

***The Kindergarten Language Study:  
Improving the language and literacy skills  
of Spanish-English bilingual  
kindergarteners***

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# Research Goals

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- The goal of this longitudinal study is to design and implement an intervention program to improve the vocabulary skills of Spanish-English bilingual kindergarten students and to assess the impact of the intervention on their language and early literacy skills (kindergarten through second grade)

## Specific Aims

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- To develop and implement an intervention program designed to improve Spanish-speaking children's oral language skills:
  - Spanish family literacy intervention
  - English classroom intervention
  - Spanish family literacy intervention linked to an English classroom intervention
- To compare the impact of delivering the intervention using different models (Spanish at home, English at school, and both languages simultaneously)
- To explore the nature of transfer from Spanish to English
- To compare the impact of the program on children with varying degrees of skills in Spanish and English
- To examine short- and long-term effects of the program

# Research Design

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- Year 1: Development of structure for the intervention program, selection and development of measures and instruments
- Year 2: Pilot implementation of intervention program to develop, refine, and assess potential effects of the on student outcomes
- Year 3: Implementation of intervention program with four conditions:
  - Family literacy only
  - Classroom only
  - Family literacy linked to classroom
  - Control group
- Year 4 and 5: Follow-up assessments of participants, data processing, analysis, and writing

# Intervention Design

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- The intervention included parallel school and family components linked theoretically and practically:
  - The same books were used in both English and Spanish
  - The same vocabulary words were targeted in both English and Spanish, with special focus on cognates
  - The school component focused on pre-, during, and post-read-aloud activities to foster oral language and vocabulary growth
  - The family literacy component focused on read-alouds with authentic language and literacy activities that are culturally appropriate and relevant

# Classroom Component

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- Instruction was informed by:
  - Research on specific vocabulary teaching methods shown to be effective with ELL students including the work of Diane August (August et al., 2005)
  - Michael Graves' (2006) Four Part Vocabulary Program
- Word Selection was informed by:
  - Beck, McKeown, & Kucan's (2002)
  - Andrew Biemiller's work with the Living Word Vocabulary List (Dale and O'Rourke, 1981)

# Classroom Component

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- Development of the intervention included: selection of books (English and Spanish) and vocabulary words (key and basic vocabulary words)
- Pilot year was structured in five one-month units
- Each monthly unit is thematically organized around three books for teaching a total of 18 key words and 24 basic words
- Each monthly unit is introduced with a training session
- Each week consists of four scripted 20 minute read-aloud lessons





## Family Literacy Component

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- Sénéchal and Young (2008) found through their review of research that educating parents to tutor specific literacy skills with activities was most effective type of parent intervention
- Roberts (2008) found that combining primary- or second-language home storybook reading with second-language classroom storybook reading was a viable means to enhance vocabulary learning
- Family literacy program was informed by:
  - Project FLAME (Rodriguez-Brown, 2003)
  - Project EASE (Jordan, Snow, & Porshe, 2000)
  - The Inter-generational Literacy Program (Paratore, 2001)

## Family Literacy Component

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- Parallel to the classroom, these sessions take place once a month at the school sites
- Sessions present authentic language and literacy concepts, books for the particular unit, and activities
- Concepts stressed the importance of:
  - Reading in the home
  - Vocabulary learning
  - Home language use
- Sessions are interactive and allow parents to share their experiences, concerns, questions and to familiarize themselves with the books

# Data Collection and Assessment

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- Pre-intervention data collection:
  - Language and literacy assessments
  - Classroom observations of language and literacy environment
  - Teacher and school questionnaires
  - Parent questionnaires
- During the intervention data collection:
  - Classroom observations for fidelity of implementation
  - Parent weekly reports
  - Field notes of teacher and parent workshops
- Post-intervention data collection:
  - Language and literacy assessments
  - Follow-up interview with parents
  - Follow-up interview with teachers

# Instruments and Constructs

<b>Instrument or Data Source</b>	<b>Constructs</b>
Test of Oral Language Development – Fourth Edition	Oral Vocabulary, Picture Vocabulary, Syntactic Understanding
Woodcock-Muñoz Language Survey – Revised, Spanish	Picture Vocabulary, Letter-Word Identification, Passage Comprehension, Verbal Analogies
KLS Target Vocabulary Assessment	Target vocabulary specific to the intervention books and lessons
Parent Weekly Report	Information about books read, time spent on reading, number of readings per book, and other literacy activities related to the intervention
Demographic Survey	Parent education level, number of years in U.S., SES, and ethnicity; children's gender and generational status; home language use; and language and literacy support in the home
Teacher Questionnaire	Teacher demographics, as well as language and literacy practices
Early Language and Literacy Classroom Observation	Rating of the quality of classroom language and literacy instruction in classrooms

# Pilot Study Overview

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- Implemented intervention program in two school sites for a total of eight kindergarten classrooms (4 intervention and 4 control)
- Three conditions were examined:
  - Spanish home intervention linked to English classroom intervention
  - Classroom only intervention
  - No intervention (control group)
- Hypothesis: The condition linking Spanish language enrichment in the home to English development in the classroom will be the most effective to develop and sustain English reading skills for students in

# Pilot Study Sample

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- Final sample consisted of 38 Spanish-speaking kindergarten children:
  - 16 control students
  - 10 classroom-only intervention students
  - 12 classroom linked to family intervention students
- Average age at Time1 was 5.05 and at Time 2 was 5.58
- Intervention program was five units (20 weeks)

## Findings

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- Pilot study findings indicated notable changes in regards to:
  - Students' vocabulary and oral language skills
  - Family literacy practices in the home
  - Classroom and school practices

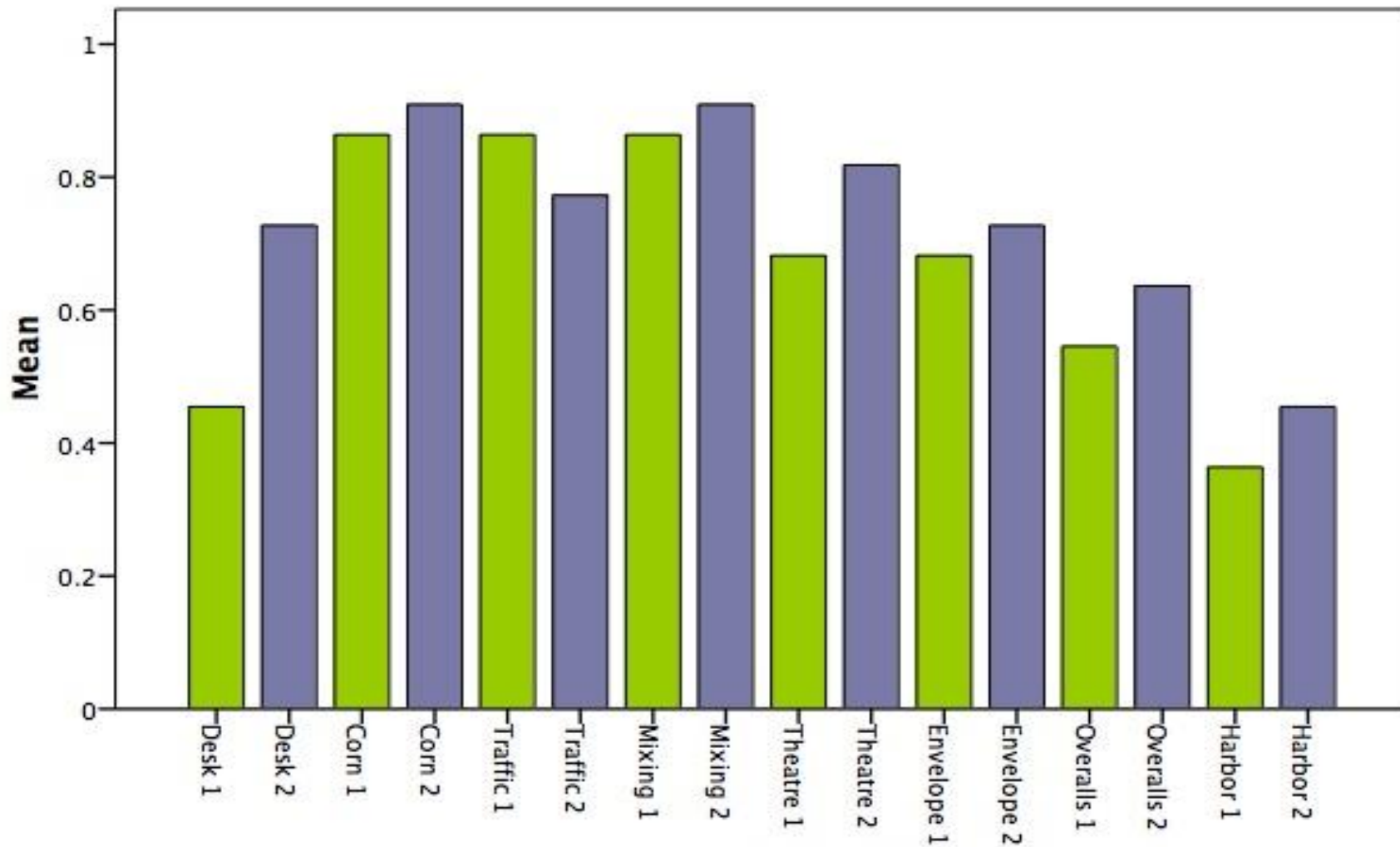
## Findings: Vocabulary and Oral Language

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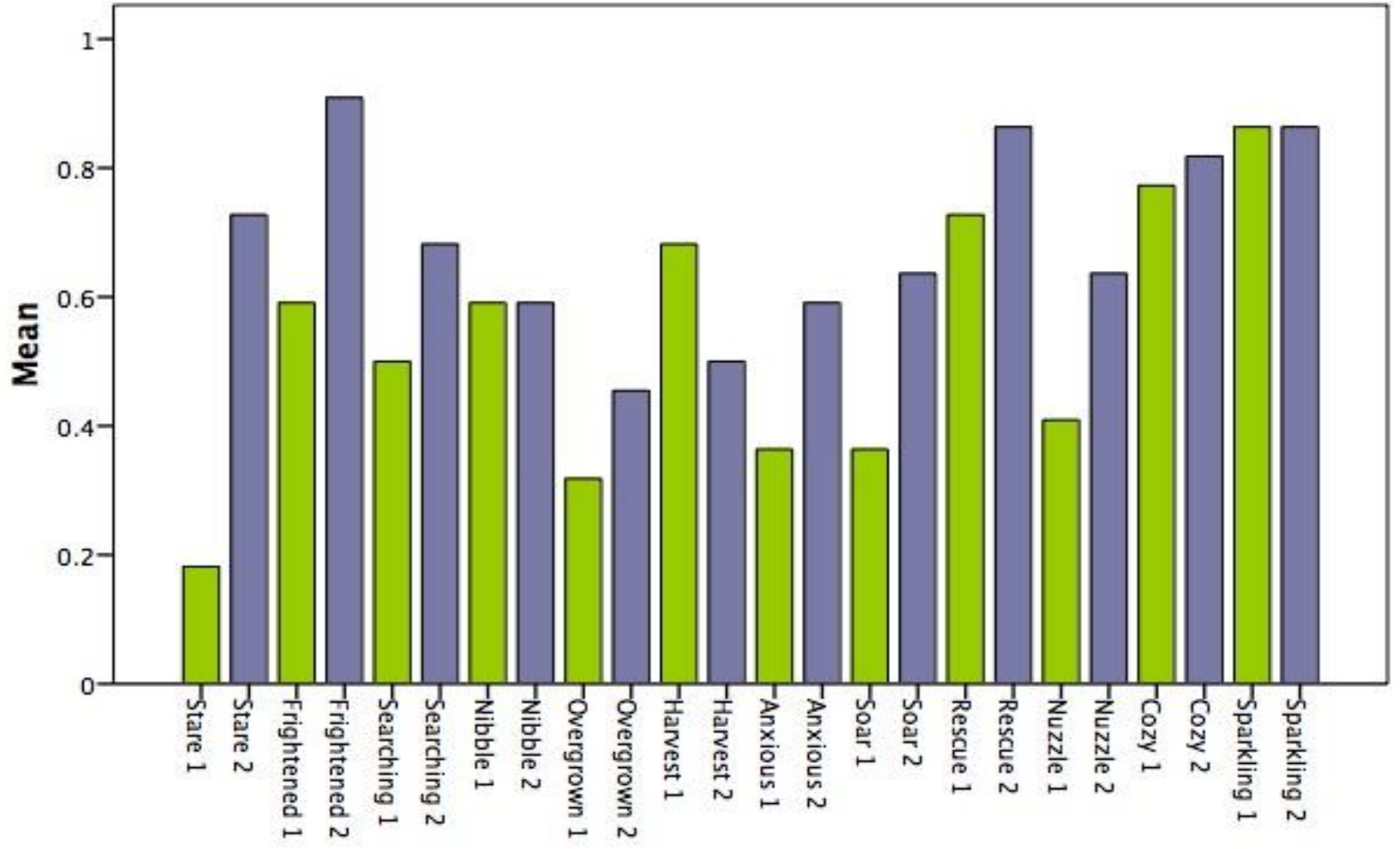
- While there were no significant differences found on the standardized assessments between the intervention and control students:
  - All but one student in the intervention condition made gains in key word recognition, while only half of the control students demonstrated gains
  - The intervention students showed large gains in the measure of word depth on the KLS Target Assessment, while the control students did not
- This pattern indicates the potential for this intervention to increase word understanding and use of the target vocabulary words



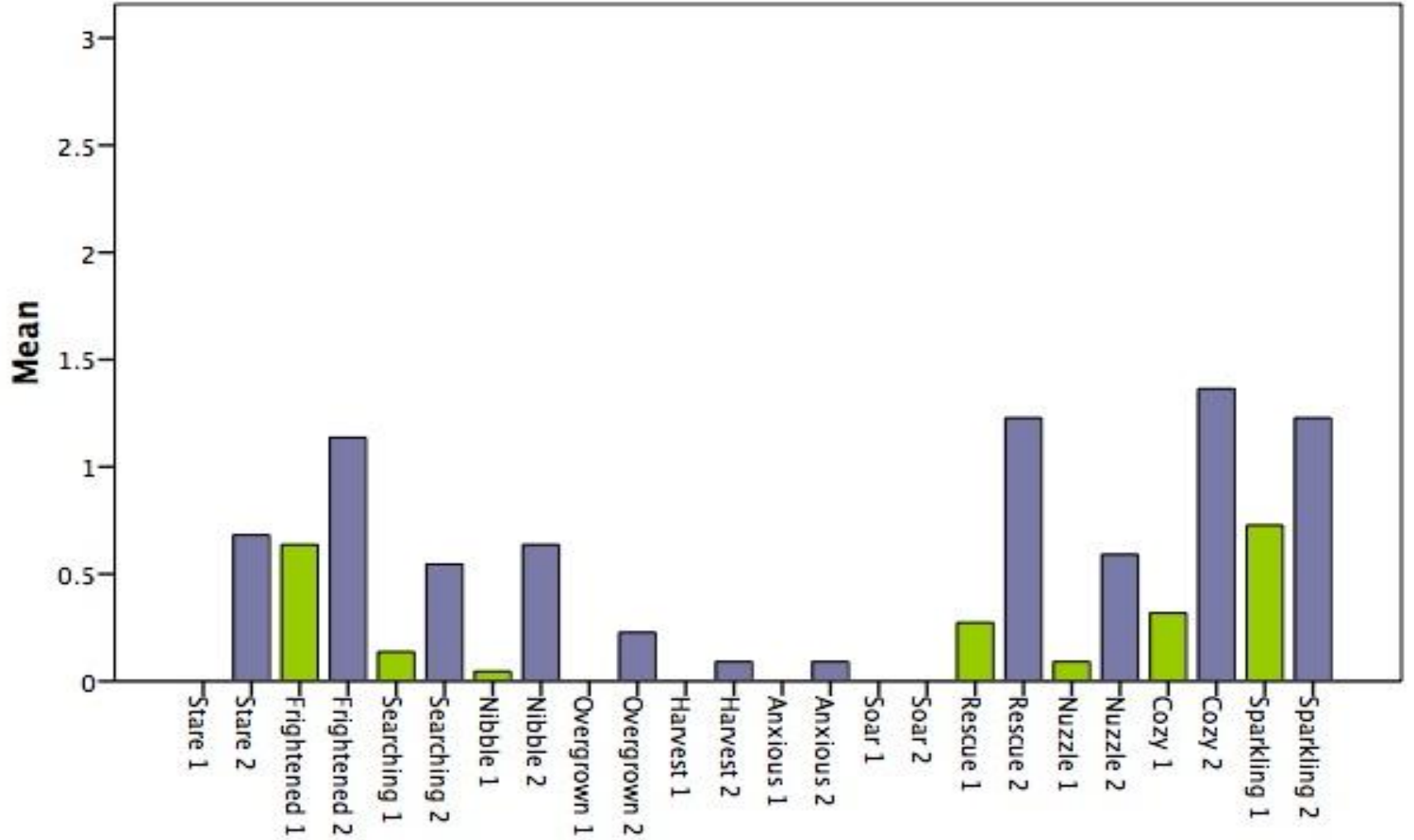
## Basic Word Recognition



## Key Word Recognition



## Key Word Depth



## Findings: Family Literacy Practices

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- Parents eagerly seek support to use Spanish at home
- Evidence indicates that parents have increased the frequency of parent-child reading
  - 33% of participants read in Spanish with their children once a week at the start of the intervention
  - 100% of participants read in Spanish with their children at least once a week and 88% of the parents read daily after the intervention
- Additionally, each intervention book was read multiple times by the families in the intervention

## Quote from a Participating Parent

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“Aprendimos mucho de ser actividades con los niños. Esta muy bien porque...una mejor idea de cómo ayudar a los niños. Aprendimos bastante de lo que no sabíamos: las estrategias, dibujos, las palabras.” *Vilma*

“We learned a lot about doing activities with the kids. It was very good because it is a better way of helping the kids. We learned a lot about what we didn't know: the strategies, pictures, words.”

## Quote from a Participating Parent

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“Leímos muchos y hemos jugado y nos divertimos. El tiempo los pasamos mejor. No quieren parar de leer.” *Vilma*

“We read a lot and we played, and we had fun together. Our time was better spent. They didn’t want to stop reading.”

## Findings: School Literacy Practices

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- Classroom teachers found the intervention books effective instructional tools for vocabulary development
- The classroom teachers reported the benefits of:
  - Kindergarten-friendly definitions
  - Visual support for vocabulary development
  - Multimodal approach to instruction
- The principals were also enthusiastic for the intervention, both observed classroom lessons and one participated in the parent workshops

## Next Steps

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- This current year has consisted of implementation of this intervention on a larger scale, including 8 intervention and 8 control classrooms
- The short-term effects of the program will be evaluated this summer at conclusion of data collection
- In the next two years, these students will be followed through 2<sup>nd</sup> grade to examine long-term effects of the intervention program on the school, family, and student



# Acknowledgements

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