Young African American Scholars Make Reading Gains at Literacy-Focused, Culturally Relevant Summer Camp that Combats Summer Reading Loss

Michael P. Mesa
Alysia Roehrig
Chelsea Funari
Shawna Durtschi
Cheyeon Ha
Erik Rawls
Florida State University

Cheron Davis
Florida A&M University

Abstract

A substantial amount of evidence suggests that students, particularly those from economically disadvantaged households, experience summer reading loss. Available evidence suggests this is due to a lack of participation in literacy-focused activities and access to books during the summer break from school. The current study investigated whether participation in Children's Defense Fund's Freedom Schools, a free, six-week, literacy-focused, culturally relevant summer camp, may help prevent summer reading loss. The sample consisted of 125 students who participated in three sites of the summer camp and completed pre- and post-test reading assessments. The results of this study suggest that the literacy-focused summer camp provides students with an academically enriching opportunity that may help prevent summer reading loss, particularly for students in Grades 3–5, who experienced small gains on average in vocabulary, fluency, and comprehension. Recommendations are provided regarding how the program can be modified to maximize potential benefits related to participation.

Keywords: summer reading loss, culturally relevant education, summer camp

Introduction

Previous research on summer reading loss has provided evidence that students can lose at least one month of reading skills growth during the summer break from school (Alexander et al., 2007; Allington & McGill-Franzen, 2003; Cooper et al., 1996). Available research points to lack of summer reading activity as one cause of summer reading loss. For example, Heyns (1978) found that summer reading activity explained the variation on a standardized reading test to a greater degree than any other summer activity. The results of McComb et al. (2019) suggest that

Author's Note: All data were collected as part of the Children's Defense Fund's (CDF) internal program evaluation. Each CDF Freedom Schools site must raise its own funds to conduct its summer camps. The assessment administrators were independent contractors hired by the CDF to collect data. The research project was also funded in part by the Institute of Education Sciences (Grant number: R305B170017).

academically enriching summer programs are a promising mechanism to support students' needs during the summer break from school. However, further research is needed to provide evidence of the effectiveness of academically enriching summer programs. The purpose of this study was to evaluate whether participation in the Children's Defense Fund's (CDF) Freedom Schools, a free, literacy-focused, and culturally relevant summer camp might help prevent summer reading loss. Our research question was: Do children who participate in CDF Freedom Schools (i.e., CDF Freedom Schools scholars) experience summer reading loss?

CDF Freedom Schools is a six-week, literacy-focused, summer camp coordinated nationally by the CDF. Children in Grades K–8 (and up to 12 at some sites) who attend the camps are exposed to a transformational reading curriculum, featuring culturally relevant texts and a core emphasis on agency for social action. CDF Freedom Schools is intended to support the development of children's literacy skills, physical health, and mental health through the Integrated Reading Curriculum (IRC) and diverse afternoon activities. The CDF Freedom Schools program serves approximately 12,000 students, referred to as scholars, across over 180 sites in 28 U.S. states each summer. This study was set at three CDF Freedom Schools sites hosted from 2016 to 2018 in North Central Florida near the state capital.

There is some evidence to suggest CDF Freedom Schools does reach its goal of preventing summer reading loss (Roehrig et al., 2018). Other literacy-focused summer programs that provide students with literacy instruction and books to take home have also found positive outcomes (Petty et al., 2017). However, the field of research calls for further corroborating evidence to support the effectiveness of understudied summer literacy programs, such as CDF Freedom Schools (McCombs et al., 2019). This study responds to this call to research by examining the pre- and post-test reading scores of children participating in three sites of CDF Freedom Schools across multiple years in order to determine if the participating children experienced summer reading loss.

Summer Reading Loss

The initial purpose of the U.S. summer holiday was to accommodate a longer harvest season to meet the needs of agrarian society. Today, the summer break from school lasts up to three months and represents a considerable interruption to academic instruction (Kerry & Davies, 1998). Summer reading loss is a well-documented and established phenomenon in academic literature. Research on summer reading loss provides substantial evidence that students can lose a few months of reading skills during the summer break from school (Alexander et al., 2007; Allington & McGill-Franzen, 2003; Bullard, 2020; Cooper et al., 1996; Entwisle et al., 1997; Entwisle et al., 2001).

However, some research suggests that not all students experience summer reading loss; rather, economically disadvantaged students experience summer reading loss while reading skills continue to grow for more economically advantaged students during the summer break from school (Alexander et al., 2007; Allington & McGill-Franzen, 2003). The results of a meta-analysis of 11 studies on summer reading loss suggest that the summer break from instruction results in a three-month reading gap between economically advantaged and disadvantaged students (Cooper et al., 1996). As an additional example, Entwisle et al. (1997) found that elementary-aged students from more economically advantaged households added a total of 47 raw score points to reading achievement test scores over five years of summer breaks, whereas children from economically disadvantaged households added one point. Some evidence even suggests that the achievement gap seen between economically advantaged and disadvantaged students in ninth grade is due to the differences in summer learning growth during the elementary years (Alexander et al., 2007). Essentially, the results from these studies indicate the achievement

gap between economically advantaged and disadvantaged students widens substantially during the summer break from school.

Heyns' (1978) findings suggest that reading activity, which requires access to books and reading instruction, is the activity most strongly correlated to learning during the summer break from school. Entwisle and colleagues (2001) developed the "faucet theory" to explain the phenomenon of summer reading loss. When the faucet is turned on (i.e., when students are receiving academic instruction in their schools), the reading skills of all children regardless of economic background develop, but during the summer break from school (i.e., when the faucet is turned off), the reading skills of economically advantaged children continue to develop, whereas the reading skills of economically disadvantaged children do not develop and possibly decline (Allington et al., 2010; Entwisle et al., 2001). The results of the research on summer reading loss are especially important to consider in the context of education in Florida since over 1.5 million students, approximately 58% of all Florida students, qualified for free or reduced-price lunch in 2013 or 2014 (Florida Department of Education, 2017).

Research suggests that economically disadvantaged children (e.g., children who qualify for free or reduced-price lunch) have limited access to books in their schools, neighborhoods, and homes (Constantino, 2005; Duke, 2000; Van Steensel, 2006). Some studies suggest that improving book access during the summer break from school for children from economically disadvantaged households is effective for reducing summer reading loss (Allington et al., 2010; Kim & Guryan, 2010). For example, Kim (2004) examined a district wide, reading-focused, summer program and the results suggest that reading approximately five books during the summer break from school may prevent summer reading loss. Additionally, Kim (2006) reported that a summer book distribution program had significant effects on the fall reading skills of all students, but the largest significant effect was for African American students.

Some evidence exists that literacy-focused instruction during the summer can also prevent summer reading loss. For example, the results of Lenhoff et al. (2020) suggest that short-term literacy-focused tutoring during the summer helped prevent summer reading loss in a sample of students from economically disadvantaged households. McCombs et al. (2019) have identified several other summer programs that improve students' academic outcomes. The provision of literacy-focused instruction during the summer is opportune because of the lack of academically enriching opportunities (i.e., the faucet is turned off; Entwisle et al., 2001), especially for students from economically disadvantaged households.

As such, the current study examines the potential influence of book access and reading instruction, embedded in the culturally relevant literacy curriculum of a free summer camp, on the summer reading loss and gains of a primarily African American sample. The context of CDF Freedom Schools and its IRC are aligned with Ladson-Billings' (1995) research on effective instruction for African American students. With culturally relevant teaching, "(a) students must experience academic success; (b) students must develop and/or maintain cultural competence; and (c) students must develop a critical consciousness through which they challenge the status quo of the current social order" (Ladson-Billings, 1995, p. 160).

Multicultural Education and Culturally Relevant Pedagogy

The history of multicultural education lies in the civil rights movements of the 1960s and 1970s (Banks, 1993; Gorski, 1999; Ladson-Billings, 1992). During this time, various historically oppressed groups (e.g., African Americans, women, LGBTQ+ individuals) challenged the discriminatory practices of American society, including public institutions such as schools. Specific examples of change called upon by these activists included reform of curriculums and hiring practices in schools (Banks, 1993; Gorski, 1999). By the late 1980s, a field of research had

developed that explored new models of education focused on social justice, critical thinking, and equal opportunity for all students (Banks, 1993; Gorski, 1999).

Culturally relevant pedagogy, a term credited to Ladson-Billings (1992), is a subfield of multicultural education (e.g., Gibson, 1976; Sleeter & Grant, 1987), which emphasizes that all students (regardless of gender, social class, ethnicity, race, or culture) should have equal opportunities to learn and succeed in schools (Banks, 1993). Culturally relevant pedagogy addresses academic achievement while also fostering students' development of their cultural identity and the critical thinking skills necessary to challenge the status quo (Ladson-Billings, 1992, 2009, 2014). Teachers implementing culturally relevant pedagogy respond to the cultures of the specific students in the classroom by linking learning to understanding and appreciation of students' cultures (Brown-Jeffy & Cooper, 2011; Ladson-Billings, 1995, 2009, 2014; Rychly & Graves, 2012).

The context of our study is the CDF Freedom Schools, whose guiding principles align well with culturally relevant pedagogy. The history of CDF Freedom Schools is grounded in the Mississippi Freedom Summer Project of 1964. In late 1963, leaders of the Student Nonviolent Coordinating Committee met to develop the curriculum to be implemented in the Mississippi Freedom Summer Project the following summer (Chilcoat & Ligon, 1999; CDF, 2020; Jackson & Howard, 2014). The goal of the curriculum was to provide an alternative approach for progressive and radical educators to use, including examples of day-to-day, instructional practices.

The program was re-established by the CDF in 1995 under the leadership of Marian Wright Edelman (Johnson, 2017). Today, the CDF Freedom Schools program aims to provide a literacy-focused, culturally enriching summer experience to children at no cost to families. As previously described, a substantial amount of evidence suggests that children experience summer reading loss when they lack access to books and reading instruction during summer break from school (Cooper et al., 1996; Jackson & Howard, 2014). By providing a free summer camp, which includes transportation, healthy meals, a home library of books, and culturally relevant reading instruction, CDF Freedom Schools aims to reduce summer reading loss and provide all students with more equal opportunities for success when they return to their traditional schools (CDF, 2020).

Culturally Relevant Reading Instruction in CDF Freedom Schools

The principles of culturally relevant education are immediately observable in the CDF Freedom Schools' educational model. In this section, we describe how CDF Freedom Schools provides a culturally relevant education to its students (referred to as scholars within the program) by creating an environment that values the experiences of children from historically marginalized racial and cultural backgrounds (CDF, 2020). By creating an environment that differs from the traditional school environment, run by teachers and administrators that reflect the racial and cultural diversity of their community, the CDF Freedom Schools program aims to provide all children with an environment where they can develop a love of reading and increased sense of civic duty.

Children's educational experience in the CDF Freedom Schools differs from their experiences in a traditional school in that CDF Freedom Schools' teachers are hired to reflect the racial and cultural diversity seen in the students being served (Jackson & Howard, 2014). For instance, the teachers in the program are mostly African American and Hispanic college-age students who volunteer to participate in the program. Prior to beginning the program, all teachers (referred to as Servant Leader Interns within the program) receive a week-long training covering pedagogy and social activism (CDF, 2020; Jackson & Howard, 2014). During the training, it is emphasized that

teachers should focus on reading comprehension and students freely expressing themselves. The teachers are also taught how to implement the curriculum used in the program (i.e., IRC).

The CDF Freedom Schools IRC is an example of a curriculum that incorporates the characteristics of culturally relevant pedagogy. The curriculum used in CDF Freedom Schools (i.e., IRC) is grounded in what the CDF considers to be five essential components: (a) quality academic experiences focusing on literacy, (b) parent and family development, (c) civic engagement and social action, (d) intergenerational servant leadership development, and (e) nutrition, health, and mental health (CDF, 2020). The three, multi-grade groups of scholars have their own curriculum with common features including daily themes, focus skills, aligned common core standards, and additional focus performance objectives. A typical morning during the IRC begins with an opening activity that introduces the theme of the day, and that leads into the main activity of reading and discussing a book. After the reading discussion, the curriculum provides a range of cooperative group activities during which scholars work together to create a product inspired by an aspect of the book, or use diverse tools including multimedia to extend discussion on elements of the books. Finally, the curriculum frequently provides conflict resolution and social action activities to supplement the cooperative group activities.

The IRC differs from the curricula used in traditional schools. A key characteristic of the curriculum is that instructional activities should be primarily derived from the lived experiences of the students (Chilcoat & Ligon, 1999; CDF, 2020; Jackson & Boutte, 2009; Jackson & Howard, 2014). Another key characteristic of the curriculum is its use of books written by culturally diverse authors. Many of the books focus on topics that may be of particular relevance/interest to students from non-dominant cultures (e.g., discrimination, racism, immigration, bullying; i.e., developing cultural competence). This is a key component of the program since one of its goals is to increase students' love of reading. It is by providing students with stories and characters that they relate to that the program aims to increase students' interest and love of reading.

The IRC encourages the teacher to be a facilitator and does not include the use of didactic teaching methods, the presence of authoritarian teachers, or the use of testing/grading (Chilcoat & Ligon, 1999; CDF, 2020; Jackson & Howard, 2014; i.e., increasing opportunities for students to experience academic success). The instructional activities permit active student involvement and provide opportunities for expression of students' feelings. An emphasis is placed on creating strong student-teacher relationships and a group sense of responsibility. These pedagogical goals are even apparent in the physical space of the classroom, with chairs typically arranged in a large circle to facilitate class discussions of the texts.

Alongside reading, social action represents a twin pillar of the CDF Freedom Schools IRC. The IRC uses a multifaceted approach with instructional methods intended to promote civic engagement and social action (i.e., challenging the status quo). Scholars have the opportunity to discuss and practice social action frequently in the classroom through activities embedded in the curriculum. Social action is apparent in the framing of the weekly curriculum themes, which affirm to scholars that *they can make a difference* in themselves, their communities, and the world. The critical consciousness that CDF Freedom Schools were designed to cultivate is further represented in the culminating social action project for the National Day of Social Action.

In CDF Freedom Schools, the promotion of civic engagement and social action are most clearly applied in the National Day of Social Action. During this day every summer, all CDF Freedom Schools throughout the country hold organized protests for a cause of importance to the nation and community. Civic and social justice issues underlying the social action projects are coordinated nationally and change each year, with recent years' projects focusing on voting rights, gun violence, and food insecurity. For example, the students marched to the state capitol to

protest for national gun policy reform during summer 2019. Scholars engage in these projects with the knowledge that their voices are joining those of scholars and Servant Leader Interns across the country, at the same moment in history. At the same time, they are also aware of their unique local opportunities, including marching to the steps of Florida's historic capitol building and protesting on the grounds of Florida's Legislative and Executive branches of government.

Method

We sought to investigate whether the culturally relevant, literacy-focused CDF Freedom Schools program may help prevent summer reading loss for its scholars. This quantitative study follows the pre-experimental design, which includes a single experimental group and repeated measures with the treatment between the pre- and post-test (Russ-Eft & Hoover, 2005). Although this design is limited by lack of a comparison group, changes in the results from the pre- and post-test could provide possible causal evidence of a treatment effect (Marsden & Torgerson, 2012).

We conducted an analysis to assess significant mean changes in scholars' reading skills within the multi-grade groups. The analysis included descriptive statistics and the use of repeated measures multivariate analysis of variance (RM-ANOVA). Due to small sample sizes at some grade levels and sites (e.g., only one scholar in Level 3 at Site C), RM-ANOVA was conducted using data across sites (i.e., assessing mean changes in the reading skills of scholars in the same grade level across the three sites). It should be noted that there was insufficient statistical power to assess between-site differences in reading scores with the use of RM-ANOVA.

All data collection occurred in the context of internal program evaluation, for the purpose of providing feedback to program stakeholders. Our study includes only those children whose parents gave consent to use their children's test responses for research dissemination. The research staff also used a verbal assent process to explain to children their right not to participate despite parental consent.

Data Sources

Data were collected from 125 scholars at three CDF Freedom Schools summer camp sites in North Central Florida (Site A in a school in a small urban area; Site B in a church in a small urban area; Site C in a school in a small rural area) across three years (2016–2018). The three sites were similar in sample demographics. Data were collected from all three sites; however, as previously stated, some of the analyses in this study were conducted across sites because of the small sample sizes in Sites B and C. The sample consisted primarily of African American children (93%), with approximately equal numbers of males and females. Although 35% of participants did not disclose whether they were eligible for free or reduced-price lunch, of those participants who did disclose this information, the majority (90%) were eligible for free or reduced-price lunch. In our sample, returning scholars (i.e., participated in the program multiple years) represented one fifth of all scholars participating in CDF Freedom Schools. Data from the most recent year of participation were used for these 25 returning scholars. See Table 1 for the sample size by site and multi-grade groups. Groups (i.e., classes) usually include 10 scholars who recently completed Grades K–2 (Level 1), Grades 3–5 (Level 2), or Grades 6–8 (Level 3).

Table 1. *Sample Size by Site and Grade Level Group*

	Site A	Site B	Site C
Level 1 (Grades 1–2)	24	5	6
Level 2 (Grades 3–5)	26	10	19
Level 3 (Grades 6–8)	23	11	1
Total (Grades 1–8)	73	26	26
Free and Reduced-Price Lunch*	80%	100%	100%

*Valid percentage (non-responses excluded)

This study is focused on the reading skills of the children participating in the literacy-focused, culturally relevant summer camp. The reading levels of the participating scholars were measured with an informal reading inventory, the Basic Reading Inventory (BRI; Johns, 2012), during the first and last weeks of the 6-week program using alternative forms of the measure. The BRI was administered in the same environment (i.e., a quiet room near the students' classroom) for both pre- and post-assessments. The length of administration was approximately 30 minutes. A potential benefit of using an informal reading inventory, such as the BRI, instead of a standardized measure, is that it is intended to be administered multiple times over a short period to monitor students' reading skills over time (Nilsson, 2008). Additionally, the assessment administrators (co-authors of this paper) were trained by CDF, and thus followed CDF's rules for administration of the BRI (e.g., credit was given for differences in pronunciation due to dialect). It is likely that the slight modifications to the administration procedures outlined by CDF made the assessment more culturally sensitive.

The BRI consists of increasingly difficult word lists (containing 20 words), narrative and expository passages, and five passage comprehension questions that are matched with grade level. We individually administered the BRI by having scholars read the increasingly difficult word lists and passages until the scholar reached the criterion for frustration for any of the three types of reading achievement: word recognition in a word list, word recognition in context (passage), and passage comprehension. In this study, scholars' scores on each of the three types of reading achievement were calculated as the final grade level students completed prior to reaching the criterion for frustration. The average alternate-form reliability of the BRI is $r = .85$, with a range from .47 to .95 (Johns, 2012). The dependent variables were approximately normally distributed with the absence of significant outliers.

Results

Descriptive Analysis

See Table 2 for the average pre and post reading levels of participating scholars across sites. Reading gain/loss was determined by subtracting the scholars' pre-test scores from their post-test scores. Approximately 80% of all scholars who participated in CDF Freedom Schools scored the same or higher at post-test than pre-test. This suggests that 20% of scholars experienced summer reading loss. In addition, approximately 40% of participating scholars ended the summer camp at a higher reading level than they started.

Table 2. *Descriptive Statistics for BRI Across Sites*

	Pre-Test		Post-Test		Gain/
	μ	σ	μ	σ	Loss
Grades 1–2 (*n* = 35)					
Word Recognition in Isolation	1.86	1.56	1.97	1.87	+0.11
Word Recognition in Context	2.74	2.29	2.71	2.36	–0.03
Passage Comprehension	2.40	1.97	2.43	2.12	+0.03
Grades 3–5 (*n* = 55)					
Word Recognition in Isolation	4.89	2.18	5.27	2.02	+0.38
Word Recognition in Context	6.56	2.34	7.13	2.63	+0.57
Passage Comprehension	5.91	2.41	6.49	2.69	+0.58
Grades 6–8 (*n* = 35)					
Word Recognition in Isolation	6.46	2.05	6.63	1.99	+0.17
Word Recognition in Context	8.09	2.16	8.63	2.39	+0.54
Passage Comprehension	7.63	2.28	8.14	2.55	+0.51

The average pre and post reading levels of participating scholars can be seen by site in Tables 3–5. On average, the majority of the scholars participating in the literacy-rich summer camp did not experience summer reading loss regardless of site. Except for Level 1 scholars at Site B, the average reading level of the scholars increased, compared to their baselines, in at least two of the three types of reading achievement measured in this study.

Table 3. *Descriptive Statistics for BRI at Site A*

	Pre-Test		Post-Test		Gain/
	μ	σ	μ	σ	Loss
Grades 1–2 (*n* = 24)					
Word Recognition in Isolation	1.83	1.69	1.79	2.00	–0.04
Word Recognition in Context	2.46	2.45	2.58	2.48	+0.12
Passage Comprehension	2.21	2.17	2.33	2.28	+0.12
Grades 3–5 (*n* = 26)					
Word Recognition in Isolation	5.27	2.41	5.46	2.25	+0.19
Word Recognition in Context	6.73	2.44	7.23	2.83	+0.50
Passage Comprehension	6.15	2.53	6.69	2.98	+0.54
Grades 6–8 (*n* = 23)					
Word Recognition in Isolation	6.83	1.92	7.04	2.03	+0.21
Word Recognition in Context	8.26	2.07	8.78	2.32	+0.52
Passage Comprehension	7.78	2.34	8.26	2.47	+0.48

Note. Only students with pre and post data included (list-wise deletion).

Table 4. *Descriptive Statistics for BRI at Site B*

	Pre-Test		Post-Test		Gain/
	μ	σ	μ	σ	Loss
Grades 1–2 (*n* = 5)					
Word Recognition in Isolation	1.40	1.34	1.80	1.30	+0.40
Word Recognition in Context	2.80	2.05	2.20	1.30	–0.60
Passage Comprehension	2.60	1.67	2.00	1.00	–0.60
Grades 3–5 (*n* = 10)					
Word Recognition in Isolation	4.20	1.55	5.30	1.64	+1.10
Word Recognition in Context	6.30	1.49	7.30	2.54	+1.00
Passage Comprehension	5.80	1.32	6.70	2.41	+0.90
Grades 6–8 (*n* = 11)					
Word Recognition in Isolation	5.82	2.27	5.82	1.78	0.00
Word Recognition in Context	7.73	2.49	8.36	2.73	+0.63
Passage Comprehension	7.27	2.33	8.00	2.90	+0.73

Note. Only students with pre and post data included (list-wise deletion).

Table 5. *Descriptive Statistics for BRI at Site C*

	Pre-Test		Post-Test		Gain/
	μ	σ	μ	σ	Loss
Grades 1–2 (*n* = 6)					
Word Recognition in Isolation	2.33	1.21	2.83	1.72	+0.50
Word Recognition in Context	3.83	1.72	3.67	2.58	–0.16
Passage Comprehension	3.00	1.41	3.17	2.23	+0.17
Grades 3–5 (*n* = 19)					
Word Recognition in Isolation	4.74	2.10	5.00	1.94	+0.26
Word Recognition in Context	6.47	2.63	6.89	2.49	+0.42
Passage Comprehension	5.63	2.75	6.11	2.51	+0.48
Grades 6–8 (*n* = 1)					
Word Recognition in Isolation	5.00	.	6.00	.	+1.00
Word Recognition in Context	8.00	.	8.00	.	0.00
Passage Comprehension	8.00	.	7.00	.	–1.00

Note. Only students with pre and post data included (list-wise deletion).

The results of the descriptive analysis do suggest some possible between-site differences. For example, with the exception of Level 1, the scholars in Site A (i.e., school in an urban area; Table 3) appear to have begun the summer camp with more developed reading skills when compared to the average across sites (Table 2). Additionally, the results suggest that, with the exception of

Level 1, the scholars attending the church site (Site B) began the summer camp with less developed reading skills when compared to the average across sites. However, Site B scholars appear to have improved their reading skills the most during participation in the summer camp (see Table 4). It is worth noting that the gain scores of Site B scholars were close to 1 on all three subscales of the BRI, which can be interpreted as meaning that they improved their reading skills by a whole grade level during their participation in the summer camp.

In Site C, which was held at a school in a rural area (see Table 5), the Level 2 pre-test scores suggest that, on average, Level 2 scholars improved their reading skills during participation in the summer camp, although their gain scores were descriptively smaller than those of Level 2 scholars at the other two sites. On average, Level 1 scholars showed gains in two of three reading skills. Notably, the Site C Level 3 sample included only one scholar. Thus, the significance of between-site differences could not be tested due to insufficient sample size.

Repeated Measures Multivariate Analysis of Variance

We used RM-MANOVA to determine if there was a significant difference over time in the three types of reading achievement measured by the BRI. Analyses were conducted within grade levels and across sites. First, we estimated scholars' reading skills changes across the three subscales of the BRI (i.e., multivariate analysis; Table 6). There were no significant differences in Levels 1 and 3. However, we found a significant within-subjects effect for time in Level 2 (Grades 3–5; $F = 3.458$, $p < .05$). In Level 2, the value of Partial Eta Squared was .166, which suggests a medium effect size.

Table 6. *Multivariate Results of Reading Skills by Grade Level: Within-Subjects Effect of Time*

Grade level	*F*	*p*	η_p^2	Observed power
Grades 1–2	.314	.815	.029	.104
Grades 3–5	3.458	.023*	.166	.743
Grades 6–8	1.167	.338	.099	.283

Note. Pillai's Trace Statistic was used.
*$p < .05$

Next, we determined if there were significant differences over time in the three types of reading achievement measured by the BRI with the use of univariate analysis (see Table 7). As with the results of multivariate analysis, there were no significant changes between the pre- and post-test of scholars in Levels 1 and 3. However the results suggest that there was a significant, positive difference, on average, between pre- and post-test scores for all three types of reading achievement for scholars in Level 2 (i.e., Grades 3–5). Specifically, the Level 2 scholars significantly improved their skills in recognizing words in isolation ($F = 6.277$, $p < .05$), recognizing words in context ($F = 7.638$, $p < .01$), and comprehending passages ($F = 7.426$, $p < .01$).

Table 7. *Univariate Results of Reading Skills by Grade Level: Within-Subjects Effect of Time*

	F	*p*	η_p^2	Observed power
Grades 1–2 (*n* = 35)				
Word Recognition in Isolation	0.374	.545	.011	.091
Word Recognition in Context	0.025	.875	.001	.053
Passage Comprehension	0.029	.865	.001	.053
Grades 3–5 (*n* = 55)				
Word Recognition in Isolation	6.277	.015*	.104	.692
Word Recognition in Context	7.638	.008*	.124	.775
Passage Comprehension	7.426	.009*	.121	.763
Grades 6–8 (*n* = 35)				
Word Recognition in Isolation	0.346	.560	.010	.088
Word Recognition in Context	3.058	.089	.083	.397
Passage Comprehension	2.088	.158	.058	.290

Note. Greenhouse-Geisser correction was used.
*$p < .05$

Discussion

As researchers, we have chosen to reach out to educational stakeholders, so as a team we can confront the challenge of creating equitable academic experiences for children in our community. This study confronted that challenge by investigating the potential impact of a summer camp that addresses literacy in a way not addressed in traditional school (i.e., through the use of a culturally relevant curriculum). CDF Freedom Schools intends not only to prevent summer reading loss but empower scholars through reading. Our results represent the outcomes of multiple years of productive collaboration between local teachers, community organizations, and researchers/teacher educators from two universities.

The results of this study provide preliminary evidence of the effectiveness of CDF Freedom Schools in preventing summer reading loss. The majority of students (80%) participating across three sites of the literacy-focused, culturally relevant summer camp did not experience summer reading loss. Additionally, the results provide evidence that students in Grades 3–5 experienced a significant improvement in their reading skills during the brief period between measurements (six weeks). This is a very encouraging outcome when considering that previous research suggests that students, particularly students from economically disadvantaged households, experience a decrease in reading skills when reading instruction ceases during the summer months (Alexander et al., 2007; Allington & McGill-Franzen, 2003; Cooper et al., 1996; Entwisle et al., 1997).

While there was significant improvement in average reading skills for scholars in Grades 3–5, the average reading skills of scholars in the other age groups did not significantly change. Still, it is encouraging to see that, on average, the participating scholars did not experience summer reading loss, regardless of their age. This may be because the CDF Freedom Schools program provided the participating students with access to books and reading instruction. Other studies have also found that providing book access during the summer months can help prevent summer reading loss (Kim, 2006; McCombs et al., 2019; Petty et al., 2017). The results of this study suggest that academically enriching opportunities, such as participation in literacy rich environments, should

become more widely available to students in Florida in order to decrease summer reading loss and provide students from economically disadvantaged households a more equitable summer experience.

The results of this study support the hypothesis made by previous researchers regarding the cause of summer reading loss (i.e., the faucet theory; Entwisle et al., 2001). When the faucet is turned off during the summer months (i.e., when reading instruction ceases), students regress in their development of literacy skills. This is the case particularly for students from economically disadvantaged households because they may not have access to books or literacy-rich environments. The faucet was not turned off when summer began for the young scholars in our sample, and this appears to have resulted in a decreased rate of summer reading loss. Through participation in the IRC, scholars in CDF Freedom Schools remained actively engaged in literacy-related activities in the camp and at home (scholars received copies of all of the books to take home).

It is important to consider the cultural relevance of the literacy instruction offered to the students in our sample. Our sample consisted primarily of African American students who participated in a literacy-focused summer camp that provided them with the opportunity to read stories written by and about individuals racially and culturally similar to themselves. Additionally, the IRC encourages students to make connections between the stories they are reading and their own lives. It is possible that the program's use of culturally relevant books and student-centered instructional practices may be related to the positive outcomes of this study. For example, these aspects of the program may have fostered scholars' motivation to participate in an academically focused program during their summer break from traditional schooling. See Ha et al. (2021) in this special issue for further discussion regarding children's reading motivation in CDF Freedom Schools.

Limitations and Future Directions

Despite the meaningful findings regarding preventing summer reading loss of children in Florida, this study has limitations. For instance, our quantitative findings provide a general description of the overall trend of children's reading skills during the summer. However, there is a lack of detailed interpretation of children's individual differences in regard to their summer reading gain or loss. For example, the analyses tested the changes in mean reading skills of children within multi-grade groups (e.g., Level 2 included Grades 3–5). Even when the average change between the mean pre- and post-test was positive and significant across all level 2, there were still some scholars who experienced summer reading loss in the CDF Freedom Schools. It is difficult to determine the reason for these varying results in the current study. The use of different data sources, such as class observation and interview analysis, may provide insights about these varying outcomes.

Additionally, although the descriptive statistics suggest there may be some differences in children's reading skills between sites, there was insufficient statistical power to determine if these between-site differences were statistically significant. It is possible that factors related to sites or the teachers at the varying sites may be related to children's reading outcomes. Future research would require a greater number of participants to conduct this analysis.

The fact that students' reading outcomes varied depending on grade level range provides clues for further research. In order to maximize the positive outcomes related to participation in the culturally relevant summer camp, it will be important to understand the differences in the curriculum, classroom contexts, and scholars in Grades 1–2 and Grades 6–8. It is possible that slightly modifying the reading curriculum for these levels could minimize the number of participating students experiencing summer reading loss and maximize the positive outcomes

related to participation in the literacy-focused summer camp. In particular, the very small increase in reading skills seen in Grades 1–2 suggests that the IRC might benefit children better by not only exposing children to oral reading and application of culturally relevant texts, but by some direct instruction in reading skills such as phonics and comprehension strategies (Ehri et al., 2001). It is possible that young scholars in Grades 1–2 are still developing the language skills necessary to fully benefit from participation in the literacy-focused curriculum. Future research could also explore if modifications to the IRC result in different findings related to students' reading skills.

This study is an example of an effective collaboration between universities, schools, and community partners to provide students with more equitable, reading-related opportunities during the summer. We were motivated by a shared goal of providing empowering reading opportunities to underserved children in our community. Overall, the results of this study suggest that CDF Freedom Schools shows promise in achieving one of its goals: preventing summer reading loss.

References

Corresponding Author: Michael P. Mesa
Author Contact Information: Mpm12b@my.fsu.edu

Alexander, K. L., Entwisle, D. R., & Olson, L. S. (2007). Lasting consequences of the summer learning gap. *American Sociological Review*, *72*(2), 167–180. https://doi.org/10.1177/000312240707200202

Allington, R. L., & McGill-Franzen, A. M. (2003). The impact of summer loss on the reading achievement gap. *Phi Delta Kappan*, *85*(1), 68–75. https://doi.org/10.1177/003172170308500119

Allington, R. L., McGill-Franzen, A., Camilli, G., Williams, L., Graff, J., Zeig, J., Zmach, C., & Nowak, R. (2010). Addressing summer reading setback among economically disadvantaged elementary students. *Reading Psychology*, *31*(5), 411–427. https://doi.org/10.1080/02702711.2010.505165

Banks, J. A. (1993). Chapter 1: Multicultural education: Historical development, dimensions, and practice. *Review of Research in Education*, *19*(1), 3–49. https://doi.org/10.3102/0091732X019001003

Brown-Jeffy, S., & Cooper, J. E. (2011). Toward a conceptual framework of culturally relevant pedagogy: An overview of the conceptual and theoretical literature. *Teacher Education Quarterly*, *38*(1), 65–84.

Bullard, E. C. (2020). Summer learning loss. *Salem Press Encyclopedia*.

Chilcoat, G. W., & Ligon, J. A. (1999). "Helping to make democracy a living reality": The curriculum conference of the Mississippi freedom schools. *Journal of Curriculum and Supervision*, *15*(1), 43.

Children's Defense Fund. (2020). *CDF Freedom Schools Program*. Children's Defense Fund. http://www.childrensdefense.org/programs/freedomschools/

Constantino, R. (2005). Print environments between high and low socioeconomic status (SES) communities. *Teacher Librarian*, *32*(3), 22.

Cooper, H., Nye, B., Charlton, K., Lindsay, J., & Greathouse, S. (1996). The effects of summer vacation on achievement test scores: A narrative and meta-analytic review. *Review of Educational Research*, *66*(3), 227–268. https://doi.org/10.3102/00346543066003227

Duke, N. K. (2000). For the rich it's richer: Print experiences and environments offered to children in very low-and very high-socioeconomic status first-grade classrooms. *American Educational Research Journal*, *37*(2), 441–478. https://doi.org/10.3102/00028312037002441

Ehri, L. C., Nunes, S. R., Willows, D. M., Schuster, B. V., Yaghoub-Zadeh, Z., & Shanahan, T. (2001). Phonemic awareness instruction helps children learn to read: Evidence from the National Reading Panel's meta-analysis. *Reading Research Quarterly*, *36*(3), 250–287. https://doi.org/10.1598/RRQ.36.3.2

Entwisle, D. R., Alexander, K. L., & Olson, L. S. (1997). *Children, schools, and inequality*. Westview Press.

Entwisle, D. R., Alexander, K. L., & Olson, L. S. (2001). Keep the faucet flowing: Summer learning and home environment. *American Educator*, *25*(3), 10–15.

Gibson, M. A. (1976). Approaches to multicultural education in the United States: Some concepts and assumptions. *Anthropology & Education Quarterly*, *7*(4), 7–18. https://doi.org/10.1525/aeq.1976.7.4.05x1653o

Gorski, P. C. (1999). *A brief history of multicultural education*. Hamline University and EdChange. http://www.edchange.org/multicultural/papers/edchange_history.html

Ha, C., Durtschi, S., Roehrig, A., Turner, J., Craig, M., Mesa, M. P., & Funari, C. (2021). Promoting children's reading motivation with culturally relevant reading education. *Florida Journal of Educational Research.*

Heyns, B. (1978). *Summer learning and the effects of schooling*. Academic Press.

Jackson, T. O., & Boutte, G. S. (2009). Liberation literature: Positive cultural messages in children's and young adult literature at freedom schools. *Language Arts*, *87*(2), 108–116.

Jackson, T. O., & Howard, T. C. (2014). The continuing legacy of freedom schools as sites of possibility for equity and social justice for Black students. *Western Journal of Black Studies*, *38*(3).

Johns, J. L. (2012). *Basic reading inventory.* Kendall Hunt Publishing Company.

Johnson, B. G. (2017). To write in the light of freedom: The newspapers of the 1964 Mississippi freedom schools. *The Journal of African American History*, *102*(3), 402–404. https://doi.org/10.5323/jafriamerhist.102.3.0402

Kerry, T., & Davies, B. (1998). Summer learning loss: The evidence and a possible solution. *Support for Learning*, *13*(3), 118–122. https://doi.org/10.1111/1467-9604.00072

Kim, J. (2004). Summer reading and the ethnic achievement gap. *Journal of Education of Students at Risk*, *9*(2), 169–189. https://doi.org/10.1207/s15327671espr0902_5

Kim, J. (2006). Effects of a voluntary summer reading intervention on reading achievement: Results from a randomized field trial. *Educational Evaluation and Policy Analysis*, *28*(4), 335–355. https://doi.org/10.3102/01623737028004335

Kim, J. S., & Guryan, J. (2010). The efficacy of a voluntary summer book reading intervention for low-income Latino children from language minority families. *Journal of Educational Psychology*, *102*(1), 20. https://doi.org/10.1037/a0017270

Ladson-Billings, G. (1992). Reading between the lines and beyond the pages: A culturally relevant approach to literacy teaching. *Theory into Practice*, *31*(4), 312–320. https://doi.org/10.1080/00405849209543558

Ladson-Billings, G. (1995). But that's just good teaching! The case for culturally relevant pedagogy. *Theory into Practice*, *34*(3), 159–165. https://doi.org/10.1080/00405849509543675

Ladson-Billings, G. (2014). Culturally relevant pedagogy 2.0: Aka the remix. *Harvard Educational Review*, *84*(1), 74–84. https://doi.org/10.17763/haer.84.1.p2rj131485484751

Ladson-Billings, G. (2009). *The dreamkeepers: Successful teachers of African American children*. John Wiley & Sons.

Lenhoff, S. W., Somers, C., Tenelshof, B., & Bender, T. (2020). The potential for multi-site literacy interventions to reduce summer slide among low-performing students. *Children and Youth Services Review*, *110*. https://doi.org/10.1016/j.childyouth.2020.104806

Marsden, E., & Torgerson, C. J. (2012). Single group, pre- and post-test research designs: Some methodological concerns. *Oxford Review of Education*, *38*(5), 583–616. https://doi.org/10.1080/03054985.2012.731208

McCombs, J. S., Augustine, C.H., Unlu, F., Ziol-Guest, K.M., Naftel, S., Gomez, C.J., Marsh, T., Akinniranye, G., & Todd, I. (2019). *Investing in successful summer programs: A review of evidence under the Every Student Succeeds Act*. Rand Corporation. https://doi.org/10.7249/RR2836

Nilsson, N. L. (2008). A critical analysis of eight informal reading inventories. *The Reading Teacher*, *61*(7), 526–536. https://doi.org/10.1598/RT.61.7.2

Petty, T. M., Smith, N. L., & Kern, A. H. (2017). Engaging students through a summer literacy experience. *Delta Kappa Gamma Bulletin*, *83*(5), 49–54.

Roehrig, A. D., Clemons, K. M., & Norris, K. (2018). *The fierce urgency of now*: CDF Freedom Schools and culturally relevant pedagogy. In E. Ortlieb, & E. H. Cheek Jr. (Eds.), *Addressing diversity in literacy instruction* (pp. 251–269). Emerald Group Publishing. https://doi.org/10.1108/S2048-045820170000008013

Russ-Eft, D., & Hoover, A. L. (2005). Experimental and quasi-experimental designs. In Swanson, R. A. & Holton, E. F. (Eds.), *Research in organizations: Foundations and methods of inquiry* (pp. 75–95). Berrett-Koehler Publishers.

Rychly, L., & Graves, E. (2012). Teacher characteristics for culturally responsive pedagogy. *Multicultural Perspectives*, *14*(1), 44–49. https://doi.org/10.1080/15210960.2012.646853

Sleeter, C., & Grant, C. (1987). An analysis of multicultural education in the United States. *Harvard Educational Review*, *57*(4), 421–445. https://doi.org/10.17763/haer.57.4.v810xr0v3224x316

U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD). (2017). *Public Elementary/Secondary School Universe Survey, 2000–01, 2010–11, 2013–14, and 2014–15.* https://nces.ed.gov/programs/digest/d16/tables/dt16_204.10.asp

Van Steensel, R. (2006). Relations between socio-cultural factors, the home literacy environment and children's literacy development in the first years of primary education. *Journal of Research in Reading*, *29*(4), 367–382. https://doi.org/10.1111/j.1467-9817.2006.00301.x