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Executive Summary

The Children’s Reading Foundation’s Innovative Approaches to Literacy (IAL) 2 year grant project had two goals:

1. To assist parents and caregivers in preparing their children for kindergarten
2. To increase the number of books in low-income areas for children ages birth-3rd grade.

In order to achieve these two goals, the Children’s Reading Foundation completed 3 IAL programs:

The READY for Kindergarten program provided workshops for parents and caregivers of pre-school age (3-5 year old) children in early childhood literacy as well as logic, reasoning, pre-writing, and social-emotional skills. These workshops included high quality learning tools (READY! kits) that were distributed to families, along with training and instruction in how to utilize the tools for 10-20 minutes a day to integrate early learning into the child’s routine, and best prepare the child for the skills necessary for Kindergarten. These early learning skills help children to be prepared to succeed academically, not only in kindergarten, but in all of school. The workshops focused on helping parents and caregivers make reading and learning with their child a fun, positive experience. Through READY! parents become active participants in their child’s early literacy development. The READY! program is offered as a series of 3 workshops per year, delivered in schools, libraries, pre-schools, Head Start centers, community centers, homeless shelters, as well as via home visits and in other community locations through many partners in high-poverty districts.

READ Up: Stop the Summer Slide is a summer reading program that focused on distributing new, free books to children ages birth to eight years old. The intent was to get high-
quality, age-appropriate books into the hands and homes of children living in high-poverty communities who don’t necessarily have access to reading resources, especially during summer months when students are not in school. Facilitators of the READ Up program conduct 20 minute reading sessions with children and families to model read aloud techniques for parents and care-givers. Parents were also given materials and information about reading with their children 20 minutes a day. Books were available in English and Spanish and distributed through school libraries, summer feeding programs, community organizations, homeless shelters, home visits and community events.

The digital READY! App was a new technology that the Children’s Reading Foundation developed in order to bring the READY! Program targets to more children. The READY! App allowed children to play a series of literacy based games on smart phones or tablets; with in-the-moment assessment data generated for parents and teachers. The games of the READY! App utilized speech recognition software to help children with oral language phoneme development. During the 2 year IAL project, the READY! App was piloted in 3 Kindergarten classrooms, and in a Head Start classroom and with READY! Families across the country.

All three of these programs were designed and implemented in fulfillment of the CRF goals (to assist parents and caregivers in preparing their children for kindergarten, and improving access to high-quality, age-appropriate literature for children birth-3rd grade living in high poverty communities) in order that the school readiness and specifically, literacy scores among students served would be improved. The ultimate goal is to increase the literacy achievement scores of children living in poverty.

The six IAL Project Goals for the Children’s Reading Foundation were:
1. Determine the percentage of 4-year-old children participating in the project who achieve significant gains on oral language skills.

2. Determine the percentage of 4-year-old children participating in the project who achieve significant gains in overall kindergarten readiness.

3. Determine parent involvement in the READY! For Kindergarten program by determining the number of parents who attend winter and spring classes after attending the initial fall classes.

4. Provide 300,000 high-quality children’s books to children ages birth to eight and their families in high-need communities.

5. Improve the literacy skills of 2,090 high-need families by implementing the use of the Children’s Reading Foundation digital technology “app.”

6. Three identified kindergarten teachers will evaluate student’s progress using the app evaluation tools as a formative assessment. The teachers will then be able to provide interventions specific to the literacy skills needed and increase student achievement.

**Goal 1:** In rigorous evaluation of the effectiveness of the Children’s Reading Foundation’s READY! For Kindergarten program, a Randomized Control Trial was designed and implemented by an independent evaluator. The evaluators found that the experimental group had statistically significantly higher scores on both the DIBELS Next and Woodcock Johnson III Letter Naming Fluency assessments. The Woodcock Johnson III mean score for the control group was 98.32 and for the experimental group was 102.09, while on the DIBELS Next assessment the control group’s mean score was 12.8 and the experimental mean score was 17.24.

Utilizing regression analysis to control for the variables of ESL status, ethnicity, gender, age, and socioeconomic status, the statistical increase of scores held across all of these groups. The
evaluators therefore concluded that the READY! For Kindergarten intervention worked for 100% of the group. For every demographic, the READY! For Kindergarten intervention group showed a statistically significant increase in testing scores. 100% of students, regardless of age, gender, race, socioeconomic status, and ESL status received an intervention that leads to improved letter naming skills. READY! For Kindergarten is a program that is effective in improving kindergarten readiness among high poverty students.

Goal 2: These same assessment results were utilized by independent evaluators to determine that the children whose families participated in READY! For Kindergarten had experienced significant gains in overall kindergarten readiness. The Woodcock Johnson Battery Assessment utilized in the Randomized Control Trial is a nationally normative assessment utilized to identify student abilities and to determine qualifications for both students requiring additional academic assistance (special education) or students requiring extra academic challenge (highly capable). Thus, student scores on this assessment indicate whether a student is ready to succeed in education programming, or if that student is needing additional supports. Students in the READY! Intervention groups scored higher on these assessments than those students in the control group receiving no READY! Programming, and were thus determined to have improved overall Kindergarten readiness.

Goal 3: Careful data was kept by the 26 local partners who served children and families with the READY! For Kindergarten program, and great gains were made from year 1 to year 2 in this particular goal. Careful data tracking for all READY! Classes revealed that 31% of parents who began the READY! For Kindergarten series in year 1 completed all 3 of the READY! Classes that year. Careful attention to local leadership practices and heavy investment in networks of relationships within the targeted communities resulted in dramatically improved
results in year 2. Building upon those lessons, 60% of the families who began READY! For Kindergarten fall classes in year 2 of the IAL project completed all three sessions that second year. In ensuring the successful delivery of this third goal, The Children’s Reading Foundation was able to develop its knowledge and systems for successful implementation of literacy programs in high needs communities.

**Goal 4:** Careful data was kept by 26 local partner sites who served children and families in 65 LEA’s to document The Children’s Reading Foundation’s effective distribution of 300,000 new READ Up books to high need families. Books were distributed in many unique locations that effectively reached high need families, as documented by event reporting and program narrative reports of having provided children with some of their first home library books.

**Goal 5:** The READY! For Kindergarten digital app data collection took place from April of 2015 through the end of year 2. In order to collect robust feedback from the targeted high poverty demographics for program improvement, we conducted focus groups with families in both urban (Lansing, MI and Chicago, IL) communities as well as rural communities (Deming, NM and Umatilla, OR) where we piloted the program with the focus groups, kindergarten classrooms, as well as collecting surveys from teachers and families regarding their experience.

This feedback helped provide important improvements to content that reaches to families in these demographics as well as providing valuable and hard lessons about the severe technology limitations that many families in high-poverty communities are experiencing. These Lessons Learned are detailed in the following section.
Goal 6: The READY! For Kindergarten digital app was implemented in 3 kindergarten classrooms (Deming, NM; Umatilla, OR; and Chicago Heights, IL). The three kindergarten teachers were provided training on utilizing the app for assessment purposes, and were able to track student progress through app play as well as utilizing the app for intervention with students.

**Evaluation Findings by Project Goals and Objectives**

Goal 1: Determine the percentage of 4-year-olds children participating in the project who achieve significant gains in oral language skills.

Objective 1: Our proposed Randomized Control Trial (RCT) evaluation study will provide the necessary evidence to measure improvements in 4-year-old children whose parents attend the READY! Program.

As noted in the Executive Summary, the READY! For Kindergarten program is an early childhood, research based intervention which provides parents of pre-school age children with a series of 3 workshops that are facilitated by trained coaches who provide instruction in methods for interacting with children in educationally meaningful ways (e.g. dialogical reading, inquiry-based conversations, creative play) and information about age appropriate expectations and goals. To further enrich the home learning environment, the READY! For Kindergarten program provides parents with age-appropriate educational toys, games, and other materials (e.g. number and letter strips) to take home. Parents are taught how to use these materials to facilitate parent-child educational interactions and child-centered educational play activities.
In order to evaluate the effectiveness of the READY! For Kindergarten intervention on oral language and overall school readiness skills for four year olds, an independent evaluator, Dr. Paul Strand, Professor of Psychology for Washington State University designed a Randomized Control Trial to evaluate the efficacy of READY! For Kindergarten that was implemented and completed in Chicago, IL with the Children’s Reading Foundation of Greater Chicago, in partnership with 3 local school districts and one local NAEYC accredited childcare center. In addition to Dr. Strand, Dr. Dan Koonce of the Chicago School of Professional Psychology supervised the collection of data and assisted in the evaluation of the data results. Recruitment of Trial participants began in October of 2014 and the final data for the trial was collected in May of 2015. The offering of the READY! For Kindergarten intervention for the wait-listed control group and the final evaluation of the assessment data was not completed until Fall, 2015.

The Randomized Control Trial (RCT) utilized a random assignment of participants to an intervention group and a wait-list control group. All trial protocols and processes met with the rigor and standards of the What Works Clearinghouse guidelines for a Randomized Control Trial and were completed under the supervision of trained practitioners and teachers in the field of Child Development and Psychology. The literacy skills assessed included letter naming ability, letter sound recognition, and passage comprehension, each of which has been identified as emerging and developing during the preschool years and contributing to literacy outcomes and overall academic success (Lonigan, 2008).

Sample recruitment and composition

The research sample included 167 children from neighborhoods in three high-poverty school districts in and around Chicago, Illinois. Students were current pre-school students from diverse ethnic and linguistic backgrounds all attending either a public school district pre-school
or a pre-school program accredited by the National Association for the Education of Young Children (NAEYC).

Recruitment was completed by teachers, family outreach staff, and administrators at each school. All families were provided information on the benefits and potential risks of participation in the study, and staff reviewed project objectives, participation consent, and participant requirements with each family (*copies of recruitment materials and consent forms are included in the appendix of this report*). Recruiters explained to families the Randomization Trial process, and that they would be randomly assigned to complete the READY! For Kindergarten intervention during either October-April (the experimental group) or to receive READY! During June, July, and August, following the assessment (the control group). Additionally, in order to ensure an unbiased sample, financial incentives in the form of gift cards were provided to each family in both groups for completing each step of the assessment project. Initially 236 families were recruited, with 123 assigned to the intervention group (receiving READY!) and 113 assigned to the wait-listed control group. Of those 236 families, 167 participated in the final assessment (92 in the experimental group and 75 in the control group) for an overall attrition rate of 29%. Of the attritioned group, 80% dropped out before the first READY! Class, the remaining 20% who did not drop out prior to the start of the experiment/intervention either moved out of the area or their child was absent on the testing day(s). Analysis by evaluators found no statistical significance between the two groups with respect to their attrition rates.

Table 1 in the appendix provides the demographic characteristics for the total sample and for participants according to condition (control and wait-list groups). As can be seen in this
table, the participants were racially-ethnically diverse group enrolled in schools with high rates of free and reduced lunch (FARL) program participation.

Analysis of the student demographic information, as reported by the parent or guardian, demonstrated that the majority of the participants were from racially-ethnically diverse backgrounds and resided in high-poverty districts. Of the 167 students, 37% were from homes where Spanish was the primary language spoken, 37% were from homes where English was the primary language spoken, and 26% reported being from homes where both English and Spanish were used. 5% of students were identified by the teaching staff as receiving special education services.

Table 1 (included in the Appendix) also shows the results of t-tests that were conducted to compare the mean values for each demographic variable for the intervention and control groups. Results revealed no statistically significant differences across the groups except for the race/ethnicity. As is documented in the table, Hispanic parents compromised a greater percentage of individuals assigned to the intervention group compared to the African American participants. With respect to other demographic variables, there were no statistically significant differences across the groups and the research team determined group equivalence based upon these demographic characteristics.

Literacy assessments for both groups took place six weeks after the experimental group’s final parent class for both groups; with all participants tested in May 2015.

Assessment Measures

For each participant, a parent or guardian completed a demographic questionnaire that sought information about child age, ethnicity/race, languages spoken in the home, preschool the
child attended, primary school the child will attend, and special education status of the child (demographic questionnaire is included in the appendix). Answers were provided in a forced-choice format with space provided for parents to provide additional information. F ARL status for each child was determined using a public database maintained by the Office of Education of the State of Illinois that catalogues the percentage of children qualifying for F ARL for all primary schools in the State.

Two assessment measures were utilized. The first was DIBELS Next with which oral language skills were assessed using the Letter Naming Fluency (LNF) (Good and Kaminski, 2011). The LNF assessment requires children to produce as many letter names, within one minute, which are presented by the examiner on a page of upper-and-lower-case names in random order.

The second assessment protocol utilized was the Woodcock-Johnson Achievement Test Form C/Brief Battery (Woodcock, Schrank, Mather, & McGrew, 2007). This protocol is an individually administered, nationally normed measure of achievement that has been widely used in studies of early education. The subtest utilized was the Letter-Word Identification (WJ-LWID) subtest. The WJ-LWID measures pre-reading and reading skills and requires children to identify letters that appear in large type and to pronounce words correctly. Age-based norms for the subtest is available by month (Grenwelge, 2009).

Data Collection

Graduate students in a school psychology graduate program, under the supervision of a lead researcher (Dr. Koonce, PhD), who were blind to the participants’ group assignment, administered the assessments. The testing took place from May 6 to May 20th, 2015 in a separate
classroom at each school, where no teacher-directed instruction was occurring. Although some of the classrooms from which the population sample was recruited for the assessment project included a substantial number of Hispanic children, many of whom came from households where Spanish was the dominate language, administration of all assessments were conducted in English.

Results

The researchers analyzed the raw data for both groups to determine whether the students in families who had received READY! (the experimental group) scored higher on their pre-literacy scores than those students in the control group (who had been waitlisted for READY!). In order to complete the analysis, t-test and statistical regression methods were utilized. The results of these t-tests are reported in Table 2 (in the appendix), wherein mean scores are reported and compared across the intervention and control conditions for all four dependent variables. The mean score differences approached statistical significance. Researchers then controlled for ESL status (results reported in Table 3 in the appendix) utilizing regression analysis which revealed statistically significant effects for conditions on both the DIBELS and Woodcock Johnson assessments. When researchers further analyzed whether the effects on literacy were impacted by demographic characteristic (such as age, gender, race or ESL status) they found no significant effects, thus concluding that the effect on literacy skills did not differ as a function of demographic. In other words, the impact (improved literacy) for children whose family had received the READY! Intervention held true for all demographics for which data was collected. The positive correlation impacted all data groups.
Goal 2: Determine the percentage of 4-year-old children participating in the project who achieve significant gains in overall kindergarten readiness.

Objective 2: Children who participate in the programs will show significant improvements in their overall kindergarten readiness skills.

As noted in the Executive Summary, the Randomized Control Trial evaluation was designed utilizing assessment protocols that are recognized in the field as normative assessments for determining overall student ability and academic challenges. The assessment process and result evaluation detailed in Goal 1 above were utilized to measure Goal 2: determining significant gains in overall kindergarten readiness. As outlined in goal one, the assessment results demonstrated significant gains for all demographic groups, thus allowing researchers to conclude that READY! is effective in improving Kindergarten readiness for all students.

Goal 3: Determine parent involvement in the READY! For Kindergarten program by determining the number of parents who attend winter and spring classes after attending the initial fall classes.

Objective 3: Metrics will be developed to determine the number of parents returning to winter and spring classes who initially attended fall classes.

READY! For Kindergarten classes were offered in 65 LEA's across twelve states. Classes were offered in partnership with school districts, Head Starts, and community non-profit organizations all serving children and families in high poverty communities. Each site sent 2 people each summer to be trained in the READY! For Kindergarten curriculum, as well as in year 2, receiving training in effective community networking, effective strategies for reaching
families experiencing poverty and effective community messaging for early literacy. Those who were trained directly by READY! For Kindergarten curriculum experts then trained class facilitators (teachers) in the curriculum, it’s materials, strategies and philosophy in order to ensure fidelity to the research-proven model.

Perhaps the biggest challenge to effectively teaching the READY! For Kindergarten program, which research has shown to be effective in improving early literacy and overall school readiness scores among participants from high-poverty communities, is in getting families to attend the classes. Like so many programs that seek to serve families in need, a good curriculum is absolutely critical, but also critical is effective leadership and strategies for encouraging parent participation. Too often, good programs targeted at populations living in poverty do not reach their intended audience for many well-documented reasons such as lack of transportation, parents who work multiple jobs, unpredictable work schedules, the exhaustion of survival, health concerns, or a poor school experience as students that leaves parents isolated from their child’s school system (Paul Gorski; Educational Leadership: 2007). Learning to address these concerns and effectively reach parents experiencing these struggles is a critical step to effective early literacy work.

Given the research available on parent engagement in high-poverty communities, and The Children’s Reading Foundation’s own experience with the work, the goal for this IAL project was to determine the retention rate of parents as defined by the number of parents who completed all three workshops, after attending the first session. With this data and information on those locations with the most effective retention rates, the Foundation then sought to utilize the data tracking to increase retention for the project nation-wide.
In tracking the year one data, 31% of the parents and caregivers who took the first class were able to complete all three classes in the series that year. At the same time that the Foundation was working with local partners to carefully track this data, the Foundation was also performing site monitoring visits, interviewing site directors and staff of both programs with successful parent retention as well as those sites with struggling retention data. The Foundation staff utilized that feedback and insight to develop materials presented at monthly webinar trainings, through on-site trainings by the Grant Manager, and at the July, 2015 all-site training conference to support struggling sites in improving their parent engagement and retention practices.

The results of this careful attention and training was a dramatic improvement in year two data, such that the total 2-year project retention rate moved from 31% to 60%. At the end of 2 years, 60% of all parents who started the first (fall) READY! Class completed the entire 2 class series. The IAL READY! project proposed to reach 4,000 families with READY! for Kindergarten. In two years, 5877 families participated in a Fall READY! for Kindergarten session, and 3,366 families completed the entire 3-session workshop series.

Several intentional practices contributed to this success. A strong focus on effective, community based leadership was important. Effective recruitment starts with leadership that knows and is known by the targeted population, that frequently interacts with the targeted population, and is trusted by that group. Successful retention happens when parents and caregivers have the opportunity to interact with teachers and leaders in between the 3 classes, allowing them to build the support and continuity needed for their success.

Leadership that pays attention to the particular needs of the targeted population was also critical. For example, successful sites often held classes at unique times in unique locations
such as in community rooms local in low-income housing complexes, in homeless shelters, at neighborhood libraries and at such times as Sunday afternoons, or weekday evenings or scheduled very carefully around the migrant field labor schedule). Effective parent retention required knowing the needs of the community: when and where they would be available to attend class and bringing READY! Interventions to the populations location and schedule.

**Goal 4:** Provide 300,000 high-quality children’s books to children ages birth to eight and their families in high-need communities.

**Objective 4:** Through the summer READ Up program, model reading aloud and concepts of print and distribute free, high-quality children’s books in libraries, schools, and communities in high-poverty areas.

The Children’s Reading Foundation committed to providing 300,000 new books to children ages birth- age 8 over 2 summers through the IAL project, as well as to teaching read alouds and print concepts in partnerships with local libraries, schools, and communities in high-poverty school districts. This outcome was successfully completed, with over 300,000 new books distributed during the project period and literally hundreds of summer reading events held across the country.

Each year, the Foundation worked with multiple publishers, through a competitive bid process to procure developmentally and culturally appropriate books for children in high-poverty communities across the country. Children’s librarians were brought in to consult on title selection to ensure the appropriateness of the titles selected for the developmental level of children served, as well as ensuring a caliber in titles to which children are responsive. The
foundation worked with both large, major publishers (such as Penguin Randomhouse and Harper Collins) as well as small, publishers such as Cinco Puntos Press (who specialize in bilingual/bicultural titles) in order to secure the diversity and selection of titles to best serve the vast array of students served by this grant project.

Each summer, books shipped from multiple publishers to over 35 partner sites across 12 states for distribution in over 65 high need school districts. About 30% of the titles distributed were bilingual English/Spanish titles, allowing kids to read quality literature in both their home language as well as in English. The bilingual titles are important to providing English Language Learners the opportunity to both read together with their parent in their home language and grow in their English language skills.

In order to best reach high-need students in the summer months in which students are not in school, sites had to be innovative and tenacious in identifying the locations where students gather in the summer and delivering books and read-aloud programs to those places. To this end, books were distributed in traditional locations, such as through summer reading programs in school and public libraries or at end of the year school events (which were often the final opportunities districts had to interact with students in rural/agricultural regions where families work long days in remote locations for the summer months between school sessions). But books and the READ Up reading programing were also brought to numerous parks where summer lunch feedings were happening. Some examples of locations and events where local partners intentionally entered locations where high-need children and families would gather included:

- In New Mexico, where volunteers would set up book give aways at the parks where free lunch was given. Each week of the summer students would stand in the dusty heat of the
summer sun, listening to read aloud stories and taking a book home to read, before
grabbing their free lunch for the day.

- In urban cores like Lansing, MI, programs were brought into homeless shelters and teen
  parenting classes, where staff were able to work with moms on the importance of literacy
  and give brand new books to children who had no books.

- In rural Tennessee small towns held summer reading programs at the local McDonalds.
  Community leaders (teachers, police, pastors, doctors) would read aloud with children
  who received a free ice cream cone from McDonalds and free books from the IAL grant
  program.

- In Umatilla, OR volunteers set up stands outside of city hall on bill pay day; distributing
  books to rural residents whose families came into town to pay their monthly utility bill at
  that time.

- We heard multiple stories, ranging from Dona Ana County, New Mexico to Othello, WA
  to Appalachia, VA of children who received their very first book of their own through the
  READ Up program. Program staff reported back the seriousness with which young
  children took the book selection process, carefully choosing the stories that they would
  read week after week in their homes. These stories are important to the Reading
  Foundation, not for their sentimental value, but for their corroboration with the National
  research that has been coming out regarding the dismal lack of access to reading
  materials among our nation’s poorest students (See, for example, the New York
  neighborhoods-lacking-children-booksacross.html). Poor students, already lacking many
  of the resources that help their peers succeed also lack access to reading materials, which
is correlated to lower reading scores. The success of this project goal is not only in
distributing 300,000 books to children and families but in having done so in locations
where children have no other reading material.

**Goal 5:** Improve the literacy skills of 2,090 high-need families, by implementing the use of the
Children’s Reading Foundation digital technology “app.”

**Objective 5:** Provide a digital technology literacy app to 2,090 high-need families, and promote
learning through children’s educational games. Usage will be tracked through a database.

The Children’s Reading Foundation conducted extensive research prior to the
development of the READY! app project around the utilization of smart phone technology by
families in the targeted age demographic. According to Pew Research, for example, 85% of both
men and women ages 18-29 had a smartphone nationwide. However, in the implementation of
the READY! For Kindergarten digital app with families living in poverty within high-need
districts, particularly in poor urban centers and poor rural districts, we learned that for those most
vulnerable populations, a majority of the population falls into the minority of the broader United
Stated population. Meaning, that while more than 85% of families have smart phones
nationwide, in one focus group in Umatilla, OR, for example, only 40% of the families had a
smart phone, and only 10% had a smart phone with adequate data service and operating system
to support the READY! Digital app.

The Foundation solicited informative feedback on the READY! app through two main
avenues; first, we worked with parent focus groups in both urban and rural districts in order to
solicit formative feedback on the digital READY! app, and secondly, we worked in coordination
with local partners to have parents who were attending local READY! classes complete feedback surveys on the new technology. This intentional outreach and work with families in poverty taught the Foundation much about the realities of technological challenges for high-poverty communities. Many families in fact do not have a smart phone. More frequently, when families in these communities do have a smartphone, they regularly lose service (or run out of funding for the month; pay as you go phones were found to be very common), have outdated models that are not compatible to current application software, or live in areas that do not have sufficient data service available to support an application.

These findings around technology and high-poverty communities create a large challenge for the Reading Foundation and for all groups working to support children and families in high-poverty communities. As technology becomes increasingly integrated into the daily school and work for most of the country, the most vulnerable families are encountering yet another obstacle to their successful preparation and engagement with the school system. Technology use is critical to college and work success. There is much work to be done in developing systems of access for these families, in order to support their success.

Thus, while the Reading Foundation struggled to reach the number of intended families with the READY! For Kindergarten digital app uploaded and utilized on the family’s personal device for practice in the home, other means of data collection and feedback from these families were utilized to ensure a path forward on the process. To receive feedback, the Reading Foundation created family focus groups in 2 urban and 2 rural sites across the country (Lansing, MI; Chicago, IL; Deming, NM; and Umatilla, OR). Reading Foundation staff met directly with the focus groups, collecting direct information on their home technology use, and also piloting
the app itself with parents, receiving written and oral feedback from each family directly, and following up with participants via phone calls or on-the-ground staff for further evaluation.

The results of this parent feedback and focus-group research has altered the path forward for The Children’s Reading Foundation in the field of technology. Working with focus groups across the country that included not only geographically, but ethnically and racially diverse communities provided insight on the appropriateness of content. Developing, for example, vocabulary games with a research team based on the west coast, developers needed the feedback from families in accurately developing the advanced vocabulary inclusion to be words utilized by all of these communities. Feedback such as this helped the Foundation to improve the quality of the READY! app. In the end, 749 families had the technology access necessary to download and utilize the READY! app, and many reported back positive learning results based upon their child’s utilization of this technology.

**Goal 6:** Three identified kindergarten teachers will evaluate student’s progress using the app evaluation tools as a formative assessment. The teachers will then be able to provide interventions specific to the literacy skill needed and increase student achievement.

**Objective 6:** The three kindergarten teachers will be trained on the use of the evaluation tool within the app. The tool identifies literacy skill levels based on individual student responses. The teachers will then be able to develop specific interventions to assist each individual student.

The READY! For Kindergarten digital app was piloted in 3 kindergarten classrooms in 3 different locations across the country: Deming, NM (located 30 miles north of the Mexican
The kindergarten pilots were instrumental in shaping effective program development for the READY! For Kindergarten app. Initial piloting in a classroom setting, with multiple voices and sounds that a busy learning environment included initiated the development of a pre-game "flight" in which the application tests the sound for background noise and assist the child in ensuring they are prepared for successful voice recognition utilization. The feedback loop found that after innovating the program in this way, when re-introduced into the classroom, students could move apart (for example, to a table several feet away from their next auditory peer) and have success in participating in the game. This pre-game flight development helps students identify a successful learning environment for game play.

Kindergarten teachers provided valuable feedback on the assessment needs, and how to best utilize this technology as an intervention tool. The READY! app was especially effective in working with low-performing students who needed extra language assistance. Because of the fun nature of the games, students feel that remediation work in these areas was fun rather than a punishment, which increased student engagement with the learning. Teachers utilized the customized teacher portal to track classroom patterns as well as individual student achievement.
and develop lessons in response to this assessment information. Teachers reported back in their final feedback about the added value of this technology in their literacy instruction.

Conclusions

Student achievement does not happen in a vacuum. The readiness of a child for kindergarten, and the academic success of a child in his or her early years through high school graduation is dependent not only on classroom instruction, but on the support in the home environment. Efforts to impact and support this home environment, through the READY! for Kindergarten program, the READ Up program, and the READY! digital app program had significant impact on the learning outcomes of students. The RCT Evaluation study demonstrated that quality classroom education is not enough for robust student achievement. All of the students included in the evaluation study were enrolled in a high-quality early learning classroom, and yet the outcome was clear that parent engagement improved student achievement. The Children’s Reading Foundation and local partners, with support from the U.S. Department of Education, are privileged to be a part of supporting so many children and families.
Appendix

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Table 1

**Participant Demographic Characteristics**

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<th>Variable</th>
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<td>Male</td>
<td>82 (49%)</td>
<td>47 (51%)</td>
<td>35 (47%)</td>
<td></td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td>2.141*</td>
</tr>
<tr>
<td>African American</td>
<td>53 (32%)</td>
<td>23 (25%)</td>
<td>30 (40%)</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>106 (64%)</td>
<td>63 (69%)</td>
<td>43 (57%)</td>
<td></td>
</tr>
<tr>
<td>Hispanic/ African American</td>
<td>1 (&lt;1%)</td>
<td>0 (0%)</td>
<td>1 (1%)</td>
<td></td>
</tr>
<tr>
<td>Hispanic/ White</td>
<td>5 (3%)</td>
<td>5 (5%)</td>
<td>0 (0%)</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1 (&lt;1%)</td>
<td>1 (1%)</td>
<td>0 (0%)</td>
<td></td>
</tr>
<tr>
<td>White/Native American</td>
<td>1 (&lt;1%)</td>
<td>0 (0%)</td>
<td>1 (1%)</td>
<td></td>
</tr>
<tr>
<td>Parent primary languages spoken</td>
<td></td>
<td></td>
<td></td>
<td>1.330*</td>
</tr>
<tr>
<td>English-only</td>
<td>62 (37%)</td>
<td>30 (33%)</td>
<td>32 (42%)</td>
<td></td>
</tr>
<tr>
<td>English/Spanish</td>
<td>44 (26%)</td>
<td>26 (28%)</td>
<td>18 (24%)</td>
<td></td>
</tr>
<tr>
<td>Spanish-only</td>
<td>61 (37%)</td>
<td>36 (39%)</td>
<td>25 (33%)</td>
<td></td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
<td></td>
<td>0.715</td>
</tr>
<tr>
<td>General education</td>
<td>158 (95%)</td>
<td>86 (94%)</td>
<td>72 (96%)</td>
<td></td>
</tr>
<tr>
<td>Special education</td>
<td>9 (5%)</td>
<td>6 (7%)</td>
<td>3 (4%)</td>
<td></td>
</tr>
<tr>
<td>Percentage of students eligible for</td>
<td></td>
<td></td>
<td></td>
<td>0.204</td>
</tr>
<tr>
<td>free-reduced lunch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83%</td>
<td>36 (22%)</td>
<td>17 (19%)</td>
<td>19 (25%)</td>
<td></td>
</tr>
<tr>
<td>92%</td>
<td>51 (31%)</td>
<td>30 (33%)</td>
<td>21 (28%)</td>
<td></td>
</tr>
<tr>
<td>93%</td>
<td>46 (28%)</td>
<td>29 (32%)</td>
<td>17 (23%)</td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>34 (20%)</td>
<td>16 (17%)</td>
<td>18 (24%)</td>
<td></td>
</tr>
</tbody>
</table>

Note. *Mean (Standard Deviation); **Hispanic + Hispanic/White group compared to African American group; *Spanish-only + Spanish/English group compared to English-only group. *p < .05.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Intervention (n = 92)</th>
<th>Control (n = 75)</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>DIBELS First Sound Fluency</td>
<td></td>
<td>5.59</td>
<td>8.55</td>
<td>5.49</td>
</tr>
<tr>
<td>DIBELS Letter Naming Fluency</td>
<td></td>
<td>17.24</td>
<td>15.90</td>
<td>12.80</td>
</tr>
<tr>
<td>WJ-III Letter-Word Identification</td>
<td></td>
<td>102.09</td>
<td>13.35</td>
<td>98.32</td>
</tr>
<tr>
<td>WJ-III Passage Comprehension</td>
<td></td>
<td>107.08</td>
<td>10.58</td>
<td>108.01</td>
</tr>
</tbody>
</table>

*Note. *a* = Standard score; *p* < .08 (two-tailed).
Table 3.

Regressions examining literacy outcomes controlling for ESL status.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>$R^2$</th>
<th>$F$</th>
<th>$\beta$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIBELS First Sound Fluency</td>
<td>.189</td>
<td>3.036</td>
<td>-.015</td>
<td>.001</td>
</tr>
<tr>
<td>DIBELS Letter Naming Fluency</td>
<td>.333*</td>
<td>10.131*</td>
<td>-.174</td>
<td>.048*</td>
</tr>
<tr>
<td>WJ-III Letter-Word Identification</td>
<td>.336*</td>
<td>10.376*</td>
<td>-.171</td>
<td>.046*</td>
</tr>
<tr>
<td>WJ-III Passage Comprehension</td>
<td>.054</td>
<td>0.238</td>
<td>.047</td>
<td>.026</td>
</tr>
</tbody>
</table>

Note. The values in the table derive from a model in which ESL is entered as a covariate and values for $\beta$ and $\Delta R^2$ reflect the effect of Condition on the criterion measures controlling for ESL. *$p < .05$. 
References


[https://www.readyforkindergarten.org/images/pdfs/Othello_2010_FINAL.pdf](https://www.readyforkindergarten.org/images/pdfs/Othello_2010_FINAL.pdf)


The Children's Reading Foundation of Greater Chicago (CRFGC) is conducting a research study sponsored by the US Department of Education to evaluate the effectiveness of its Ready! for Kindergarten® program.

We are seeking 300 preschoolers between 3-4 years old and their parents who reside in at-risk communities within Cook County. **Preschoolers must be age 4 or older by May 1st, 2015 and eligible to attend preschool in the 2015-2016 school year.** Recruitment for potential participants includes, but is not limited to, preschools, daycares and libraries in the following qualifying cities: Chicago, Dolton, Harvey, Park Forrest, Chicago Heights, Ford Heights, Maywood, Sauk Village and South Chicago Heights.

**What is involved?**

You and your child will be in the research study for approximately 6-9 months.

The study includes:

- 30 minute orientation
- 90 minute parent workshops (3 workshops total)
- Parent follow-ups
- Your child will take a 15-20 minute reading assessment in May 2015.
- Parents interested in having their child participate must sign a consent form.

**What are the dates?**

You and your child will be randomly assigned to receive FREE educational workshops, games and new children's books offered between November 15, 2014 and April 15, 2015 or alternatively from May 15th through October 15th 2015. A detailed list of study procedures and workshop dates will be provided to parents or guardians participating in this study.

**What are the benefits?**

All participants will receive the READY! for Kindergarten program at no charge. Ready! for Kindergarten® provides classes for preschool parents that includes age appropriate targets, training tools, games and 12 new books to encourage pre-kindergarten activities in the home.

Participating preschoolers will receive a free reading achievement evaluation in May 2015. The information learned from this research study could lead to better literacy and reading programs for at-risk preschoolers in the future.

Families completing the program will also receive up to $40 in retail gift certificates.

**Who should I contact for more information?**

Lemi Erinkitola
Executive Director
CRFGC
lemi@readingfoundation.org
Research Study Consent Form

Study Title: Evaluating the Efficacy of Ready!

Researchers:
The following is list of investigators and co-investigators involved in this study.

Researcher: Children's Reading Foundation of Greater Chicago (CRFGC)
Project Director - Lemi Erinkitola M.S. - (CRFGC) 1-855-573-2387 ext. 101
Advisor - Paul S. Strand, PhD- Washington State University (509) 372-7177
Advisor - Cheryl Lind, M.S., Ed.S. – Center for Gifted - 847-970-8074
Co-investigators - If applicable, researchers and graduate student of Chicago School of
Professional Psychology may be used.

Sponsor: Children’s Reading Foundation

You are being asked to take part in a research study carried out by the Children’s
Reading Foundation of Greater Chicago. This form explains the research study and
your part in it if you decide to join the study. Please read the form carefully, taking as
much time as needed. Ask the researcher to explain anything you don’t understand.
You can decide not to join the study. If you join the study, you can change your mind
later or quit at any time. There will be no penalty or loss of services or benefits if you
decide to not take part in the study or quit later. This study has been reviewed by the
Washington State University Institutional Review Board and deemed exempt due to its
status as standard educational research with minimal risks.

What is this study about?

This research study is being done to evaluate the effectiveness of its READY! for
Kindergarten™ program. You are being asked to take part because you are a parent or
guardian with a preschooler(s) between the ages of 3 and 4 years old residing within
Cook County. You cannot take part in this study if you are involved in a similar research
study at this time.

What will I be asked to do if I am in this study?
The study will take place for about 6-9 months, beginning [date].
You will be asked to:
☐ Complete the Request for Family Information form (see attached sample)
☐ Complete READY! program questionnaire after each session.
☐ Attend one parent orientation on READY! (30 minutes)
☐ Attend three 90 minute parent workshops (4.5 hours)
☐ Attend Parent information sessions if applicable (4.5 hours)
Consent to reading achievement evaluation to be given to your child(ren) around May 2015 (15-20 minutes)

Are there any benefits to me if I am in this study?

All participants will receive the READY! for Kindergarten program at no charge. READY! for Kindergarten™ provides classes for preschool parents that include age appropriate targets, training tools, games and 12 new books to encourage pre-kindergarten activities in the home. Participating preschoolers will receive a free reading achievement evaluation in May 2015. The information learned from this research study could lead to better literacy and reading programs for at-risk preschoolers in the future.

Are there any risks to me if I am in this study?

As with any research study the potential risks from taking part in this study includes:
- Loss of confidentiality or sensitive information.
- Risks associated with sensitive questions

Will my information be kept private?

The data for this study will be kept confidential to the extent allowed by federal and state law. As applicable, participants’ privacy will be maintained throughout this study. No published results will identify you, and your name or your child’s name will not be associated with the findings. After the completion of the study data will be stored for a minimum of 3 years on password protected electronic devices. Voice, video, digital or image recordings of during the study might be made upon consent.

The results of this study may be published or presented at professional meetings, but the identities of all research participants will remain anonymous.

Are there any costs or payments for being in this study?

There will be no costs to you for taking part in this study. Families completing the program will also receive up to $40 in retail gift certificates.

You will receive up to $40 in gift certificates for taking part in this study. The $40 will be distributed either in $10-$15 increments during the parents sessions or as a lump sum during the reading achievement evaluation in May 2015. The payment schedule will be communicated during parent orientation. If you decide to quit the study there is a possibility that you will not receive any compensation.
Who can I talk to if I have questions?

If you have questions about this study or the information in this form, please contact the Children’s Reading Foundation of Greater Chicago – P.O. Box 19198 Chicago, IL 60619 Attention: Lemi Erinkitola M.S. 1-855-573-2387. If you have questions about your rights as a research participant, or would like to report a concern or complaint about this study, please contact Paul S. Strand, PhD- Washington State University (509) 372-7177 or Washington State University Institutional Review Board at (509) 335-3668, or e-mail irb@wsu.edu, or regular mail at: Albrook 205, PO Box 643005, Pullman, WA 99164-3005.

What are my rights as a research study volunteer?

Your participation in this research study is completely voluntary. There will be no penalty to you if you choose not to take part. You may choose to withdraw and discontinue participation in this study at any time. A decision to withdraw from the study will not affect the services available to you or your child within your school district.

What does my signature on this consent form mean?
Your signature on this form means that:
- You understand the information given to you in this form
- You have been able to ask the researcher questions and state any concerns
- The researcher has responded to your questions and concerns
- You believe you understand the research study and the potential benefits and risks that are involved.

Statement of Consent

I give my voluntary consent to take part in this study. I will be given a copy of this consent document for my records.

______________________________   ________________________
Signature of Participant          Date
Printed Name of Participant

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect.

I certify that when this person signs this form, to the best of my knowledge, he or she understands the purpose, procedures, potential benefits, and potential risks of participation.

I also certify that he or she:
- Speaks the language used to explain this research
- Reads well enough to understand this form or, if not, this person is able to hear and understand when the form is read to him or her
- Does not have any problems that could make it hard to understand what it means to take part in this research.

__________________________________________  ______________________________
Signature of Person Obtaining Consent            Date

__________________________________________  ______________________________
Printed Name of Person Obtaining Consent         Role in the Research Study

* If the investigator does not witness participant's signature, the person administering informed consent should indicate name, role (e.g., title and school) and sign on behalf of investigator.
Demographic Information Sheet for Evaluating the Efficacy of READY!
Study Participants

CHILD'S BASIC DEMOGRAPHIC INFORMATION

Child’s Name: ____________________________________________

Date of Birth: ___/___/______ Gender: □ Male □ Female

Ethnicity (check only one):
□ Hispanic/Latino Origin □ Non-Hispanic/Non-Latino Origin

Race (check all that apply)
□ American Indian/Alaska Native □ Asian □ Black/African American
□ Native Hawaiian/Pacific Islander □ White □ Hispanic/Latino
□ Bi-racial / Multi-racial □ Other _____________________________

Primary language(s) family speaks in the home: _________________________

Has your child attended: □ Pre-School □ Head Start □ Early Intervention Classes
If yes, what is the name of your program/school? __________________________

Does your family receive: □ SNAP □ TANF □ SSI
### MOTHER’S INFORMATION

**Mother’s Education**  
*Mark highest grade completed*

- [ ] Less than 4<sup>th</sup> Grade
- [ ] 5<sup>th</sup>-8<sup>th</sup> Grade
- [ ] 9<sup>th</sup>-10<sup>th</sup> Grade
- [ ] 11<sup>th</sup> Grade (no diploma)
- [ ] High School Graduate or GED
- [ ] Some College or Associates Degree
- [ ] Bachelor’s or Advanced Degree

**Mother’s Employment**

- [ ] Employed
- [ ] Stay at home parent
- [ ] Unemployed
- [ ] disabled

**Does Mother live with the child?**

- [ ] Yes  
- [ ] No

### FATHER’S INFORMATION

**Father’s Education**  
*Mark highest grade completed*

- [ ] Less than 4<sup>th</sup> Grade
- [ ] 5<sup>th</sup>-8<sup>th</sup> Grade
- [ ] 9<sup>th</sup>-10<sup>th</sup> Grade
- [ ] 11<sup>th</sup> Grade (no diploma)
- [ ] High School Graduate or GED
- [ ] Some College or Associates Degree
- [ ] Bachelor’s or Advanced Degree

**Father’s Employment**

- [ ] Employed
- [ ] Stay at home parent
- [ ] Unemployed
- [ ] disabled

**Does Father live with the child?**

- [ ] Yes  
- [ ] No
App Survey

Thank you for taking the time to give us feedback on our READY! for Kindergarten App. Parent feedback allows us to make improvements to the app for future use.

1. How easy was it for you to download the READY! for Kindergarten app?
   ○ Very easy
   ○ It took me a few minutes, but I got it
   ○ I couldn’t figure it out, someone had to help me

2. Overall, how satisfied are you with the READY! for Kindergarten app?
   ○ Very happy
   ○ I like it okay
   ○ I don’t like it at all

3. How long does your child play a game before becoming bored or moving on to new activity?
   ○ Less than 5 minutes
   ○ 5-10 minutes
   ○ 10-20 minutes
   ○ 20 minutes or longer

4. How old is your child? __________________________________________

5. Do you find the parent reports helpful?
   ○ The report is really helpful
   ○ I gave the report a try, it’s not helpful
   ○ I don’t know what the parent reports are

6. How many of the games are at a level of difficulty that help your child learn?
   ○ __________________________________________
   ○ None of the games. They are too easy for my child

7. Will you tell your friends about the READY! app?
   ○ Yes
   ○ I would, but they don’t have a phone or tablet that will work with the app
   ○ No

8. Do you use other early learning software or digital apps with your child? (ex. ABC mouse, Vroom, etc.)
   ○ Yes
   ○ No

9. If you answered yes to the above question, how does the READY! app compare to the other apps or software? __________________________________________

10. What do you think we should do to improve the READY! app?
    __________________________________________

11. Additional Comments? Please write additional comments on the back of this form.
App Survey

Gracias por tomarse el tiempo para darnos su opinión en nuestro App Ready! del programa Listos para el kinder. La información que usted nos proporcione nos permitirá hacer mejoras en nuestra aplicación.

1. Fue fácil para usted bajar la aplicación Ready!
   - Muy fácil
   - Me tomo unos minutos, pero al final lo logre
   - Yo no pude pero alguien me ayudó

2. En general, que grado de satisfacción le pareció la aplicación de READY!
   - Me gustó Mucho
   - Es indiferente
   - No me gusto para nada

3. Por cuanto tiempo su hijo jugó hasta que se aburrió y cambio a otra actividad?
   - Menos de 5 minutos
   - 5-10 minutos
   - 10-20 minutos
   - 20 minutos o más

4. Cuál es la edad de su hijo? ________________________________

5. Los resultados de los reportes le parecieron satisfactorios?
   - El reporte me ayudo bastante
   - Intente el reporte pero no me gusto
   - No sé cuáles son los resultados del reporte

6. Cuantos juegos de mayor grado de dificultad le ayudaron a su hijo a aprender?
   - ________________________________
   - Ninguno, son demasiado fáciles para mi hijo

7. Recomendaría a sus amigos la aplicación de READY?
   - Si
   - Si, pero mis amistades no tienen acceso a teléfono o tableta
   - No

8. Usted usa alguna otra aplicación educativa con su hijo? (ejemplo ABC mouse, Vroom, etc.)
   - Si
   - No

9. Si usted contestó que sí, como compararía la aplicación de Ready con respecto a otras que su hijo usa?
   ________________________________

10. Que le parece que deberíamos de mejorar en la aplicación de READY!
    ________________________________


12. Firme que recibió una tarjeta de regalo por el uso de la aplicación.