An Assessment of Early Literacy Skills and Effects Associated with Raising A Reader

SAN FRANCISCO COUNTY 2003

United Way of the Bay Area
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An Assessment of Early Literacy Skills and the Effects Associated with Raising A Reader in San Francisco County 2003

San Francisco County,

California

2003

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I. Acknowledgements

The Raising A Reader Assessment Project would not have been possible without the help of many people. In particular, Applied Survey Research would like to acknowledge the invaluable support of the following:

- The generous support of the Stuart Foundation for funding the study.
- Rebecca Randall, Program Officer of Education at United Way of the Bay Area, for her clarity and vision for a rigorous study of the Raising A Reader program.
- Janell Flores, Director of San Francisco Raising A Reader program, for her outstanding, dedicated, careful and sensitive support.
- Raising A Reader sites for their warmth, willingness and commitment to their children and to this study.
- Other child development centers that agreed to participate in this study, for their gracious welcome and dedication to improving the lives of all San Francisco children.
- The study's assessors, Jenn Bowman and Jessica Hewit, for their expertise, sensitivity and extraordinary ability to interact with children.

II. Executive Summary

In 2003, the United Way of the Bay Area, with the generous support of the Stuart Foundation, commissioned an assessment of children's early literacy skills and the effects associated with the Raising A Reader (RAR) program in San Francisco, California. Raising A Reader is a program designed to encourage parents to read to their young children so that children develop pre-literacy skills and a love of reading. Raising A Reader offers high quality books, bright red book bags, and teacher and parent training at no cost to child care and family day care centers in San Francisco. The study assessed local children's knowledge of books and whether children who participated in the Raising A Reader program had stronger pre-literacy skills than children who had not participated in the program. Applied Survey Research (ASR), a nonprofit social research firm with over two decades of assessment and evaluation experience, was hired to conduct the assessment.

ASR researched existing state and national-level instruments that assessed children's pre-literacy skills, and chose the Head Start Family and Child Experiences Survey (FACES) developed for Head Start and the United States Department of Health and Human Services by WESTAT, a national evaluation firm. The FACES tool had also been used in Raising A Reader assessments in San Mateo and Santa Clara County studies. The FACES tool tests three key areas including print concepts, story comprehension, and book knowledge. A trained assessor administers the FACES tool by sitting with children individually and reading them a story while asking them questions about the story.

In July and August 2003, ASR assessed 214 students in 11 child care centers in San Francisco County. One hundred and five children were in Raising A Reader classrooms and a similar comparison sample of ninety-seven children were in child development centers (CDC) without the Raising A Reader program. Twelve children were in a pilot Raising A Reader site that began in the fall of 2001. The pilot site, however, was not associated with the San Francisco Raising A Reader program and did not have the same level of training and follow up as the Raising A Reader cohort. Findings will focus on the two larger cohorts of children who had the Raising A Reader program and other CDC sites without the program.

The Head Start FACES tool is comprised of three sub scales, including pre-reading, comprehension and book knowledge. The findings below are presented for each of the subscales or "categories" followed by overall aggregate scores across the subscales.

Early Literacy Scores By Category

Pre-reading: The pre-reading section evaluates whether a child knows the difference between letters and pictures and how English is read from left to right and top to bottom.

- The Raising A Reader sample scored 66% higher in pre-reading than children in other child development centers. When pre-reading scores were adjusted for slight demographic differences between the two groups, Raising A Reader children scored 58% higher than other CDC children.
- When scores are adjusted by demographics and excluding the highest performing school (a non-Raising A Reader school), Raising A Reader children scored 123% higher than other CDC children.

Comprehension: The comprehension section evaluates whether a child understands the feelings of the main character and the content of the story.

- The Raising A Reader children scored 22% higher in comprehension than children in other child development sites. When the scores were adjusted for demographic differences, Raising A Reader children scored 27% higher than children without the program.

Book Knowledge: The book knowledge section assesses whether a child knows the front versus the back of the book, how to open a book to the first page to read, where the title of the book is located and what an author does.

- The Raising A Reader children scored 9% higher in book knowledge than children without the program. When the scores were adjusted for demographic differences, Raising A Reader children scored 16% higher than the other children.

Early Overall Literacy Scores

- Raising A Reader children had 20% higher raw mean scores on the FACES assessment than children who did not participate in the program. The Raising A Reader children had an adjusted mean score of 26% higher than children without the program.
- Raising A Reader mean scores were 43% higher than non-Raising A Reader mean scores, when the highest performing school in the study (a non-Raising A Reader school) was excluded due to its unique focus on pre-literacy.

Whether the data is analyzed in terms of raw mean scores or adjusted scores, the Raising A Reader children performed better on the early literacy assessment than children who had not participated in the program. On the individual subscales, Raising A Reader children had substantially higher pre-reading skills, more story comprehension and more book knowledge than children who had not participated in the program.

Raising A Reader Students as Compared to Students in National Head Start Studies

When Raising A Reader children are compared to Head Start children from a national sample, Raising A Reader children scored much higher in several areas:

- Raising A Reader four-year-old children scored 55% higher in book knowledge than Head Start children.
- Raising A Reader five-year-olds scored 69% higher in pre-reading and 59% higher in book knowledge than Head Start five-year-old or older children.
- The entire sample of San Francisco four-year-old children, including Raising A Reader, the pilot program and those without the program scored 44% higher in book knowledge than did the Head Start four-year-old children.
- The San Francisco five-year-olds scored 53% higher in pre-reading and 59% higher in book knowledge than the Head Start five-year-old or older children.

Parent Reading Practices

A Parent Survey was also administered to parents of children in the Raising A Reader program at the beginning of the program and at the end of the school year. The survey asked a range of questions about parental reading behaviors and library usage. Parent pre- and post-surveys were collected from sixty-two parents of the 105 Raising A Reader children; surveys were only included if both pre- and post-surveys were collected and if they could be directly associated to each child assessed in this study.

Parents were positively impacted by the Raising A Reader program:

- The Parent Survey showed a dramatic increase in the percentage of parents who read to their child five or more times a week, from 7% in the pre-survey to 37% in the post-survey, an increase of 471%.
- There was a large increase for English speaking parents who reportedly read to their children five or more times a week from 13% in the pre-survey to 62% in the post-survey. Spanish and Cantonese speaking parents did not experience the same level of increases in reading five or more times a week to their children.
- There was a large increase for Cantonese speaking parents who reportedly read to their children three or more times a week, from 28% in the pre-survey to 65% in the post-survey, a difference of over 135%.

- More than 33% of Spanish speakers read to their children three or more times a week in the pre-survey, increasing to 75% in the post-survey. However, the number of Spanish speaking parents was too small to determine if this was a statistically significant finding.

- Before the Raising A Reader program, slightly more than 44% of parents never took their children to the library. After exposure to the Raising A Reader program, fewer than 21% reported that they never took their children to the library.

Summary

In the study, Raising A Reader children were found to have significantly higher pre-literacy scores than children who had not participated in the program. When scores were adjusted for slight demographic differences between the two groups, Raising A Reader children had 58% higher pre-reading scores, 27% higher story comprehension scores, and 16% higher book knowledge scores than children without the program. Furthermore, parents of children in the Raising A Reader program exhibited significant increases in their frequency of reading to their children and the value they placed upon reading and sharing books with their children.

III. Introduction

"The single most important activity for building knowledge for their eventual success in reading is reading aloud to children" (Becoming a Nation of Readers, a report by the Commission on Reading, 1985)

1. The Importance of Early Literacy — The Research Context

Pre-school age children who have early literacy skills such as letter recognition, word knowledge, and phonemic awareness (the conscious awareness that speech includes sounds, syllables and spoken words) have been shown to be more successful in later school achievement, especially in the areas of reading and oral language skills.[1] According to the University of Michigan's School of Education, the two most powerful predictors of later reading success are letter-name knowledge and phonemic awareness.[2]

It is crucial for young children to have literacy experiences prior to entering school, because "failing to give children literacy experiences until they are school age can severely limit the reading and writing levels they ultimately attain".[3]

A. The Importance of Parents Reading to Children

Children who are prepared to learn to read when they enter school have already developed key print concepts. According to the University of Michigan, one very important way for children to develop print concepts is for their parents and family members to read to them; "Joint book reading with family members helps children develop a wide range of knowledge that supports them in school-based reading".[4] Parent-child book reading also contributes to the development of children who learn to read at an early age.[5] Early readers come from homes where parents read to them regularly and where there are many books available.[6]

When parents read to their children more frequently, their children's vocabulary and language abilities improve. Daily reading is especially linked to higher child vocabulary. Lower income parents and Head Start parents, however, tend to read less frequently to their children than the general United States

[1] Horn and Packard, 1985; Snow et al., 1995; Pianta and McCoy, 1997, as cited in the United States Department of Health and Human Services. January 2001. *Head Start FACES Research, Longitudinal Findings on Program Performance, Third Progress Report.*.

[2] Center for the Improvement of Early Reading Achievement. 1998. *Improving the Reading Achievement of America's Children*. University of Michigan.

[3] A Joint Position of the International Reading Association and the National Association for the Education of Young Children. May 1998. *Learning to Read and Write*.

[4] Center for the Improvement of Early Reading Achievement. 1998. *Improving the Reading Achievement of America's Children*. University of Michigan.

[5] Clark, M.M. 1975. *Young Fluent Readers*. Portsmouth, NH: Heinemann.

[6] Bus, Van Ijzendoorn and Pelligrini, 1995; Clark, 1976, 1984; Lancy, Draper and Boyce, 1989; Morrow, 1983; Teale, 1978, as cited in Andrea DeBruin-Parecki's *Assessing Adult/Child Storybook Reading*, University of Northern Iowa, page 2; Dickisnon, D.K., McCabe, A., Anastasoulos, L., *A Framework for Examining Book Reading in Early Childhood Classrooms*. In CIERA Report, February 18, 2002. University of Michigan.

population of parents. In the fall of 1997, at the entrance to the Head Start program, 38.3% of Head Start parents reportedly read to their children everyday, 28.7% read at least three times a week, 26.1% read once or twice a week and 6.9% never read to their children[7]. According to the 1999 National Household Education Survey (NHES), the general population reported reading more frequently to their children: over half (52.8%) read to their children on a daily basis, 28.2% read at least three times a week, 15.6% read once or twice a week and 3.4% never read to their children[8].

Another study showed that lower income families and families from different cultural backgrounds shared books with their children with less frequency than middle class and Caucasian families. The study showed that Caucasian parents read more often to their children and they themselves read more than did parents from low-income African-American and Mexican-American families. The researchers found, however, that some low-income children, regardless of their background, did have considerable experience with literacy before they entered school and they were able to do well in school. [9]

2. Raising A Reader Project Description

The purpose of the Raising A Reader program is to encourage parents to read to their young children so that children develop pre-literacy skills and a love of reading. Raising A Reader is provided to children from birth to five years old.

The program has been operating in 25 sites, 9 states and 3 countries. There are numerous new sites in additional states that will be starting the Raising A Reader program shortly. In the greater San Francisco Bay area, Raising A Reader has been operating in Alameda, Contra Costa, Santa Clara, San Mateo, Sonoma and Napa counties. The program also exists in Monterey, Mono, Orange, Placer, Riverside, San Joaquin, San Diego and Tuolomne counties in California and in the states of Florida, Georgia, Hawaii, Kansas, South Dakota, Tennessee, Virginia and Washington. In 2002, the San Francisco-based Bella Vista Foundation (formerly the Kirkwood Foundation) started the program in San Francisco and originally located the program at the Children's Council. Janell Flores, the former Associate Director of Children's Education at the Zeum Art and Technology Center in San Francisco, is the Project Director of Raising A Reader. In July of 2003, the program was moved to the United Way of the Bay Area and is now part of their Early Child Initiative and Success by 6 program.

The program is implemented in San Francisco through a variety of settings, including child care centers and family child care environments. Each site is provided with special bright red book bags and a set of

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[7] United States Department of Health and Human Services. January 2001. *Head Start FACES: Longitudinal Findings on Program Performance, Third Progress Report*, pages 36-37.
[8] The National Household Education Survey, a randomized sample of over 20,000 interviews in 1999. As cited in *Head Start Faces Longitudinal Findings on Program Performance, Third Progress Report.*
[9] Anderson, A. B., Teale, W.H., and Estrada, E. (1980). *Low Income Preschool Literacy Experiences: Some Naturalistic Observations.* The Quarterly Newsletter of the Laboratory of Comparative Human Cognition, 2 (3), 59-65.

high-quality, interesting, multi-cultural books to rotate among the families. Typically a child gets four new books each week. Classrooms also receive bright red wall charts to track the circulation of the book bags. Every child in the program receives a blue library bag and local San Francisco libraries are encouraged to provide incentives such as bookmarks or stickers to children who come with their blue book bags. An award winning video called "Read Aloud" is available in eight languages and with closed captions for parents. The video describes how parents can read to their young children. The video also has a section describing how parents with limited literacy can still share books with their children.

The director of Raising A Reader provides monthly site visits to child care and family child care centers and training to child care staff to help them develop literacy skills in the families they serve. The director uses the site visits as an opportunity to read aloud to the children. In addition to training, teachers are provided with a teacher guide, teacher video, an idea book, advanced curriculum and updated materials. The Raising A Reader director also provides workshops for parents on how to share the program with their children.

The San Francisco Raising A Reader program was offered to preschools in San Francisco that had populations with selected demographic characteristics such as low income children (at least 25%) and English Learners. Preschools were selected via lottery because more preschools applied for the program than resources allowed. All children in the selected preschools participate in Raising A Reader.

Raising A Reader has received generous contributions from several different foundations including the Bella Vista Foundation, the United Way of the Bay Area, the Bank of America Foundation/United Way of America, the San Francisco Foundation and the Stuart Foundation.

Raising A Reader has a Community Advisory Committee with representatives of local organizations such as the San Francisco Public Library, Friends of St. Francis CDC, the Bella Vista Foundation, ABC/Read to Me, United Way, the Children's Council, San Francisco Children and Families Commission, and KQED's Ready to Learn program. The local partners provide program, outreach and financial support. For example, the representative of the San Francisco Public Library promotes Raising A Reader at monthly librarian meetings and ensures that library information is included in Raising A Reader outreach materials. Other committee representatives provide insight into how Raising A Reader operates in the classroom. Committee members from the Children's Council have helped to identify and recruit potential Raising A Reader sites. The Bella Vista Foundation helped to launch Raising A Reader and is still involved in the Community Advisory Committee and on-going fund raising. The United Way has been especially instrumental in soliciting and securing funding.

The Raising A Reader program was launched in San Francisco in October 2002 with approximately 1,200 students in 47 classrooms. By the fall of 2003, the program served approximately 2,000 children in 88 classrooms. In addition to the Raising A Reader program that was launched in October 2002, a pilot project of Raising A Reader had started in the fall of 2001 with 13 school sites. The pilot Raising A Reader project, however, was not associated with the new San Francisco Raising A Reader program and the pilot sites did not receive the extensive training and follow up as the Raising A Reader sites launched in October 2002.

3. Purpose of the Study

The primary purpose of this assessment was to evaluate the early literacy skills of four- and five-year-old children in San Francisco and the impact of the Raising A Reader program on the early literacy skills of those children. Research questions included:

- What are the overall pre-literacy skills of four- and five-year-old children in San Francisco?
- What is the impact of Raising A Reader on children's literacy?
- Do children's scores vary by ethnicity, special needs, English Learner status and other demographic variables?
- Do parents evidence changes in their reading habits as a result of participation in the Raising A Reader program?
- How do San Francisco children compare to Head Start children across the nation?

The methods to obtain information to answer these questions are described in the following section on methodology.

IV. Methodology

Research Design

The primary purpose of this assessment was to evaluate the early literacy skills of four- and five-year-old children in San Francisco and the impact of the Raising A Reader program on the early literacy skills of young children. There were two components to the study: a child assessment using the Head Start Family and Child Experiences Study (FACES) tool and a Parent Survey.

The ASR assessment team was hired after the 2002 Raising A Reader program had been launched; therefore, a quasi-experimental design assessing changes pre- and post-intervention relative to a comparison cohort was not possible. Instead, the evaluation utilized a design that assessed the children after at least six months of enrollment in the Raising A Reader Program compared to a demographically similar cohort of children who did not receive the Raising A Reader Program at their school. For purposes of this study, ASR refers to children in the Raising A Reader Program as the cohort called "Raising A Reader Child Development Center" or "Raising A Reader CDC", versus "Other Child Development Centers" or "non-Raising A Reader CDC", where children do not participate in the Raising A Reader program.

Instruments and Administration

ASR reviewed many state and national-level instruments and chose the Head Start FACES tool developed for the federal office of Administration on Children, Youth and Families at the United States Department of Health and Human Services to evaluate Head Start programs across the country. The FACES tool was designed for the Head Start program and created by WESTAT, a national evaluation research firm. Gary Resnick of WESTAT gave permission to Raising A Reader to use the FACES tool for assessment purposes. The FACES tool had also been used in Raising A Reader assessments in San Mateo and Santa Clara County studies. The portion of the FACES tool known as the Spring 1998 Story and Print Concepts test was used in the current study. This portion tests three key variables: print concepts, story comprehension and book knowledge.

The Spanish version of the FACES tool and the storybook in Spanish were also provided to ASR from WESTAT. Both the story and the instrument in Spanish had been widely researched, tested and approved by WESTAT. WESTAT did not have a FACES instrument in Cantonese and WESTAT discouraged ASR from translating the tool and story into Cantonese because a Cantonese version would have necessitated extensive research to determine whether it tested the appropriate levels of knowledge for a four- and five-

year-old child in the Cantonese language. Furthermore, it would not have been tested by a national sample and would not, therefore, have the same level of reliability or the benefit of national norms.

The research design required an instrument sensitive enough to detect patterns across different types of students. Therefore, the unit of assessment was the student, not the class. The FACES tool was appropriate as it was designed for assessment of individual students. ASR consulted with Gary Resnick about administration of the FACES tool in English and Spanish to ensure that the tool was administered according to the national standards.

The mode of assessment was individual assessment of children by trained assessors. An assessor sat with each child individually and read them a book called "Where's My Teddy" by Jez Alborough. The story and FACES tool were offered in both English and Spanish depending on the language ability of the child. During the story, the assessor asked the child a series of questions including: "Show me the front of the book; Now open it up for us to read; Point to where I should start to read; Where do I read here? Can you read this part to me?" Other questions in the FACES survey pertain to what happens during the story, the feeling of the main character, and rhymes embedded in the story.

The assessment form captured demographic information that was provided by the teacher or the site director. These data were collected to ensure that the Raising A Reader study sample mirrored the non-Raising A Reader study sample, and second, to capture key demographic variables that have been shown by other research to be associated with children's development, such as age, gender, ethnicity, presence of special needs, and primary language/English proficiency. There are other demographic characteristics that ideally would have been included in the assessment, such as parent education level, but the range of variables included in the assessment were limited to the information available to the assessors who conducted the surveys and by the amount, type and accessibility of information collected by schools.

The research with students was designed to adhere to the highest research standards. For instance, student's names were not indicated on the form; instead, the researchers used child identifiers, such as initials and birthdates. These identifiers enabled the research team to communicate about particular assessment forms with assessors or teachers if there was missing or illegible information, without compromising students' anonymity in the study. Active consent was obtained from each child's parent or guardian in order for the child to be included in this study. Consent forms were printed in English, Spanish and Cantonese.

The study also benefited by the availability of parent survey data. Independent of ASR's research, Raising A Reader asks participating parents to complete a Parent Survey at the beginning of the program and at the end of the school year. SRI International designed the Parent Survey. Data is only available for the Raising A Reader sites because neither the non-Raising A Reader school sites, nor the pilot Raising A Reader site had a Parent Survey. The survey includes several questions to assess whether parents experienced a change in their reading practices to enhance early literacy skills. These include how often an

adult reads to their child, whether there is a regular reading routine, the perceived importance of reading, and the number of visits to the library. The survey also accounts for demographic variables such as the primary language at home and the language the parent feels most comfortable in sharing books. Parent survey data were included in this study only if both a pre- and post-Parent Survey were collected. A total of 62 parents of children assessed completed both a pre- and post-Parent Survey.

Sample Selection

The next step of the study involved selecting a sample of students to be assessed. The Raising A Reader target population was low-income four- and five-year-old children from diverse ethnic and linguistic backgrounds who attended full day, full year child care programs in San Francisco, California. The study's goal was to assess early literacy skills amongst the target population, comparing children who participated in the Raising A Reader program treatment group to a comparison group of children who did not receive the program.

Raising A Reader was launched in San Francisco in October 2002 with a cohort of approximately 1,200 children and 47 classrooms. Raising A Reader is offered both to child care centers and family child care homes but for the purposes of this study, only child care centers were used. There were six full day, full year[10], center-based Raising A Reader Programs in San Francisco including two Head Start programs. Raising A Reader and United Way of the Bay Area had included the Head Start programs in the initial sample of both Raising A Reader sites and non-Raising A Reader sites. Applied Survey Research contacted several individual Head Start programs who were interested in being included in the study but the Head Start Association chose not to participate in the study due to their concerns about the impact of the study on teacher responsibilities and class time. Head Start was in the process of gearing up for its own federally mandated study of all four-year-old children across the nation. The two Head Start Raising A Reader centers were, therefore, excluded in the study which necessitated that Head Start programs also be excluded from the sample of non-Raising A Reader sites. Without the Head Start programs, the Raising A Reader sample included four child care sites.

Applied Survey Research chose to sample the entire population of four- and five-year-old children in those four Raising A Reader sites rather than taking a representative sample of children. Children with special needs were included in the study so that the results would reflect the actual composition of contemporary child care settings. All of the schools served children from low income families. Three of the schools were California Department of Education State funded child care sites. The California Department of Education through the Child Development Division (CDD) provides subsidized child care to low income families. CDD funding also serves as a good proxy for program quality because state funded sites have higher

[10] All of the sites were considered full day, full year Raising A Reader sites but after the assessors entered the classroom in July 2003, they discovered that one site and one classroom from another site had just stopped the Raising Reader program for the summer. According to those teachers, it was more difficult to maintain the consistency of distributing and collecting book bags given the transition of kids in and out of the centers and the vacation schedules of the children.

teacher qualification requirements, higher curriculum standards, and a strict teacher to student ratio so that children receive more teacher attention. The fourth Raising A Reader site was a private child care center that served low income families.

During ASR visits to the child development programs, the site directors approximated the number of four- and five-year-old children in those schools at 103. The actual number of children assessed at the sites numbered 108. Several other children were not assessed because they were too new to the program (eight children were in attendance for less than six months), three children were sick for an extended period, and approximately ten children had recently left the Child Development Centers. The Raising A Reader schools were located in each of the following districts of San Francisco: the outer Mission, the Excelsior, Visitation Valley and the Tenderloin.

In order to assess the efficacy of the Raising A Reader program, a similar sample of children who did not participate in the Raising A Reader program was chosen to be included in the study. The non-Raising A Reader cohort was carefully selected to match the ethnicity, income, geography, special needs and program characteristics of the treatment group. To select a treatment and a comparison sample, Applied Survey Research and the Raising A Reader staff worked with the Children's Council of San Francisco to ascertain which San Francisco child care centers were full day, full year, low income sites that served four- and five-year-old children from diverse backgrounds.

The sample size for non-Raising A Reader sites included six child care centers. Five of the six comparison sites were CDD funded and provided subsidized care to low income families. One of the child care centers chosen for inclusion in the study did not receive state subsidies, but served low income families. To match the geographic distribution of Raising A Reader sites, comparison sites were located in the Outer Mission and adjoining Lakeview District, the Excelsior District, and two sites in Visitation Valley. No comparable sites were available in the Tenderloin; therefore, a child care center was chosen in the adjoining Mission District.

The site directors for the comparison schools approximated the number of children at 117. Approximately 14 of those estimated 117 children turned out to be three-year-old children who were excluded from the study due to their young age. Approximately three children were sick or absent, two were on vacation, one was too upset to take the assessment, and several had recently left the centers. In all, the total number of sampled children at Child Development Centers without the Raising A Reader program was ninety-seven.

In searching for comparison sites, ASR learned that there were "pilot" Raising A Reader sites in San Francisco that were not affiliated with the current Raising A Reader program. The pilot Raising A Reader program was launched in 13 child care centers in the fall of 2001. Pilot sites received books and book bags but they did not receive on-going teacher training, parent training, or follow up. Because they represent a population with a smaller dosage of the Raising A Reader program, ASR decided to include one pilot site

in the study as a third cohort. The pilot site included twelve children and was located in the Western Addition.

All families of children in the selected sites were given consent forms printed in English, Spanish and Cantonese. The consent forms explained the nature of the study, the anonymity of the data and the incentive of a free book for every child who participated in the study. Parental consent was required for every child prior to the assessment.

Implementation

Assessors

ASR hired two assessors to conduct the actual assessments with the children at the child care centers. Both assessors had extensive hands-on experience with pre-school and school age children in the classroom and/or in community organizations focused on the education of children. Both assessors were undertaking Master's degrees in education. Furthermore, the assessors had experience teaching low income children from different race and ethnic groups. One assessor had fluency in Spanish and experience working with Latino children. Both had excellent interactive skills with young children.

To familiarize themselves with the survey tool and possible administrative challenges, ASR staff members conducted their own trials of the FACES tool with several four- and five-year-old children. Next, ASR conducted several training sessions with the assessors to allow them to master the survey questions, the test instructions, and general procedures used by the Head Start Association in implementation of the FACES tool around the nation. Gary Resnick of WESTAT, the creators of the Head Start FACES tool, consulted with ASR about the Head Start FACES test instructions and practices of survey implementation. Finally, ASR conducted a pilot assessment with the two assessors to ensure adherence to national test administration protocol, and inter-rater reliability. During this pilot assessment, the two assessors practiced using the FACES survey with numerous four- and five-year-old children in a family day care setting in San Francisco while ASR staff observed the process.

Recruitment of the Child Care Center Sample

During the process of hiring and training the assessors, all proposed child care centers were telephoned by staff at ASR to verify that they met the study requirements of a full day, full year, low income, diverse student body of four- and five-year-old children. Subsequent letters were sent to the sites to request their participation in the study. The letter explained the nature of the study and offered incentives to the individual programs including a free book for each child who participated in the study and a stipend for each child care center to use as they desired.

ASR then arranged individual face-to-face meetings with the site directors of each child care center. The goal of the meetings was to secure the participation of the selected sites by explaining the nature of the study, answering any questions about the study, gathering deeper knowledge of each of the centers, and introducing the assessors to the child care staff and whenever possible, to the children. At each of those meetings, there was ASR staff, including the ASR project lead on the study and the two assessors hired by ASR to conduct the child assessments, and the Director of the San Francisco Raising A Reader program or the Program Officer of Education for the United Way of the Bay Area. For several meetings, ASR's senior statistician also participated. During the visits, ASR also supplied each child care center with parental consent forms printed in English, Spanish and Cantonese. At each meeting, arrangements were made for the assessors to return to the classrooms to begin the assessments of the individual children using the Head Start FACES survey tool.

Assessments took place throughout the month of July and were completed the first week of August 2003. Surveys were completed for a total of 217 children, including 108 in the Raising A Reader program, 12 in the pilot Raising A Reader program and 97 in child care centers that did not have Raising A Reader.

Analysis

Data were entered into SPSS (Statistical Package for the Social Sciences). Before and after data entry, the data were cleaned using selected techniques to enhance data integrity. For instance, duplicate child ID numbers occurred in two cases on Parent Surveys. In one case, it was because one parent had two children in Raising A Reader and therefore only needed to fill out one Parent Survey. In a second case, the parent had twins and only filled out the Parent Survey once. In two cases, the child birth dates were incomplete so ASR contacted the teacher to determine the correct date of birth.

A mean or average score was generated for each of the demographic questions as well as the 13 content questions asked in the FACES survey. Means were also produced by topic area of book knowledge, pre-reading, and comprehension. The data was also disaggregated by whether a student was involved with Raising A Reader, not receiving Raising A Reader or receiving the pilot program.

Second, to analyze which variables had the strongest predictive relationship in pre-literacy scores, a **stepwise multiple regression analysis** was conducted.[11] Specifically, the regression analysis determines which demographic characteristics, or combination of characteristics, are predictors of students' scores. Variables included in the regression analysis were: age, school site type (Raising A Reader or not), ethnicity, presence of special needs and English Learner status.

[11] Stepwise multiple regression is used to determine which variables can be used to predict scores, and specifically, which combination of variables offer the best prediction of scores. In stepwise multiple regression, the statistical software selects predictor variables for inclusion in the analysis in the order of the amount of prediction that each variable is able to offer: the variable with the greatest amount of prediction is selected first, followed by subsequent variable(s) that have the greatest further predictive power, after consideration of the previously included variable(s).

In order to make fair comparisons between the Raising A Reader and the non-Raising A Reader cohorts, an analysis of covariance (ANCOVA) was conducted for each of the following variables: age, prior exposure to the book, presence of special needs, and English Learner status. The ANCOVA adjusted for varying demographic characteristics between two variables or cohorts being compared (i.e., the characteristics of children who participated in Raising A Reader vs. those who didn't), thereby holding constant the effect of each of the other variables in the model. After the adjustment, if no difference in scores remained, then it is reasonable to assume that the difference observed was due to the effect of the variable demographic characteristics between the two cohorts. Conversely, if there were differences between the two groups after variable demographic characteristics were held constant, then the difference between the treatment and the comparison group was likely due to the effects of the Raising A Reader treatment.

V. Findings

1. Profile of Observed Students

Ethnicity

For the entire population of children observed in this assessment, there were more boys (54%) than girls (46%). The gender breakdowns were different, however, depending in which group the child participated. There was a much higher percentage of male children in both the Pilot Raising A Reader (64% male versus 36% female) and Raising A Reader (56% male versus 44% female) programs than other Child Development Centers (51% male versus 49% female).

Teachers were asked to provide the race or ethnicity of each of the children, rather than having the assessors assume their race or ethnicity. See Figure 1 below for the percentage of children by ethnicity in the San Francisco assessment.

Figure 1 – Percentage by Ethnicity of Students in Early Literacy Assessment

	All Students in San Francisco Assessment	Raising A Reader CDC Students	Non-Raising A Reader CDC Students	Pilot Raising A Reader Students
African-American	28.6%	22.1%	34.0%	41.7%
Asian	39.0%	59.6%	16.5%	41.7%
Caucasian (White)	2.8%	4.8%	1.0%	0.0%
Latino/Hispanic	23.0%	6.7%	43.3%	0.0%
Pacific Islander	2.3%	2.9%	2.1%	0.0%
Multi-ethnic	3.8%	3.8%	3.1%	8.3%
Other	0.5%	0.0%	0.0%	8.3%
Total students	**213**	**104**	**97**	**12**

The chart above shows that for the children in the Raising A Reader program, almost 60% were Asian, 22% were African-American, 7% were Latino/Hispanic, 5% were Caucasian, 4% were Multi-ethnic and 3% were Pacific Islander. In the non-Raising A Reader Child Development programs, there were more Latino/Hispanic and African-American students at 43% and 34% respectively, and fewer Asian students at 17%.

When children in the San Francisco Assessment are compared to the overall population of similarly aged children in San Francisco, some important similarities and differences emerge. The closest reliable statistics for children of similar age come from the California Department of Education (CDE), Educational Demographics Unit. The CDE provides the frequency and percentage of Kindergarten students in public

schools by gender and ethnicity for San Francisco County. The CDE figures do not include children who attend private schools.

Figure 2 – Percentage by Ethnicity of Observed Students Compared to Overall San Francisco Public School Kindergarten Population, 2002-2003

	2003 Percent of Overall Children Observed in San Francisco Assessment	2002-2003 Kindergarten Population in San Francisco
African-American	28.6%	12.7%
Asian	39.0%	37.8%
Caucasian (White)	2.8%	9.6%
Latino/Hispanic	23.0%	25.2%
Pacific Islander	2.3%	1.5%
Multi-ethnic	3.8%	7.2% *
Other	0.5%	6%
Total students	**213**	**4,315**

Source: California Basic Educational Demographic System, 2002.

** Includes multiple and no response.*

As the chart in Figure 2 indicates, the percentage of Asian students in the San Francisco Assessment (39%) are comparable to the percentage of Asian Kindergarteners in San Francisco County public schools (38%). Similarly, the percentage of Latino/Hispanic children in the Assessment (23%) was close to the percentage of Latino/Hispanic Kindergarteners in the public schools (25%). There were, however, more African-American students in the Assessment (29%) than in the San Francisco public schools (13%). There were fewer Caucasian students in the Assessment (3%) than in San Francisco public Kindergarten classes (10%).

English Learner Status of Children Assessed

Teachers provided information to the assessors about the English language status of the children (see Figure 3). English Learners were defined as having a primary language other than English.

Figure 3 – Percentage of English Learners in Assessment Sample

	All Students in San Francisco Assessment	Raising A Reader CDC	Non-Raising A Reader CDC sites	Raising A Reader Pilot site
English Learners	56.1%	67.6%	45.4%	41.7%
Non-English Learners	43.9%	32.4%	54.6%	58.3%
Total number of students	**214**	**105**	**97**	**12**

As seen in Figure 3, there were more English Learners in the Raising A Reader programs (68%) as opposed to non-Raising A Reader CDC sites (45%).

Language of Assessments

Even though about half of the students were English learners, the majority of students were assessed in English (99%). The assessment was offered to students in both English and Spanish and the assessors worked with both the teachers and the students to determine the best language to use; only two children completed the FACES assessment in Spanish. Teachers felt that the students, whose native language was Spanish, were competent enough in English to perform the survey in English. The FACES instrument was not created in Cantonese, and could not be merely translated into Cantonese without extensive research and testing to ensure that the Cantonese version would be at an equivalent testing level to the English and Spanish versions. Furthermore, there had been no Cantonese version that had been researched, tested or approved by the National Head Start Association across the country.

Assessors, however, were asked to determine if they believed that the English Learner status of the child interfered in any way with their performance on the FACES instrument. The results are presented in Figure 4 below.

Figure 4 – Percentage of English Learners Whose English Abilities Interfered with Assessment

	All Students in San Francisco Assessment	Raising A Reader CDC sites	Non-Raising A Reader CDC sites	Raising A Reader Pilot site
Yes	18.8%	21.7%	15.8%	0.0%
No	81.3%	78.3%	84.2%	100.0%
Total number of English Learner students	**112**	**69**	**38**	**5**

According to the assessors, 22% of English Learner children in the Raising A Reader program experienced some difficulty with the English language that would have interfered with the assessment; the majority of those children (87%) were Asian and the FACES instrument was not offered in any Asian languages. The effects of English Learner status were controlled for in the analysis of children's pre-literacy abilities, as will be described in Section 2 of the Findings.

Special Needs

Teachers provided the assessors with information about the special needs of the children (see Figure 5). In some cases, assessors suspected a special need and noted this on the child's assessment form.

Figure 5 – Percentage of Children with Special Needs

	All Students in San Francisco Assessment	Raising A Reader CDC sites	Non-Raising A Reader CDC sites	Raising A Reader Pilot site
Yes	15.6%	24.0%	6.2%	20.0%
No	82.9%	76.0%	92.8%	60.0%
Not diagnosed, but suspected by assessor	1.4%	0.0%	1.0%	20.0%
Total number of students	**211**	**104**	**97**	**10**

There was a high number of children designated as having special needs by the teachers in the Raising A Reader CDC cohort (24%) as compared to 6% in other CDC programs and 20% in the pilot Raising A Reader site. One reason for the higher percentage of children with special needs in the Raising A Reader group was the existence of a special needs classroom in one Raising A Reader site. At that site, there were a total of nine children with special needs, six of whom had severe enough special needs that the assessor determined that the special needs *interfered* or *may have interfered* with the assessment. In fact, there were two additional children who participated in Raising A Reader who had special needs that may have impacted the assessments. In addition, two children in the Raising A Reader sample had such severe special needs that they were unable to complete the assessments. Those two surveys, therefore, were excluded from the overall sample. There were no children in either the non-Raising A Reader sites or the pilot Raising A Reader site who had special needs severe enough to impact the assessments. The effects of special needs status were controlled for in the analysis of children's pre-literacy abilities, as will be discussed in Section 2 of the Findings.

The majority of the special needs as described by Raising A Reader teachers were emotional / behavioral / social and depressive (60%) as compared to 17% for the other non-Raising A Reader sites. Twenty-eight percent of the Raising A Reader children with special needs had language or speech limitations as compared with 67% for non-Raising A Reader sites. Family issues included such things as homelessness, living in a shelter, the child not living with their family, and exposure to domestic violence. See Figure 6 below for a list of special needs. Some children had multiple special needs so the figure on the following page includes more responses than respondents.

Figure 6 – Percentage of Kinds of Special Needs

	All Students in San Francisco Assessment	Raising A Reader CDC sites	Non-Raising A Reader CDC sites	Raising A Reader Pilot site
Emotional / behavioral / social / depression	48.5%	60.0%	16.7%	0.0%
Language / speech	33.3%	28.0%	66.7%	0.0%
Family issues	15.2%	12.0%	33.3%	0.0%
Cognitive	9.1%	8.0%	16.7%	0.0%
Sensory	6.1%	8.0%	0.0%	0.0%
ADHD	3.0%	4.0%	0.0%	0.0%
Allergies	3.0%	0.0%	0.0%	50.0%
Asthma	3.0%	0.0%	0.0%	50.0%
Cerebral Palsy - physical only	3.0%	4.0%	0.0%	0.0%
Responses	**41**	**31**	**8**	**2**
Respondents	**33**	**25**	**6**	**2**

Prior Exposure to the "Where's My Teddy?" Book

ASR added a question to the FACES survey to determine if the children had read the book before, and if exposure to the book altered the scoring on the assessment. Some of the children in all three cohorts had previous exposure to the "Where's My Teddy?" book that was used in the FACES assessment. The assessors, however, noticed that some children said they had read the book before, but the assessors were not convinced in all cases that the child had actually read the book. There may be, therefore, some false positives on this question. Assessors were asked to probe as to the circumstances under which the child read the book, whether at home or at school in order to flesh out the child's history with the book. According to their self-reports, almost 51% of Raising A Reader children had read the book before, 20% of other CDC children had read the book and 17% of children from the pilot Raising A Reader had read the book. Prior exposure to the book was also controlled for as a covariate in the subsequent analysis (see Section 2 of the Findings).

2. Pre-literacy Scores on FACES: Pre-reading, Comprehension, and Book Knowledge

Raw and Adjusted Mean Scores

There were slight demographic differences between each of the cohorts of children that were shown to impact their overall scores on the FACES instrument. For example, older children tended to have higher scores than younger children, children with previous exposure to the book tended to have higher scores, and children with special needs had generally lower scores. A statistical procedure known as an ANCOVA, as previously described in the methodology section, was used to adjust for the demographic differences such that the adjusted mean scores reflect what would happen if the Raising A Reader and the non-Raising A Reader groups had the same range of characteristics.

The ANCOVA adjusted for age, gender, ethnicity, and prior exposure to the book. The ANCOVA also adjusted for the fact of more Asians in the Raising A Reader cohort and more African-Americans and Latinos in the non-Raising A Reader cohort. It also adjusted for special needs status which coded into three variables: 1) not having a special need, 2) having a special need, or 3) a special need that interfered with the assessment. ASR determined that English Learner status had different kinds of effects on scores. Surprisingly, children who were English Learners had better scores than non-English Learners except for some children whose English skills were apparently so poor that they interfered with their assessments. This is known as a curvilinear pattern where English Learner status is related to higher scores except for those children whose English is so poor that it related to lower scores. The ANCOVA, therefore, adjusted for those children whose English Learner status interfered with the assessment.

In this section of findings, scores are presented in two ways: 1) raw or unadjusted scores of all the children that were assessed, and 2) adjusted scores that account for the variation in age, gender, ethnicity, prior exposure to the book, special needs and English Learners whose language ability interfered with the assessment. Each figure contains both the raw mean scores and the adjusted mean scores.

Overall Pre-literacy Scores

An ASR assessor sat with each child individually and read them the book, "Where's My Teddy?" The book is about a boy named Eddie who loses his teddy bear named Freddie. Eddie goes into the woods looking for his teddy but instead finds a giant teddy bear that actually belongs to a giant brown bear. Eddie ultimately runs into the real life bear who is holding Eddie's little teddy bear. The giant bear drops the little teddy bear and picks up his own big teddy bear. Meanwhile, Eddie picks up his little teddy bear. The last page of the story shows the big bear in bed with his big teddy bear and Eddie in bed with his little teddy bear.

During the process of reading the story, the assessor asked each child a series of questions. The questions fell into one of three categories: pre-reading, comprehension, and book knowledge. An overall score was then created for all three categories combined. The overall mean score for all 214 of the children in the San Francisco Assessment was 5.43. Figure 7 below shows the overall raw mean scores and the adjusted mean scores for all children in the assessment, Raising A Reader children and children who do not have the Raising A Reader program.

Figure 7 – Raw Scores and Adjusted Mean Scores on FACES

	All Children in Assessment	Raising A Reader CDC sites	Non-Raising A Reader CDC sites
Raw mean score	5.43	5.90	4.90
Adjusted mean score	——	5.99	4.77

The children who participated in the Raising A Reader program had a 20% higher raw mean score of 5.90 on the FACES instrument as compared to children in child development centers (4.90) who did not have the Raising A Reader program. The difference of one full point between the two raw mean scores is statistically significant (p=.006)[12]. When the scores were adjusted for demographic differences, the variation between the two cohorts was even greater. Raising A Reader adjusted mean scores were 26% higher than children without the program (5.99 for Raising A Reader and 4.77 for other CDC sites), a difference of 1.22 points (p=.004). This difference is even more statistically significant, with a higher probability that the differences are actual and not due to chance. The Raising A Reader children as a cohort, therefore, scored much higher than the children who did not have the program.

Overall Mean Scores of Individual Schools

The unadjusted mean scores of individual schools within the Raising A Reader cohort were from 5.11 to 6.42. The unadjusted mean scores of individual schools that did not have the Raising A Reader program ranged along a much wider continuum from 3.19 to 7.00. The scores of Raising A Reader schools, therefore, were more clustered than the non-Raising A Reader schools.

The highest scoring school of 7.00 raised the average mean score of all the non-Raising A Reader schools. Given that one school had a score of 7.00, and that score was higher than all other schools, the school was considered an outlier. The ASR assessor interviewed teachers at that school who reported that the school had its own internal library and literacy center with books in English, Spanish and Cantonese. Based on the teacher reports, that school also had a higher overall emphasis on reading, library use and literacy activities than four other non-Raising A Reader schools. Teachers also reported that they read aloud frequently to the class and that children often played alone with books.

[12] P= probability that the observed differences are due to chance alone. In statistical terminology, if p.<.05, a difference is reported to be "statistically significant". If p>.05 and <.10, then the difference is reported to be "marginally significant".

Given that the one CDC school had a special emphasis on reading to the class, pre-literacy activities and a high score of 7.00, ASR excluded that school as an outlier and re-calculated the mean scores and adjusted mean scores of the other non-Raising A Reader sites that had a more clustered scoring pattern from 3.19 to 5.76 (Figure 8 below).

Figure 8 – Raw and Adjusted Mean Scores by Demographics and Excluding the Highest Scoring School

	Raising A Reader CDC sites	Non-Raising A Reader CDC sites
Raw mean score (without highest performing school)	5.90	4.35
Adjusted mean score (by demographics and excluding highest performing school)	6.01	4.20

The raw mean score without the highest performing school dropped from 4.90 to 4.35 for non-Raising A Reader classrooms, a difference of more than one-half point (0.55). The difference between the Raising A Reader raw mean scores (5.90) and the raw mean scores of the five remaining non-Raising A Reader schools (4.35) became even greater at 1.55. This difference is highly significant with p.‹001.

The differences are even greater for the ANCOVA-adjusted mean scores by demographics and by excluding the highest performing school with Raising A Reader at 6.01 and non-Raising A Reader at 4.20, a statistically significant difference of 1.81 points (p.‹001). When the means are adjusted by demographics and the highest performing school is excluded because of its unique focus on pre-literacy, children in Raising A Reader scored 43% higher than children in non-Raising A Reader schools. In summary, children in Raising A Reader were found to have more knowledge of books, more book comprehension and more pre-reading skills than those children without the program.

In the figures below, overall FACES scores are disaggregated by the FACES subscales of pre-reading, book knowledge and comprehension. These breakdowns can provide teachers and site directors with more specific knowledge about how children are doing in each area. The following sections include: 1 — raw scores, 2 — adjusted scores (for demographics including age, gender, exposure to the book, ethnicity, special needs, and English Learners where language ability interfered with assessment) and 3 — scores adjusted by demographics and excluding the highest performing school.

Pre-reading

The category of pre-reading scores included questions asking the child where the assessor should start to read on a particular page. In other words, whether the child knew the difference between letters and pictures and how English is read from left to right and top to bottom. The questions also determined whether the child was able to read two sections in the story and whether the child knew the concept of words that rhyme with other words.

As seen in Figure 9 below, Raising A Reader children had better knowledge than other CDC children about the difference between text and pictures and that English is read from left to right. The vast majority of children in all cohorts did not know how to read yet, but more Raising A Reader children knew how to read than other CDC children. A small number of children had mastered the art of rhyming.

Figure 9 – Raw Scores and Adjusted Mean Scores for Pre-reading (Items 4,5,6,7, and 8)

	All Children in Assessment	Raising A Reader CDC sites	Non-Raising A Reader CDC sites
Raw mean score	1.12	1.36	0.82
Adjusted mean score (adjusted by demographics)	___	1.34	0.85
Adjusted mean score (excludes highest performing school)	___	1.34	0.60

The overall mean raw score in pre-reading for all children was 1.12. The Raising A Reader cohort had a mean raw score of 1.36, which was 66% higher than the other Child Development Centers of 0.82. The difference between Raising A Reader children and other CDC children in the raw scores is statistically significant ($p=.001$).

When scores are adjusted for demographic differences, Raising A Reader children performed 58% higher in pre-reading (1.34) as compared to 0.85 for other CDC children. This difference is statistically significant with $p=.01$.

When scores are adjusted by demographics and excluding the highest performing school, Raising A Reader children scored 123% higher than other CDC children. Raising A Reader children had adjusted mean scores of 1.34 as compared to 0.60, a difference of 0.74 ($p<.001$).

Comprehension

The subscale of comprehension included two questions about how the main character Eddie was feeling when he was walking in the woods looking for his teddy bear and why the big teddy bear was more appropriate for the gigantic bear, and the little teddy bear more appropriate for the little boy.

According to Figure 10 on the following page, Raising A Reader children had a better sense of how Eddie was feeling when he was walking in the woods and why the big teddy bear was best for the gigantic bear. Raising A Reader children, therefore, had a higher degree of comprehension about the story than did the children in the other CDC sites.

Figure 10 – Comprehension Scores (Items 9 and 10 on FACES)

	All Children in Assessment	Raising A Reader CDC sites	Non-Raising A Reader CDC sites
Raw mean score	0.97	1.07	0.88
Adjusted mean score (adjusted by demographics)	____	1.05	0.83
Adjusted mean score (excludes highest performing school)	____	1.08	0.78

The overall raw mean score for all 214 children was 0.97. The Raising A Reader children scored 22% higher than children without the program. The Raising A Reader children had a raw mean score of 1.07 as compared to 0.88 for other Child Development sites. This difference is considered marginally significant with p=.086.

The scores adjusted for demographic differences were 1.05 for Raising A Reader and 0.83 for other CDC sites; the difference is not considered statistically significant. However, when scores are adjusted by demographics and exclusion of the highest performing school, then the difference between Raising A Reader (1.08) and other CDC sites (0.78) is considered marginally significant (p=.051). When scores are adjusted and the highest performing school is excluded, Raising A Reader children scored 38% higher than children without the program.

Book Knowledge

The subscale of book knowledge tests whether children know the front versus the back of a book, how to open the book to the first page to read, knowing where the title of the book is located on the front page and what an author does. Figure 11 below shows the scores for book knowledge.

Figure 11 – Book Knowledge Scores (Items 1,2,3,11 and 12 on FACES)

	All Children in Assessment	Raising A Reader CDC sites	Non-Raising A Reader CDC sites
Raw mean score	3.35	3.50	3.20
Adjusted mean score (adjusted by demographics)	____	3.59	3.10
Adjusted mean score (excludes highest performing school)	____	3.59	2.84

The overall raw mean score for book knowledge was 3.35 for all children. Raising A Reader children scored 20% higher on the raw mean score than children that did not receive the program. The Raising A Reader children had a higher score (marginally significant, p=.096) at 3.50 as compared to 3.20 for other CDC sites. The scores adjusted for demographics showed more significant differences. The Raising A Reader adjusted mean score at 3.59 was 26% higher than the CDC score of 3.10 (p=.023). The differences in adjusted mean scores excluding the highest performing school showed an even higher degree of statistical significance where Raising A Reader children scored a mean of 3.59 and other CDC children scored 2.84

(p=.002). The two adjusted scores, therefore, reveal that Raising A Reader children had significantly more book knowledge than children from other CDC sites.

3. Do Children's Early Literacy Scores Differ by Demographic Characteristics?

English Learner Status

There was one surprising finding about children who were English Learners. Common sense and most research show that English Learners are at a disadvantage in terms of literacy testing as compared to native speakers. ASR has completed several studies of children in other counties where English Learners scored lower than native English speakers in Kindergarten readiness assessments. The findings in this Early Literacy Assessment, however, showed that English Learners scored higher than native English speakers, unless the English Learners were reported to have such poor English skills that it interfered with their FACES assessment (Figure 12).

Figure 12 – Raw Mean Scores According to English Learner Status

	All Children in Assessment	Raising A Reader CDC sites	Non-Raising A Reader CDC sites
Not an English Learner	5.05	5.79	4.51
English Learner language differences did not interfere with assessment	6.22	6.59	5.74
English Learner language differences interfered with assessment	3.43	3.60	3.00

As the figure indicates, the highest mean scores (6.59) were for English Learners in Raising A Reader programs. When combining Raising A Reader and CDC children, English Learners still had higher scores at 6.22 as compared to 5.05 for native English speakers, a difference of 23%.

Ethnicity

ASR analyzed the FACES scores by the ethnicity of each child comparing the larger populations of African-American, Asian and Latino/Hispanic children in the study because the Caucasian and Pacific Islander populations were too small to be included in the ethnic comparisons with six Caucasians and five Pacific Islanders. There were no statistically significant differences between the different groups of children. Ethnicity, therefore, does not explain the differences between scores.

4. Findings from Parent Surveys

Parent Surveys were completed by Raising A Reader parents at the beginning of the program and at the end of the school year. Data is only available for the Raising A Reader sites because neither the non-Raising A Reader school sites, nor the pilot Raising A Reader site had a Parent Survey. The questionnaire included six questions: how often an adult reads with their child, whether there is a regular reading routine, the perceived importance of reading, the number of visits to the library and demographic questions such as the primary language at home and the language the parent feels most comfortable in sharing books. Data were only included in this study if there was both a pre- and post-survey such that ASR could analyze changes over the course of the Raising A Reader program school year. There were a total of 62 parents of the Raising A Reader children observed in the study that filled out pre- and post-Parent Surveys.

Reported Frequency of Reading or Sharing Books With Their Children

Parents were asked how often they read or shared a book with their child. Figure 13 below shows a range of the number of people who reported never reading to their child to those who read to their child five times a week or more.

Figure 13 – Reported Frequency of Reading or Sharing a Book with a Child

Response	Pre-Survey Percent	Post-Survey Percent	Net Change
Not at all	8.1%	1.6%	-6.5%
1-2 times/week	61.3%	27.4%	-33.9%
3-4 times/week	24.2%	33.9%	+9.7%
5 or more times/week	6.5%	37.1%	+30.6%
Total for 62 parents	100.0%	100.0%	——

Before the Raising A Reader program, 8% of parents never read to their child, and at the post-assessment in July 2003, 2% of parents never read to their child, a decrease of 7%. As can be seen in the chart, there was an increase in parents who read to their child five or more times a week, from 7% in the pre-survey to 37% in the post-survey, a statistically significant increase of 31%. This percentage of change was even higher for English speaking parents. At the pre-survey, 13% of English speaking parents read to their kids five or more times a week and this percentage increased significantly to 62% at the post-survey.

Reported Regularity of Reading or Sharing Books with Their Children

Parents were asked whether they had a regular routine for book reading or sharing books. In the pre-survey, 66% of parents said they had a regular routine as compared to 87% in the post-survey, a statistically significant net increase of 21%.

Perceived Importance of Reading and Sharing Books with Their Children

Parents were asked to rate the importance of reading and sharing books with their child, on a scale from 1-10, with one being not at all important and 10 being very important (see Figure 14).

Figure 14 – Perceived Importance of Reading and Sharing Books with Child

Response	Pre-Survey Percent	Post-Survey Percent
1 - Not at all important	1.7 %	0.0%
2	1.7%	0.0%
3	3.3%	0.0%
4	1.7%	0.0%
5	8.3%	1.7%
6	0.0%	0.0%
7	5.0%	1.7%
8	10.0%	6.7%
9	11.7%	13.3%
10 - Very important	56.7%	76.7%
Total	100.0%	100.0%
Mean score	**8.50**	**9.60**

There was a statistically significant increase in how parents rated the importance of reading from a mean score of 8.50 in the pre-survey to 9.60 in the post-survey.

In summary, RAR parents showed strong, statistically-significant improvements in their perceptions and practices relative to developing early literacy skills in their children.

Reported Frequency of Library Visits

Parents were asked if, or how often, they took their children to the library. Figure 15 below illustrates their responses.

Figure 15 – Reported Frequency of Library Visits

Response	Pre-Survey	Post-Survey	Net Change
Not at all	44.3%	21.3%	-23.0
1-2 times/year	16.4%	23.0%	+6.6
Several times/year	21.3%	13.1%	-8.2
1-2 times/month	8.2%	27.9%	+19.7
Several times/month	9.8%	14.8%	+5.0
Total	100.0%	100.0%	——

As Figure 15 shows, before the Raising A Reader program, over 44% of parents never took their children to the library. After exposure to the Raising A Reader program, there was a statistically significant decrease in the percentage of parents who never took their children to the library.

Was there any relationship between parents' improvements in early literacy practices and their children's level of early literacy skills? To answer this question, a series of correlation analyses were conducted between parent pre- and post-scores and their children's assessment scores. First, parent and child surveys were matched by child ID. Next, several analyses were prepared, such as parents' increases from pre- to post-survey relative to children's assessment scores and parents' post-surveys compared to children's assessments. However, the results of the analyses of parent and child improvements have thus far been inconclusive.

5. Are Early Literacy Skills Mitigated by Family Factors including Race, Ethnicity and Language?

Parent Survey Findings Based on Language Spoken at Home

ASR analyzed the Parent Survey results by language of parent, including English, Spanish and Cantonese. Figure 16 below presents the reported frequency of reading to children, by language, and whether that frequency changed from pre- to post-survey.

Figure 16 – Reported Frequency of Reading or Sharing Books with Children, by Language of Parent

Frequency	English		Cantonese		Spanish	
	Pre-survey	Post- Survey	Pre-survey	Post-survey	Pre-survey	Post-survey
Not at all	2.6%	2.6%	9.8%	0.0%	8.3%	0.0%
1-2 times a week	38.5%	10.3%	62.7%	35.3%	58.3%	25.0%
3-4 times a week	46.2%	25.6%	21.6%	47.1%	16.7%	41.7%
5 or more times a week	12.8%	61.5%	5.9%	17.6%	16.7%	33.3%
Total Respondents	39 parents		51 parents		12 parents	

ASR found that in pre-surveys, 59% of English speaking parents read to their children three or more times a week. This was significantly higher than Cantonese speaking parents, 28% of whom read to their children three or more times a week. Slightly more than 33% of Spanish speakers read to their children three or more times a week, but the number of Spanish speaking parents was too small to determine significance between Spanish speakers and English and Cantonese speakers.

The Parent Survey data, therefore, shows that before Raising A Reader, Cantonese speaking parents were reading less often to their children than were English speaking parents. This confirms some of the anecdotal information from teachers (in the following pages) who said that Asian parents read less often to their children.

After exposure to the Raising A Reader program, however, there was significant growth in the reading patterns of Cantonese speakers who read three or more times a week to their child. In the pre-survey, 28% of parents read three or more times a week, but in the post-survey, 65% of Cantonese speaking parents read to their children three or more times a week, a difference of 135%.

English speaking parents showed a significant increase in the pre- and post-survey in terms of reading to their children at least five times a week. At the pre-survey, 13% of English speaking parents read to their kids five or more times a week and this percentage increased significantly to 62% at the post-survey, a difference of over 380%. Spanish and Cantonese speaking parents did not experience the same significant increases in reading five or more times a week to their children.

Parents were also asked to rate the *importance* on a scale from 1-10 of reading and sharing books with their child, with one being "not at all important" and 10 being "very important". There was a statistically significant increase in the mean score for English and Cantonese speaking parents from 9.03 for English speakers and 8.31 for Cantonese speakers in the pre-survey to 9.74 for English speakers and 9.27 for Cantonese speakers in the post-survey. The differences for Spanish speaking parents were not considered statistically significant, in part due to the low number of Spanish speaking parents who filled out pre- and post-surveys. But overall, and especially for English and Cantonese speaking parents, exposure to the Raising A Reader program helped parents to increase their perception of the value of reading and sharing books.

Parents were also asked to report the frequency with which they visited the library. There were an insufficient number of parents in the language sub-groups, however, to determine significance for the individual populations of English, Spanish or Cantonese speakers.

In summary, the data shows that English-speaking parents did read with more frequency than Cantonese speaking parents. English speakers also had a higher mean score when they rated the importance of reading and sharing books with their child.

Cultural Differences in Reading to Children—Anecdotal Information from Child Care Site Directors and Teachers

During the course of the study, ASR staff held semi-structured interviews with site directors and teachers to understand their views of their program and the population they serve. During the data collection period of this study, teachers and site directors were asked a range of questions about classroom activities, library usage, reading aloud to the class, parental reading, and barriers to pre-literacy skills. One question focused specifically on cultural difference in parental reading to children, "Do you believe there are cultural differences between parents in how often they read to their children?"

There were 21 respondents to the question of parental reading and culture but each respondent could give more than one response on how parents differed in terms of their reading to children. Six of the 21 respondents said that differences in parental reading were not based on culture or ethnicity but rather based on economic class or level of education. Five of the 21 respondents said that there were cultural differences between groups in terms of reading to children or that some cultures were more oral, but they did not specify the behavior of any particular culture. Five of the 21 respondents said that Asian parents did not read to their children as much as parents from other cultures. For example, one teacher said that African-American and Latino children responded more to books and gave their own opinions about the books. However, four of the 21 respondents said that Asian parents read more often to their children or that Asian children were more interested in reading and writing. Three of the 21 respondents said there was no difference in reading patterns between people of different cultures. Two respondents argued that a lack of available books in a particular language was a barrier for some parents in reading to their children.

Site directors and teachers had a range of viewpoints about how and why parents of different races and ethnicities differ in their reading patterns. For instance, two Asian site directors who worked at predominantly Asian schools told ASR that they believed that Asian parents in their schools read less often to their children. According to one site director, she asked her predominantly Asian parents at two different child care centers if they read to their children, and the vast majority said no. This same site director felt that many of the low income Asian families were living in such tight living conditions with multiple families, that there was no room available to set aside for reading to the children. She also suggested that the Chinese culture was historically more of an oral, rather than a written culture for many lower income Chinese families. Conversely, several teachers reported that Asian parents read more often to their children than African-American or Latino parents.

In summary, teachers had disparate perspectives on whether parental reading patterns differed by culture and language. The findings from Parent Surveys did show varied results by primary language spoken at home. For example, the Parent Survey showed that English speaking parents read to their children with more frequency than Cantonese speaking parents. One might infer, therefore, that different parental reading habits would translate into different pre-literacy abilities among children. ASR analyzed children's FACES scores based on ethnicity and race to see if there were difference among children. However, ASR found no statistically significant differences between FACES scores for African-American, Asian and Latino/Hispanic children. One conclusion may be that while parental reading practices may vary by culture, other aspects of the Raising A Reader experience may be counteracting the effect of language and culture, such as teacher practices in the classroom.

6. Differences Among Observed Classrooms

As previously discussed in the Findings Section, individual schools ranged in unadjusted mean scores on the FACES instrument from 3.19 to 7.00. The unadjusted mean scores of individual schools within the Raising A Reader cohort were from 5.11 to 6.42. The unadjusted mean scores of individual schools that did not have the Raising A Reader program ranged along a much wider continuum from 3.19 to 7.00.

ASR was prepared to find differences between school sites in terms of FACES scores. In order to collect more information about the classroom literacy activities, each ASR assessor scheduled face-to-face interviews with two teachers at each school. One assessor collected data from five schools and the other collected data from six schools and each assessor was at each school site for several days during the FACES assessment. The ASR assessor posed a range of questions to teachers including how often the teachers read aloud to the class, how often children played alone with books, the games and activities to build pre-literacy skills, public library visits, use of the Book Mobile, and other book programs. Other questions included the most effective activities to increase pre-literacy skills, the percentage of time parents spent reading to children, barriers to pre-literacy, cultural differences in reading (previously discussed in this report) and what would help the most to develop a love of reading in the child.

It is important to note that the assessors' observations and interview notes were bound to place and time; the time period of assessment may not be representative of what may have been found at other times of the year.

In general, schools that had higher scores on the FACES survey had more books, classroom libraries, and a wider variety of books including some books in multiple languages. Schools with higher FACES scores also had longer periods of teachers reading aloud to the class every week or everyday, and more time allotted for children to play with books by themselves. In some of the higher performing schools, there was a wealth of books, art stations and activities. They also tended to have more hours allotted to games and activities that build pre-literacy skills. For example, teachers listed extensive games and activities including alphabet bingo, puppet shows, rhyming, singing, syllable clapping, puzzles, bingo, storytelling and even book making. Schools with higher FACES scores also had more Book Mobile use.

The schools with lower FACES scores tended to have less organized classrooms, more unstructured playtime, and more assessor reports of classroom disruptions such as children fighting and wrestling. Schools with lower FACES scores also tended to have fewer books and less frequent reading aloud in the classroom. They also tended to have fewer pre-literacy games and activities for the children.

Almost all of the teachers told the assessors that the greatest barrier to children's pre-literacy skills was a lack of parents reading to their children and that parental reading would help children the most to develop a love of reading.

7. San Francisco Early Literacy Assessment as Compared to Head Start National Studies

The priority of the San Francisco study was to focus on local children who shared similar demographic characteristics. It was important to ASR, however, that the data from the San Francisco Early Literacy Assessment could be ultimately compared to the national data that was found in the Head Start report known as *Head Start FACES: Longitudinal Findings on Program Performance: Third Progress Report*, January 2001.

To make these comparisons, ASR ensured that the San Francisco assessments were conducted according to the national test instructions to ensure reliable data collection as well as comparability to national norms. Head Start performed a longitudinal study of 3,200 children in the Fall of 1997 and the Spring of 1998 using the FACES tool. Some caveats to local and national comparisons, however, are essential. The demographics of San Francisco are quite different from Head Start children across the country, as shown in Figure 17 below.

Figure 17 – Ethnic Composition of All Students in the Assessment as Compared to the Head Start National Sample

	San Francisco Assessment	Head Start National Study
African-American	28.6%	37%
Asian	39.0%	N/A
Caucasian (White)	2.8%	28%
Latino/Hispanic	23.0%	24%
Pacific Islander	2.3%	N/A
Multi-ethnic	3.8%	N/A
Other	0.5%	N/A
Total students	**213**	**3,156***

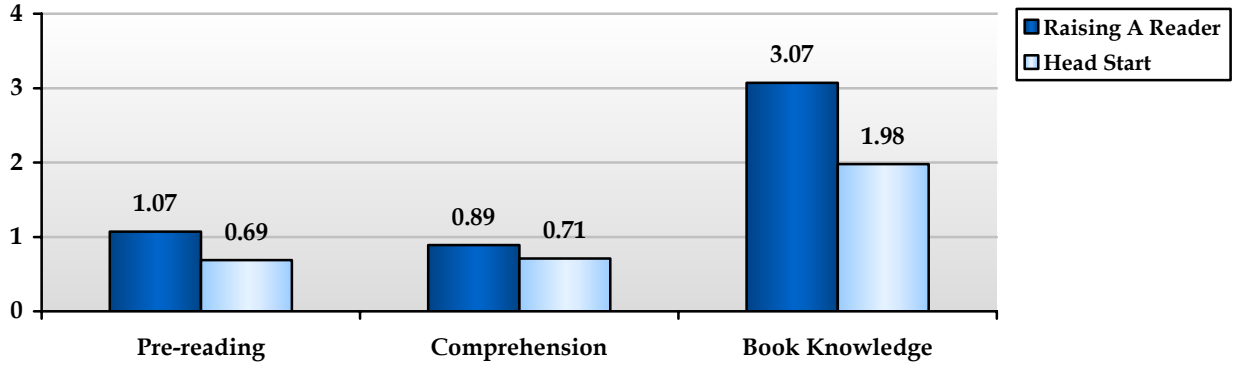
**In the Head Start FACES Longitudinal Study, there were 3,200 children in the sample but demographic data came from face-to-face interviews with parents of 3,156 children.*

There were very few Caucasian children in the San Francisco Assessment (3%) while the national Head Start sample was 28% Caucasian. Similarly, the San Francisco sample had a large number of Asian children (39%) while the Head Start study did not specify the number of Asian children. The Head Start national demographics were 37% African-American, 28% Caucasian, and 24% Hispanic. In the San Francisco sample, 29% were African-American, 23% were Latino/Hispanic, 4% were Multi-ethnic, 2% were Pacific Islander. Finally, the Head Start longitudinal study included face-to-face interviews with parents, which allowed them to collect far greater detail about the social and economic context of those families including income, level of education, and exposure to domestic violence. In other words,

comparisons between the San Francisco and national Head Start studies may offer some insight with the caveat that there are differences between the two samples.

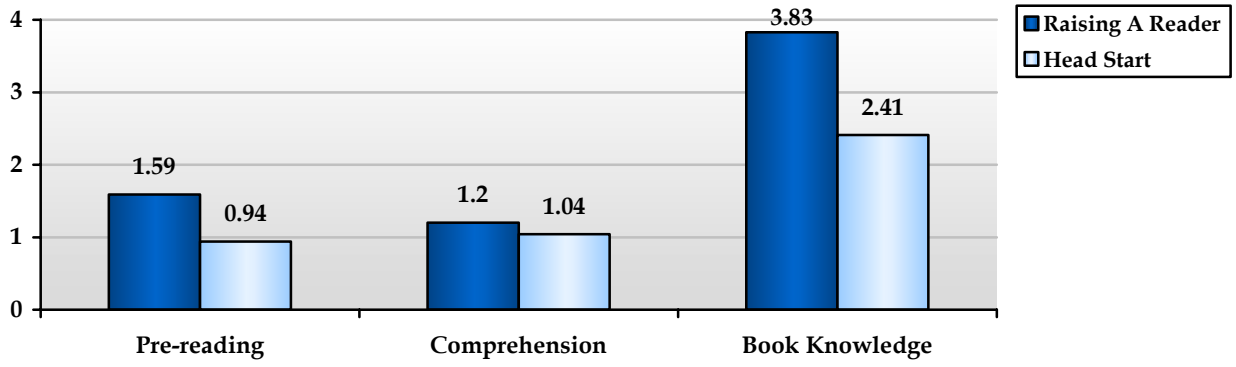
The creators of the Head Start FACES tool at WESTAT provided ASR with the Head Start national norms. Head Start children's scores were broken down by age, separating four-year-olds and five-year-olds or older. San Francisco scores are similarly presented by four- and five-year-olds but there were no children in the San Francisco Assessment who were older than five-years-old. In the Figures 18 & 19 below, Raising A Reader children are compared to Head Start children. In subsequent figures, all children in the San Francisco study are compared to the Head Start children.

Figure 18 – Comparison of Raising A Reader and Head Start *Four-year-olds*, by FACES Early Literacy subscale



The Raising A Reader four-year-old children had an adjusted mean score (3.07) in book knowledge that was 55% higher than the national Head Start four-year-old children (1.98). There were no significant differences in the other two areas of pre-reading and comprehension. The figure below compares Raising A Reader and Head Start five-year-olds.

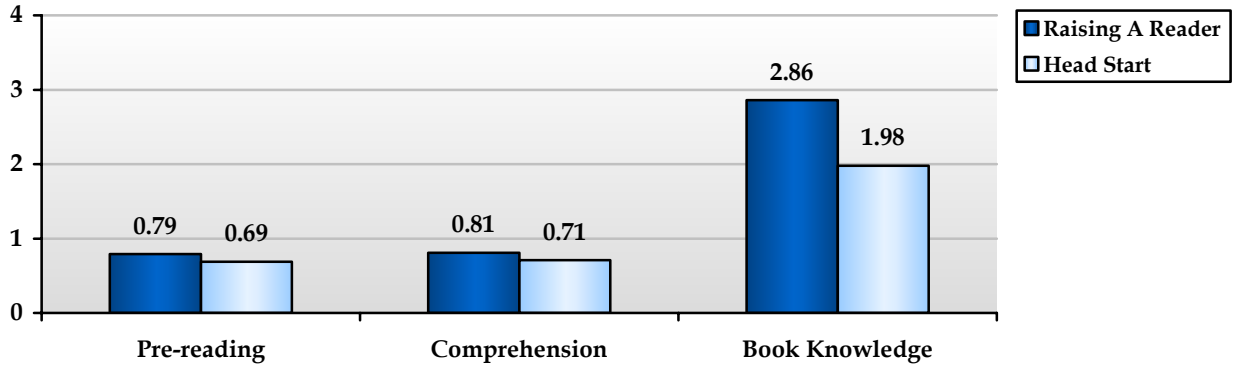
Figure 19 – Comparison of Raising A Reader and Head Start *Five-year-olds**, by FACES Early Literacy Subscale



*Head Start children were five-years-old or older while Raising A Reader children were only five-years-old.

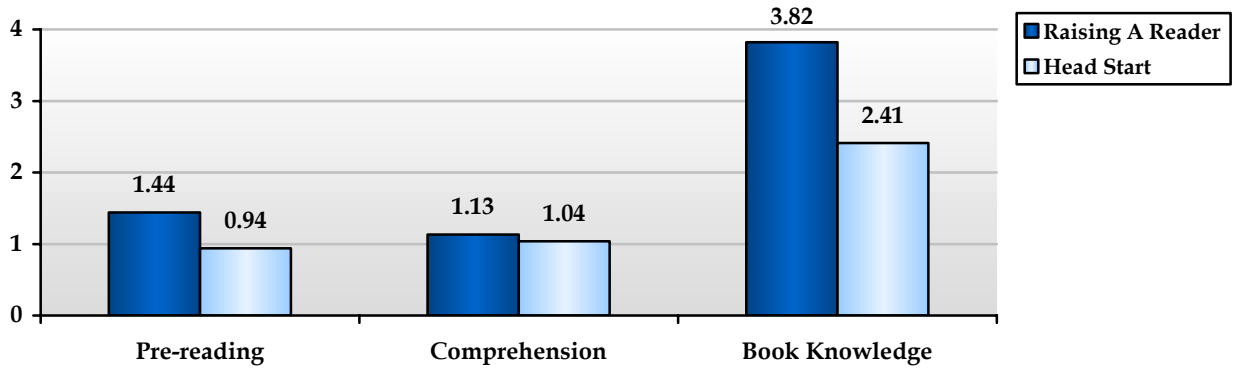
Raising A Reader five-year-old children scored significantly higher than the national Head Start five-year-old or older children in the areas of pre-reading and book knowledge ($p<.05$). In pre-reading, Raising A Reader five-year-old children scored 69% higher than Head Start five-year-old or older children. The adjusted mean score in pre-reading for Raising A Reader children was 1.59 as compared to 0.94 for Head Start children. In book knowledge, Raising A Reader children scored 59% higher with an adjusted mean score of 3.83 as compared to 2.41 for Head Start children. Figures 20 & 21 below are for all the children in the San Francisco sample as compared to Head Start children.

Figure 20 – Comparison of San Francisco Sample and Head Start *Four-year-olds*, by FACES Early Literacy Subscale



When scores are aggregated for all of the San Francisco four-year-old children, including those with Raising A Reader, Raising A Reader pilot and those without the program, the San Francisco children still did significantly better than national Head Start four-year-old children in book knowledge ($p<.05$). The San Francisco sample of four-year-olds had an adjusted mean score of 2.86 and the Head Start sample of four-year-olds had an adjusted mean score of 1.98. The San Francisco children scored 44% higher in book knowledge than did the Head Start children. There were no significant differences in the other two areas of pre-reading and comprehension. Figure 21 below compares all San Francisco and Head Start 5 year olds.

Figure 21 – Comparison of San Francisco Sample and Head Start *Five-year-olds, by FACES Early Literacy Subscale**



*Head Start children were five-years-old or older while Raising A Reader children were only five-years-old.

Figure 21 shows that the five-year-old children in the San Francisco sample had significantly higher scores than Head Start five-year-old and older children in both pre-reading and book knowledge ($p<.05$). In pre-reading, the San Francisco five-year-olds scored 53% higher with an adjusted mean score of 1.44 as compared to an adjusted mean score of 0.94 for Head Start five-year-old and older children. In book knowledge, San Francisco five-year-olds scored 59% higher with an adjusted mean score of 3.82 as compared to 2.41 for Head Start five-year-old and older children.

In summary, Raising A Reader children scored much higher than the national sample of Head Start children in several areas: Raising A Reader four-year-old children scored 55% higher in book knowledge than Head Start four-year-olds, while Raising A Reader five-year-olds scored 69% higher in pre-reading and 59% higher in book knowledge than Head Start five-year-old or older children. When scores are aggregated for all San Francisco children, the San Francisco four-year-old children scored 44% higher in book knowledge than Head Start four-year-olds. The San Francisco five-year-olds scored 59% higher in book knowledge than Head Start five-year-olds and older.

VI. Recommendations

The following are key findings and recommendations:

1. Children in San Francisco's Raising A Reader program had substantially higher pre-literacy scores than children without the program. Raising A Reader children had adjusted mean scores that were 58% higher in pre-reading, 27% higher in story comprehension and 16% higher in book knowledge than San Francisco children without the program.

   Recommendation: Raising A Reader should be expanded to other similar San Francisco classrooms so that more children may benefit from the program.

2. One Raising A Reader school site and one classroom at a second Raising A Reader site stopped the program for the summer due to greater difficulty implementing the program because of children's vacation plans and children's transitions from one classroom to another.

   Recommendation: The Raising A Reader program shows such strong results for children's pre-literacy scores that Raising A Reader teachers should be encouraged to continue the program over the summer.

3. Parents were positively impacted by the Raising A Reader program. The Parent Survey showed an enormous increase in the percentage of parents who read to their children five or more times a week, from 7% in the pre-survey to 37% in the post-survey.

   Recommendation: Raising A Reader should continue to focus on parent education about the virtues of frequent reading to children.

4. English speaking parents read with more frequency to their children than did Cantonese speaking parents.

   Recommendation: Raising A Reader should focus particular attention on the Cantonese speaking community about the virtues of more frequent reading to children. The data were inconclusive for Spanish speaking families given the low numbers in the assessment. Further study should be undertaken to understand the reading habits of Spanish speaking parents.

5. In general, schools that had higher scores on the FACES survey had more books in the classroom, more reading time in class and more games and activities to develop pre-literacy skills.

   Recommendation: San Francisco classrooms should strive to acquire more books for their classrooms. Teachers should consider increasing the time that they spend reading aloud to the class and expanding games and activities to develop pre-literacy skills.

6. Recent research supports not only setting aside daily time for parents to read to their children, but also focusing on the way in which parents read to their children. In a study where parents read to their Kindergarten and first-grade children in a way that emphasized performance and the correction of errors, the children were inclined to try to finish the reading as quickly as possible and the children did not find reading enjoyable. Children preferred reading when their parents involved them in a discussion about the book and when children were able to ask questions and physically share the book[13]. Other research shows that pre-school children who learned to read in a more interactive process had more creative abilities later in their school life.[14]

   Recommendation: Raising A Reader and child development center staff should consider providing training and workshops to teachers and parents on best practices for how to read to children in a discussion oriented fashion.

7. This study revealed one surprising finding about children who were English Learners; they had higher pre-literacy scores than native English speakers. Most research shows that English Learners are at a disadvantage in literacy testing as compared to native English speakers. This study, however, showed that English Learners scored higher, unless English Learners were reported to have such poor English skills that it interfered with their assessment.

   Recommendation: Raising A Reader and other early childhood researchers should consider performing additional studies on a similar low income, ethnically diverse, multi-lingual group of students to investigate further the impact of English Learner status on children learning how to read. This kind of study could have wide ranging implications for cities as diverse as San Francisco and for public policy in education.

[13] Lancy, D. F., Drafper, K.D., and Boyce, G. (1980). Parental influence on children's acquisition of reading. Contemproary Issues in Reading, 83-93 as cited in Andrea DeBruin-Parecki's, "Assessing Adult/Child Storybook Reading Practices", University of Northern Iowa, page 2.

[14] Andrea DeBruin-Parecki's, "Assessing Adult/Child Storybook Reading Practices", University of Northern Iowa, page 3.

8. Several non-Raising A Reader sites assessed in this study decided to enroll in the Raising A Reader program for the 2003-2004 school year while other sites did not enroll in the program.

   Recommendation: Raising A Reader should consider conducting a follow-up study comparing the already collected baseline data for non-Raising A Reader children to new study data to be collected in the Summer of 2004 for children who have enrolled in one year of Raising A Reader as compared to children from sites who did not enroll in Raising A Reader.

9. Raising A Reader intends to enroll new students in the program in 2004. An ideal longitudinal study would assess those children prior to enrollment compared to a demographically similar group of students who will not be enrolled in the program. A follow up study one year later would track improvements over time while controlling for individual differences between children.

   Recommendation: Raising A Reader should consider funding a longitudinal study of children in the Raising A Reader program as compared to children who do not have the program. Children would be assessed using the FACES tool before the program and the assessment would be repeated after one year of Raising A Reader enrollment.

About the Researcher

ASR is a nonprofit, social research firm dedicated to helping people build better communities by creating meaningful evaluative and assessment data, facilitating information-based planning, and developing custom strategies. Incorporated in 1981, the firm has over twenty-two years of experience working with public and private agencies, health and human service organizations, city and county offices, school districts, institutions of higher learning, and charitable foundations. Through community assessments, program evaluations, and related studies, ASR provides the information that communities need for effective strategic planning and community interventions.

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Appendix I: Head Start FACES Instrument in English

Head Start Family and Child Experiences Survey (FACES)

School name _____ **Teacher's last name** _____

Child's Initials _____ **Child's ID Number** _____
First Last **(if applicable)**

Child's Gender Male____ Female____ **Child's Date of Birth** _____
Day Month Year

Child's primary ethnicity:

- ❑ (1) African-American
- ❑ (2) Asian
- ❑ (3) Caucasian/White
- ❑ (4) Latino/Hispanic
- ❑ (5) Native American
- ❑ (6) Pacific Islander
- ❑ (7) Multi-ethnic
- ❑ (8) Other_____

Has this child participated in Raising a Reader (or other reading program)? Yes ___ No ___

Program name _____ **Length of participation** _____

Consent obtained? Yes ____ No ____

PICK UP "WHERE'S MY TEDDY?" BOOK.

Say: "Now I'm going to show you a book and then we'll read it. As I'm reading, I'm going to ask you some questions."

1: HAND BOOK TO CHILD UPSIDE DOWN AND BACKWARD.

Say: "Show me the front of the book."
IF CHILD GOES TO FIRST PAGE, ASK:

Say: "Is there anything that comes before this?"

ASSIGN 1 POINT IF CHILD PRESENTS BOOK WITH FRONT COVER FACING UP.

0	1

Ask the child: "Have you read this book before?"

Yes	No	Don't know

2: **Say: "Now open it up for us to read."**
ASSIGN 1 POINT IF CHILD OPENS TO TITLE PAGE OR FIRST PAGE OF STORY.

0	1

3: TURN TO PAGE 1.

Point to where I should start to read.
ASSIGN 1 POINT IF CHILD POINTS TO ANY PRINT.

0	1

BEGIN READING BOOK, and READ UNTIL PAGE 9.

4: BEFORE READING PAGE 9, STOP AND ASK:

Where do I read here?
Then where do I go?

ASSIGN 1 POINT IF CHILD POINTS FROM LEFT TO RIGHT AND FROM PAGE 9 TO PAGE 10.

0	1

5: IF CHILD SCORES 1 ON PREVIOUS QUESTION, ASK:
Can you read this to me?

SCORE 0 IF CHILD CANNOT READ TEXT.
SCORE 1 IF CHILD READS WITH MORE THAN ONE ERROR
SCORE 2 IF CHILD READS WITH ONE OR NO ERRORS

0	1	2

6: BEFORE READING PAGE 11, STOP AND ASK:

Where do I read here?
Then where do I go?
ASSIGN 1 POINT IF CHILD POINTS FROM LEFT TO RIGHT AND FROM TOP TO BOTTOM OF PAGE.

0	1

7: --IF CHILD SCORED 0 ON PREVIOUS QUESTION, SKIP THIS QUESTION.
--IF CHILD SCORED 1 ON PREVIOUS QUESTION AND 1 OR 2 ON QUESTION 5,
ASK: **Can you read this first part to me?**

SCORE 0 IF CHILD CANNOT READ TEXT
SCORE 1 IF CHILD READS WITH MORE THAN ONE ERROR
SCORE 2 IF CHILD READS WITH ONE OR NO ERRORS.

0	1	2

FINISH READING STORY.

8: Say: "Can you tell me some words in the story that sound like 'Eddie'?"

ASSIGN 1 POINT IF CHILD ANSWERS: "Teddy"/ "Freddie"/ "already"

0	1

9: TURN TO PAGES 5 AND 6, POINT TO EACH PANEL IN TURN, AND SAY:

"Remember, in this part of the story Eddie is going into the woods."

AT LAST PANEL, POINT TO EDDIE AND SAY:
"Look at his face. How is Eddie feeling here?"

ASSIGN 1 POINT IF CHILD ANSWERS: "Scared"/ "afraid"/ "nervous"/ "frightened"/ response related to fear (not "mad" or "sad").

If CHILD SAYS "WANTING HIS TEDDY" OR "LOOKING FOR HIS TEDDY', PROBE: "**How is Teddy *feeling*?"**

0	1

10: TURN TO PAGES 15-16 AND, POINT TO THE BIG TEDDY, AND ASK:

"**Why is that teddy best for the gigantic bear?"**

ASSIGN 1 POINT IF CHILD ANSWERS: "He's big enough"/ "the bear can huddle and cuddle with him"/response related to size.

0	1

11: CLOSE BOOK AND HAND IT TO THE CHILD WITH FRONT COVER FACING UP.

This book is called 'Where's My Teddy?' Where do you think it says that?"

ASSIGN 1 POINT IF CHILD POINTS TO ANY PRINT ON FRONT COVER. | 0 | 1 |

12: POINT TO AUTHOR'S NAME.

This book is by Jez Alborough. See, it says "Jez Alborough" here. What did this person do?"

ASSIGN 1 POINT IF CHILD ANSWERS: "wrote the book"/ "made up the book" / related answer.

| 0 | 1 |

Date of observation _____ Language of assessment: English ___
Day Month Year Spanish ___

Is this child an English Learner? Yes___ No___

If yes, did this interfere with the child's assessment? Yes___ No ___

Comments:

Does this child have any special needs? Yes___ No___

If yes, please describe:

Is this child going to kindergarten in the fall? Yes___ No___

Other comments:

Appendix II: Head Start FACES Instrument in Spanish

Head Start Family and Child Experiences Survey (FACES)

School name _____ **Teacher's last name** _____

Child's Initials _____ **Child's ID Number** _____
First Last **(if applicable)**

Child's Gender Male____ Female____ **Child's Date of Birth** _____
Day Month Year

Child's primary ethnicity:

- ❑ (1) African-American
- ❑ (2) Asian
- ❑ (3) Caucasian/White
- ❑ (4) Latino/Hispanic
- ❑ (5) Native American
- ❑ (6) Pacific Islander
- ❑ (7) Multi-ethnic
- ❑ (8) Other_____

Has this child participated in Raising a Reader (or other reading program)? Yes ___ No ___

Program name _____ **Length of participation** _____

Consent obtained? Yes ____ No ____

Recoja el libro "¿Adonde Esta Mi Teddy?"

Diga: "Ahora voy a mostrarte un libro y luego lo leeremos. Mientras yo lea te haré unas preguntas."

1: DELE El LIBRO AL NIÑO/A AL REVÉS Y BOCA ARRIBA.

Diga: "Enseñame la portada del libro."
Si el niño/a va a la primera página, preguntele

Diga: "Hay algo que viene antes de esto?"

ASIGNE 1 PUNTO SI el/la NIÑO/A PRESENTA EL LIBRO CON LA PORTADA ARRIBA.

0	1

Yes	No	Don't know

Pregunte al niño: "¿Habías leído este libro antes? " .

2**: Diga: "Ahora ábrelo para que lo leamos."**

ASIGNE 1 PUNTO SI EL/LA NINO/A ABRE EL LIBRO A LA PRIMERA PÁGINA DE LA HISTORIA.

0	1

3: ABRA EL LIBRO A LA PRIMERA PÁGINA.

Diga: "Enseñame adonde debería de empezar a leer."

ASIGNE 1 PUNTO SI EL NIÑO/A SEÑALA LAS LETRAS.

0	1

COMIENCE A LEER.

4: ANTES DE EMPEZAR A LEER LA PÁGINA 9, PARE Y PREGUNTE:

¿Adonde leo aquí?

¿Y luego adonde voy?

ASIGNE 1 PUNTO SI EL NIÑO/A SEÑALA DE IZQUIERDA A DERECHA, DE LA PÁGINA 9 A LA PÁGINA 10.

0	1

5: SI EL NIÑO/A ANOTA 1 PUNTO EN LA PREGUNTA ANTERIOR, PREGUNTELE:

¿**Puedes leer esto tu solo/a?**

ASIGNE 0 PUNTOS SI EL NIÑO/A NO PUEDE LEER EL TEXTO.
ASIGNE 1 PUNTO SI EL NIÑO/A LEE CON MÁS DE UN ERROR.
ASIGNE 2 PUNTOS SI EL NIÑO/A LEE CON UNO O NINGUN ERROR.

0	1	2

6: ANTES DE EMPEZAR A LEER LA PAGINA 11, PARE Y PREGUNTE:

¿Adonde leo aqui?
¿Y luego adonde voy?

ASIGNE 1 PUNTO SI EL NIÑO/A SEÑALA DE IZQUIERDA A DERECHA Y DE ARRIBA A BAJO DE LA PÁGINA.

7: —SI EL NIÑO/A ANOTÓ 0 PUNTOS EN LA PREGUNTA ANTER 0 1
SALTESE ESTA PREGUNTA.
—SI EL NIÑO/A ANOTO 1 PUNTO EN LA PREGUNTA ANTERIOR Y 1 O 2 PUNTOS EN LA PREGUNTA 5, PREGUNTELE:
¿Puedes leer esto tu solo/a?

ANOTE 0 PUNTOS SI EL NIÑO/A NO PUEDE LEERLO SOLO/A. 0 1 2
ANOTE 1 PUNTO SI EL NIÑO/A LEE CON MÁS DE 1 ERROR.
ANOTE 2 PUNTOS SI EL NIÑO/A LEE CON UNO O NINGUN ERROR.

TERMINE DE LEER LA HISTORIA.

8: **Diga: "Dime unas palabras de la historia que suenan como Eddie?**

ASIGNE 1 PUNTO SI EL NINO/A RESPONDE: "Teddy"/"Freddie" 0 1

9: ABRA EL LIBRO A LAS PÁGINAS 5 Y 6, ENSEÑE CADA PÁGINA, Y DIGA:

"¿Te acuerdas que en esta parte de la historia Eddie esta entrando al bosque?"

EN LA ULTIMA PÁGINA, SEÑALE A EDDIE Y DIGA:
"Mira su cara. ¿Como se siente Eddie aqui?"

ANOTE 1 PUNTO SI EL NIÑO/A RESPONDE: "asustado" / "con miedo" / "nervioso"
Respuestas relacionadas con el miedo (no "enojado" o "triste").

SI EL NIÑO/A RESPONDE "Como que quiere su Teddy" o "Esta buscando a su Teddy", PREGUNTE: **"¿Como se *siente* Teddy?"** 0 1

10: ABRA EL LIBRO A LAS PÁGINAS 15-16 CON EL DEDO, SEÑALE AL TEDDY GRANDE Y PREGUNTE:

"¿**Porqué es ese teddy mejor para el gigantesco oso?**" 0 1

ANOTE 1 PUNTO SI EL NIÑO/A RESPONDE: "Porque esta grande" / "el oso puede acurrucarse con el"/una repuesta relaCionada con el tamaño.

11: CIERRE EL LIBRO Y DÉCELO AL NIÑO/A CON LA PORTADA BOCA ARRIBA.

Este libro se llama "Donde Esta Mi Teddy" ¿Adonde crees tu que diga eso?

ANOTE 1 PUNTO SI EL NIÑO/A SEÑALA A CUALQUIER PARTE DEL TEXTO DE LA PORTADA.

0 1

12: CON SU DEDO, SEÑALE AL NOMBRE DEL AUTOR.

Diga: Este libre fue escrito por Jez Alborough. Ves, dice "Jez Alborough" aqui. ¿Que hizo esta persona?

ANOTE 1 PUNTO SI EL NIÑO/A RESPONDE: "escribió el libro"/ "hizo la historia"/ o una respuesta relacionada.

0 1

Date of observation _____ Language of assessment: English ___
Day Month Year Spanish ___

Is this child an English Learner? Yes___ No___

If yes, did this interfere with the child's assessment? Yes___ No ___

Comments:

Does this child have any special needs? Yes___ No___

If yes, please describe:

Is this child going to kindergarten in the fall? Yes___ No___

Other comments:

Appendix III: San Francisco Assessment Results by Site Type

Demographics

1. School name

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
School A	15.2	0.0	0.0
School B	42.9	0.0	0.0
School C	16.2	0.0	0.0
School D	25.7	0.0	0.0
School E	0.0	100.0	0.0
School F	0.0	0.0	20.6
School G	0.0	0.0	21.6
School H	0.0	0.0	10.3
School I	0.0	0.0	17.5
School J	0.0	0.0	13.4
School K	0.0	0.0	16.5
Total	105	12	97

2. Child's gender

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Male	56.3	63.6	51.0
Female	43.7	36.4	49.0
Total	103	11	96

3. Child's primary ethnicity

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
African-American	22.1	41.7	34.0
Asian	59.6	41.7	16.5
Caucasian / White	4.8	0.0	1.0
Latino / Hispanic	6.7	0.0	43.3
Pacific Islander	2.9	0.0	2.1
Multi-ethnic	3.8	8.3	3.1
Other	0.0	8.3	0.0
Total	104	12	97

4. Has this child participated in Raising a Reader (or other reading program)?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Yes	100.0	100.0	13.4
No	0.0	0.0	86.6
Total	105	12	97

4a. Reading program name:

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Raising a Reader	100.0	0.0	0.0
Letter People	0.0	0.0	100.0
Raising A Reader Pilot Program	0.0	83.3	0.0
Kidz Lit	0.0	0.0	38.5
KQED	0.0	16.7	0.0
Responses	105	12	18
Respondents	105	12	13

4b. Length of participation in reading program (Raising a Reader)

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
2 months	1.0	0.0	0.0
6 months	26.0	0.0	0.0
7 months	16.3	0.0	0.0
8 months	29.8	0.0	0.0
9 months	26.9	0.0	0.0
Total	104	0	0

4b. Length of participation in reading program (Letter People)

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
10 months	0.0	0.0	7.7
12 months	0.0	0.0	8406
18 months	0.0	0.0	7.7
Total	0	0	13

4b. Length of participation in reading program (Raising a Reader Pilot Program)

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
1 month	0.0	10.0	0.0
12 months	0.0	90.0	0.0
Total	0	10	0

4b. Length of participation in reading program (Kidz Lit)

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
1 month	0.0	0.0	100.0
Total	0	0	5

4b. Length of participation in reading program (KQED)

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
12 months	0.0	100.0	0.0
Total	0	2	0

5. Language of assessment

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
English	99.0	100.0	99.0
Spanish	1.0	0.0	1.0
Total	105	12	97

6. Is this child an English Learner?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Yes	67.6	41.7	45.4
No	32.4	58.3	54.6
Total	105	12	97

6a. If this child is an English Learner, did this interfere with the child's assessment?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Yes	21.7	0.0	15.8
No	78.3	100.0	84.2
Total	69	5	38

7. Does this child have any special needs?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Yes	24.0	20.0	6.2
No	76.0	60.0	92.8
Not diagnosed, but suspected by assessor	0.0	20.0	1.0
Total	104	10	97

7a. What kind of special needs does this child have?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Emotional / behavioral / social / depression	60.0	0.0	16.7
Language / speech	28.0	0.0	66.7
Family issues	12.0	0.0	33.3
Cognitive	8.0	0.0	16.7
Sensory	8.0	0.0	0.0
ADHD	4.0	0.0	0.0
Allergies	0.0	50.0	0.0
Asthma	0.0	50.0	0.0
Cerebral Palsy - physical only	4.0	0.0	0.0
Responses	31	2	8
Respondents	25	2	6

8. Is this child going to kindergarten in the Fall?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Yes	76.0	72.7	70.2
No	17.3	27.3	29.8
Already in kindergarten	6.7	0.0	0.0
Total	104	11	94

Assessment

1a. Have you read this book before?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Yes	50.5	16.7	19.6
No	44.8	83.3	73.2
Don't know	4.8	0.0	7.2
Total	105	12	97

1. Show me the front of the book.

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Incorrect answer	20.0	8.3	25.8
Correct answer	80.0	91.7	74.2
Total	105	12	97

2. Now open it up for us to read.

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Incorrect answer	18.1	16.7	18.6
Correct answer	81.9	83.3	81.4
Total	105	12	97

3. Point to where I should start to read.

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Incorrect answer	47.6	58.3	56.7
Correct answer	52.4	41.7	43.3
Total	105	12	97

4. Where do I read here? Now where do I go?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Incorrect answer	44.8	58.3	64.9
Correct answer	55.2	41.7	35.1
Total	105	12	97

5. Can you read this to me?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Child could not read text	96.2	91.7	99.0
Child read text with more than one error	1.9	8.3	1.0
Child read text with one or no errors	1.9	0.0	0.0
Total	105	12	97

6. Where do I read here? Now where do I go?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Incorrect answer	49.5	50.0	69.5
Correct answer	50.5	50.0	30.5
Total	105	12	95

7. Can you read this first part to me?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Child could not read text	97.1	100.0	99.0
Child read text with more than one error	1.9	0.0	1.0
Child read text with one or no errors	1.0	0.0	0.0
Total	105	12	97

8. Can you tell me some words in the story that sound like 'Eddie?'

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Incorrect answer	77.9	58.3	84.5
Correct answer	22.1	41.7	15.5
Total	104	12	97

9. How is Eddie feeling here?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Incorrect answer	55.2	58.3	64.9
Correct answer	44.8	41.7	35.1
Total	105	12	97

10. Why is that teddy bear best for the gigantic bear?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Incorrect answer	36.9	50.0	47.4
Correct answer	63.1	50.0	52.6
Total	103	12	97

11. This book is called 'Where's my Teddy'. Where do you think that it says this?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Incorrect answer	27.5	33.3	32.0
Correct answer	72.5	66.7	68.0
Total	102	12	97

12. This book is by Jez Alborough. See, it says Jez Alborough here. What did this person do?

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
Incorrect answer	36.9	50.0	47.4
Correct answer	63.1	50.0	52.6
Total	103	12	97

Summary scores

Comprehension score (Items 9 and 10)

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
0	26.7	33.3	38.1
1	40.0	41.7	36.1
2	33.3	25.0	25.8
Total	105	12	97
Mean score	**1.07**	**0.92**	**0.88**

Book knowledge score (Items 1, 2, 3, 11 and 12)

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
0	1.0	8.3	3.1
1	5.8	0.0	11.3
2	15.5	16.7	14.4
3	21.4	33.3	23.7
4	32.0	8.3	28.9
5	24.3	33.3	18.6
Total	103	12	97
Mean score	**3.50**	**3.33**	**3.20**

Pre-reading score (Items 4, 5, 6, 7 and 8)

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
0	31.4	33.3	53.6
1	21.0	16.7	20.6
2	34.3	33.3	17.5
3	10.5	8.3	7.2
4	0.0	8.3	0.0
5	1.9	0.0	1.0
6	1.0	0.0	0.0
Total	105	12	97
Mean score	**1.36**	**1.42**	**0.82**

Total score across all 12 items

Response	Raising a Reader sites	Raising a Reader: Pilot site	Comparison sites
0	0.0	8.3	3.1
1	3.8	0.0	9.3
2	4.8	0.0	8.2
3	9.5	25.0	13.4
4	13.3	8.3	9.3
5	13.3	8.3	14.4
6	16.2	16.7	16.5
7	8.6	0.0	4.1
8	12.4	8.3	13.4
9	12.4	8.3	5.2
10	3.8	8.3	2.1
11	0.0	8.3	0.0
12	1.9	0.0	1.0
Total	105	12	97
Mean score	**5.90**	**5.67**	**4.90**

Appendix IV: Parent Survey Instrument

Raising A Reader™
Baseline Questionnaire

Thank you for participating in this Raising A Reader™ survey. Your honest answers are important and will be kept confidential.

Child Code Number _____

1. In a typical week, I (or another adult in the home) spend time reading or sharing books with my child
   ☐ **Not at all** ☐ **1-2 times/week** ☐ **3-4 times/week** ☐ **5 or more times/week**

2. Do you (or another adult in the home) have a regular routine time for reading or sharing books with your child?
   ☐ **No** ☐ **Yes**

3. I feel most comfortable sharing books with my child in
   ☐ **English** ☐ **Spanish** ☐ **Cantonese** ☐ **Other** _____

4. I take my child to the library
   ☐ **Not at all** ☐ **1-2 times/year** ☐ **Several times/year** ☐ **1-2 times/month** ☐ **Several times/month**

5. Please rate the importance of reading and sharing books with your child (circle one number):
   Not at All Important ***Very Important***
   1 2 3 4 5 6 7 8 9 10

6. What language is spoken most often in your home?
   ☐ **English** ☐ **Spanish** ☐ **Cantonese** ☐ **Other**_____

Thank you for participating.

Date questionnaire was completed_____ ☐

Appendix V: Parents of Assessed Children Results

1. In a typical week, I (or another adult in the home) spend time reading or sharing books with my child: (Pre-survey)

Response	Frequency	Percent
Not at all	5	8.1%
1-2 times/week	38	61.3%
3-4 times/week	15	24.2%
5 or more times/week	4	6.5%
Total	62	100.0%

1. In a typical week, I (or another adult in the home) spend time reading or sharing books with my child: (Post-survey)

Response	Frequency	Percent
Not at all	1	1.6%
1-2 times/week	17	27.4%
3-4 times/week	21	33.9%
5 or more times/week	23	37.1%
Total	62	100.0%

2. Do you (or another adult in the home) have a regular routine for reading or sharing books with your child? (Pre-survey)

Response	Frequency	Percent
No	21	33.9%
Yes	41	66.1%
Total	62	100.0%

2. Do you (or another adult in the home) have a regular routine for reading or sharing books with your child? (Post-survey)

Response	Frequency	Percent
No	8	12.9%
Yes	54	87.1%
Total	62	100.0%

3. I feel most comfortable sharing books with my child in: (Pre-survey)

Response	Frequency	Percent
English	39	62.9%
Spanish	6	9.7%
Cantonese	15	24.2%
Other	2	3.2%
Total	62	100.0%

3. I feel most comfortable sharing books with my child in: (Post-survey)

Response	Frequency	Percent
English	36	58.1%
Spanish	6	9.7%
Cantonese	18	29.0%
Other	2	3.2%
Total	62	100.0%

4. I take my child to the library: (Pre-survey)

Response	Frequency	Percent
Not at all	27	44.3%
1-2 times/year	10	16.4%
Several times/year	13	21.3%
1-2 times/month	5	8.2%
Several times/month	6	9.8%
Total	61	100.0%

4. I take my child to the library: (Post-survey)

Response	Frequency	Percent
Not at all	13	21.3%
1-2 times/year	14	23.0%
Several times/year	8	13.1%
1-2 times/month	17	27.9%
Several times/month	9	14.8%
Total	61	100.0%

5. Please rate the importance of reading and sharing books with your child: (Pre-survey)

Response	Frequency	Percent
1 - Not at all important	1	1.7%
2	1	1.7%
3	2	3.3%
4	1	1.7%
5	5	8.3%
6	0	0.0%
7	3	5.0%
8	6	10.0%
9	7	11.7%
10 - Very important	34	56.7%
Total	60	100.0%
Mean score		**8.50**

5. Please rate the importance of reading and sharing books with your child: (Post-survey)

Response	Frequency	Percent
1 - Not at all important	0	0.0%
2	0	0.0%
3	0	0.0%
4	0	0.0%
5	1	1.7%
6	0	0.0%
7	1	1.7%
8	4	6.7%
9	8	13.3%
10 - Very important	46	76.7%
Total	60	100.0%
Mean score		**9.60**

6. What language is spoken most often in your home? (Pre-survey)

Response	Frequency	Percent
English	24	38.7%
Spanish	8	12.9%
Cantonese	26	41.9%
Other	4	6.5%
Total	62	100.0%

6. What language is spoken most often in your home? (Post-survey)

Response	Frequency	Percent
English	33	53.2%
Spanish	6	9.7%
Cantonese	21	33.9%
Other	2	3.2%
Total	62	100.0%

Appendix VI: Teacher Observation Instrument

Qualitative Questions for All Teachers:
Name of School: Classroom #: Hours of Operation: Time of day: _____Weeks per year:_____

1. We are curious about the kinds of activities you may have to increase children's interest in books and / or pre-literacy skills. Do you have or do any of the following?:

Activity	Yes/ No	Hours per: Week	/ Month	Describe
1a. Teacher reads aloud to the class				
1b. Children read / play alone with books				
1c. Games / activities to build pre-literacy / book awareness				
1d. Public library visits				
1e. Book mobile				
1f. Other book program:_____				
1g. Other book program:_____				
1h. Other book program:_____				

2. **Which activity has been most effective in increasing children's interest in books and / or pre-literacy skills?**

3. **Please estimate the percentage of parents who spend time reading to their children. How much time do you think they spend?**

4. **Do you believe there are cultural differences between parents in how often they read to their children? If yes, please describe.**

5. **What is the largest barrier to children's pre-literacy skills? Please describe.**

6. **What would help the most to develop a love of reading in the child? Please describe.**

Qualitative Questions for RAR Teachers:

1. **What are children's reactions when they open up the Raising a Reader book bag and pull out the contents?**

    a. **Is there any particular incident that occurred that really stands out in your mind?**

2. **What has been the general reaction of parents when they receive their book bags?**

    a. **Is there any particular incident that occurred that really stands out in your mind?**

3. **What tangible benefit do you see in your children from using the RAR program?**

4. **Do you have any suggestions for improvement to the RAR program (e.g. materials, administration) ?**

Observation guidelines for RAR: What do you see with regard to….

- **Teacher preparing RAR book bag rotation/ handout (administration). How much time needed to prepare? Do they do it alone? Are they helped? Is there a systematic tracking system that is followed? Describe the setting in the class while the teacher is preparing RAR rotations.**

- **Kids receiving book bags. Are there one or two children who stand out, due to their enthusiasm? Describe them.**

- **Kids receiving book bags. Are there one or two children who stand out, due to their lack of enthusiasm? Describe them.**

- **Parents receiving book bag. Focus in on one or two parents who stand out, either for enthusiasm or for lack of enthusiasm? Describe them.**

- **Summarize the general scene during kit distribution. Uneventful? Excited? Orderly?**

Appendix VII: Raising a Reader Sites Compared to Head Start National Norm Data

Mean Scores

	All children			Four-year-olds			Five- year-olds		
	SF RAR Sites	National Norms	Significant Difference?	SF RAR Sites	National Norms	Significant Difference?	SF RAR Sites	National Norms	Significant Difference?
Comprehension Score	1.07	0.64	Yes	0.89	0.71	No	1.20	1.04	No
Book Knowledge	3.50	1.79	Yes	3.07	1.98	Yes	3.83	2.41	Yes
Pre-Reading Score	1.36	0.57	Yes	1.07	0.69	No	1.59	0.94	Yes

Appendix VIII: All San Francisco Sites Compared to Head Start National Norm Data

Mean Scores

	All children			Four-year-olds			Five-year-olds		
	SF 2003: all sites	National Norms	Significant Difference?	SF 2003: all sites	National Norms	Significant Difference?	SF 2003: all sites	National Norms	Significant Difference?
Comprehension Score	0.97	0.64	Yes	0.81	0.71	No	1.13	1.04	No
Book Knowledge	3.35	1.79	Yes	2.86	1.98	Yes	3.82	2.41	Yes
Pre-Reading Score	1.12	0.57	Yes	0.79	0.69	No	1.44	0.94	Yes