s use of nouns, verbs and others was variable during baseline (Figure 4-3). The rate of nouns ranged from 0.093/minute to 4.86/minute with a mean occurrence of 2.56/minute. Child 2’s use of verbs ranged from a rate of 0.85/minute to 5.14/minute. The mean occurrence rate of verbs during baseline for Child 2 was 2.45/minute. Finally, Child 2’s oral production of others ranged from a rate of 1.45/minute to 7.45/minute with a mean of 4.68/minute.

**Intervention**

Once there was a downward trend in the Child 2’s oral language production, the mother’s use of the PEER was stable and the intervention data for Dyad 1 demonstrated an upward trend, Mother 2 participated in two individual training sessions conducted by the researcher. Each session lasted for approximately one hour (for a total of two hours) and took place in the dyad’s home. The researcher used trainer and parent manuals (Appendices D and E) to train the mother to use the PEER sequence and FRASE. The mother was asked to provide verbal examples of the PEER steps that may be utilized during the reading sessions and the different kinds of prompts that can be implemented (FRASE). At the end of the training the mother completed a written evaluation with a 77% accuracy rate (7/9), failing to meet the 88% accuracy criteria (8/9). Immediately after the evaluation, the mother participated in a coaching session conducted by the researcher. During the coaching session, the mother reviewed dialogic reading techniques (PEER) and the kinds of prompts that may be implemented during the reading sessions. In addition, Mother 2 was asked to provide verbal examples of the PEER steps and of the different kinds of prompts (FRASE). Once the researcher answered the mother’s questions about the intervention, she proceeded to complete a new evaluation with an 88% accuracy (8/9). The
coaching session lasted for approximately 35 minutes. The overall training time for Mother 2 was approximately 2 hours and 35 minutes. The intervention phase of the study was initiated a day after the last training session. Intervention data for Dyad 2 were collected over 5 reading sessions (Figures 4-1 to 4-3). The duration of Dyad 2’s sessions during the intervention phase of the study ranged from 5.17 minutes to 10.3 minutes with a mean length of 8.168 minutes.

**PEER**

During intervention Mother 2’s use of prompts increased, ranging from 6.12/minute to 8.49/minute with a mean level of 7.9/minute (Figure 4-1). The magnitude of change in means for Mother 2’s use of prompts from baseline to intervention increased was positive, 6.48/minute. The mother’s use of evaluations also increased during the intervention phase. The change in level for the rate of evaluations shifted from 0.18/minute to 3.29/minute with a mean occurrence of 2.22/minute. The magnitude of change in Mother 2’s use of evaluations from baseline to intervention was 3.1/minute. Mother 2’s implementation of expansions during intervention ranged from 0.81/minute to 1.81/minute. The mean level of expansions during intervention was 1.31/minute. Mother 2’s use of expansions from baseline to intervention had a positive change of magnitude of 1.26/minute. Finally, there was no magnitude of change in the rate of repetitions (0.0/minute) utilized by Mother 2 during intervention.

**FRASE**

The variety of prompts implemented by Mother 2 increased variably during intervention (Figure 4-2). There was an increase in the rate of “Finalizar” prompts utilized by Mother 2. That rate ranged from 0.0/minute to 0.58/minute with a mean occurrence of 0.116/minute. Mother 2’s use of “Finalizar” prompts from baseline to intervention had a positive magnitude of change of 0.116/minute. The rate of “Recordar” prompts also underwent an increase during intervention. The intervention rate of “Recordar” prompts ranged from 0.21/minute to
1.16/minute. The mean level for “Recordar” prompts during intervention was 0.594/minute. Mother 2’s use of “Recordar” prompts evidenced a magnitude of change of 0.5/minute from baseline to intervention. Mother 2’s use of “Abrir” prompts also increased during the intervention phase of the study. The intervention rate of “Abrir” prompts ranged from 0.58/minute to 1.53/minute with a mean occurrence of 1.02/minute. The magnitude of change in Mother 2’s use of “Abrir” presented an increase of 0.58/minute from the baseline mean rate to the intervention mean rate. The mother’s implementation of “Seleccionar” prompts showed an increase during the intervention phase. Mother 2’s use of “Seleccionar” prompts ranged from 1.93/minute to 3.89/minute with a mean occurrence of 2.788/minute. From baseline to intervention, Mother 2’s implementation of “Seleccionar” prompts displayed a magnitude of change of 2.14/minute. Mother 2’s use of “Experiencia” prompts also evidenced a rate increase during intervention ranging from 2.07/minute to 2.64/minute with a mean level of 2.30/minute. There was a positive magnitude of change of 2.09/minute from baseline to intervention.

**Child’s oral language**

The oral language production of Child 2 during intervention increased as evidenced by Child 2’s production of nouns, verbs, and others (Figure 4-3). Child 2’s use of nouns during this phase, ranged from 6.41/minute to 8.47/minute with mean occurrence of 7.19/minute. The change of magnitude from baseline to intervention in the rate of nouns used by Child 2 was 4.63/minute. Child 2’s oral production of verbs during intervention ranged from 2.32/minute to 3.6/minute with a mean occurrence of 2.76/minute. The magnitude of change in Child 2’s production of verbs presented a change of 0.31/minute. Finally, Child 2’s rate of others during intervention ranged from 7.74/minute to 11.94/minute with a mean occurrence of 10.56/minute. The magnitude of change in Child 2’s production of others showed a difference of 5.88/minute between both phases (baseline and intervention).
Maintenance

Maintenance data collection with Dyad 2 began two weeks after the conclusion of the intervention phase (Figures 4-1 to 4-3). Maintenance data for Dyad 2 were collected over 3 sessions. Maintenance sessions ranged in duration from 6.18 minutes to 7.6 minutes with an average duration of 7.06 minutes.

PEER

Mother 2’s use of the PEER Dialogic Reading techniques remained very stable during maintenance (Figure 4-1). The mother’s use of prompts decreased after the two-week hiatus and then remained constant during maintenance. The maintenance rate of prompts for Mother 2 ranged from 9.05/minute to 9.34/minute with a mean occurrence of 9.24/minute. The rate of evaluations did not decrease after the conclusion of the intervention phase and remained constant during maintenance. Mother 2’s use of evaluation during maintenance ranged from 1.84/minute to 2.16/minute with a mean level of 1.95/minute. The mother’s implementation of expansions showed an increase during the first maintenance session and remained constant during the remainder of the sessions. Mother 2’s rate of expansions during maintenance ranged from 1.05/minute to 1.22/minute with a mean of 1.11/minute. Finally, Mother 2’s use of repetitions remained constant during maintenance (0.0/minute).

FRASE

Mother 2’s implementation of different kinds of prompts as evidence by her use of “Finalizar”, “Recordar”, “Abrir”, “Seleccionar” and “Experiencia” prompts was variable (Figure 4-2). This mother’s use of “Finalizar” prompts increased during maintenance ranging from 0.0/minute to 0.41/minute with a mean level of 0.22/minute. The rate of “Recordar” prompts for Mother 2 appeared to increase during maintenance ranging from 3.39/minute to 3.68/minute with a mean occurrence of 3.53/minute. Mother 2’s implementation of “Abrir” prompts during
maintenance shows a different story. The rate of “Abrir” prompts showed no difference after the
two-week hiatus and then decreased after the second maintenance session. The mother’s use of
“Abrir” prompts ranged from 1.18/minute to 1.62/minute. The mean occurrence for “Abrir”
prompts was 1.47/minute. Similarly, Mother 2’s implementation of “Seleccionar” prompts
showed no change after the two-week break and then decreased during the second maintenance
session. The maintenance rate of “Seleccionar” prompts for Mother 2 ranged from 2.16/minute
to 3.88/minute with a mean of 2.76/minute. Finally, the mother’s use of “Seleccionar” prompts
was also variable during maintenance ranging from 1.35/minute to 2.58/minute with a mean of
1.97/minute.

Child’s oral language

Child 2’s oral language production during maintenance, as evidence by the use of nouns,
verbs, and others was variable (Figure 4-3). Child 2’s use of nouns decreased during the first
maintenance session and then recovered. The maintenance rate of nouns for Child 2 ranged from
2.43/minute to 10.8/minute with a mean occurrence of 7.71/minute. Unlike the production of
nouns, Child 2’s rate of verbs did not show any difference after the two-week hiatus and
increased steadily during maintenance ranging from 3.88/minute to 5.53/minute with a mean
level of 4.62/minute. Child 2’s implementation of others showed a decrease two weeks after the
conclusion of intervention and remained constant during the remainder of the maintenance
sessions. Child 2’s rate of other ranged from 7.8/minute to 8.68/minute during maintenance.
The mean occurrence of others during this phase was 8.29/minute.

Language Samples and Supplemental Measures

The pre and post-intervention language samples for Child 2 yielded scores of .7 and 1.68
respectively, displaying a difference of .97 from pre to post-intervention MLU. Child 2’s results
in the PLS-4 (Zimmerman et al., 2004) showed a difference of 2 points between its pre and post-
administrations (pre-administration score = 52; post-administration score = 55). However, the pre and post-scores of the TVIP (Dunn et al., 1986) display a greater change (pre-score = 77; post-score = 82). Child 2 failed to establish a basal score in both the pre and post-administrations of the PPVT-R (Dunn & Dunn, 1981).

**Dyad 3**

**Baseline**

Baseline data collection for Dyad 3 commenced a week after Dyads 1 and 2 had concluded the maintenance phase of the study. This represents a replication of the investigation. During baseline sessions, Dyad 3 was audiotaped during shared book reading sessions conducted in the dyads’ home. Data were collected from the audiotapes on the Mother’s use of PEER and FRASE, and on the oral language production (Nouns, verbs, others) of Child 3 during the reading session (Figures 4-4 to 4-6). Baseline data were collected for 6 sessions until a stable trend occurred in the child’s oral language production and on the mother’s use of dialogic reading techniques. The duration of baseline reading sessions ranged from 3.33 minutes to 8.35 minutes with a mean session length of 4.89 minutes.

**PEER**

During baseline, Mother 3’s use of dialogic reading techniques (prompts, evaluations, expansions, repetitions) occurred at a low rate (Figure 4-4). The rate of prompts for Mother 3 ranged from 0.0/minute to 0.88/minute, with a mean occurrence of 0.52/minute. Mother 3’s use of evaluations during baseline ranged from 0.0/minute to 0.72/minute, with a mean of 0.25/minute. The rate of expansions ranged from 0.0/minute to 0.48/minute and the mean of occurrence from expansions is 0.21/minute. Mother 3’s use of repetitions during the book reading sessions remained constant at a rate of 0.0/minute.
Mother 3’s use of different kinds of prompts, FRASE, was very low during baseline (Figure 4-5). The rate of “Finalizar” prompts remained constant at 0.0/minute. The rate of “Recordar” prompts ranged from 0.0/minute to 0.71/minute, with a mean of 0.29/minute. The mother’s use of “Abrir” prompts ranged from 0.0/minute to 0.26/minute, with a mean occurrence of 0.06/minute. “Seleccionar” prompts ranged from 0.0/minute to 0.24/minute. The mean occurrence for “Seleccionar” prompts during baseline was 0.09/minute. Finally, the rate of “Experiencia” prompts ranged from 0.0/minute to 0.24/minute, with a mean occurrence of 0.08/minute.

Child’s oral language

Child 3’s rate of oral language production during baseline was variable (Figure 4-6). The rate of nouns ranged from 0.73/minute to 4.2/minute, with a mean overall occurrence of 2.08/minute. Child 3’s use of verbs ranged from 0.73/minute to 5.41/minute. The mean occurrence of verbs during baseline was 2.59/minute. The rate of others ranged from 2.87/minute to 15.62/minute, with a mean of 7.18/minute.

Intervention

Once there was a stable trend in the child’s baseline oral language production and the mother’s use of dialogic reading techniques, Mother 3 participated in two individual training sessions conducted by the researcher. Each session lasted for approximately one hour (for a total of two hours) and took place in the dyad’s home. The researcher used trainer and parent manuals (Appendices D and E) to train the mother to use PEER and FRASE. The mother was asked to provide verbal examples of the PEER steps and the different kinds of prompts that can be implemented (FRASE). At the end of the training, the mother completed a written evaluation with a 66% (6/9) accuracy rate, failing to meet the 88% accuracy criteria (8/9). Immediately
after, the mother participated in a coaching session conducted by the researcher, which lasted for approximately 45 minutes. During the coaching session, the mother reviewed dialogic reading techniques (PEER) and the kinds of prompts that may be implemented during the reading sessions. In addition, the mother was asked to provide verbal examples of the PEER steps and of the different kinds of prompts (FRASE). Once the researcher answered Mother 3’s questions about the intervention, the mother proceeded to complete a verbal evaluation with a 88% accuracy (8/9). The overall training time for Mother 3 was approximately 2 hours and 45 minutes. The intervention phase of the study was initiated a day after the last training session. Intervention data for Mother-Child Dyad 3 were collected over 7 sessions. The length of the reading sessions ranged from 5 minutes to 22.65 minutes with a mean duration of 13.86 minutes (Figures 4-4 to 4-6).

**PEER**

During intervention Mother 3’s use of PEER increased (Figure 4-4). The rate of prompts utilized by Mother 3 during intervention ranged from 4.97/minute to 6.97/minute with a mean occurrence of 5.71/minute. The magnitude of change in Mother 3’s presented a difference of 2.79/minute. The rate of evaluations ranged from 1.57/minute to 3.19/minute with a mean of 2.57/minute. There was a magnitude of change of 2.32/minute between baseline and intervention. The use of expansions during intervention ranged from 0.55/minute to 2.39/minute with a mean occurrence of 2/minute. This represents an increase of 1.79/minute in means between the baseline and intervention phases. Finally, there was no difference between Mother 3’s rate of repetitions during baseline (0.0 minute) and intervention (mean = 0.0/minute).

**FRASE**

During intervention, the rate of “Finalizar” prompts ranged from 0.0/minute to 1.1/minute with a mean occurrence of 0.32/minute (Figure 4-5). The difference in means or magnitude of
change between baseline and intervention equals 0.32/minute. Mother 3’s use of “Recordar” prompts ranged from 0.28/minute to 3.43/minute with a mean occurrence of 1.62/minute. This represents a magnitude of change of 1.33/minute between the phases of baseline and intervention. The rate of “Abrir” prompts ranged from 0.0/minute to 1.38/minute with a mean occurrence of 0.53/minute. The magnitude of change between baseline and intervention for “Abrir” prompts was 0.24/minute. Mother 3’s use of “Seleccionar” prompts displayed great variability ranging from 2.53/minute to 8/minute. The mean occurrence for “Seleccionar” prompts during intervention was 3.89/minute. This represents a magnitude of change of 3.8/minute between baseline and intervention means. The rate of “Experiencia” prompts ranged from 0.0/minute to 0.59/minute with a mean of 0.17/minute. There was little difference (magnitude of change =.09/minute) between the baseline and intervention in the rate of Mother 3’s use of “Experiencia” prompts.

**Child’s oral language**

Child 3’s oral language production showed an increase in nouns, verbs and others during the intervention phase (Figure 4-6). The rate of nouns utilized by Child 3 during this phase ranged from 3.59/minute to 13.38/minute with a mean occurrence of 9.31/minute. The magnitude of change in Child 3’s use of nouns from baseline to intervention was 3.9/minute. During intervention, the rate of verbs ranged from 5.2/minute to 12.63/minute. The mean rate of occurrence for verbs at this phase was 9.52/minute. This represents a magnitude of change of 6.93/minute in Child 3’s rate of use of verbs from baseline to intervention. Finally, Child 3’s rate of others ranged from 12.43/minute to 31.1/minute with a mean occurrence level of 22/minute. There was a mean difference of 14.82/minute between baseline and intervention.
Maintenance

Like the other dyads, maintenance data collection with Mother -Child Dyad 3 commenced two weeks after the conclusion of the intervention study. Maintenance data for Dyad 3 were collected over 4 sessions (Figures 4-5 to 4-6). Maintenance sessions ranged in duration from 2.23 minutes to 6.38 minutes with an average duration of 4.22 minutes.

PEER

Mother 3’s implementation of PEER was very stable during maintenance (Figure 4-5). The mother’s use of prompts remained stable two weeks after the conclusion of the intervention. Mother 3’s rate of prompts during maintenance ranged from 5.0/minute to 5.83/minute with a mean occurrence of 5.44/minute. The rate of evaluations implemented by Mother 3 showed a decreased after the two week break and then recovered to reveal a very stable trend during maintenance. Mother 3’s use of evaluations ranged from 2.19/minute to 3.59/minute. The mean level for evaluations was 3.14/minute. Mother 3’s use of expansions two weeks after intervention showed an increase during the first maintenance session. The mother’s use of expansions decreased during the second maintenance session and then shows a steady increase for the remaining sessions. Mother 3’s maintenance rate of expansions had a mean occurrence of 2.29/minute. The rate of expansions ranged from 1.13/minute to 2.98/minute. Finally, Mother 3’s use of repetitions did not change during maintenance, remaining at the same level during all three phases of the investigation (0.0/minute).

FRASE

Mother 3’s use of different kinds of prompts was variable during maintenance (Figure 4-5). The rate of “Finalizar” prompts showed no difference two weeks after the conclusion of the intervention. Mother 3’s use of “Finalizar” prompts ranged from 0.0/minute to 0.45/minute with a mean of 0.23/minute. Mother 3’s implementation of “Recordar” prompts decreased after the
two week hiatus and then recovers to remain stable during maintenance. The maintenance rate of “Recordar” prompts for Mother 3 ranged from 1.25/minute to 2.25/minute with a mean occurrence of 1.85/minute. The mother’s use of “Abrir” prompts showed an increase after the two week break followed by a steady decrease during the remaining maintenance sessions. Mother 3’s use of “Abrir” prompts ranged from 0.0/minute to 0.94 minute. The mean level for “Abrir” prompts during intervention was 0.41/minute. Mother 3’s implementation of “Seleccionar” prompts evidenced a decrease during the first two sessions after the two-week hiatus and then recovered to end in an upward trend. The rate of “Seleccionar” prompts ranged from 1.58/minute to 3.59/minute with a mean of 2.7/minute. Finally, Mother 3’s use of “Experiencia” prompts showed an increase two weeks after the conclusion of the intervention. After the initial increase, Mother 3’s use of “Experiencia” prompts went back to its intervention levels. The rate of “Experiencia” prompts ranged from 0.0/minute to 0.78/minute with a mean of 0.26/minute.

**Child’s oral language**

During maintenance, Child 3’s oral production of nouns, verbs and others was variable (Figure 4-6). The child’s use of nouns ranged from 6.26/minute to 10.31/minute with a mean of 7.51/minute. Child 3’s use of verbs remained stable and showed no decrease after the two-week hiatus. The maintenance rate of Child 3’s use of verbs ranged from 9.61/minute to 12.64/minute with a mean level of 11.03/minute. Finally, Child 3’s production of others increased after the two-week break and then returned to its intervention levels. Child 3’s rate of others during maintenance ranged from 17.04/minute to 26.08/minute. The mean occurrence of others for Child 3 was 21.39/minute.
Language Samples and Supplemental Measures

In addition to the rate of nouns, verbs and others, language samples were obtained before and after the intervention in order to determine any differences in the mean length of utterance (MLU) produced by Child 3. The difference between the pre and post-intervention MLU’s for Child 3 was .6. The results of both the PLS-4 (Zimmerman et al., 2004), and TVIP (Dunn et al., 1986) displayed an increase between their pre- and post-intervention administrations (PLS-4 pre-score = 64, PLS-4 post-score = 68; TVIP pre-scør = 77, TVIP post-score = 79). The measure utilized to measure any changes in English, the PPVT-R Form M (Dunn & Dunn, 1981), failed to show a difference between its pre and post-administrations (Table 3-2).

Dyad 4

Baseline

The original Dyad 4 recruited for the study was not able to continue participating due to their sudden relocation to another state in search of work. The baseline data collection with the new Mother-Child Dyad 4 commenced at the time that Dyad 3 had completed baseline session 3.

During baseline sessions, Dyad 4 was audiotaped during shared book reading sessions conducted in the dyad’s home. Data were collected from the audiotapes on the mother’s use of PEER and FRASE, and on the first language oral production of the children during the reading session. Baseline data were collected for 9 sessions until a stable trend occurred in the mother’s use of PEER, and the oral language production of the child. Baseline reading sessions ranged from 2 to 4.48 minutes. The mean duration of reading sessions during baseline was 3.43 minutes (Figures 4-4 to 4-6).

PEER

During Baseline, Mother 4’s use of prompts ranged from 0.0/minute to 0.33/minute, with a mean occurrence of 0.036/minute (Figure 4-4). The rate of evaluations did not change during
baseline (0.0/minute) while the rate of expansions ranged from 0.0/minute to 0.33/minute with a mean of 3.068/minute. Mother 4 did not use repetitions (0.0/minute) during the baseline phase of the experiment.

**FRASE**

Mother 4’s use of different kinds of prompts during baseline was very low (Figure 4-5). The mother did not use “Finalizar”, “Recordar”, “Abrir” or “Seleccionar” prompts (0.0/minute) during this phase of the experiment. The rate of “Experiencia” prompts ranged from 0.0/minute to 0.33/minute with a mean occurrence of 0.037/minute.

**Child’s oral language**

Child 4’s production of nouns ranged from 0.0/minute to 2.22/minute with a mean occurrence of 1.20/minute during baseline (Figure 4-6). Child 4’s use of verbs ranged from a rate of 0.0/minute to 0.98/minute. The mean occurrence rate of verbs during baseline for Child 4 was 0.39/minute. Finally, Child 4’s oral production of others ranged from a rate of 0.33/minute to 2.71/minute with a mean of 2.31/minute.

**Intervention**

When the PEER baseline data were stable and the intervention data for Dyad 3 demonstrated an upward trend, Mother 4 participated in two individual training sessions conducted by the researcher. Each session lasted for approximately one hour (for a total of two hours) and took place in the dyad’s home. The researcher used trainer and parent manuals (Appendices D and E) to train the mother to use the PEER sequence and FRASE during reading sessions with the child. The mother was asked to provide verbal examples of the PEER steps and the different kinds of prompts that can be implemented (FRASE). Upon completion of the training the mother completed a written evaluation with 100% accuracy (9/9). Mother 4 began implementing the intervention a day after the last training session. Intervention data for Dyad 4
were collected over 5 reading sessions. The duration of Dyad 4’s sessions during the intervention phase of the study ranged from 4.3 minutes to 7.6 minutes with a mean length of 5.57 minutes (Figures 4-4 to 4-6).

**PEER**

During intervention, Mother 4’s use of prompts increased, ranging from 5.78/minute to 10.26/minute with a mean level of 8.09/minute (Figure 4-4). The magnitude of change in Mother 4’s use of prompts had a difference of 8.053/minute from baseline to intervention. The mother’s use of evaluations also increased during the intervention phase. The intervention rate of evaluations ranged from 2.1/minute to 4.65/minute with a mean occurrence of 3.058/minute. The magnitude of change in means for Mother 4’s use of evaluations was 3.058/minute. Mother 4’s implementation of expansions during intervention increased and it ranged from 2.1/minute to 5.43/minute. The mean level of expansions during intervention was 3.068/minute. Mother 4’s use of expansions from baseline to intervention displayed a magnitude of change of 3.01/minute. Finally, there was no difference in the rate of repetitions (0.0/minute) utilized by Mother 4 during intervention.

**FRASE**

The variety of prompts implemented by Mother 4 increased during intervention (Figure 4-5). Mother 4’s rate of “Finalizar” prompts ranged from 0.0/minute to 0.79/minute with a mean occurrence of 0.158/minute. Mother 4’s use of “Finalizar” prompts evidenced a magnitude of change of 0.158/minute from baseline to intervention. The rate of “Recordar” prompts underwent an increase during intervention. The intervention rate of “Recordar” prompts ranged from 3.93/minute to 4.28/minute. The mean level for “Recordar” prompts during intervention was 4.072/minute. The magnitude of change for Mother 4’s use of “Recordar” prompts was 4.072/minute from baseline to intervention. Mother 4’s use of “Abrir” prompts also increased
during the intervention phase of the study. The intervention rate of “Abrir” prompts ranged from 0.23/minute to 1.16/minute with a mean occurrence of 0.844/minute. The magnitude of change in Mother 4’s use of “Abrir” prompts displayed a difference of 0.844/minute from the baseline to the intervention mean rate. The mother’s implementation of “Seleccionar” prompts also increased during the intervention phase. Mother 4’s use of “Seleccionar” prompts ranged from 1.4/minute to 3.68/minute with a mean occurrence of 2.438/minute. From baseline to intervention, Mother 4’s implementation of “Seleccionar” prompts showed a magnitude of change of 2.438/minute. Mother 4’s use of “Experiencia” prompts during intervention ranged from 0.0/minute to 1.27/minute with a mean level of 0.572/minute. There was a mean difference of 0.535/minute from baseline to intervention.

**Child’s oral language**

The oral language production of Child 4 during intervention increased as evidenced by Child 4’s production of nouns, verbs, and others (Figure 4-6). Child 4’s use of nouns during this phase, ranged from 3.23/minute to 11.86/minute with mean occurrence of 8.89/minute. There was a magnitude of change of 7.69/minute between baseline and intervention for the child’s production of nouns. Child 4’s oral production of verbs during intervention ranged from 2.5/minute to 9.05/minute with a mean occurrence of 5.43/minute. The magnitude of change in Child 4’s production of verbs was 5.04/minute. Finally, Child 4’s rate of others during intervention ranged from 7.14/minute to 19.86/minute with a mean occurrence of 11.25/minute. The magnitude of change in Child 4’s production of others presented a difference of 8.94/minute between both phases (baseline and intervention).

**Maintenance**

Maintenance data collection with Mother-Child Dyad 4 began two weeks after the conclusion of the intervention phase. Maintenance data for Dyad 4 were collected over 4
sessions. Maintenance sessions ranged in duration from 3.09 minutes to 5.33 minutes with an average duration of 4.23 minutes (Figures 4-4 to 4-6).

**PEER**

Mother 4’s implementation of PEER revealed an initial decrease followed by a rising trend during maintenance (Figure 4-4). As mentioned before, the mother’s use of prompts decreased two weeks after the conclusion of the intervention to recover to intervention levels during the remainder of the maintenance phase. Mother 4’s rate of prompts during maintenance ranged from 4.78/minute to 8.09/minute with a mean occurrence of 6.16/minute. The rate of evaluations implemented by this mother showed a decrease after the two week break and then recovered to reach intervention rate levels. Mother 4’s use of evaluations ranged from 0.48/minute to 3.55/minute. The mean level for evaluations was 2.17/minute. Mother 4’s use of expansions two weeks after intervention revealed a slight decrease during the first maintenance session. Such decrease in expansions was followed by a stable trend line which never reached the levels evidenced during the intervention phase of the study. Mother 4’s maintenance rate of expansions had a mean occurrence of 3.7/minute with rates ranging from 3.24/minute to 4.07/minute. Finally, the mother’s use of repetitions during maintenance revealed a rising trend reaching higher levels than those shown during intervention. Repetition rates ranged from 0.0/minute to 0.46/minute with a mean occurrence of 0.2/minute.

**FRASE**

The rate of “Finalizar” prompts showed no difference two weeks after the conclusion of the intervention (Figure 4-5). Mother 4’s use of “Finalizar” prompts ranged from 0.0/minute to 0.97/minute with a mean of 0.24/minute. The mother’s implementation of “Recordar” prompts decreased after the two-week hiatus and remained stable during maintenance. The maintenance rate of “Recordar” prompts for Mother 4 ranged from 1.7/minute to 2.31/minute with a mean...
occurrence of 2.06/minute. The mother’s use of “Abrir” prompts showed an increase after the two week break followed by a decrease. Such decrease brought the rate of “Abrir” prompts back to intervention levels during the remaining maintenance sessions. Mother 4’s use of “Abrir” prompts ranged from 1.3/minute to 2.62 minute. The mean level for “Abrir” prompts during intervention was 1.41/minute. Her implementation of “Seleccionar” prompts evidenced a sharp decrease during the first maintenance sessions after the two-week hiatus. The rate of “Seleccionar” prompts then recovered to reach rate levels similar to those revealed during intervention. The rate of “Seleccionar” prompts ranged from 0.48/minute to 2.62/minute with a mean of 2.06/minute. Finally, Mother 4’s use of “Experiencia” prompts showed a rising trend two weeks after the conclusion of the intervention. Mother 4’s rate of “Experiencia” prompts ranged from 0.0/minute to 0.97/minute with a mean of 0.40/minute.

Child’s oral language

Child 4’s oral language production as evidence by the use of nouns, verbs, and others rose steadily during maintenance (Figure 4-6). Child 4’s use of nouns decreased during the first maintenance session and ended in an upward trend. The maintenance rate of nouns for Child 4 ranged from 7.39/minute to 11.33/minute with a mean occurrence of 9.21/minute. Similarly, the production of nouns revealed a decrease after the two-week break and then recovers. Child 4’s rate of verbs during maintenance ranged from 3.83/minute to 8.54/minute with a mean level of 4.92/minute. Finally, Child 4’s implementation of others showed a decrease two weeks after the conclusion of intervention and remained constant during the remainder of the maintenance sessions. Child 4’s rate of other ranged from 3.09/minute to 5.33/minute during maintenance. The mean occurrence of others during this phase was 5.06/minute.
Language Samples and Supplemental Measures

The pre and post-intervention language samples for Child 4 yielded scores of .5 and .6 respectively. Displaying a difference of .1 from pre to post-intervention MLU. Child 4’s results in the PLS-4 (Zimmerman et al., 2004) showed a gain of one point between its pre and post-administrations (PLS-4 pre-administration score = 64; PLS-4 post-administration score = 65). Likewise, the pre and post-scores of the TVIP (Dunn et al., 1986) showed a difference of one point (pre-score = 72; post-score = 73) between the pre and post-administration. Child 4 failed to establish a basal score in both the pre and post-administrations of the PPVT-R (Dunn & Dunn, 1981).

Interobserver Agreement

Interobserver agreement was calculated on each dyad’s sessions across baseline, intervention, and maintenance phases. The primary researcher and a secondary researcher, who is a Spanish/English bilingual early childhood professional with over 31 years of experience, analyzed the dyad’s transcripts independently to determine agreement. For Mother-Child Dyad 1, interobserver agreement was calculated on 31% of the sessions. Interobserver agreement for Mother 1’s use of PEER steps ranged from 85% to 100%. Mean agreement for PEER steps was 94%. Interobserver agreement for Mother 1’s use of different kinds of prompts (FRASE) ranged from 93.6% to 100% with a mean agreement of 97.4%. Interobserver agreement for Child 1’s oral language production ranged from 93% to 99% and had a mean agreement of 96.8 %.

For Mother-Child Dyad 2, interobserver agreement was calculated on 33 % of the sessions. Interobserver agreement for Mother 2’s use of PEER steps ranged from 88.5% to 100%. Mean agreement for PEER steps was 95.4%. Interobserver agreement for Mother 2’s use of different kinds of prompts (FRASE) ranged from 87.8% to 100% with a mean agreement of
94.02%. Interobserver agreement for Child 2’s oral language production ranged from 92% to 99% and had a mean agreement of 97.2%.

For Mother-Child Dyad 3, interobserver agreement was calculated on 35% of the sessions. Interobserver agreement for Mother 3’s use of PEER steps ranged from 88% to 100%. Mean agreement for PEER steps was 92.8%. Interobserver agreement for Mother 3’s use of different kinds of prompts (FRASE) ranged from 83% to 100% with a mean agreement of 93.6%. Interobserver agreement for Child 3’s oral language production ranged from 97% to 98.8% and had a mean agreement of 97.9%.

For Mother-Child Dyad 4, interobserver agreement was calculated on 33% of the sessions. Interobserver agreement for Mother 4’s use of PEER steps ranged from 92% to 100%. Mean agreement for PEER steps was 96.3%. Interobserver agreement for Mother 4’s use of different kinds of prompts (FRASE) ranged from 95% to 100% with a mean agreement of 99.2%. Interobserver agreement for Child 3’s oral language production ranged from 97% to 100% and had a mean agreement of 98.2%.

**Treatment Integrity**

The investigator used the treatment fidelity checklist previously discussed in Chapter 3 to ensure that the mothers were implementing the treatment as outlined (Appendix J). The researcher completed a treatment fidelity checklist twice a week during the mother-child reading sessions. The outlined treatment steps were completed 90% of the time by all 4 mothers.

**Social Validation**

Following the completion of maintenance data, participating mothers were asked to complete a social validity questionnaire to obtain information regarding their satisfaction with the intervention (Appendix K). Specifically, the mothers completed 5 questions that targeted the
importance, effectiveness, and practicality of the intervention. The mothers completed each question using a 5-point Likert scale.

All mothers agreed strongly that the Dialogic Reading training was very useful. All of them either agreed or strongly agreed that they would continue using Dialogic Reading techniques in the future. The mothers also strongly agreed that other migrant parents would be interested in learning about dialogic reading. When asked whether the training took too much time, all four mothers strongly disagreed. Finally, all the mothers strongly agreed that the children’s first language oral skills had improved.

Summary

The purpose of this investigation was to determine whether migrant mothers with low educational levels would implement dialogic reading techniques following training, to examine the effects of the implementation of dialogic reading techniques on the oral language skills of migrant preschool children and to investigate whether any changes on the oral language skills of the children would be maintained following the conclusion of the intervention. The data indicate that migrant mothers implemented the dialogic reading techniques (PEER and FRASE) following training. The data also indicate that following the implementation of dialogic reading techniques increased the rate of words per minute produced by the children during the shared book reading sessions. Furthermore, two weeks after the completion of the intervention phase of the study, all four mothers continued implementing dialogic reading techniques during shared book reading sessions and the children’s production of oral language during those sessions continued at levels that were similar to those displayed during intervention.

The results of the social validation measure were positive. The mothers agreed that the dialogic reading training was very useful and that they were likely to continue utilizing the techniques in the future. Mothers also strongly agreed that: (a) other migrant parents might be
interested in learning about dialogic reading (b) the training was time efficient and (c) the oral
language skills of the children improved following the intervention.
Figure 4-1. Mother 1–Child 1/Mother 2-Child 2: Mother implementation of PEER
Figure 4-2. Mother 1–Child 1/Mother 2-Child 2: Mother implementation of FRASE
Figure 4-3. Mother 1–Child 1/Mother 2-Child 2: Children’s oral language production
Figure 4-4. Mother 3–Child 3/Mother 4-Child 4: Mother implementation of PEER
Figure 4-5. Mother 3–Child 3/Mother 4-Child 4: Mother implementation of FRASE
Figure 4-6. Mother 3-Child 3/Mother 4-Child 4: Children’s oral language production
CHAPTER 5
DISCUSSION

The theoretical framework underlying the current investigation is influenced by the works of Vygotsky (1978) and Bronfenbrenner (1979). Vygotsky’s Sociocultural Theory of Learning emphasizes the importance of social interactions in stimulating children’s development (Vygotsky, 1978). This theory proposes that children develop new language skills by engaging in social interactions with more competent language users such as the parents or caregivers. Parents who provide a linguistic scaffold by modeling, questioning, and explaining during conversations facilitate the development of children’s receptive and expressive language skills.

Bronfenbrenner’s Ecological Systems Theory (Bronfenbrenner, 1979) emphasizes child development within the context of the environment. Bronfenbrenner (1979) proposes that interactions between children and their parents are influenced by their individual characteristics and by the characteristics of their environment.

The interactions between migrant children and their parents, are impacted by the numerous characteristics often associated with a migrant lifestyle. The poverty and low levels of education prevalent among migrant families influences the parents’ ability to engage their children in interactions that will help them develop new language skills.

In order to ameliorate the effects that migrancy could have on the language development of young children, it is crucial to help migrant parents acquire strategies they can implement to help their children develop the language skills they need to become successful readers. The current study aimed to address this need by training migrant mothers to implement a strategy that has proven to promote the language skills of children from different backgrounds.
Overview of the Study

This study was designed to investigate migrant mothers’ ability to implement a shared book reading strategy known as dialogic reading and its effects on the oral language development of young children with language delays. The following questions were addressed:

1. Can migrant mothers with a low educational level be trained to implement dialogic reading techniques?

2. What is the effect of the mothers’ implementation of dialogic reading techniques on the oral language production of migrant preschool children?

3. Will the effects of dialogic reading on the oral language development of preschool children be maintained following the conclusion of the intervention?

The participants included four mother/child dyads. The mothers were members of the migrant population, used Spanish to communicate with their children, and were able to read at least a second grade level. Children participants included two males and two females who spoke Spanish as a first language and ranged in age from 4 years 2 months to 5 years 7 months. The children displayed language delays as determined through evaluation using the Preschool Language Scale-4 Spanish (PLS-4; Zimmerman et al., 2004), and the Test de Vocabulario en Imagenes Peabody (TVIP; Dunn et al., 1986). In addition, the children had never attended any preschool, childcare or community enrichment programs.

A single subject, multiple baseline design across subjects was used to evaluate mothers’ implementation of dialogic reading techniques, the effects of such implementation on the oral language production of the children. The maintenance phase of the study examined whether the mothers’ implementation of dialogic reading techniques and its effect on the children’s oral language were maintained following the conclusion of the intervention. The researcher began data collection with Dyads 1 and 2. The study was replicated with Dyads 3 and 4 after data collection concluded for Dyads 1 and 2.
The study consisted of four phases: prebaseline, baseline, intervention and maintenance. During the prebaseline phase the researcher contacted potential participants and determined whether they were eligible to participate in the study. Baseline data were collected on the mothers’ implementation of dialogic reading techniques and on the children’s production of oral language. During the intervention phase mothers participated in a brief training, ranging from two to three hours, on dialogic reading techniques. Following the training, data were collected on the mothers’ implementation of dialogic reading techniques and on the children’s production of oral language. Two weeks after the conclusion of the intervention phase, the maintenance phase was conducted. During this phase data were collected to determine whether the effects of dialogic reading on the oral language production of the children were still visible after the conclusion of the treatment. In addition, data were collected to determine mothers’ continued implementation of dialogic reading techniques. Finally, social validity information was gathered through the completion of a questionnaire by the participating mothers.

Summary of Findings

Parent Training and Implementation of Dialogic Reading

Following a brief training conducted in Spanish, all mothers displayed a dramatic increase in their use of 3 out of the 4 components of the PEER sequence: prompts, evaluations, and expansions. Conversely, the mothers’ rate of repetitions failed to show considerable gains for any of the participants. These findings mirrored the results of the few studies that examined parent implementation in a direct manner (Crain-Thoreson & Dale, 1999; Dale et al., 1996; and Lim & Cole, 2002). The previous studies reported that the parents’ implementation of prompts and expansions increased substantially following training. Crain-Thoreson and Dale (1999) also reported an increase in the parents’ use of praiseful evaluations following a child’s response. The parents’ implementation of repetitions was not examined in these studies.
On average, the mothers’ implementation of the FRASE prompts illustrated a preference for **Seleccionar prompts** (Wh-prompts) followed by **Recordar prompts** (Recall prompts), **Abrir prompts** (Open-ended prompts), and **Experiencia prompts** (Distancing prompts). The rate of **Finalizar prompts** (Completion prompts) did not show a substantial increase following training. Once again, the current results are consistent with the findings reported by Crain-Thoreson and Dale (1999), Dale et al. (1996), and Lim and Cole (2002). The implementation of **Finalizar prompts** (completion prompts) and **Experiencia prompts** (Distancing prompts) was not analyzed by these researchers.

**Effects of Dialogic Reading on the Oral Language Production of the Children**

As the mothers increased their implementation of the techniques, the oral language production of the children, as measured by the production of nouns, verbs, and “others” (adjectives, adverbs, pronouns, articles) increased as well. The production of “others” increased substantially for all the children, followed by the production of nouns and verbs. The oral language increase experienced by the children in this study is supported by the literature on dialogic reading, which demonstrates that implementation of a dialogic reading program can increase the oral language skills of young children at risk (Valdez-Menchaca & Whitehurst, 1992; Whitehurst, Epstein et al., 1994).

**Maintenance**

The overall effect of dialogic reading on the children’s oral language and the mothers’ use of dialogic reading techniques were maintained two weeks after the conclusion of the intervention.

The mother’s implementation of PEER and FRASE continued at levels very similar to those displayed during the intervention phase. In a similar manner, the children’s overall
production of nouns, verbs, and others during this phase was comparable to that witnessed during intervention.

**Social Validity**

Social validity data revealed that migrant mothers found the intervention to be both effective and practical. Furthermore, mothers agreed that the intervention had a positive effect on the oral language skills of their children and would continue using dialogic reading techniques in the future.

**Discussion of Findings**

**Dialogic Reading Training and Migrant Mothers**

The literature describing dialogic reading training supports the use of role-play, modeling, practice sessions with direct feedback, and didactic instruction (Crain-Thoreson & Dale, 1999; Hargrave & Senechal, 2000; Whitehurst, Arnold et al., 1994; Whitehurst, Epstein et al., 1994; Whitehurst, Zevenbergen, et al., 1999). In addition, the research suggests that adding a videotape component to dialogic reading training will further improve its degree of effectiveness (Arnold et al., 1994).

In order to design a dialogic reading training program for migrant mothers it was important to consider the factors mentioned above along with the unique issues often faced by migrant populations. This section of the chapter will offer a discussion of these issues as they relate to the training implemented in the current study.

The lives of migrant families are often characterized by several risk factors that impede the educational success of migrant students. Chief among those factors are limited English proficiency, limited financial resources, and low levels of educational attainment. Consideration of these issues during the development of the parent training conducted in this research likely contributed to its success. Like most members of the migrant population, the mothers
participating in this study had limited English proficiency and low levels of education, which hindered their participation in the literacy programs available in the community. In order to ensure the full participation of the mothers, the training was conducted in Spanish. In addition, all training materials were either translated to Spanish or created for Spanish speakers. An important part of the training was the videotape utilized to show mothers how to implement dialogic reading. “Lectura Interactiva” (Landry, 2002) allowed mothers to watch and hear other Spanish speaking mothers modeling the use of dialogic reading techniques. By engaging in observational learning the mothers were not only able to see how other Hispanic mothers implemented the techniques, but also witnessed the potential outcomes that such implementation could exert in the language production of their children. Watching the potential outcomes of the techniques in a population similar to their own might have allowed the parents to perceive the intervention as valuable and to start viewing themselves as their children’s first teachers (Rodriguez-Brown, 2003). Thus, motivating them to learn and implement the dialogic reading techniques. In addition, it is likely that the inclusion of “Lectura Interactiva” (Landry, 2002) in the training validated the mothers’ first language and background knowledge, allowing them to counteract the notion that they needed to speak English and have a high level of education to help prepare their children for school (Rodriguez-Brown, 2003; Rodriguez-Brown & Shanahan, 1989). Rodriguez-Brown and Shanahan (1989) encountered these beliefs when working with Hispanic families at a community literacy program. These researchers queried Hispanic parents about their roles as teachers of their own children and found that most parents felt they were not serving or could not serve in that role due to their lack of English proficiency and limited schooling (Rodriguez-Brown & Shanahan, 1989). Therefore, it is critical for any literacy program targeting Spanish speakers to empower parents by counteracting these beliefs and by
helping parents utilize the background knowledge they posses to help prepare their children for academic success (Rodriguez-Brown & Shanahan, 1989).

Another important issue that was taken into consideration when developing the training for the current study was the lack of financial resources experienced by most migrant families (Garza et al, 2004). The mothers participating in this investigation did not have the financial resources to secure a stable means of transportation. Therefore, conducting the training in their homes was crucial to ensure the full participation of the mothers. Although, conducting the training in the homes contributed to the social validity of the investigation, it also meant that the mothers were exposed to numerous distractions that would not be encountered in a more controlled setting such as a classroom (Kazdin, 1982). The research sessions were often interrupted by unexpected phone calls, visitors, and sudden changes in the families’ routines. For example, the first training session for Mother 3 had to be suspended for approximately twenty minutes when the father arrived with a large group of friends. Interruptions such as this might have accounted for the initial difficulties experienced by Mothers 2 and 3 during the evaluation phase of the training. These mothers failed to obtain the score they needed to begin implementing the dialogic reading techniques; therefore, they had to participate in a remedial coaching session immediately after the training.

Despite the difficulties mentioned above, the parent training program implemented during the current study was demonstrated to be effective. Incorporating aspects of the family’s culture into the training program appeared to improve the mothers’ sense of self-efficacy and allowed them to visualize themselves as their children’s first teacher.

**Mothers Implementation of Dialogic Reading**

There are four findings related to the implementation of PEER and FRASE that necessitate further explanation: (a) mothers’ successful implementation of three out of four dialogic reading
steps, (b) mothers’ rate of success with four out of five dialogic reading prompts, (c) the influence of the mothers’ level of education on the rate of implementation of PEER and FRASE, (d) the mothers’ constant efforts to mediate the shared book interactions through the implementation of different prompts.

**PEER and FRASE**

Following training, the migrant mothers participating in the current study were able to implement three out of the four steps outlined by the PEER sequence at a high rate of frequency. Those steps were: Prompt, Evaluate, and Expand. Conversely, the mothers’ rate of implementation for Repetitions was negligible. Only Mother 1 implemented this step during one of the reading sessions in the intervention phase of the study.

Along the same lines, the mothers were able to implement 4 out of 5 different kinds of prompts (FRASE) at a high rate of frequency. The rate of implementation for Recordar (Recall) prompts, Abrir (Open-ended) prompts, Seleccionar (Wh-) prompts, and Experiencia (Distancing) prompts displayed a notable increase following training. However, the rate of implementation for Finalizar (Completion) prompts did not evidence a notable post-training increase.

The idiosyncrasies in the mothers’ implementation of dialogic reading techniques might be explained by the verbal patterns of interaction followed by Hispanic families when socializing their children (Rogers, 2001). This notion is congruent with the answer provided by the migrant mothers when questioned about their implementation patterns. The mothers reported that they did not implement repetitions and/or Finalizar (completion) prompts because they were difficult to remember and not consistent with the way they spoke to their children.

The literature addressing the interaction of Hispanic parents and their children supports these findings and points out that mothers of Mexican descent socialize their children by being direct, by asking numerous questions, and providing direct evaluations. In addition, the research
suggests that Hispanic mothers do not engage their children in verbal interactions that involve repetitions or the completion of phrases (Valdes, 1996). During her work with Hispanic families, Valdes (1996) studied and compared the parent/child interactions in three different regions of Mexico. She describes how only infants learning their first words were encouraged to repeat or complete phrases uttered by the parents. These requests appeared to cease once a child had acquired a basic language repertoire around the age two. Therefore, asking children older than two years of age to engage in interactions that involve repetition and the completion of phrases is seldom encountered within the Hispanic population (Madding 1999; Valdes, 1996; Wong-Fillmore, 1982). These findings might lead to the conclusion that extensive training and consistent coaching might be necessary to make repetitions and Finalizar prompts an ingrained part of the shared book reading routine of migrant Spanish speaking mothers. In more general terms, the findings underscore the importance of considering participants’ cultural background when determining the level of effectiveness of any intervention.

**Influence of educational level on the implementation of dialogic reading**

The strong influence that the mothers’ level of education exerted on their implementation of dialogic reading techniques was another of the major findings of the current study. Although there were similarities in the way migrant mothers implemented the techniques, close examination of the data demonstrates that every mother had an individual pattern of implementation. This was particularly true when the mothers selected different kinds of prompts (FRASE). Careful examination of the mothers’ background information shows that mothers with different levels of education chose to implement the prompts at slightly different rates. For example, during the intervention phase of the study, Mother 4 implemented Recordar (Recall) prompts at a higher rate than any of the other participants. Upon analysis of the mother’s background information it was noted that Mother 4 had the highest level of education. The
educational level of this mother might have facilitated the implementation of Recordar (Recall), a prompt that did not require her to rely on the book pictures.

This finding is consistent with the Ecological Systems Theory (Bronfenbrenner, 1979), which is part of the theoretical framework underlying this investigation. Bronfenbrenner (1979) proposes that the interactions between children and the members of their microsystem at home, particularly the parents, are impacted by their individual characteristics. The mothers’ level of education appeared to influence the rate at which they implemented different kinds of prompts, thus impacting the way in which they conducted reading interactions with their children.

**Mothers’ use of prompts to mediate the reading interaction of children**

Upon close examination of the data and after direct observation of the dyads, it was noted that the migrant mothers participating in the current study appeared to be mediating the reading interactions by utilizing different kinds of prompts and by varying their use contingent on the level of participation of the children. The mothers’ constant attempts to mediate the interactions are consistent with the Sociocultural Theory of Learning (Vygotsky, 1978). The Sociocultural Theory of Learning posits that children develop language skills by engaging in social interactions with more competent language users such as the parents or caregivers. The parents will adjust the level of the language they utilize to the linguistic capacities of the child. Such scaffolding will lead children to more opportunities for language development. Dyad 2 illustrates this finding clearly. Mother 2’s implementation of Experiencia (Distancing) prompts during intervention appeared to elicit more participation from the child than Recordar (Recall) or Abrir (Open-ended) prompts. Therefore, it is likely that Mother 2 sustained the implementation of this particular kind of prompt to promote the participation of the child. During different phases of the investigation, Child 2 began displaying behavior difficulties and changing his rate of oral language production. Mother 2 appeared to be responding to the child’s level of
performance by scaffolding her language, by implementing a higher number of prompts and by changing the kinds of prompts she implemented. Once again this finding is consistent with the theoretical framework of the current investigation and with the available literature on parent/child reading interactions which suggests that parents mediate the reading interaction by implementing different kinds of guidance and by adjusting that guidance when necessary (Mason, 1990).

**Effects of Dialogic Reading on the Oral Language Production of the Children**

Analysis of the rate of nouns, verbs and others indicate that the production of the migrant children’s oral language increased during the intervention. These results are supported by previous research on the effects of dialogic reading on the language development of children with language delays who come from low socioeconomic backgrounds (Crain-Thoreson & Dale, 1999; Hargrave & Senechal, 2000; Whitehurst, Arnold et al., 1994; Whitehurst, Epstein et al., 1994; Whitehurst, Fishel et al., 1991; Whitehurst, Zevenbergen, et al., 1999) and by the findings of previous dialogic reading investigations involving children who had first languages other than English (Brickman, 2002; Canning, 2002; Lim & Cole, 2002; Valdez-Menchaca & Whitehurst, 1992). This section of the chapter will expand on three findings regarding the effects of dialogic reading on the oral language skills of children from migrant backgrounds that must be explored further: (a) irregularities in the initial baseline data, (b) the children’s use of code mixing during the interactions and (c) the inconsistencies in the results of the supplemental measures.

**Irregularities in baseline data**

Upon analysis of the changes in the language production of the children, it is important to note that the baseline data for children 1, 2 and 3 displayed an initial spike in oral language production followed by a dramatic decrease within the first sessions of the baseline phase of the study. In the case of children 1 and 3, this trend might be explained by the effects of novelty.
Novelty is defined as an unfamiliar stimulus that generates arousal and attention in human and nonhuman organisms (Comerford & Witryol, 1991). Many studies in the field of psychology have demonstrated that children are attracted to novel stimuli and will change their behaviors when presented with novel stimuli (Bradbury & Plichon, 2001; Comerford & Witryol, 1991; Wentworth & Witryol, 1984). The mothers of children 1 and 3 reported that they did not usually engage their children in traditional shared book reading interactions. Therefore, it is possible that the initial reading interactions required for the study during baseline were perceived as novel stimuli by these children, commanding their full attention and causing them to produce more language during the first baseline sessions of the study. Once the children became familiar with the interactions (baseline session 2 for Child 1 and baseline session 3 for Child 3) their rate of language production decreased and remained constant during the remainder of the baseline phase of the study. In the case of Child 2, the variability in the language production during baseline might be due to both the effects of novelty and behavioral difficulties that would arise every time the mother attempted to engage the child in a reading interaction during this phase. Some of the behavior difficulties displayed by Child 2 included refusing to turn off the television before the reading interactions and refusing to sit down next to his mother. Child 4 did not appear to experience the effects of novelty. This finding might be explained by Mother 4’s report that she engaged her children in reading interactions on occasion. Therefore, this child might have already been familiar with reading interactions.

**Code mixing**

An interesting finding refers to the fact that most of the children used code mixing (Spanish to English or vice versa) during the interactions with their mothers. The code mixing happened even though the mothers spoke primarily Spanish to the children at home. For example, one child named the colors “rojo, verde, green, blue, morado” as she described the
objects in a picture. Another child would count “one, two, three, cinco, four, dos” while pointing to objects shown in the book. Lim and Cole (2002) reported similar findings in their study with Korean mothers and their children. These researchers worked with children ages 2-4 and their mothers and reported that the children engaged in code mixing quite often by either counting or by implementing English grammar rules to Korean words (Lim & Cole, 2002).

It is important to note that the children included in the current study had never participated in a child care or preschool program and most of them lived in very isolated areas which provided limited opportunities to interact with English speakers. Two of the children (1 and 4) lived in rural areas with no neighbors within a 2 mile radius. The other two lived in more populated areas but were only allowed to interact with family members living in the same household. In the case of Child 3, the code mixing phenomenon might be explained by the presence of two older siblings who had probably exposed the child to the language. However, the mothers of the other children in the study reported that their children’s only exposure to English happened during the occasional trip to the grocery store and through television viewing of 3 or more hours a day. When asked about their children’s television viewing habits, mothers reported that the children watched movies and cartoons in English such as “Dora the Explorer” and “Spongebob”. The constant exposure to television programs in English might account for these children’s incipient knowledge of English. This hypothesis is supported by studies on television exposure and development of language in young children (Anderson & Pempeck, 2005; Linebarger & Walker, 2005; Wright et al., 2001). These studies suggest that television viewing might promote the language development of young monolingual children. Furthermore, the content of the program watched by the children made a difference in the development of oral
language with programs such as the bilingual “Dora the Explorer” resulting in higher expressive language scores (Linebarger & Walker, 2005).

Understanding this code mixing phenomenon is not a simple task as no single explanation accounts for all bilingual code mixing (Goldstein, 2004). It is possible that the code mixing reflected the children’s flexibility in using all the linguistic resources they had acquired up to that point. The dialogic reading book interactions might have been offering the ideal opportunity for the children to use all the linguistic resources they had acquired through sibling interaction and television viewing in order to meet their communication needs (Genesse, Paradis & Crago, 2004). While working with English language learners and their families in Canada, Genesse et al. (2004) found that the children would code mix using both their native French and English during interactions with monolingual adults. Genesse et al. (2004) add that the children appeared to be making use of all the language they possessed to meet their need for social interaction.

Inconsistencies with the supplemental measures

The children’s language skills were assessed before the initiation of the study to determine eligibility and after the intervention to determine whether any changes in language would be reflected in the results of standardized measures. The instruments utilized included the Spanish version of the Preschool Language Scale (PLS-4, Zimmerman et al., 2004), and the Spanish version of the PPVT or TVIP (Dunn et al., 1986). In addition, the Peabody Picture Vocabulary Test-Revised, Form M (PPVT-R, Dunn & Dunn, 1981) was administered to assess the English language abilities of the children. Findings resulting from the administration of these measures were ambiguous in regards to the effectiveness of the intervention.

Comparison of the pre and post-administrations of the previous measures revealed that only Child 1 had an important improvement in both the PLS-4 and the TVIP. This child had the highest level of language functioning at the beginning of the study; therefore, she might have
been “better equipped” to develop more language with the help of the intervention (Stanovich, 1986). Stanovich (1986) proposes that children at a higher level of language performance usually elicit more advanced patterns of stimulation than children at a lower level and are better prepared to take advantage of interactions that promote language development.

The results for Child 2 appeared to be contradictory. Child 2’s PLS-4 pre and post-scores did not show gains. However, the child’s scores for the TVIP showed a more significant increase. This lack of consistency between assessments might be attributed to the behavior difficulties experienced by Child 2 during the administration of the PLS-4 (Zimmerman et al., 2004). The pre and post-administrations of the assessments for Children 3 and 4 failed to show important results for either child. This finding might suggest that children with language delays, particularly English language learners with language delays, may need more intense and longer periods of interventions in order to show any improvements in standardized assessments.

The pre and post-intervention results for the PPVT-R (Dunn & Dunn, 1981) confirmed that Spanish was the children’s dominant language. All of the children were unable to establish a basal score in both the pre and post-administrations of this measure.

Prior to the beginning of the intervention and following its conclusion, the researcher also collected language samples during two individual play sessions with each of the children. The samples were analyzed to determine the mean length of utterance in morphemes. Although the post language samples showed increases in the MLU of all the children, these differences are not considered important. This finding might also be attributed to the short duration of the intervention. Children from low-income backgrounds and with language delays might need shared reading interventions that last longer and are more intensive in order to generalize the
effects to contexts that do not involve reading interactions (Valdez-Menchaca & Whitehurst, 1992).

Finally, it is important to point out that measuring MLU in languages other than English has proven to be problematic for research purposes because languages vary significantly in their syntactic structure (Guitierrez-Clellen et al., 2000; Lim & Cole, 2002). In addition, the lack of a “gold standard” to which ELL children’s language samples can be compared presents another challenge when using MLU to determine the effects of an intervention (Guitierrez-Clellen et al., 2000; Restrepo, 1996). Guitierrez-Clellen et al. (2000) add that the developmental milestones for English monolinguals are not comparable to bilingual (Spanish/English) learners, therefore, there are no clear uniform criteria available which can be utilized when determining the MLU of Spanish speaking children learning English as a second language.

**Maintenance**

The present study was also designed to evaluate the maintenance of the intervention on the mothers’ implementation of dialogic reading techniques and on the children’s language. Two weeks after the conclusion of the intervention, the mothers were asked to engage in shared book reading sessions with their children.

**Maintenance effects on mothers**

The slight initial decrease and subsequent recovery in the mothers’ use of dialogic reading techniques during this phase might be explained by previous research, which emphasizes that once a particular reading behavior is incorporated into a parents’ reading routine it might be very difficult to change (Neuman & McCormick, 1995). On the other hand, that initial decrease also suggests that migrant parents might need a longer, more continuous intervention in order to implement dialogic reading techniques in a regular basis (Reese & Gallimore, 2000).
Another finding that deserves further explanation is the increases in mothers’ implementation of different kinds of prompts (FRASE) during maintenance. Mother 3 serves as the best example to illustrate this point. Mother 3’s rate of implementation for Seleccionar (Wh-prompts) prompts increased dramatically during the maintenance phase of the current study. This increase might be attributed to this mother’s attempt to mediate the reading interaction by adjusting the implementation of different prompts to the changes in the child’s performance (Vygotsky, 1978).

**Maintenance effects on the oral language of the children**

The maintenance of the effects of dialogic reading on the oral language production of the children might serve as strong evidence that the intervention provided in the study promoted the oral language development of migrant children over time. It is important to note that the children’s production of oral language did not display an initial decrease following intervention. On the contrary, Child 3 for example displayed a higher rate in the production of “other” words after the conclusion of the intervention.

**Social Validity**

According to Foster and Mash (1999) and Kazdin (1982), social validity refers to the social importance and acceptability of treatment goals, procedure, and outcomes. In order for participants to implement and maintain the use of an intervention, they must believe that the intervention produces an important outcome and be able to implement the intervention without undue difficulty (Neuman & McCormick, 1995).

Results of the social validity measure utilized in the current study reflect the conditions outlined above. The mothers’ attitude toward the importance of this study and its ease of implementation might have contributed to the implementation and maintenance of dialogic reading techniques during shared book reading interactions.
It can be reported anecdotally that the mothers seemed to enjoy the reading interactions with their children and appeared to feel empowered by their new role as the “teachers of the family”. One of the mothers mentioned that she felt proud she could help prepare her son for Kindergarten and added that following the intervention she felt more appreciated by the whole family. That growing sense of pride and accomplishment was prevalent among all the mother participants following the intervention. Mother 3 reported that her daily interactions with her young son changed dramatically following the intervention. She added that she felt respected and valued by her son and the other male members of the family.

The fact that the intervention was conducted in Spanish was pointed as another advantage by the mothers. In addition, the daily visits of the researcher were perceived as social visits and not as research sessions. Most of the mothers mentioned that they seldom had opportunities to interact with members of the university community and had numerous questions about what it was like to “go to college” and how they could help prepare their young children for college. When asked informally about the social validity of the intervention all mothers reported that participating in the current study had a major positive influence in their lives.

**Limitations**

Although the results of this study extend the literature regarding the effectiveness of dialogic reading with families from diverse backgrounds there are notable limitations that may have impacted the findings. As with most single subject studies, the small size limits the external validity of the study (Kazdin, 1982). Because the participants of the current study were all migrant mothers it is unknown whether the study’s findings could be replicated with fathers from the same population. Another replication of the study should include migrant mothers with higher levels of education than those held by the present group in order to determine whether the
effects of the intervention would be as dramatic as they were on the rate of implementation of the mothers in the current study.

Second, the difference in duration among reading sessions might have influenced the results. On average, once mothers began implementing the dialogic reading techniques they were reading for longer periods of time. As the dyads engaged in longer reading interactions the mothers had more opportunity to practice the techniques and the children had more opportunities to produce oral language. Therefore, any effects of the intervention might have been impacted by the change of duration in the sessions.

The third limitation refers to the increased access to books given to the participants during the current study. The available research on the literacy environments of children suggests that many children from low socioeconomic backgrounds begin school without ever having heard a book read aloud (Moustafa, 1997). Adams (1990) points out that the average child from a middle-class background will begin school with over 1,000 hours of shared book experiences, while the typical child from a low-income home will have only 25 hours of experience (Adams, 1990). The striking differences among children from low and middle-income families in shared book experiences can be attributed to differences in the access to books (Neuman & Celano, 2001; Neuman, 1999). Limited access to children’s books and other print materials in the home may have adverse consequences on the development of children’s early literacy skills (Madden, Slavin, Karweit, Dolan, & Wasik, 1993). Furthermore, providing books to children and families from low socioeconomic backgrounds may have a positive effect on the children’s language development and might encourage parents to engage their children in early literacy activities (McCormick & Mason, 1986; Neuman, 1996). The dyads participating in the current study, all of whom had very limited access to printed materials prior to the current investigation, received
new books every week and were allowed to keep them after the reading interactions were audio
taped. Therefore, it is not known whether increasing the families’ access to children books could 
have influenced the results.

A fifth limitation involves the way in which the books were distributed during the study. As 
mentioned previously, the number of books in the dyad’s homes increased every week during 
the development of the research. It is not known whether increasing the number of books in a 
gradual manner (two books per week) had any impact on the results of the investigation. 
However, it is also not certain that providing the dyads with all the books on the first day of 
baseline would have been beneficial. It might have overwhelmed the mothers and the children. 
It is important to note that the distribution system utilized for the current study was consistent 
with the way in which previous dialogic reading studies provided books to their participants 
(Whitehurst, Arnold et al., 1994; Whitehurst, Epstein et al., 1994).

Sixth, the presence of the principal investigator and the audiotape recorder in the home 
during the investigation may have introduced a high level of reactivity as the mothers and, to a 
lesser extent, the children knew that their interactions were being monitored during the reading 
sessions (Kazdin, 1982). Potentially, the mothers may not have implemented any dialogic 
reading steps if the principal investigator had not been present.

**Implications for Research**

The results of this study provide evidence that mothers from migrant populations can be 
trained to implement dialogic reading techniques and that the implementation of the techniques 
has a positive effect on the oral language production of migrant preschool children with language 
delays. This research adds to the scarce literature available on migrant populations and how 
migrant mothers can help prepare their children for formal reading instruction ameliorating the 
effects of the risk factors often associated with migrant life.
Furthermore, the study extends the literature on dialogic reading as it examined the effects of the intervention on a population that differs from those included in previous dialogic reading studies. Few dialogic reading studies have concentrated on the changes that the intervention produces on the parents’ reading behaviors (Crain-Thoreson & Dale, 1999; Dale et al., 1996; Lim & Cole, 2002). This investigation makes an additional contribution to the dialogic reading literature by accomplishing this and by evaluating mothers’ use of different kinds of prompts.

Finally, most of the findings on the efficacy of dialogic reading on the linguistic skills of young children have been obtained through the interpretation of group data (1998; Valdez-Menchaca & Whitehurst, 1992; Whitehurst, Arnold et al., 1994; Whitehurst, Epstein et al.,1994). This study contributes to the literature by utilizing single subject multiple baseline across participants allowing for the evaluation of the intervention in individual children and mothers.

To analyze the effects of the intervention on the oral language of the children, the researcher measured the rate per minute of nouns, verbs and others produced during the reading interactions. This analysis demonstrated that the implementation of dialogic reading techniques had a positive effect on the oral language skills of the children. However, future replications of the study should include more sensitive linguistic measures and analyses that will allow researchers to examine changes in the lexical and syntactical aspects of the children’s language.

Although the mothers’ implementation of dialogic reading techniques were maintained two weeks after the conclusion of the study, the initial decrease displayed during the maintenance phase might be an indication that migrant populations need longer, and more intensive intervention in order to implement shared book reading interventions. It is important to remember that the mothers in the current study did not learn all the parts of the dialogic sequence (PEER and FRASE) and used a handout in order to help remember the techniques when reading.
to their children. Therefore, it is imperative to find better ways of training parents to remember the intervention for a longer period of time. Future replications of the study might include extra coaching sessions as part of the parent-training component. After completing the instructional portion of the training, parents would engage in several dialogic reading coaching sessions with their children. During these sessions the researcher would provide feedback on the utilization of the technique and determine which parts of the intervention are more difficult to implement. In addition, the coaching sessions could be videotaped to allow parents to evaluate their use of the dialogic reading techniques.

The present study checked for maintenance two weeks after the conclusion of the intervention. Extensions of the study need to examine whether the effects of dialogic reading can be maintained for a longer period of time. Along those lines, another important replication of the study should follow the children during preschool and kindergarten in order to determine whether the effects of the intervention on the oral language have facilitated the students’ acquisition of English and the acquisition of preliteracy skills that will set the students on a path to reading success.

The current study did not examine the generalization of the effects of dialogic reading on the language production of migrant children in settings other than the home or in situations that did not involve reading interactions. A replication of the study must analyze the generalization of the effects of the intervention to different settings and to situations that do not involve the use of books.

Finally, another implication for future research involves the anecdotal observations regarding the family dynamics in the homes of the participants. The researcher noted that once the intervention phase of the study began there were changes in the non-reading interactions
between the migrant mothers and their children. Both mothers and children appeared to be using more language and the children seemed to be more compliant with their mothers’ instructions. Another important change involved the way in which different members of the family interacted with the mothers once they began participating in the study. Mothers reported that they felt empowered and more valued by all the members of the family. One mother added that the male members of the family treated her in a more respectful manner once she began reading to her child. Future replications of the study should include methodology that will allow researchers to measure changes in the daily interactions and dynamics of the families participating in the investigation.

**Implications for Practice**

The results of the current study have powerful implications for early childhood practitioners working with Spanish speaking children and their families. Professionals must adapt interventions and programs to the families they aim to serve. Taking into account the social, cultural and linguistic strengths of families will increase the effectiveness of interventions by allowing teachers and practitioners to use the family’s background knowledge to foster the development of new skills. In addition, learning about the culture of the populations they serve will send parents the message that they are important and appreciated, thus increasing their level of participation, trust and satisfaction (Reese & Gallimore, 2000).

In the case of migrant populations it is also critical to implement interventions that involve children’s parents and that allow the parents to use their first language. This is supported by recent research on family literacy and the literacy development of young migrants, which posits that the influence of the home environment and the involvement of the family are crucial for the development of literacy skills (Bryant & Wasik, 2004; Ezell, 2000). Research on family literacy demonstrates that including parents in literacy programs has numerous advantages (Wasik,
Children who participate in literacy programs that involve their families develop better oral language skills (Bus, van Ijzendoorn, & Pellegrini, 1995; Jordan, Snow & Porche, 2000), display higher achievement in reading (Shanahan, Mulhern, & Rodriguez-Brown, 1995), are better prepared to take advantage of learning opportunities both at home and at school (Rodriguez-Brown, 2003), are healthier (Romanowski, 2004) and have a more favorable concept of self (Askov, 2004). In addition, encouraging parents to use the language they know best when engaging their children in literacy-related experiences is a component of any effective family literacy program (Auerbach, 1989). Rodriguez-Brown (2003) adds that encouraging parents to use their first language allows them to counteract the notion that they need to know English to help their young children acquire the language and literacy skills they need to be successful in school.

Along the same line, it is important to implement family literacy programs that will meet the needs of migrant families by having bilingual staff, reading materials for all reading levels, and printed materials that reflect the needs of the migrant population.

**Summary**

The literature on migrant families points out that the factors which characterize this population make migrant parents and their children the most academically vulnerable subgroup in the United States today (Gouwens, 2000; Romanowski, 2004). Migrant parents want their children to be successful and view education as their children’s way out of the cycle of migrancy (Ezell et al., 2000; Henderson, 1992; Whitaker et al., 1997). However, the low educational levels, lack of financial resources, high mobility rates, and limited English proficiency prevalent among migrant families make it very difficult for migrant parents to participate in family literacy programs that would prepare them to engage their children in literacy-activities (Henderson, 1992; Romanowski, 2004).
This study addressed this situation by training mothers from migrant populations to implement dialogic reading, a shared book reading interaction that has proven to be effective in promoting the language development of young children from diverse backgrounds (Arnold et al., 1994; Lonigan & Whitehurst, 1998; Whitehurst et al., 1988; Whitehurst et al. 1994; Valdez-Menchaca & Whitehurst, 1992). The results of this investigation demonstrated that mothers from migrant populations can be successfully trained to implement dialogic techniques and that the mothers’ implementation of dialogic reading techniques increased the oral language production of migrant preschool children with delays. Furthermore, the results of the current study revealed that the mothers’ implementation of dialogic reading techniques and the effects of the implementation on the oral language production of the children were maintained following the conclusion of the intervention.
APPENDIX A
IRB APPROVAL AND CONSENT FORMS

UNIVERSITY OF FLORIDA INSTITUTIONAL REVIEW BOARD

1. TITLE OF PROTOCOL: Assessing the Effects of Dialogic Reading on the Oral Language Skills of Migrant Preschool Children At-Risk of Reading Difficulties

2. PRINCIPAL INVESTIGATOR(S): Joyce Tardaguila-Harth, Doctoral Student, Department of Special Education, P.O. Box 117050, G-315 Norman Hall, Gainesville, Florida 32611-7050, 392-0701.

3. SUPERVISOR: Vivian I. Correa, Ph.D., Department of Special Education, P.O. Box 117050, G-315 Norman Hall, Gainesville, Florida 32611-7050, 392-0701.

4. DATES OF PROPOSED PROTOCOL: From October 15, 2006 to October 14, 2007

5. SOURCE OF FUNDING FOR THE PROTOCOL: Unfunded

6. SCIENTIFIC PURPOSE OF THE INVESTIGATION: The purpose of this study is to determine if a shared book reading intervention (dialogic reading) implemented by the parents will promote the first language development of preschool children with language delays.

7. DESCRIBE THE RESEARCH METHODOLOGY IN NON-TECHNICAL LANGUAGE. Preschool teachers will nominate four children who speak Spanish as a first language, and who are members of the migrant population. The children will be included in the study if they meet the following criteria:
   1. The child has been diagnosed with a language delay
   2. The child does not exhibit significant behavior problems as indicated by the teacher
   3. The child’s parent or guardian provides informed consent

   Parent participants must meet the following criteria to be included in the study:
   1. The parent uses predominately Spanish to communicate with the child at home
   2. The parent is able to read in Spanish at a second grade level.
   3. The parent gives informed consent.

   The language skills of the children will be evaluated prior to the onset of the study (pre-baseline) and upon completion of the study. The investigator will utilize the Preschool Language Scale (PLS-4), the Peabody Picture Vocabulary Test (PPVT-III), and the Spanish version of the PPVT-III (Test de Vocabulario en Imagenes Peabody, TVIP). A language sample will also be collected at the beginning and at the end of the study.

   The study will occur in phases. During the first phase of the study, parents will be asked to read a storybook to their children at least four times a week. Every reading session should last between 10 and 15 minutes. No further instructions will be offered during this phase of the investigation. The reading interactions will be observed and audio taped by the researcher. Data will be collected on the number of words uttered by the child during the reading sessions and will be used to establish a baseline.
The second phase of the investigation will be comprised of individual parent training sessions. This phase will include a discussion about the importance of developing a strong foundation in the first language and how a strong base in the first language assists the acquisition of a second language. The importance of early literacy activities such as shared book reading will be discussed and parents will be trained to implement dialogic reading techniques in the shared book interactions with their children. The researcher will model the dialogic reading techniques and parents will get to practice the intervention with the researcher before they implement it with their children. Two verbal checks of the parents’ understanding of dialogic reading will be conducted.

The third phase of the experiment will include implementation of the intervention by the parents in their homes. Parents will read to their children using dialogic reading techniques for at least four times a week. Every reading session will last between 10 and 15 minutes. The reading sessions will be audio taped. Data will be collected on the number of words uttered by the children during the reading interactions. The researcher will utilize event recording or frequency measures to collect the data. In this phase, parents and children will be observed and data recorded on the measure mentioned above at least four times a week for a period of 10-15 minutes.

The last phase of the study is the maintenance phase. Two weeks following the conclusion of the study, the researcher will return to observe and collect data to determine if the parents are continuing to implement the reading technique and to examine whether there have been any changes in the number of words uttered by the children during shared book reading sessions. A single subject multiple baseline across participants will be used to conduct the investigation. The first phase of the study will take approximately 4-8 weeks. The final phase will take approximately two weeks. Once all the phases have been completed, findings will be used for the principal investigator’s doctoral dissertation.

The audio tapes of the participants will be destroyed upon completion of the study.

8. **POTENTIAL BENEFITS AND ANTICIPATED RISK.** This study proposes no risks to the participants. The potential benefits include training parents of children with language delays to implement an intervention that will foster the language and emergent literacy development of children at-risk for future reading difficulties. Participating parents and children will receive children books during the study.

9. **DESCRIBE HOW PARTICIPANTS WILL BE RECRUITED, THE NUMBER AND AGE OF THE PARTICIPANTS, AND PROPOSED COMPENSATION (if any):** The principal investigator will provide a verbal explanation of the study to Head Start teachers in a rural county in Florida. The teachers will be asked to nominate 4 children ages 36 –48 months who have language delays. The principal investigator will approach the parents or guardians of the children and provide a written and verbal explanation of the study.

Each parent will receive a $50.00 gift certificate upon completion of the study.

10. **DESCRIBE THE INFORMED CONSENT PROCESS. INCLUDE A COPY THE INFORMED CONSENT DOCUMENT (if applicable).** See attached.
Parents will receive an informed consent form in their first language (Spanish). The investigator will explain the consent form and the details of the study in the parents’ first language (See attached)

Principal Investigator’s Signature

_________________________________

Supervisor’s Signature

______________________________

I approve this protocol for submission to the UFIRB:
Protocol Title: Assessing the Effects of Dialogic Reading on the Oral Language Skills of Migrant Preschool Children At-Risk of Reading Difficulties.

Purpose of the research study: The purpose of the study is to determine if a shared book reading intervention (dialogic reading) implemented by the parents will promote the first language development of preschool children with language delays.

Time Required: Two to Four hours of training, and 15 minute observations at least four times per week for up to one year.

Risk and Benefits: This study poses no risk. The potential benefits include (1) learning an intervention that will foster the language and early literacy skills of children and (2) getting children’s books for your child.

Parent’s role: You will attend two training sessions lasting between one and two hours each and an additional one hour training if needed. Upon completion of the training you will be asked to implement the intervention during shared book reading sessions with your child. You will be asked to read to your children at least four times a week for 10-15 minutes. The principal investigator will observe and audiotape the reading sessions for up to three months.

Child’s role: Before the start of the study, your child’s language skills will be evaluated using the Preschool Language Scale (PLS-4), the Peabody Picture Vocabulary Test (PPVT-III) and the Spanish version of the PPVT-III known as the Test de Vocabulario en Imagenes Peabody (TVIP). The PLS-4, PPVT-III and TVIP are language assessment instruments that measure the child’s receptive and expressive language. As you begin to implement the intervention with your child, I will observe to see if your child’s production of oral language increases. The principal investigator will audiotape the sessions.

Compensation: You will receive a $50.00 gift certificate upon completion of the study.

Confidentiality: Results of the study may be shared with colleagues in the field of education, for purposes of confidentiality, your name and identity will be kept confidential to the extent provided by law. Audiotapes will be coded during the study and may be heard by the primary investigator (Joyce Tardaguila-Harth), and members of the primary investigator’s doctoral committee (Dr. Vivian Correa, Dr. Hazel Jones, Dr. Holly Lane, and Dr. Candace Harper).

Voluntary Participation: You and your child’s participation are completely voluntary. There is no penalty for not participating.
Right to withdraw from the study: You and your child have the right to withdraw from the study at anytime without consequence.

Contact Persons: Joyce Tardaguila-Harth, Doctoral Student, Department of Special Education, P.O. Box 117050, G-315 Norman Hall, Gainesville, Florida 32611-7050, 392-0701.

Vivian I. Correa, Ph.D., Department of Special Education, P.O. Box 117050, G-315 Norman Hall, Gainesville, Florida 32611-7050

Contact regarding your rights as a research participant:

UFIRB office, Box 112250 University of Florida, Gainesville, Fl. 32611-2250; 392-0433

Agreement:

I have read the above procedures. I give my consent to participate in the study. I have received a copy of this description.

________________________________________________________________________
Parent Date

________________________________________________________________________
Witness Date
**Nombre de la Investigación:** Evaluando los Efectos de la Lectura Interactiva en el Lenguaje Oral de Niños Migrantes con Riesgo de Desarrollar Problemas de Lectura

**Propósito de la Investigación:** El propósito de esta investigación es determinar si la intervención de lectura interactiva, implementada por los padres, promoverá el desarrollo del primer idioma de niños en edad pre-escolar con problemas de lenguaje.

**Tiempo Requerido:** Dos a cuatro horas de entrenamiento y observaciones de 15 minutos por lo menos cuatro veces por semana por un año.

**Riesgos y Beneficios:** Esta investigación no presenta riesgo alguno. Los beneficios pueden incluir (1) aprender a utilizar una técnica de lectura que puede ayudar a su niño(a) a mejorar sus destrezas orales y a fomentar destrezas que le ayudaran a aprender a leer y (2) recibir libros de cuentos para su niño(a).

**Participación del Padre:** Usted participará en dos sesiones de adiestramiento que durarán entre una y dos horas (con una hora extra cuando sea necesario). Una vez que el adiestramiento termine se le pedirá a usted que utilice la técnica aprendida cuando lea libros de cuento a su niño (a). Se le pedirá que lea a su niño (a) por lo menos cuatro veces a la semana por 10 o 15 minutos. La investigadora o su asistente observará y grabará (audio) las sesiones de lectura. La investigación podría durar hasta tres meses.

**Participación del Niño (a):** Las destrezas orales del niño serán evaluadas antes de que la investigación comience. La investigadora tomará una muestra de lenguaje y utilizará el Preschool Language Scale (PLS-4), el Peabody Picture Vocabulary Test (PPVT-III) y su versión en Español conocida como el Test de Vocabulario en Imágenes Peabody (TVIP). El PLS-4, PPVT-III, y el TVIP son utilizados para evaluar las destrezas de lenguaje receptivas y expresivas. Una vez que usted comience a utilizar las técnicas de lectura interactiva con su niño (a), yo observaré para determinar si la producción de lenguaje oral de su niño (a) aumenta. La investigadora utilizará una audiograbadora para grabar las sesiones de lectura.

**Compensación:** Usted recibirá un certificado de regalo de $50 dólares una vez que la investigación termine.

**Confidencialidad:** Los resultados de la investigación serán compartidos con miembros del recinto de educación. Para propósitos de confidencialidad, su nombre e identidad serán obviados mientras sea posible antes los ojos de la ley. Las cintas de audio serán codificadas durante el estudio y serán evaluadas por la investigadora principal (Joyce Tardaguila-Harth), y miembros

Las cintas de grabación serán destruidas una vez la investigación termine.

**Participación Voluntaria:** Su participación y la participación de su niño (a) en esta investigación es completamente voluntaria. Ni usted ni su hijo (a) serán penalizados si deciden no participar.

**Derecho a retirarse de la Investigación:** Usted y su niño(a) tienen el derecho de abandonar o darse de baja de la investigación en cualquier momento sin repercusión o consecuencia alguna.

**Personas a contactar:** Joyce Tardáguila-Harth, Doctoral Student, Department of Special Education, P.O. Box 117050, G-315 Norman Hall, Gainesville, Florida 32611-7050, 392-0701.

Vivian I. Correa, Ph.D., Department of Special Education, P.O. Box 117050, G-315 Norman Hall, Gainesville, Florida 32611-7050.

**Contacto con relación a sus derechos como participante de esta investigación:**

UFIRB office, Box 112250 University of Florida, Gainesville, Fl. 32611-2250; 392-0433

**Acuerdo:**

He leído y entiendo los procedimientos incluidos en este formulario. Doy mi consentimiento de participación. He recibido una copia de este formulario

____________________________
Padre o Madre                    Fecha:

____________________________
Testigo                        Fecha:
APPENDIX B
PARENT QUESTIONNAIRE

A Spanish version of this survey will be utilized during the initial contact with the parents to determine whether they are able to read at the second grade level and to gather other information about home-language use, exposure to English, and home literacy practices.

1. Do you speak Spanish or English in your home?
2. Does your child speak to you in English or Spanish? Can you give me an example?
3. How long have you lived in the United States?
4. How old was your child when he was first exposed to English?
5. How many years did you go to school?
6. Do you have any kind of reading materials at home (newspaper, magazines, books, etc...)?
7. Do you read during your spare time? Can you give me examples?
8. Do you read to your child? Can you give me an example?
Formulario de Preguntas para los Padres

1. ¿Qué idioma habla usted en casa, Inglés o Español? Si utiliza los dos idiomas, en que idioma prefiere hablarle a su hijo(a)?

2. ¿Cuando su hijo(a) habla con usted, le hace en Inglés o en Español? Español ¿Me puede dar un ejemplo?

3. ¿Cuánto tiempo ha vivido en los Estados Unidos?

4. ¿Cuántos años tenía su hijo(a) cuando comenzó a aprender Inglés (o cuando escucho el Inglés por primera vez)?

5. ¿Obtuvo usted su diploma de escuela superior (bachillerato)? Si no, cuál fue el grado más alto que terminó en la escuela?

6. ¿Le gusta leer en su tiempo libre? ¿Lee usted frecuentemente? ¿Me puede dar un ejemplo?

7. ¿Tiene usted libros, revistas, y periódicos en casa?

8. ¿Le lee usted a su hijo(a)? ¿Me puede dar un ejemplo?
¡Aprendiendo a Traves de los Libros de Cuento!

Quiero invitarlo a participar en una investigación sobre como los padres de familia pueden ayudar a sus hijos a desarrollar el lenguaje que necesitan (en Español) para aprender a leer. Si esta interesado puede comunicarse con Joyce Tardáguila al (352) 392-0701 ext. 301 ó al (352) 384-9929.
APPENDIX D
RESEARCHER’S TRAINING GUIDE

Session 1

1. The investigator will thank the parents for participating in the study.

2. The investigator will review the information regarding the importance of first language development (information that had been previously shared with the parents during the first home visit, Appendix D).

3. The investigator will offer a brief overview of the benefits of shared book reading and will discuss why parents should introduce the dialogic reading method and discuss its benefits.

4. The parents will watch a video demonstration of dialogic reading (“Lectura Interactiva” by Dr. Susan H. Landry from the Center for Improving the Readiness of Children for Learning and Education, CIRCLE).

   A. The video will be watched in parts. After watching the introduction and the segment that discusses the PEER sequence, the video will be stopped. At this point, the investigator will review the meaning of every letter in the acronym PEER and answer any questions.

   B. The investigator will proceed to read a story to the parents in order to model the PEER sequence. An example of every step will be provided. Afterwards, the parents will read a story to the investigator utilizing the peer sequence. The investigator will once again review the PEER sequence.

   C. After engaging in a dialogic reading role-play with the investigator, parents will proceed to watch the different vignettes shown in the video demonstrating the implementation of the PEER sequence.

After watching the vignettes, the investigator will answer any questions about the PEER sequence.

_The first day of parent training will conclude at this point._

Session 2

1. At the beginning of the second day of training, the investigator will answer any questions that the parents might have about dialogic reading and the PEER sequence.

2. After all questions have been answered, the parents will proceed to watch the video of the dialogic reading demonstration (“Lectura Interactiva” by Dr. Susan H. Landry from the Center for Improving the Readiness of Children for Learning and Education, CIRCLE).

   A. In order to review the information discussed during the previous session parents will watch the segments of the video that introduce dialogic reading, the PEER sequence again.
B. Parents will continue watching the final segment of the video, which discusses the types of questions they can utilize during dialogic reading sessions (FRASE).

C. After watching the segment that discusses the acronym FRASE, the video will be stopped. At this point, the investigator will review the meaning of every letter in the acronym FRASE and answer any questions.

D. The investigator will then proceed to read a story to the parents utilizing the PEER sequence and demonstrating the different types of questions (FRASE) they can ask their children during the reading sessions. An example of every type of question will be provided. Afterwards, the parents will read a story to the investigator utilizing the PEER sequence and asking at least one question from each kind.

E. The investigator will read another story to the parents utilizing the PEER sequence and asking them for different examples of the types of questions (FRASE) they could ask their children.

F. The parents will then proceed to watch the different vignettes shown in the video demonstrating the implementation of the five different types of questions.

G. After watching the vignettes, the investigator will answer any questions about the FRASE acronym and the five different types of questions parents can ask their children when conducting a dialogic reading session.

3. The investigator will then conduct a comprehension check utilizing the evaluation included in Appendix H.

A. When a parent is not able to meet the 88% criterion (8/9), the researcher will review the steps of the intervention with the parent and the parent will engage in another practice session with the researcher.

4. At the end of the training session, parents will receive a “parent manual” they can use to review (Appendix E).
La Lectura Interactiva

Guía para los Padres

Parent Handbook on Dialogic Reading
Familia: Hernandez
Guía para los Padres

Queridos padres,

Gracias por participar en esta investigación sobre la lecture interactiva. Los expertos en el campo de la lectura recomiendan a los padres que le lean a sus hijos con frecuencia y que lo hagan de una manera que fomente el desarrollo del lenguaje. Cuando usted le lee libros de cuentos a sus hijos de una manera interactiva, los está ayudando a adquirir las destrezas y el vocabulario que necesitan para convertirse en lectores exitosos. Este manual le ayudará a repasar los pasos que debe seguir para leerle a sus hijos de una manera interactiva.

Recuerde que usted es el maestro más importante que su niño(a) puede tener y va a desempeñar un papel muy importante en su educación.

Instrucciones

1. Leale a su hijo(a) por los menos cuatro (4) veces a la semana.

2. La lectura interactiva utiliza una secuencia que es representada por las siglas PEER. Además, puede utilizar cinco tipos diferentes de preguntas o comentarios. La palabra FRASE le ayudará a recordar las preguntas o comentarios que puede utilizar cuando le lea un cuento a su niño (a). Coloque los letreros con las siglas y la información sobre los comentarios donde los pueda ver con facilidad mientras le lee a su hijo(a). A continuación describiremos la secuencia PEER

   a. Pregunte y espere-Mientras le lee un cuento a su hijo(a) pregúntele sobre lo que esta leyendo y dele tiempo al niño para que piense y conteste (Hay cinco tipos de preguntas que usted le puede hacer a su niño. En la próxima sección hablaremos sobre esto). Es muy importante que usted le de al niño la oportunidad de hablar mientras comparte los libros de cuentos con el o ella.

   b. Evalúe la respuesta del niño. Cuando el niño conteste la pregunta correctamente, animelo. Por ejemplo, le podría decir “Muy bien” o “Buen trabajo”. Si el niño contesta de una manera incorrecta, diríjalo hacia la respuesta correcta sin regañarlo o hacerlo sentir mal. Muestrele la página donde aparece la contestación correcta. Por ejemplo si estan leyendo el libro “¿Donde está mi Perrito?” y su hijo le dice que el perrito estaba en la calle (incorrecto), podría decirle lo siguiente: “¿Tú crees que estaba en la calle? Vamos a ver. ¡Mira aquí está! ¿Qué lugar es ese?” Recuerde que es muy importante que el niño sienta comodo y que sienta que puede cometer errores y nadie lo va a regañar.
c. Expand la respuesta del niño. Cuando el niño conteste la pregunta de una manera correcta, repita usted la respuesta y añada más información. Por ejemplo:
Padre: “¿Me puedes decir que está pasando en esta página?
Niño: “El niño busca al perro en el coche”
Padre: “¡Sí! ¡Muy bien! El niño busca a su perrito en el coche rojo”

d. Repita la respuesta y anime al niño a que repita la respuesta. Por ejemplo, continuando con el ejemplo de arriba:
Padre: “¿Puedes decir coche rojo?”
Niño: “Coche rojo”
Padre: “¡Que bien! Sí! El niño buscaba al perro en el coche rojo”

3. Cuando usted le lee un cuento a su hijo de una manera interactiva hay cinco tipos de preguntas o comentarios que usted puede usar para animarlo(a) a que participe de una manera activa. La palabra FRASE le ayudará a recordar estas preguntas y comentarios. En esta sección hablaremos sobre este tema y ofreceremos ejemplos.

a. Finalizar-Haga comentarios o preguntas que requieren que el niño complete la oración. Por ejemplo: “El niño buscaba a su__________” “La familia encontró al perro en la__________” “El título del cuento es ________”. ¿Donde está mi ________?

b. Recordar-Utilízé preguntas que requieren que el niño recuerde detalles del cuento y repita detalles: “¿Qué le pasó al perrito?” “¿Quién lo encontró primero?” “¿Donde encontraron al perro?”

c. Abrir el diálogo- Abra el diálogo con su niño (a) haciendo comentarios o preguntas que requieren que el niño hable sobre el cuento usando sus propias palabras. Por ejemplo: “Ahora te toca a ti decirme lo que pasa en esta página” “¿Qué pasó en esta página?” “¿Qué va a pasar ahora?”

d. Seleccionar-Selezione un dibujo en el cuento y haga preguntas que comienzan con “¿Qué?, “¿Donde?” “¿Cuando?” y “¿Por qué?” Estas preguntas son similares a los anteriores pero requieren que el niño se concentre en los dibujos del cuento. Por ejemplo: “¿Qué está haciendo el niño en esta lamina?” “¡Mira! ¿Donde se esconde el perro en esta lamina?”

e. Experiencias-Haga comentarios o preguntas que requieren que el niño relacione detalles del cuento con aspectos de su vida diaria. Por ejemplo: “Al igual que la familia del cuento, nosotros hemos tenido mascotas. ¿Qué clase de mascotas hemos tenido?” “¿Recuerdas cuando tuvimos un perro igual al del cuento? ¿Se nos perdió alguna vez? ¿Qué pasó entonces?”
Mas Instrucciones

1. Deje que su hijo(a) escoja el libro que quiere leer con usted. Escojer el libro que le interesa motivará al (a la) niño(a) a participar en la sesión.

2. Si el niño no quiere participar, no lo oblige.

3. De la misma manera, si el niño quiere terminar la lectura del cuento antes de tiempo (en menos de diez minutos) trate de relacionar el tema del libro con algo que este pasando en la vida de su hijo(a) (como en los comentarios de la E en FRASE). Relacionar detalles de la historia a algún evento en la vida del (de la) niño(a) usualmente mantiene al niño interesado en la historia.

4. Recuerde que lo mas importante es divertirse y compartir un buen momento con su niño(a) mientras los prepara para aprender a leer.

5. Cuando le lea un libro por primera vez a su niño(a) siga las siguientes instrucciones.
   a. Lea el título del libro en la cubierta y apuntando cada palabra con el dedo según va leyendo.
   b. Pidale al niño que repita el título mientras usted señala cada palabra.
   c. Apunte al dibujo en la cubierta del libro y preguntele al niño sobre el dibujo.
   d. Comience a leer la historia y apunte con su dedo las palabras según las va leyendo.
   e. Pídale al niño que le indique cuando escuche palabras que riman (que terminan con los mismos sonidos) en la historia. Proveale ejemplos cuando los vea.
   f. Cuando termine de leer la historia, hagale al niño preguntas que requieran que el recuerde y repita detalles de la historia (vea el letrero). Por ejemplo: “¿Qué dibujaba el niño del cuento?” “¿Quién vió a las vacas volar primero?”
   g. Espere hasta que el niño le de una contestación.
   h. Lea el libro mas de una vez.
Dialogic Reading-PEER

(Whitehurst et al., 1994)

There are four steps to remember when reading to your child

Prompt and wait

Evaluate—provide feedback to the child

Expand the child’s answer

Repeat the expanded answer and encourage the child to repeat
Pregunte y espere –Ejemplos
¿Qué es esto? Esto es un__________.

Evalúe-Ejemplos
“Bien hecho” “Si, es una casa” “Es una casa” “Esa no es una casa”

Expanda-Ejemplos
“Es una casa roja” “Es un gato grande”

Repita-Ejemplos
“Si, es una casa roja” “¿Puedes decir casa roja?”
There are five kinds of prompts or questions you can use when reading a book to your child.

**Completion prompts** which require the child to complete the sentence or question.  
Example: “The boy in the story was looking for his________”

**Recall prompts** that require the child to recall and retell what happened in the story he/she has just heard.  
Example: “Do you remember what the dog was doing when the boy found him?”

**Open-ended prompts** which require the child to talk about the story using his/her own words.  
Example: “Now it’s your turn to tell what happens in this page”

**“Wh” prompts** such as what, when where, when and why. This prompts are similar to the previous ones (Open-ended) but require the child to concentrate on the pictures in the book.  
Example: “What’s the name of this?”

**Distancing prompts** that require the child to relate events in the story to real life experiences.  
Example: “Do you remember when we lost our dog? What did we do to find him?”
Finalizar-Ejemplos
“Aqui esta la _________” “La oruga comio__________”

Recordar detalles del cuento-Ejemplos
“Cuentame lo que le pasó a la oruga”

Abrir el diálogo-Ejemplos
“Dime lo que esta pasando en esta página”

Selecciona un dibujo y pregunte-Ejemplos
“¿Quien es esta? “¿Donde est la oruga?

Experiencias-Relacione algo del cuento con la vida del niño-Ejemplos
“¿Recuerdas cuando a ti te dolía el estomago como a la oruga?”
## APPENDIX H

### BOOKS

**Books read by Dyad 1 during the Investigation**

<table>
<thead>
<tr>
<th>Session Number</th>
<th>Book Title</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Hermana, Hermana; En las Montanas</td>
</tr>
<tr>
<td>2</td>
<td>La Oruga muy Hambrienta</td>
</tr>
<tr>
<td>3</td>
<td>Hermana, Hermana</td>
</tr>
<tr>
<td>4</td>
<td>Hermana, Hermana; La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>5</td>
<td>A Sembrar Sopa de Verduras</td>
</tr>
<tr>
<td>6</td>
<td>La Oruga Muy Hambrienta, A Sembrar Sopa de Verdura</td>
</tr>
<tr>
<td><strong>Intervention</strong></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>La Oruga Muy Hambrienta, Oso Polar, Oso Polar que Ruido es Ese?</td>
</tr>
<tr>
<td>8</td>
<td>La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>9</td>
<td>En las Montañas</td>
</tr>
<tr>
<td>10</td>
<td>La Noche,</td>
</tr>
<tr>
<td>11</td>
<td>En el Lavado de Autos</td>
</tr>
<tr>
<td>12</td>
<td>En la Estacion de Bomberos con Papa</td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>En la Estacion de Bomberos con Papa</td>
</tr>
<tr>
<td>14</td>
<td>La Pinata Vacia</td>
</tr>
<tr>
<td>15</td>
<td>Tortillas de Barro</td>
</tr>
<tr>
<td>16</td>
<td>Siete Galletas, Tortillas de Barro</td>
</tr>
<tr>
<td>Session Number</td>
<td>Baseline</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------</td>
</tr>
<tr>
<td>1</td>
<td>Hermana, Hermana, En las Montañas</td>
</tr>
<tr>
<td>2</td>
<td>La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>3</td>
<td>La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>4</td>
<td>La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>5</td>
<td>A Sembrar Sopa de Verduras</td>
</tr>
<tr>
<td>6</td>
<td>La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>7</td>
<td>A Sembrar Sopa de Verduras, En el Lavado de Autos, La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>8</td>
<td>Oso Polar, Oso Polar, Que Ruido es Ese?, La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>9</td>
<td>La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>10</td>
<td>En la Estacion de Bomberos con Papa, La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>Intervention</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>12</td>
<td>La Piñata Vacia</td>
</tr>
<tr>
<td>13</td>
<td>En la Estacion de Bomberos con Papa, Sam El Silencioso</td>
</tr>
<tr>
<td>14</td>
<td>En el Lavado de Autos, La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>15</td>
<td>En La Estacion de Bomberos con Papa</td>
</tr>
<tr>
<td>Maintenance</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>La Caperucita Roja (Tal Como se la Contaron a Jorge)</td>
</tr>
<tr>
<td>17</td>
<td>La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>18</td>
<td>La Oruga Muy Hambrienta, A Sembrar Sopa de Verduras</td>
</tr>
<tr>
<td>Session Number</td>
<td>Book Title</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>En Las Montañas</td>
</tr>
<tr>
<td>2</td>
<td>En Las Montañas</td>
</tr>
<tr>
<td>3</td>
<td>A Sembrar Sopa de Verduras</td>
</tr>
<tr>
<td>4</td>
<td>La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>5</td>
<td>La Oruga Muy Hambrienta, A Sembrar Sopa de Verduras</td>
</tr>
<tr>
<td>6</td>
<td>Oso Polar, Oso Polar Que Ruido es Ese?</td>
</tr>
<tr>
<td><strong>Intervention</strong></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>En El Lavado de Autos</td>
</tr>
<tr>
<td>8</td>
<td>En El Lavado de Autos</td>
</tr>
<tr>
<td>9</td>
<td>Buenas Noches Luna</td>
</tr>
<tr>
<td>10</td>
<td>Sam El Silencioso</td>
</tr>
<tr>
<td>11</td>
<td>En la Estacion de Bomberos con Papa</td>
</tr>
<tr>
<td>12</td>
<td>Sam El Silencioso</td>
</tr>
<tr>
<td>13</td>
<td>La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>A Sembrar Sopa de Verduras</td>
</tr>
<tr>
<td>15</td>
<td>En el Lavado de Autos</td>
</tr>
<tr>
<td>16</td>
<td>En El Lavado de Autos</td>
</tr>
<tr>
<td>17</td>
<td>La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>Session Number</td>
<td>Book Title</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>En Las Montañas, Hermana, Hermana</td>
</tr>
<tr>
<td>2</td>
<td>Hermana, Hermana, En Las Montañas</td>
</tr>
<tr>
<td>3</td>
<td>Hermana, Hermana, La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>4</td>
<td>A Sembrar Sopa de Verduras, La Oruga Muy Hambrienta</td>
</tr>
<tr>
<td>5</td>
<td>En el Lavado de Autos, La Noche</td>
</tr>
<tr>
<td>6</td>
<td>En el Lavado de Autos, La Noche</td>
</tr>
<tr>
<td>7</td>
<td>En el Lavado de Autos, Hermana, Hermana</td>
</tr>
<tr>
<td>8</td>
<td>Sam el Silencioso</td>
</tr>
<tr>
<td>9</td>
<td>Sam el Silencioso, En la Estacion de Bomberos con Papa</td>
</tr>
<tr>
<td><strong>Intervention</strong></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Siete Galletas</td>
</tr>
<tr>
<td>11</td>
<td>Tortillas de Barro</td>
</tr>
<tr>
<td>12</td>
<td>Sam el Silencioso, Hermana, Hermana</td>
</tr>
<tr>
<td>13</td>
<td>En las Montañas, Siete Galletas</td>
</tr>
<tr>
<td>14</td>
<td>Siete Galletas, Tortillas de Barro</td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Los Trucos de Twister</td>
</tr>
<tr>
<td>16</td>
<td>Los Trucos de Twister, Siete Galletas</td>
</tr>
<tr>
<td>17</td>
<td>Siete Galletas</td>
</tr>
<tr>
<td>18</td>
<td>Los Trucos de Twister, Tortillas de Barro</td>
</tr>
</tbody>
</table>

*Dyad 4 commenced the baseline phase of the investigation after Dyad 3’s third baseline session*
Guidelines for counting the words uttered by the child during the reading sessions:

- Count only intelligible words.
- Do not count fillers such as *ah*, *ajá*, or *mm* as words.
- Count only words that are related to the reading interaction. For example, if the child says “I want to go now” during the middle of the reading session do not add those words to the count.
- Count mispronounced words only if they are intelligible. For example, saying “apa” for “papá”.
- Do not count memorized dialogues and/or songs.

The guidelines for calculating the mean length of utterance will be adapted from Linares’ (1983) rules for calculating the mean length of utterance in morphemes for Spanish:

1. Transcribe the recording of the reading session. Mark each utterance for later ease in separating them.
   a. Count the free morphemes that are included in the utterances whether they are inflected correctly or not.
   b. Count interrogative words as one morpheme.
   c. Consider the contractions *del* (*de el*), *della* (*de ella*) as having two roots and thus count as two morphemes.
   d. Do not count fillers like *ah, eh, porque si, porque no, ajá*
   e. Count compound words, proper names and ritualized reduplications as single words (for example *Juan Perez, cumpleaños* (*birthday*), *subibaja* (*sesaw*)
   f. Do not count memorized dialogues, songs, or stereotypic responses.
   g. Determine how many bound morphemes (*inflections*) appear in the utterance (see the rules below).
h. Add the free morphemes and the bound morphemes in each of the utterances.

i. Add the morphemes in all the utterances.

j. Divide the total number of morphemes by the number of utterances

k. The quotient is the MLU value for the child.

Rules for Counting Bound Morphemes

1. Nouns

   a. Gender: Count as one morpheme the generic ending –a (feminine) or –o (masculine) only when the root can have different generic endings. For example, the noun *gat-o* (cat + masculine + singular) counts as two morphemes (one for the root *gat* and one for the masculine inflection –o); however, the noun *luz* (light + no gender + singular) counts as one morpheme because it has no gender and thus nouns like *luz-a* do not appear in Spanish.

   b. Number: Count as one morpheme the plural ending –s (for singular ending in vowel) or –es (for singular ending consonant). Singulars are not given points because the child is not adding morphemes to them. For example, the noun *gat-a-s* (cat + feminine + plural) counts as three morphemes (one for the root *gat*, one for the feminine inflection –a, and one for the plural inflection –s); and the noun *flor-es* (flower + no gender + plural) counts as two morphemes (one for the root *flor* and one for the plural inflection –es).

   c. Diminutives: Count as one morpheme the diminutive endings –it- and –cit- as in *cas-it-a* or *pece-ci-to*.

   d. Augmentatives: Count as one morpheme the augmentative ending –ot- as in *cas-o-t-a*.

2. Adjectives

   a. Gender: Count as one morpheme the generic ending –a (feminine) or –o (masculine) only when the root can have different generic endings. For example, the adjectives *baj-o* (short + masculine + singular) counts as two morphemes (one for the root *baj* and one for the masculine inflection –o); however, the adjective *grand-e* (big + no gender + singular) counts as one morpheme because it has no gender, and thus adjectives like *grand-a* do not appear in Spanish.

   b. Number: Count as one morpheme the plural ending –s or –es. Singulars do not count because the child is not adding morphemes to them. For example, the adjective *alt-o-s*
(tall + masculine + plural) counts as three morphemes (one for the root alt, one for the masculine inflection –o, and one for the plural inflection –s); The adjective gris-es (gray + no gender + plural) counts as two morphemes (one for the root gris and one for the plural inflection –es).

c. Superlatives: Count as one morpheme the superlative ending –isim- or –im- For example, the adjective car-isim-o (very expensive + superlative + masculine + singular) counts as three morphemes (one for the root car, one for the superlative inflection –isim-, and one for the masculine inflection –o); and the adjective pauper-im-o (very poor + superlative + masculine + singular) counts as three morphemes (one for the root pauperr, one for the superlative inflection –im-, and one for the masculine inflection –o).

d. Diminutives: Count as one morpheme the diminutive endings –it- and –cit- as in chiqu-it-o or precio-cit-o.

e. Augmentatives: Count as one morpheme the augmentative ending –ot- as in grand-ot-a.

3. Adverbs

Count as one morpheme the adverbial ending –mente. For example, the adverb fácil-mente (easi-ly) counts as two morphemes (one for the root fácil and one for the adverbial inflection –mente).

4. Pronouns

a. Gender: Count as one morpheme the generic ending –a (feminine), -o (masculine), or –o (neuter) only when the root can have different generic endings. For example, the pronoun mi-a (mine + feminine possessed object + singular) counts as two morphemes (one for the root mi and one for the masculine inflection –o); however, the pronoun se (a form of the copula + no gender + no number) counts as one morpheme (for the copula se).

b. Number: Count as one morpheme the plural ending –s or –es only when the root can have singular number. Singulatrs do not count because the child is not adding morphemes to them. For example, the pronoun nosotr-o-s (we + masculine + plural + no singular number) counts as two morphemes (one for the root nostro and one for the masculine inflection –o); and the pronoun usted-es (you + no gender + plural) counts as two morphemes (one for the root usted and one for the plural inflection –es).

C. Prepositional case: Count as one morpheme the prepositional ending –sigo, -migo, or –tigo when added to the root con. For example, the pronoun con-tigo counts as two morphemes (one for the root con and one for the prepositional case inflection –tigo).
5. Articles

a. Gender: Count as one morpheme the generic ending –a (feminine (masculine), and –o (neuter) only when the root can have different generic endings. For example, the article l-a (the + feminine + singular) counts as two morphemes (one for the l and one for the feminine inflection –a); however, the article el (the + masculine + singular) counts as one morpheme (for the root el) cannot be inflected to any other gender.

b. Number: Count as one morpheme the plural ending –s. Singulars do not count because the child is not adding morphemes in them. For example, the article l-o-s (the + masculine + plural) counts as three morphemes (one for the root l, one for the masculine inflection –o, and one for the plural inflection –s).

6. Verbs

Verbs in Spanish can take combined inflections related to the mood, tense, number, and person. When scoring a Spanish verb, decide whether or not it is conjugated in the particular utterance; then examine whether the verb is correctly conjugated in all inflectional aspects in the particular utterance. Determine if the verb is or is not an infinitive (inflected with –ar or –er), a participial (inflected with –do), or a gerund (inflected with –ndo). In addition, consider whether the verb (root) can take various different inflections (suffixes). Then apply the following scoring system:

a. When the verb is used correctly in all inflectional aspects, is not an infinitive, participial, or gerund, and the root can take various inflections, count it as having five morphemes (one for the root, one for the number inflection, one for the person inflection, one for the tense inflection, and one for the mood inflection).

b. When the verb is not conjugated, count it as having one morpheme (for the root).

c. If the root cannot take various inflections, count it as having one morpheme.

d. When the verb is correctly used in only some of the inflectional aspects, count it as having 2.5 morphemes (one for the root and 1.5 for whatever other inflections might be correct).

e. If the verb has an ending like –ar, –er (infinitive), –do (participial), or –ndo (gerund), count it as having two morphemes (one for the root and one for any of these inflections).
## APPENDIX J
### INTEGRITY CHECK

**Dyad:**

**Session #:**

<table>
<thead>
<tr>
<th>Description</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent uses the complete PEER sequence during 90% of the time (9 minutes in a 10 minute session; 13.5 minutes in a 15 minute session)</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Parent uses a variety of prompts (FRASE)</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Parents waits for a reasonable amount of time after asking a question</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Parent redirects child (as discussed during training) when he/she provides an incorrect answer</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>
Social Validity Checklist (English Version)

Read each statement carefully. Five possible choices as to your level of agreement and disagreement have been placed after each statement. For each of the statements, please circle the phrase that best describes your feelings about the statement. Circle only one phrase for each statement. Please be sure to answer every item.

Dyad:

Date:

1. The dialogic reading training was very helpful.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

2. The training was too time consuming.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

3. My child’s Spanish oral language skills have improved.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

4. I will continue using dialogic reading techniques in the future.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

5. Other Spanish-speaking parents might be interested in learning dialogic reading techniques.

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
**Formulario sobre la Utilidad de ésta Investigación**

Lea cada pregunta cuidadosamente. Haga un círculo alrededor de la respuesta que mejor indique su opinión sobre cada una de los siguientes comentarios. Cada número indica cuán de acuerdo o cuán en desacuerdo está usted con los comentarios (Por ejemplo: 1= No estoy de acuerdo; 5=Estoy totalmente de acuerdo). Marque una contestación para cada pregunta.

Dyad:

Fecha:

1. El adiestramiento sobre la lectura interactiva fue muy útil

<table>
<thead>
<tr>
<th>No estoy de acuerdo</th>
<th>Estoy totalmente de acuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

2. El adiestramiento tomó demasiado tiempo.

<table>
<thead>
<tr>
<th>No estoy de acuerdo</th>
<th>Estoy totalmente de acuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

3. Las destrezas orales en Español de mi niño(a) han mejorado

<table>
<thead>
<tr>
<th>No estoy de acuerdo</th>
<th>Estoy totalmente de acuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

4. Continuaré utilizando las técnicas de lectura interactiva en el futuro.

<table>
<thead>
<tr>
<th>No estoy de acuerdo</th>
<th>Estoy totalmente de acuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

5. A otros padres les interesaría aprender sobre la lectura interactiva.

<table>
<thead>
<tr>
<th>No estoy de acuerdo</th>
<th>Estoy totalmente de acuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
The acronym P.E.E.R. reminds us the steps we must follow when we read a story to our children in a dialogical manner. Identify those steps.

P

E

E

R

There are five kinds of prompts we can utilize when we read to our children, FRASE. Identify the prompts and give an example of each.

1. F

Example:

2. R

Example:

3. A

Example:
4. S
Example:

5. E
Example:

Score /9
Evaluación (Spanish Version)

Conteste las siguientes preguntas

Las siglas **P.E.E.R.** nos recuerdan los pasos que debemos seguir cuando le leemos un cuento a nuestros hijos de una manera interactiva. Identifique los pasos.

**P**

**E**

**E**

**R**

La palabra **FRASE** nos ayuda a recordar las preguntas o comentarios que podemos utilizar cuando le leemos de una manera interactive a nuestros hijos. Identifique cuáles son y provea un ejemplo.

1. **F**

   **Ejemplo:**

2. **R**

   **Ejemplo:**

3. **A**

   **Ejemplo:**
4. S

Ejemplo:

5. E

Ejemplo:

Nota: /9
LIST OF REFERENCES


BIOGRAPHICAL SKETCH

Joyce Marie Tardáguila-Harth grew up in Juana Diaz, Puerto Rico. She is the daughter of Julio and Sonia Tardáguila and the oldest of four siblings.

Joyce received a bachelor’s degree in psychology and master’s degrees in special education and ESOL/bilingual education from the University of Florida.

Joyce Marie began her doctoral program at the University of Florida as a full-time student in 2002. Her major areas of study included early childhood special education, bilingual special education, ESOL, and mild disabilities.