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Overview

This report, submitted by the Center for Adolescent Literacies at UNC Charlotte, is the sixth program evaluation conducted over a seven year period for Freedom School Partners’ Children’s Defense Fund Freedom Schools® programs in Charlotte, N.C. This work began in 2009 with a two-site pilot study followed by a 10-site study in 2010, a 15-site study in 2011, and 10-site evaluations in 2012 and 2013. We returned in 2015 to conduct another 10-site evaluation using a similar design as in previous years. While the overall design has remained similar (pre- and post-testing a representative sample of Scholars at selected program sites), we have sought to refine the analysis. This evaluation examines the program’s effect on the reading performance of students served by Freedom School Partners in Charlotte, North Carolina, in the summer of 2015. The data and findings presented in this report were collected from 10 of the 19 Freedom School sites in Charlotte in June and July 2015.

Freedom School Partners’ CDF Freedom Schools Program and Evaluation History

The Children’s Defense Fund (CDF) is a private, nonprofit child advocacy organization that was founded in 1973 to champion the rights of all children, especially those living in poverty. Based in Washington, DC, CDF grew out of the Civil Rights Movement under the leadership of Marian Wright Edelman, who is president of CDF. The Children’s Defense Fund Leave No Child Behind® mission states that it seeks “to ensure every child a Healthy Start, a Head Start, a Fair Start, a Safe Start and a Moral Start in life and successful passage to adulthood with the help of caring families and communities.”¹ CDF describes Freedom Schools as a program that “seeks to build strong, literate, and empowered children prepared to make a difference in themselves, their families, communities, nation and world today.” In short, Freedom School is a summer program with a mission of empowerment that includes a significant focus on literacy.

Created by the Children’s Defense Fund, the Freedom Schools program engages children in grades K-12² in a six week summer program designed to prevent the “learning loss” that students (known as Scholars in the program) typically experience over the months when school is not in session, as well as to have a positive impact on children’s character development, leadership, and community involvement. The CDF Freedom Schools program provides enrichment with the stated goals of “helping children fall in love with reading, increase[ing]...”

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¹ Information about the Children’s Defense Fund and its programs is available at the CDF website: http://www.childrensdefense.org/.
² Grade and age ranges vary by Freedom School site. Some programs serve children across the K-12 span while others focus on K-5 or K-8.
their self-esteem, and generate[ing] more positive attitudes toward learning.” CDF reports that more than 125,000 children have participated in Freedom School programs since its inception in 1995. In the summer, 2015, there were 12,375 Scholars in Freedom School programs in 107 cities and 28 states including Washington D.C.

The Freedom Schools programs provide a literature based reading program, the Integrated Reading Curriculum or IRC. About 80 books are on the IRC’s booklist and these books feature the work of many well-known authors. CDF has developed six weeks of lesson plans for approximately half of the books to help staff and Scholars reflect on the themes I Can Make a Difference in: My Self, My Family, My Community, My Country, and My World with Hope, Education and Action. The remaining titles are used to create on-site libraries of books for use during silent sustained reading and read-alouds as well as for research on history and community service projects. Servant Leader Interns are recruited and provided with training that includes how to implement the Integrated Reading Curriculum. The majority of Interns are college-age students.

In Charlotte, CDF Freedom Schools are hosted by Freedom School Partners, a 501(c)(3) organization founded in 1999 that is dedicated to serving children and families living in poverty. FSP’s mission is to “engage, educate and empower children to succeed in school and in life through quality educational enrichment programs.” Freedom School Partners began hosting Freedom Schools programs in 2004 at one location serving 100 scholars. In 2015, Freedom Schools served 19 sites and approximately 1,200 Scholars. FSP partners with community groups, faith-based organizations, colleges and universities, and corporations, which provide volunteer and financial support. Locally, the average Freedom School site costs $75,000 for a six-week, 50-scholar site (or about $250 per child per week). Program costs are shared by the program partners, which typically provide $60,000 for a 50-Scholar site, with FSP raising the remaining $15,000.

Freedom School sites in Charlotte range in size from 50 to 100 scholars and operate five days a week, from 8:00 to 3:00 p.m. Transportation is provided. Scholars are served breakfast, lunch and a healthy snack. Freedom School programs are offered at no charge to participating families beyond a $35 per family activity fee, and parents are asked to attend parent meetings and volunteer in the program. The Scholars are grouped by grade levels with Level I Scholars having just completed Kindergarten, first or second grade. Level II Scholars come from grades three through five and Level III Scholars from grades six through eight. There is a Level IV high school program but that group was not included in this study.

A typical day at a Freedom School follows a pattern. After breakfast, the Scholars and site staff, including the Interns, come together for Harambee, a Kiswahili word for “let’s pull together.” Harambee is a time of celebration and affirmation akin to a daily pep-rally, that includes songs,
chants and read aloud of a short book by a community member. IRC, or Integrated Reading Curriculum, follows Harambee. During IRC students go to their classrooms with their Intern for a 2-1/2 hour period of literacy activities built around the reading of culturally-relevant books. Scholars and Interns read, discuss and engage in activities drawn from the books. Following IRC, Scholars eat lunch and then engage in afternoon enrichment activities. The enrichment activities vary by site but include a mix of traditional summer activities like swimming and sports but also yoga, field trips to museums and other local sites, cooking and hands-on co-curricular activities that include an academic focus that connect to science, engineering, art and technology.

This research builds on a pilot evaluation study conducted at two Freedom School sites during the summer 2009. The evaluation was extended to additional sites in the Summer 2010, 2011, 2012 and 2013. Findings across all evaluation years have remained substantially consistent. Although there has been some variation across these years, nearly 90% of Freedom School Scholars grew or maintained in their ability to read as measured by the BRI. Furthermore, important data were gathered in 2010 regarding students’ attitudes towards the reading component of Freedom School with the overwhelming majority demonstrating positive attitudes towards the program (as determined in an analysis of the Scholar interviews). The Scholars comments pointed to the engaging nature of the books and activities that are part of the IRC and the role of the college-age interns as positive aspects of the program.

Related Research

Note: This review of related research is updated with each evaluation cycle. We review the research literature and add to this section but retain much of what has been reported in earlier reports.

Freedom Schools programs are six-week, literacy-based summer learning programs designed for impoverished children at risk of school failure. The risk factors that children in poverty face include lower academic achievement as measured by grades and on standardized tests, lower graduation rates, and difficulties with reading and literacy. Research on the CDF Freedom Schools programs has focused on the historical context of the program (Watson, 2014), leadership aspects of the Freedom School program, the impact on college-age Servant Leader Interns (Jackson, 2009a) and implications for teacher education (Coffey, 2009; Jackson, 2009b).

Since the release of the 2012 evaluation, a few new articles have been published about Freedom School including an overview of the program that was published by Teaching Tolerance (Williamson, 2013). Bethea (2012) published results of a study that indicate that involvement in the Freedom School program in Oakland, California had a positive influence on Scholars’ racial identity and views toward African/African American culture. Pre- and post-test
results also showed an increase on social skills strategies and a future commitment to social action; however, the study showed no statistically significant increase in attitudes toward reading.

**Summer Learning Loss**

The 9-month school schedule currently in widespread use has its roots in 19th and 20th Century society in which 85% of Americans were involved in agriculture. It made sense at the time to standardize school schedules and to have children at home during the summer months to help with farming. Today fewer than 3% of Americans are involved in agriculture and research shows that students’ learning is impacted negatively by this block of time away from school.

A meta-analysis conducted by Cooper et al. (1996) integrating 13 studies examining the effects of summer vacation on standardized achievement test scores showed that summer learning loss equaled at least one month of instruction as measured by grade level equivalents on standardized test scores, on average. An analysis of the research of Hayes and Grether (1983) with high- and low-poverty students in 600 New York City schools showed that rich and poor students had seven-months difference in scores at the beginning of second grade but this widened to a difference of two years and seven months by the end of grade six. What made this particularly striking was the research showing little or no difference in these students’ achievement when school was in session: They learned at the same pace. As Hayes and Grether noted: “The differential progress made during the four summers between 2nd and 6th grade accounts for upwards of 80 percent of the achievement difference between economically advantaged ... and ... ghetto schools.”

Research from the past decade shows that the impact of summer learning loss may be greater than found in earlier studies (Allington & McGill-Franzen, 2003). This deficit is so pronounced that Allington and McGill-Franzen dub summer reading loss as the “smoking gun.” Their research has reported that the cumulative effects of summer reading loss can mean that struggling readers entering middle school may lag two years behind peers in their ability to read. Additional research (Alexander, Entwisle, & Olson, 2007) traces the achievement gap between high–socioeconomic and low–socioeconomic 9th grade students to the loss in reading proficiency that occurs over the summer months throughout the elementary grades. Summer learning loss across the elementary school years accounted for more than half the difference in the achievement gap between students from high–socioeconomic and low–socioeconomic families. A study by Kim (2004) published by The Center for Evaluation of the American Academy of Arts and Sciences highlights that low-income and minority students experience greater summer reading loss but suggest that summer reading mitigates this negative impact. A 2014 study by Menard and Wilson suggests that the effect on students with reading disabilities
(RD) is greater than on non-RD students while another study (Sandburg Patton & Reschly, 2013) suggests greater impact on younger students.

The issue of summer learning loss is not only debated in scholarly journals. In 2010, *Time Magazine* published a cover story entitled “The Case against Summer” (Von Drehle, 2010) in which it reported:

> The problem of summer vacation, first documented in 1906, compounds year after year. What starts as a hiccup in a 6-year-old's education can be a crisis by the time that child reaches high school. After collecting a century's worth of academic studies, summer-learning expert Harris Cooper, ... concluded that, on average, all students lose about a month of progress in math skills each summer, while low-income students slip as many as three months in reading comprehension, compared with middle-income students.

Calls to reorganize school calendars and extend the school year have been suggested as a way to deal with the issue of summer learning loss (Aronson, Zimmerman & Carols, 1998; Dechenes & Malone, 2011; Dessoff, 2011; Jimerson, Woehr, Kaufman & Anderson, 2003; Silva, 2007; WestEd, 2001; Woelfel, 2005). More recent research indicates that summer programs with a math and literacy component can help students realize gains in their math and reading abilities during the summer months (Graham, McNamara, & Van Lankveld, 2011; Smith, 2011-2012). Recent scholarship has included more on the role of summer programs to mitigate summer learning loss (McCombs, et al., 2012) and even “do-at-home” activities (Nikirk, 2012).

*Urban Youth*

Youth from low-income households tend to have lower reading achievement scores than children from middle- and high-income households. Each school year, the reading achievement gap grows and much of the distance accrues during the summer when children are not as inclined to read. A recent study by Hughes-Hassell & Rodge (2007) examined the leisure reading habits of 584 urban adolescents (grades 5 – 8). One of their findings indicated that summer reading was not a “popular” activity for either male or female urban youth. However, it is known that for at-risk children, summer reading is essential to bridge the reading achievement gap (Allington & McGill-Frazen, 2003; Kim, 2004). Schacter (2003) studied the summer reading achievement of 61 first graders in Los Angeles. His study found that an 8-week summer reading “camp” experience had bearing on vocabulary, comprehension, phonics, and oral reading. Thus, for at-risk urban children, a summer program that focuses on reading has the potential to positively influence reading achievement.
Reading and Literacy Rates

Literacy is a key aspect of school completion. Results from the 2013 National Assessment of Educational Progress (NAEP) indicate that 31% of fourth-grade and 24% of eighth-grade public school students in North Carolina scored below the Basic level in reading. Only 35% of fourth-grade and 33% of eighth-grade students scored at or above the Proficient level. While these scores are up slightly from 2011, they still raise concerns about the reading ability of school-age children in North Carolina. The situation for students in transitional communities (urban and rural) is dire. Data from the U.S. Department of Education and the National Center for Education Statistics shows that nearly 70% of low-income fourth-graders cannot read at a basic level. This research found that the percentage of struggling readers in a classroom negatively influenced every student’s reading performance, undermining the benefits of comprehensive literacy instruction. This disparity can, in part, be attributed to unequal access to summer learning opportunities during the elementary school years (Children’s Defense Fund, 2008).

Objectives and Research Questions

History

Given the challenges of summer learning loss and literacy attainment and their potential impact on such issues as graduation rates, there is a need for more research on summer programs and their potential to address these issues. A 2005 evaluation of the Kansas City Freedom School Initiative demonstrated a significant improvement in reading abilities for Freedom School Scholars. The pilot evaluation conducted in 2009 by UNC Charlotte was the first effort to evaluate outcomes for participating Scholars in Charlotte. In early 2009, Freedom School Partners approached the University of North Carolina at Charlotte’s Institute for Social Capital, Inc. (ISC) to develop an outcomes evaluation for the program. A pilot program evaluation was conducted at two Freedom School sites for summer 2009. Results from the pilot evaluation were promising. This pilot study showed that of the 51 participants in grades two through five, 57% showed an increase in their reading levels as assessed in the Basic Reading Inventory, 10th Ed (BRI; Johns, 2008). Twenty-nine percent maintained their reading performance and just under 14% showed some decline. A recommendation that stemmed from the pilot evaluation was the continuation of programmatic evaluation.

In 2010, Freedom School Partners contracted with the Center for Adolescent Literacies at UNC Charlotte to implement an outcome evaluation project to examine the effect of Freedom Schools on children participating at all ten FSP Freedom School sites. The program evaluation sought to assess the extent to which the CDF Freedom Schools program met the following objectives for the K-8 students (Scholars) enrolled:
To increase children’s reading performances
To maintain or to increase children’s reading levels from the end of the school year until the beginning of the proceeding school year
To increase children’s “love” of reading

The research questions that guided the evaluation were the following:

1. Did Freedom School Scholars show any change in their Independent and Frustration reading levels as measured by the Basic Reading Inventory?
2. What were the academic and recreational reading attitudes of Freedom School Scholars as measured by the Elementary Reading Attitude Survey?
3. What were Freedom School Scholars’ perceptions regarding the reading component in the CDF Freedom Schools program?

Present Study – Summer 2015

Following the 2010 evaluation, our team modified the research design for the continued program evaluation of FSP based on the findings of the 2010 evaluation. The research questions that guided the evaluation were adjusted accordingly. It was decided that the 2010 study provided important insights about Scholars’ attitudes toward reading and perceptions of the reading component of the Freedom School program, so that question did not carry forward into 2013 and 2015. Additionally, this facet of the project added to the time and cost of the evaluation. The following research question has guided the program evaluations of Freedom Schools since the 2011 evaluation and is the focus of the 2015 study:

- What is the effect on the reading performance of students participating in a Freedom Schools program as determined by the Basic Reading Inventory?
  - Specifically, what proportion of Freedom School Scholars maintained or improved reading performance over time?
  - Was there a significant difference in number of Freedom School Scholars who maintained or improved compared to those whose reading performance declined over time?

Rationale for this Study

To answer this question, which focuses on Scholars’ reading performance, we sought a measure that is suited both to the goals of the Freedom School reading program but also to the contexts of that program. The IRC component of Freedom Schools, described earlier, engages students in the reading of culturally relevant books. Scholars and Interns read, discuss and engage in activities related to the books. The focus is more on comprehension and engagement than teaching reading skills out of context. Our observations of the program show that the IRC includes attention to word learning (vocabulary and sight words, for example), fluency and
decoding to some extent but usually within the context of reading books together. In our 2010 study, Scholars reported in very high numbers that the books and activities related to reading those books were a positive feature of the program. Given that the program engages Scholars in a more holistic approach to reading, we felt that the assessment used should also address reading in context with a particular focus on comprehension and word learning. The Basic Reading Inventory Form A and Form B, like other reading inventories, measures word knowledge and comprehension (and fluency if the passages are timed, which is not part of the protocol for this research). The BRI also fits into the larger context of the Freedom School summer program in that it does not require a great deal of time to administer to each child (about 20 to 30 minutes per Scholar per administration). Given that the program lasts six weeks, we did not want the evaluation to pull Scholars from the program for an extended period of time. We also continue to use the BRI because keeping the assessment tool consistent from year to year allows for some degree of comparison over time.

However, the BRI has some limitations. It does not provide a fine-grained analysis of change in reading ability. It measures change in grade-level increments. Because our analysis is of all Scholars for whom we get valid pre- and post-assessment results, and not individual Scholars or individual program sites, these limitations are minimized. We add here that while the BRI provides useful and meaningful results it probably fails to capture fine-grained (within grade-level) gains and losses particularly for the most emergent and struggling readers.

**METHODS**

**Study Design and Measures**

The 2015 evaluation aimed to assess 300 Freedom School Scholars across 10 of 19 sites of the 2015 Freedom School Partners Freedom Schools. For summer 2015, there were 1,203 Scholars enrolled in the program at the time the Scholar list was generated for this research. The sample was stratified by level, gender, and ethnicity (see Table 1). The evaluation included a pretest-posttest design using only an intervention group (i.e., children who were exposed to the Freedom School Program). This design allows investigators to measure change in reading performance from the start of the program to the end. A power analysis was conducted to determine the number of participants needed to detect statistically significant change over time in group (i.e., Scholar level) means. Based on these estimates, it was determined that 300 Scholars would be sufficient to detect change over time while still allowing for some loss in participants (due to absences and withdrawal from the program, for example). The results presented in this report are based on children for whom we obtained complete pre- and posttest data.
Table 1. Criteria for Stratification

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Level</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td>African-American</td>
<td>Hispanic</td>
<td>Other</td>
</tr>
</tbody>
</table>

Recruitment Procedures

Participants were recruited for the study through the enrollment process for the Freedom School Program. Parents were informed about the research project and were invited to participate. Consent forms were provided to all parents and collected by Freedom School staff. Each Scholar was randomly selected for the study based on the stratification criteria described above and was administered a child assent/permission prior to assessing his/her reading performance. The study was approved by the University of North Carolina at Charlotte Internal Review Board.

Instrument

The Basic Reading Inventory (BRI; Johns, 2008) is an individually administered reading inventory with multiple measures used to assess facets of reading. For this evaluation, the research team used Form A (pretest) and Form B (posttest). Forms A and B are equivalent measures used to assess students’ oral reading across three subtests: the Graded Word List (GWL), Graded Reading Passages, and Oral Reading Comprehension questions that accompany each passage. The BRI is an appropriate assessment that provides flexibility in diverse educational settings that emphasize literacy (Nilsson, 2008).

The BRI Forms A and B begin with a Graded Word List (GWL) section in which students read lists of 20 words. These lists begin at the Pre-primer (PP) level, which are described in the BRI as beginning reading levels, and progress to the 12th grade level. The BRI instructs assessors to begin the GWLs two grade levels below a student’s current grade. This convention was followed in this assessment program. The student (or Scholar in this case) reads the sets of word lists until an Independent, Instructional and Frustration level are determined.

The Graded Reading Passages section consists of short, grade appropriate passages of text that are read aloud by the scholar while the assessor documents reading accuracy. For Oral Reading
Accuracy, students are asked to read passages aloud; the assessing adult records the different types of errors or "miscues" the student/scholar makes. The assessor counts miscues including words skipped, words inserted, and word said incorrectly. Scores are reported at the Independent, Instructional, and Frustration levels based on scales provided for each passage.

For Oral Reading Comprehension, passages are a mix of expository and narrative form. Explicit comprehension questions about details from the text are provided after each passage is read aloud. The questions are scored and based on the number answered correctly; a determination is made regarding the comprehension level for that passage. Scores are reported at the Independent, Instructional, and Frustration levels (Johns, 2008). These levels—Independent, Instructional, and Frustration—describe a reader’s ability to read a text with a certain degree of accuracy and to understand or comprehend its meaning. A reader at the Independent level will read a text with few errors or miscues and have a solid understanding of what he or she read. At the Instructional level, a reader makes a few mistakes or miscues and less understanding of the text. A Frustration level text is difficult to read and to understand for a reader. Table 2, below, quantifies these levels.

The BRI yields information regarding reading proficiency and estimates an individual’s Instructional, Independent, and Frustration reading level for different passages. We report on the results based on the Total BRI score—a composite of the GWL, passages and comprehension questions that gives greatest weight to comprehension because it yields the most accurate assessment of a child’s performance (Johns, 2008). For the purpose of this report, we report on two outcomes based on performance on the GWL, passages and comprehension: Independent and Frustration Reading, which allows us to capture the range of their reading performance.

**Table 2. Levels of Reading Assessed with the Basic Reading Inventory**

<table>
<thead>
<tr>
<th>Level</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent (easy)</td>
<td>Comprehension (90%+)</td>
</tr>
<tr>
<td></td>
<td>Word Recognition (99%+)</td>
</tr>
<tr>
<td></td>
<td>Few or no repetitions</td>
</tr>
<tr>
<td></td>
<td>Very fluent</td>
</tr>
<tr>
<td>Frustration (too hard)</td>
<td>Comprehension (50%+)</td>
</tr>
<tr>
<td></td>
<td>Word Recognition (90%+)</td>
</tr>
<tr>
<td></td>
<td>Word by word reading; Rate is slow</td>
</tr>
<tr>
<td></td>
<td>Many repetitions; Lack of expression</td>
</tr>
</tbody>
</table>

Table 2 provides characteristics of the Independent and Frustration Reading performance. Scores for each outcome range from pre-primer to eighth grade. For analysis purposes, those who perform at pre-primer or primer are assigned a score of zero. Scholars who reach a ceiling
score of eighth grade at the Independent, Instructional or Frustration level at pre- and posttest are assigned a score of nine to capture their upper limit. While those Scholars may be able to read beyond ninth grade level, assigning a nine allows us to capture the Scholar’s minimum upper limit.

Data Collection Procedures

The study was approved by the University of North Carolina at Charlotte (UNC Charlotte) Internal Review Board (IRB). Prior to enrollment, parent consent along with demographic information about the child (e.g., date of birth, age, grade, race or ethnicity, and prior Freedom School Program participation) was collected by Freedom School Partners which shared the data with the research team for the purpose of this study. Each year of this evaluation, the assessment team selects a purposeful sample of Scholars from among those for whom consent has been obtained. The sample reflects the demographics of the Freedom School program in Charlotte (race, gender, age, grade level). Our goal is to identify approximately 300 Scholars for the pre-test across the 10 sites to create this sample. This year, fewer than expected Scholars had the necessary parent consent to participate in the study at a few of the participating sites, reducing our sampling pool (see Sample below). Additionally, there is a loss of Scholars between pre-test and post-test. Most of these are due to Scholars who do not complete the program or who are absent on the day of the post-test.

As in previous years, Scholars were selected to participate in a pretest during the first six days of the program (June 19-26, 2015) and Scholars who participated in the pretest and who were present at the time of the assessment participated in the posttest during the last week of the program. The UNC Charlotte-trained assessor obtained child assent prior to administering the pretest. Participants were assigned an identification number for data tracking purposes, to de-identify them to protect their identity, and for data analysis purposes. As described above, The Basic Reading Inventory (Johns, 2008) was used to determine a pre- and posttest Independent (floor) and a Frustration (ceiling) reading score equivalent to a grade level based on the exam’s scoring procedures. Each assessment took approximately 25-30 minutes to complete.

Sample

In 2015, Freedom School Programs enrolled 781 Scholars eligible to participate in the study (those Scholars at the 10 sites for whom we had consent). Of those, 281(36%) were assessed at pretest. At posttest, 225 (80%) of those who completed the pretest were assessed at posttest. The 20% attrition rate was due to Scholar absences or withdrawal from the program. Demographic characteristics of the recruited sample are provided in the results section of this report.
Analysis Plan

Prior to conducting data analysis, the data were entered and cleaned. For example, to capture the range in reading abilities, pre-primer scores were converted into zeros to capture pre-emergent readers who have not yet reached independence at the first grade level. This is often the case for younger Scholars, such as those in kindergarten. In addition, Scholars who were assessed, but were not able to reach the pre-premier level were assigned a score of -1. This allowed us to capture any change among those who moved from not being able to reach the lowest level of independence to, say, pre-primer (the lowest scored level). Twenty-four Scholars were assigned a -1 at pretest. Of those unable to read at an independent level in the pretest, six were in kindergarten, 11 were in the first grade, three were in second grade, two were in the third grade, and two were in the sixth grade. At posttest, 13 of those assigned a score of -1 completed the posttest and 12 were not able to reach a basal reading level and were consequently assigned a -1 at posttest. On the other end of the spectrum were Scholars who exceeded the eighth grade score limits of the test. Those Scholars were assigned a nine to capture their minimum upper limit. Sixteen scholars received a score of nine because they reached the upper limit of the test before they reached frustration and 53 Scholars were assigned a max score of nine at posttest. Of the 16 who received a score of 9 at pretest, four did not take the posttest and one declined to a score of 8 at posttest. The analysis captures the changes that occurred from -1 to, say, zero and from or to a score of nine. The recoded data did produce slightly higher means for older grades and slightly lower means for younger Scholars because of the assigned numbers. However, this recoding did not impact group comparisons conducted to determine change over time when compared to the data that was not recoded using -1 and nine.

To answer our research question, we computed change scores from pretest to posttest for Independent and Frustration reading performance based on the composite score, which captures performance on the Graded Word List, the Graded Reading Passages and Oral Reading Comprehension described above. The following section provides three sets of results for each outcome (Independent and Frustration). The first set of results shows means and standard deviations for the pre- and posttest by Level. The next set of results provides a distribution that shows the proportion of children whose reading performance declined, was maintained, or improved over time. To determine whether there is a statistically significant difference from pre- to posttest (or within subjects also referred to as a within subject test), we conducted the Wilcoxon Signed-Ranks Test, which is a non-parametric hypothesis test designed to test differences in a sample that is not normally distributed and who are assessed using repeated measures as is the case in this study. The Wilcoxon Signed Ranks Test allows investigators to determine whether there is a statistically significant difference in means or groups (declined
and improved) among Scholars from pre- to posttest. Also, non-parametric methods allow us to work with data that are ranked such as the use of grades.

RESULTS

Table 3 shows demographic information for those who did not complete the posttest and those who completed both assessments. Compared to those who completed both assessments, Scholars who did not complete the posttest were more likely to be younger (i.e., Level I), African American, male, to have repeated a grade and were less likely to have had prior Freedom School experience. We include this information because it provides an important opportunity for targeted retention efforts for future assessment and program engagement.

Table 3. Scholar Demographic Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Did not complete Posttest (N = 56)</th>
<th>Analytic Sample Percent/Mean(SD) (N=225)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I (Kindergarten to Second Grade)</td>
<td>44%</td>
<td>37%</td>
</tr>
<tr>
<td>II (Third Grade to Fifth Grade)</td>
<td>37%</td>
<td>43%</td>
</tr>
<tr>
<td>III (Sixth Grade to Eighth Grade)</td>
<td>19%</td>
<td>20%</td>
</tr>
<tr>
<td>Mean Age</td>
<td>8.98 (2.27)</td>
<td>9.31 (2.18)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td>67%</td>
<td>56%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>33%</td>
<td>37%</td>
</tr>
<tr>
<td>Other^</td>
<td>0</td>
<td>7%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>Female</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>Reduced Lunch</td>
<td>96%</td>
<td>94%</td>
</tr>
<tr>
<td>Percent Prior Grade Retained</td>
<td>16%</td>
<td>8%</td>
</tr>
<tr>
<td>Prior FSP Experience</td>
<td>50%</td>
<td>60%</td>
</tr>
</tbody>
</table>

Notes: ^ Other includes Asian American (2.3%), White (1.4%), Native American (.5%) and Mixed Heritage (2.7%). Values are based on valid percent.

Among those who completed both assessments, Level II Scholars represented the largest proportion of participants (43%) followed by Level I Scholars (37%) and Level III Scholars, who represent 20% of the sample. The smaller proportion of Level III Scholars in the study is not surprising. Not all sites include Level III ages in their Freedom School program, and for most that do include Level III, that group is a smaller percent of the grade and age level. Just over half of the analytic sample (i.e., those who completed both assessments) was African American.
(56%) and female (55%). The vast majority participated in the free lunch program at their respective schools (96%) and more than half had prior Freedom School Program experience (60%).

**Independent Reading Performance**

Table 4 shows means and standard deviations by Level for both tests. The results indicate that, on average, Scholars at all Levels improved at least two full grades from pretest to posttest. Scholars in Level III demonstrated the largest growth with a mean improvement of 2.73 from pretest to posttest. Very similar growth was observed in Level II Scholars with a mean difference from pre- to posttest of 2.53. Lastly, the youngest cohort of Scholars also showed improvements over time from a mean score of 0.91 (SD = 1.77) at pretest to 2.90 (SD = 2.20) at posttest.

**Table 4.** Mean scores for the BRI Independent reading measure by level (N=219)

<table>
<thead>
<tr>
<th>Level</th>
<th>N</th>
<th>Pretest M</th>
<th>Pretest SD</th>
<th>Posttest M</th>
<th>Posttest SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>82</td>
<td>.91</td>
<td>1.77</td>
<td>2.90</td>
<td>2.20</td>
</tr>
<tr>
<td>2</td>
<td>93</td>
<td>3.31</td>
<td>1.96</td>
<td>5.84</td>
<td>1.97</td>
</tr>
<tr>
<td>3</td>
<td>44</td>
<td>4.09</td>
<td>2.06</td>
<td>6.82</td>
<td>2.16</td>
</tr>
<tr>
<td>Total</td>
<td>219</td>
<td>2.57</td>
<td>2.31</td>
<td>4.94</td>
<td>2.64</td>
</tr>
</tbody>
</table>

Note: Six Scholars did not have Level data and were therefore dropped from this analysis.

Figure 1 provides more nuanced information regarding change observed over time. Specifically, the figure below illustrates change over time across three groups: declined, maintained or improved. More than half of the sample showed improvement (55.6%) from pre- to posttest. A third of the children assessed were able to maintain their mean performance over time and 12% declined over time.

To determine whether the differences from pre- to posttest were significant, we conducted a Wilcoxon Signed-Ranks Test. Based on our analysis, the results indicate that there was a statistically significant change from pre- to posttest $Z = -8.217$, $p = .000$. 

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A comparison between those who improved, maintained and decline in demographic characteristics revealed that a higher proportion of females improved (62%) compared to those who maintained (28%) or declined (11%). A slightly higher proportion of males declined (17%). However, close to half of those who improved were male (49%). Results from the chi-square test did not reveal any significant differences. Results did reveal that Scholars in older grades, starting at grade 3, were more likely to improve. Results from the chi-square test showed that there were significant differences \( (p = 0.018) \). A comparison among the two largest racial/ethnic groups (African American and Latino) revealed that 10% of African American Scholars declined compared to 17% of Latino Scholars. However, both groups had equal proportions of Scholars who improved (57%). There was no significant association between race/ethnicity and group performance. There were also no statistically significant differences by history of repeated grade. However, a slightly higher proportion of Scholars who had not repeated a grade (57%) improved compared to those who had (47%). It is promising that 40% of Scholars who had repeated a grade were able to maintain performance in the Independence test; 30% of those who had not repeated a grade also maintained performance from pre- to posttest. Based on results from the chi-square test, there were also no statistically significant differences by free lunch program participation. However, Scholars who receive participated in the free lunch program were more likely to decline than those who did not participate in the program (14% versus 0%, respectively). It is important to note that only 11 Scholars did not participate in the free lunch program compared to 185 in our final sample who did. Finally, very similar proportions of Scholars who had participated in FSP previously declined (14%) and those who had not participated previously (13%). Still, a slightly higher proportion of Scholars with
previous FSP experienced improved (61%) compared to those without previous FSP experience (49%). Results from the chi-squared test did not reveal any significant associations.

**Frustration Reading Performance**

As with the independent reading performance findings, Table 5 shows mean and standard deviations from pretest to posttest by Level. Again, we found that there was improvement across all Levels equivalent to two grades, on average. Here, we see that Level II Scholars showed the most improvement in ceiling performance over time, with a mean difference of 2.65 from pretest to posttest. Scholars in Level III also showed a mean difference of 2.43, on average, from pre- to posttest. Younger Scholars also showed an average improvement of 2.31 over time.

**Table 5.** Mean scores for the BRI Frustration reading measure by level (N=219)

<table>
<thead>
<tr>
<th>Level</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
</tr>
<tr>
<td>Level 1</td>
<td>82</td>
<td>1.26</td>
</tr>
<tr>
<td>Level 2</td>
<td>93</td>
<td>4.44</td>
</tr>
<tr>
<td>Level 3</td>
<td>44</td>
<td>5.95</td>
</tr>
<tr>
<td>Total</td>
<td>219</td>
<td>3.55</td>
</tr>
</tbody>
</table>

Note: Six Scholars did not have Level data and were therefore dropped from this analysis.

The following figure illustrates change over time in three categories: declined from pre- to posttest, maintained mean ceiling reading over time and improved from pre- to posttest (i.e., was able to exceed previous threshold). Figure 2 shows that the vast majority (61.3%) of Scholars were able to exceed their previous reading threshold in the posttest test. Close to a third (28.9%) maintained their mean reading performance from pre- to posttest and 9.8% declined over time.

Results from the Wilcoxon Signed-Ranks Test indicated that there was a statistically significant change from pre- to posttest on mean ceiling reading levels $Z = 9.23, p = .000$. As with the Independence performance, similar rates of females (10%) and males (11%) declined from pre- to posttest. A slightly higher proportion of females improved (66%) compared to males (56%).
There were no significant associations. Again, the vast majority of Scholars from the 3rd grade and higher improved. Over a third of kindergarten, first, and second grade Scholars maintained reading performance on this measure. These were only a marginal significant association ($p = 0.071$), as indicated by the chi-square test. A slightly higher proportion of Latinos declined (13%) compared to African Americans (8%). However, very similar rates improved (62% and 63%, respectively). No significant associations were found. While not statistically significant, there were minor differences in the proportion of Scholars who had repeated a grade and those who had not who declined over time (13% versus 10%, respectively). Sixty-two percent of those who had not repeated a grade improved as did 56% who had repeated a grade. Again, those who participate in the free lunch program were more likely to decline (11%) compared to those who did not participate in the program (0%). Still, no significant findings were revealed based on the chi-square test. Finally, similar proportions of Scholars with or without previous experience declined (11% and 10%, respectively). More than half the Scholars with (63%) or without previous FSP experience improved from pre- to posttest. No significant differences were found.

**DISCUSSION AND CONCLUSIONS**

The objective of this evaluation was to determine if there was observable change in two measures of reading performance from pre- to posttest among students who participated in the Freedom School Program. Our results clearly indicate that there was substantial improvement over time and that these differences were statistically significant. Across both
tests—the independent and frustration exams—Scholars demonstrated improvement of at least two grades from pre- to posttest, on average. The results also indicate that at least half of the sample improved from pre- to posttest on both measures.

These findings are consistent with earlier evaluations of Freedom Schools in Charlotte conducted by the Center for Adolescent Literacies. The data and findings document that approximately 90% of the children evaluated who participate in Freedom Schools either maintained or gained in their ability to read from pre-test to post-test. We note that Level II and Level III Scholars, students in grade 3 through 9, showed more growth on average that their younger peers, Level I Scholars.

Further analysis revealed that girls were more likely to improve on both measures compared to males. However, the differences were not statistically significant. We also found that improvement from pre- to posttest was more pronounced among those in the third grade and above. Also, there was a significant association between grade and performance in Independence. Latinos were more likely to decline than African Americans, though no statistical significant findings were revealed. Still, both groups showed similar rates of improvement in both measures. Scholars who had repeated a grade, who participate in the free lunch program and who had previous FSP experiences were more likely to decline. However, no statistically significant associations were found. It is important to note the a large proportion of all Scholars showed improvement from pre- to posttest. It is also important to highlight that among those who declined, a larger proportion maintained performance. Still, enhanced intervention efforts should focus on those more likely to decline (e.g., younger Scholars, Latinos and males).

This evaluation, like those conducted in 2010 through 2013, yields promising results about the impact of Freedom School on the reading of low-income students participating in this summer program. However, some limitations must be considered. For example, we cannot use these data to explain why older Scholars show greater gains, on average, than younger Scholars. Also, we do not have data to understand carry over effects from the summer Freedom School program into the academic year. That is, we do not know what happens to Scholars once the program ends. These are important questions that bear further research.

Considerations

As we look across the six years of data we have analyzed and reported on, we share a few thoughts that we believe bear consideration.

- These reports form a solid baseline of information that suggest that CDF Freedom Schools programs play a role in addressing summer learning loss for the students who participate throughout the six weeks. Our evaluations yield statistically
significant results based on evaluations at selected program sites. We see great value in developing meaningful and manageable evaluation tools that could be implemented with all Scholars at all sites. This approach would enhance Freedom School Partner’s ability to evaluate the progress of all children in the program and to better understand program effectiveness at each site. To make such an effort manageable and cost-effective, it may be necessary to use another evaluation tool or to use part of the BRI (the Graded Word Lists, for example) and have program staff conduct the evaluation. External evaluations could be conducted periodically as a way of gathering additional data, providing more in-depth analysis and as a check of internal evaluations.

- This research represents a year-by-year “snapshot” of the impact of Freedom School on the reading of participating Scholars. Practical challenges make longitudinal analysis difficult. Children and families move making year-to-year tracking difficult. Also, different sites are selected for the evaluation research so that we can obtain an appropriate sample of Scholars. However, moving forward we suggest that consideration be given to longitudinal research so that we can better understand the effects of participation in Freedom School over a period of years. While we can only speculate as to why older students in the program make greater gains in their reading as measured by the BRI than younger students (Scholars), one might conclude that Scholars who continue in the program as they move up in grades will see greater benefits. The inclusion of a comparison group will certainly strengthen the methodology and allow us to demonstrate the effect on children who attend Freedom School compared to those who do not participate.

- Retention is a challenge for most summer programs, but especially those that work with youth who live in poverty. We know from our work with Freedom School Partners that significant efforts are made to retain Scholars through the six-week program. Our data suggest that more research needs to be conducted to learn about the reasons for the 20% loss of Scholars in our study who participate in the pre-test but not in the post-test. While the results indicate that there was improvement and that change over time was statistically significant, it is important to note that a vulnerable group of Scholars were lost to attrition. African American males are among those less likely to be present for the posttest. Given the reading gaps between this population and other children, it will be important to explore strategies for retaining the most vulnerable children in the program.
The Center for Adolescent Literacies at UNC Charlotte

The Center for Adolescent Literacies at UNC Charlotte is an instructional center focused on developing instruction to make literacy and learning relevant and effective for adolescents and those who work with them. The Center also will conduct and support research and service in support of its primary mission.

The mission of the Center for Adolescent Literacies (CAL) at UNC Charlotte is to advance the literacy achievement of adolescents in urban school settings and to develop pedagogies for adolescents and those who work with them to prepare them to be productive and empowered 21st century citizens. Specifically, the objectives of our center are as follows:

- To provide community outreach
- To build cultural understanding and awareness
- To promote community engagements
- To encourage civic engagement through service learning
- To equip teachers, parents and pre-service teachers with knowledge, skills, and dispositions for supporting and scaffolding adolescent literacy and service learning
- To develop and provide collaborative professional development to promote adolescent literacy
- To encourage collaborative involvement among all stakeholders (including teachers, students, parents/guardians and university faculty).

Evaluation Leadership Team

Dr. Bruce Taylor is the Director of the Center for Adolescent Literacies at UNC Charlotte and is an Associate Professor in the Department of Reading & Elementary Education and an Associate Dean in the University College. Over the past 12 years, Dr. Taylor has provided leadership in developing the ReadWriteServe (RWS) community-based literacy initiatives at UNC Charlotte. These programs include America Reads, the Urban Youth in Schools Internship, and RWS Tutor Training. He is the author and co-author of numerous peer-reviewed articles, book chapters, and technical reports and co-author of three books. His research examines the social and cultural aspects of literacy and learning of adolescents and, in particular, ways to meet the academic learning needs of diverse and marginalized students. He has led several reading program evaluation projects. Dr. Taylor teaches undergraduate, master's level, and doctoral courses that focus on content-area and adolescent literacy, digital literacies in education, and sociocultural aspects of language and literacy.

Dr. Sandraluz Lara-Cinisomo is an Assistant Professor at the University of Illinois at Urbana-Champaign (UIUC) in the Department of Kinesiology and Community Health. Dr. Lara-Cinisomo’s research explores the association between biomarkers, psychosocial factors and
perinatal depression. Dr. Lara-Cinisomo’s research focuses on English and Spanish speaking Latina mothers. Prior to joining UIUC, Dr. Lara-Cinisomo was an assistant professor an NIH-funded fellow at the University of North Carolina at Chapel Hill, an assistant professor at University of North Carolina at Charlotte and a behavioral scientist at the RAND Corporation. Her research includes qualitative and quantitative methods.
References


