

Developing and Scaling-up Summer Programming in East Durham

Prepared for: Mr. David Reese, Director of East Durham Children's Initiative

Prepared by: Julia Howley
Master of Public Policy Candidate
The Sanford School of Public Policy
Duke University

Faculty Advisor: Jenni Owen

April 20, 2012

Table of Contents	Page
Executive Summary.....	ii – iv
Introduction and Policy Challenge.....	1 – 2
Methodology.....	2
Literature Review on Summer Learning Loss.....	2 – 4
Literature Review on Summer Programming.....	4 – 6
Background on Durham Public Schools and Y.E. Smith Elementary.....	6 – 11
EDCI Goals, Resources, and Challenges for Summer Programming.....	11 – 12
Current Summer Program Offerings in Durham.....	12 – 14
Best Practices for Summer Programs.....	14 – 28
Analysis of Effective Summer Programs Nationally.....	28 – 40
Best Practices for Scaling-Up Summer Programs.....	40 – 46
Analysis of Scaling-Up of EDCI Summer Programming.....	46 – 53
Proposed Action Items.....	53 – 55
Conclusion.....	55
Appendices.....	56 – 75
Bibliography.....	76 – 84

Executive Summary

The vision of East Durham Children’s Initiative (EDCI) is for all children and youth in the Initiative’s focus area to successfully graduate high school, ready for college or a career. Providing high-quality summer learning opportunities is a critical component of reaching this goal. In light of this focus, the policy challenge for this project is: *how should the East Durham Children’s Initiative develop its summer programming for all students at Y.E. Smith Elementary School and, in the future, for all elementary-age students in the Initiative’s focus area?* I offer proposed action items for how EDCI can develop its summer programming and potentially scale it up for all elementary-age students in the EDCI focus area.

Methodology

To address this policy challenge, I conduct literature reviews of best practices in summer programs, parental engagement, and scaling-up programs. I also examine six evidence-based summer learning programs, using data collected by targeted interviews with program personnel. I analyze these programs based on four criteria to supplement the best-practice literature. Next, I analyze the issue of scaling-up a summer learning program to include all students at Y.E. Smith Elementary and in the EDCI focus area by evaluating four action options.

Research on Summer Learning Loss and Programs

Research indicates that summer learning loss disproportionately affects low-income students and that these losses contribute significantly to the achievement gap between low-income students and their more advantaged peers.¹ Y.E. Smith Elementary, in EDCI’s focus area, has a consistently high percent of low-income students (around 92 percent), the group most adversely affected by summer learning loss. Evidence shows that high-quality summer programs can

¹ White, 1906; Heyns (1978), Heyns 1987; O’Brien, 1998; Alexander, Entwisle, and Olson, 2007; Cooper, et al, 1996; Entwisle and Alexander, 1992 and 1994; and Burkham et al. 2004

prevent learning loss and increase academic skills, while lack of access to these programs can harm academic achievement, increase obesity, and hinder social development.²

Components of Effective Summer Programs

A synthesis of the available research, analysis of six effective summer learning programs, and targeted interviews reveal eight characteristics of high-quality summer learning programs.³

These eight characteristics inform the EDCI-specific proposed action items.

1. Purpose
2. Finance and Sustainability
3. Advanced, collaborative planning
4. Staff
5. Parental Engagement
6. Focus on learning
7. Program culture
8. Rigorous evaluation

Scaling-Up

EDCI identified scaling-up summer programs as a policy challenge and goal to have all elementary-age children in the EDCI focus area attend enriching summer programs. Although scaling-up has multiple uses, it is generally defined as replicating a successful practice on a larger scale (with more students, across more schools, or both). For EDCI, the challenge is to scale-up an opportunity to attend a high-quality summer program and to bring best practices to scale in summer programs, not necessarily scaling-up a specific program. Research and my interviews suggest five best practices. A program scale-up would ideally contain all these components, but research suggests that the first four are critical to success.

1. Detailed, but flexible planning
2. Incremental Progress
3. Sufficient Resources
4. Dynamic Leadership
5. Support Networks

² McCombs et al, 2011

³ List compiled from: Kim, 2009; Cooper, 2009; McCombs et al, 2011; Bell and Carrillo, 2007; and NSLA, 2011

Proposed Action Items

This project's proposed action items for EDCI are stated directly as next steps; however EDCI's leadership will ultimately determine the appropriate course of action for the summer program. My proposed actions items for EDCI fall into four categories based on their importance to EDCI and feasibility: action items EDCI already uses fully or partially, action items for immediate implementation, actions items for future implementation, and long-term action items for scaling-up. I offer timeframe guidelines for each category, which are an estimate of when it seems to be feasible for EDCI to implement the items. However, timelines for implementation of these action items likely require a formal discussion within the EDCI leadership.

The action items for immediate implementation are listed here. A complete list of the proposed action items is available on pages 53 – 55 of this project. Research suggests that EDCI should engage in these action items, which seem feasible by the end of the 2012 calendar year:

1. Create an inventory of summer program options in Durham (utilizing the services of a volunteer or summer intern if available).
2. Disseminate information from this inventory to “non-targeted” Y.E. Smith students.
3. Ensure that the EDCI evaluator, Duke's Center for Child and Family Policy, has adequate time and information to plan a rigorous evaluation including data collection for the next summer.
4. Develop a mission statement for this summer program jointly, with relevant stakeholders, which aligns with EDCI's overall mission.
5. Set specific, rigorous, and feasible goals for student achievement each summer.
6. Calculate a true cost for the current program at Y.E. Smith, including in-kind donations, facility, transportation, and meals.
7. Monitor the four key components of cost-effectiveness: enrollment, quantity, quality, and price of resources.

The attached document provides a detailed discussion of the research, analysis, and proposed action items highlighted here.

Introduction and Policy Challenge

The vision of East Durham Children's Initiative (EDCI) is for all children and youth in their focus area to successfully graduate high school, ready for college or a career. In order to reach this goal, students will need to maintain high levels of academic progress in and out of school. Providing high-quality learning opportunities in the summer, a time of declining academic skills for many students, is a critical component of EDCI services. In the summer of 2010, EDCI piloted a summer learning program at Y.E. Smith Elementary School for a targeted group of students. EDCI needs to know what works in summer learning programs for elementary-age students to ensure that their summer program successfully improves students' academic skills.

In light of this need, the policy challenge for this project is: *how should the East Durham Children's Initiative develop its summer programming for all students at Y.E. Smith Elementary School and, in the future, for all elementary-age students in the Initiative's focus area?* The client for this master's project is the East Durham Children's Initiative, specifically its Director, Mr. David Reese.

The term summer program covers a wide gamut of planned summer activities from mandatory summer school to recreational summer camp. In this project, I focus on summer learning programs that concentrate on academic outcomes and spend the majority of time on academic activities, as opposed to primarily recreational, wilderness, or child care programs. School district-wide summer school programs, often used to address summer learning loss, are also not considered in this project. The terms "summer program" and "summer learning program" in this project refer to academically-focused summer learning programs.

In this project, I propose research-based action items for EDCI to develop and scale-up a summer learning program. First, I review the literature on the underlying problem that summer programming is meant to address: summer learning loss and its contribution to the achievement

gap. I next provide background information on the demographics and student achievement in Durham Public Schools and Y.E. Smith Elementary, including EDCI-specific goals and challenges. I analyze specific options for EDCI to develop their summer program and for scaling-up high-quality programming to all students at Y.E. Smith Elementary and eventually all elementary-age students in their focus area. I conclude with a prioritized list of proposed action items for EDCI to develop and scale-up its summer learning program.

Methodology

My methodology details the analytical strategy used to address the policy challenge of this project: *how should the East Durham Children's Initiative develop its summer programming for all students at Y.E. Smith Elementary School and, in the future, for all elementary-age students in the Initiative's focus area?* I conducted literature reviews of best practices in summer learning programs, parental engagement, and scaling-up programs. This knowledge provides a critical base of information for my examination of the strategies and characteristics of high-quality summer learning programs, and for EDCI-specific proposed action items. I also conducted seven interviews with program practitioners to further inform the best practice literature reviews. For a list of the people interviewed and the interview questions, please see Appendices 1 and 2 respectively. For a description of the coding process used to analyze these interviews, please see Appendix 3. These interview results and best practice research inform the proposed action items.

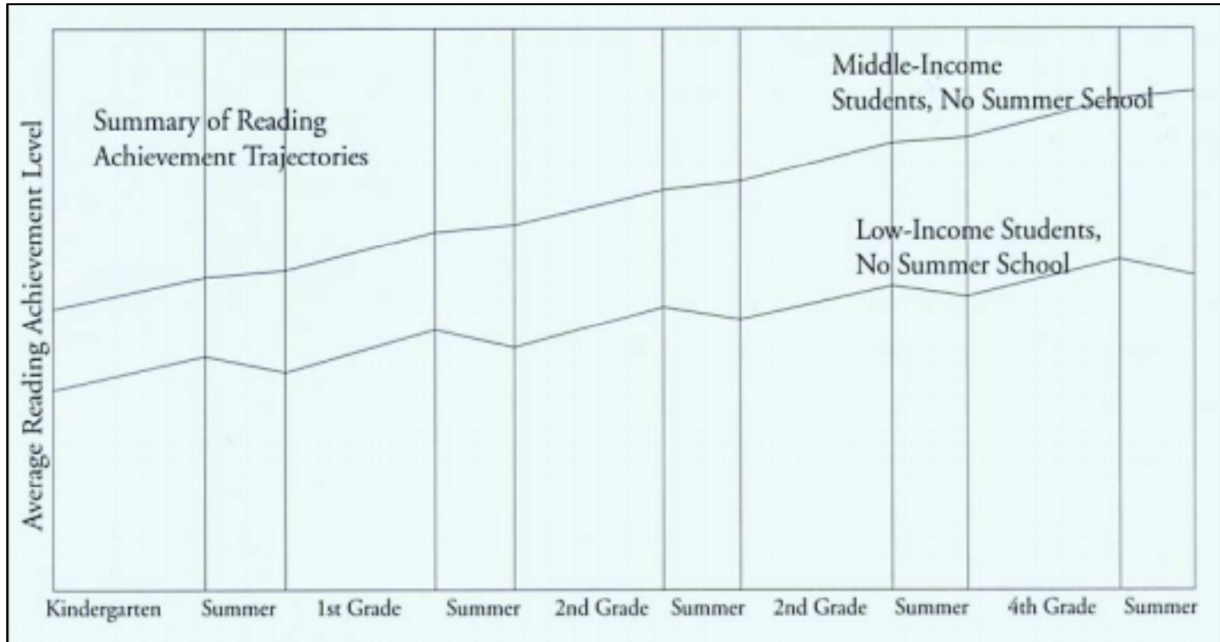
Literature Review on Summer Learning Loss

The achievement gap between low-income students and their more advantaged peers, and between minority and white students, is well-documented.⁴ Most federal and state government efforts to close the achievement gap have targeted improvements in curriculum and instruction

⁴ For instance: NAEP Report Card: Achievement Gaps <http://nces.ed.gov/nationsreportcard/studies/gaps/> (Accessed on Retrieved September 29, 2011); Brooks-Gunn, Jeanne, et al. 2003; Magnuson and Waldfogel 2011; and Rothstein, 2004

during the school year, specifically in high-poverty schools.⁵ However, a review of relevant literature indicates that learning loss over the summer months when students are not in school contributes significantly to the achievement gap between low-income students and their more advantaged peers (see Figure 1).

Figure 1: Summary of Reading Achievement Trajectories by Income, Grades K-4



Source: Fairchild, R. McLaughlin, B. and Brady, J. (2006). “Making the Most of Summer: A Handbook on Effective Summer Programming and Thematic Learning.” Baltimore, MD: Center for Summer Learning

Research spanning 100 years indicates that summer learning loss disproportionately affects low-income students.⁶ During the summer upper-socioeconomic status children learn more than their less advantaged counterparts. Higher-income students continue to advance their academic skills, albeit at a slower rate than during the school year. Meanwhile, low-income students lose substantial ground in academic skills over the summer.⁷ On average, low-income students lose

⁵ Allington and McGill-Franzen, 2003

⁶ White, 1906; Heyns (1978), Heyns 1987; O’Brien, 1998; Alexander, Entwisle, and Olson, 2007; Cooper, et al, 1996; Entwisle and Alexander, 1992 and 1994; and Burkham et al. 2004

⁷ Heyns, 1978 and 1987; O’Brien, 1998; Alexander, Entwisle, and Olson, 2007; Cooper, et al, 1996; Entwisle and Alexander, 1992 and 1994; and Burkham et al. 2004

one to three months on grade-level equivalence reading scores relative to where they finished the previous academic year. Although all students seem to lose some math skills over the summer, low-income students lose disproportionately more. Additionally, Limited English Proficient (LEP) students and students in Special Education face even larger summer learning loss due to lack of service provision over the summer.⁸

Summer learning loss seems to be cumulative and, over time, these periods of differential learning loss between lower and higher income students contribute substantially to the achievement gap. Some researchers estimate it accounts for about two-thirds of the achievement gap between groups of students in high school.⁹ For an in-depth literature review of summer learning loss, please see Appendix 4.

Literature Review on Summer Programming

Since summer learning loss is a major contributor to the achievement gap between low and high income students, increased educational experiences during this time seem to be a logical solution. Additionally, families frequently need summer programs as a way to ensure that children are cared for in a safe and nurturing environment. Parents cite summer as the most difficult time to ensure their children have productive things to do.¹⁰ On average, children spend substantially more hours per week in self-care over the summer than during the school year, 10.3 hours versus 4.8 hours per week respectively.¹¹ Thus, a need for summer program exists for academic and childcare purposes. The primary question of whether and how summer programs can effectively prevent summer learning loss is critical knowledge for EDCI.

⁸ Katsiyannis, 1991 and Cooper et al, 1996

⁹ Sloan McCombs et al, 2011

¹⁰ Duffet et al, 2004.

¹¹ Capizzano, Adelman, Stagner, 2002

Can Summer Programs Prevent Summer Learning Loss?

Given research findings that low-income students gain more academically during times when school is in session than over the summer, providing summer instruction would seem to offset the summer losses these students experience. However, early studies suggest that summer learning programs generally report negligible effects.¹² In 1987, Heyns found that summer school programs in Atlanta did not help children who were below grade-level catch up; while Carter found that summer school programs did not necessarily produce consistent academic benefits.¹³ Other early studies showed that remedial summer programs generally produce short-term achievement gains that diminish over time.¹⁴ The benefits from these programs were often larger for middle-class than low-income students.¹⁵

However, recent research shows that summer programs can prevent learning loss and increase academic skills. Additionally, studies also show that lack of access to high-quality summer programs can negatively impact academic achievement, increase child obesity, and hinder social development.¹⁶ Matsudaira found that summer school improved math and reading achievement for students with low scores on year-end exams. Although he found considerable heterogeneity among students, he suggests that academic summer programs may be a more cost-effective way of raising student achievement scores than class-size reductions.¹⁷

Studies of voluntary summer programs for elementary-age students specifically found positive effects on reading scores, showing that they can, in fact, prevent summer learning loss

¹² Entwisle and Alexander, 1992

¹³ Heyns, 1987 and Carter, 1984

¹⁴ Grossman and Sipe, 1992

¹⁵ Kim, Jimmy 2004

¹⁶ McCombs et al, 2011

¹⁷ Matsudaira, 2008

and improve literacy skills.¹⁸ Additionally, evidence suggests that students in early elementary grades are more likely than older students to benefit from out-of-school time (OST) strategies for improving reading, while older students may benefit more from OST strategies to improve math.¹⁹ Recent longitudinal studies conclude that the effects of high-quality summer learning programs endure for at least two years after the student engaged in that program.²⁰ To date, no studies have examined whether the effects last beyond two years.

Overall, studies highlight the importance of quality when considering the merits of academic summer programs.²¹ Research suggests that summer programs of mediocre quality or implementation do not produce positive results, while high-quality summer programs can prevent summer learning loss and increase students' academic skills.²² The negligible results found in earlier studies probably reflect the outcomes of low-quality programs, especially given Carter's explanation that they frequently did not include explicit reading and math instruction. Thus, program quality is critical to summer program's effectiveness.

Background on Durham Public Schools and Y.E. Smith Elementary

It is important to consider the circumstances of Durham Public Schools (DPS) and Y.E. Smith Elementary School specifically to contextualize findings from the literature review.

Socioeconomic Status of Students in Durham Public Schools and Y.E. Smith Elementary

Over the past 15 years, DPS experienced a rapid growth in the overall percentage of low-income students it serves, the group most adversely affected by summer reading loss. The percentage of students qualifying for free and reduced price lunch (FRPL) has more than doubled

¹⁸ Schacter and Jo, 2005; Borman, Benson, and Overman, 2005; Chaplin and Capizzano, 2006; Borman, Goetz, and Dowling, 2009

¹⁹ McCombs et al, 2011

²⁰ McCombs et al, 2011

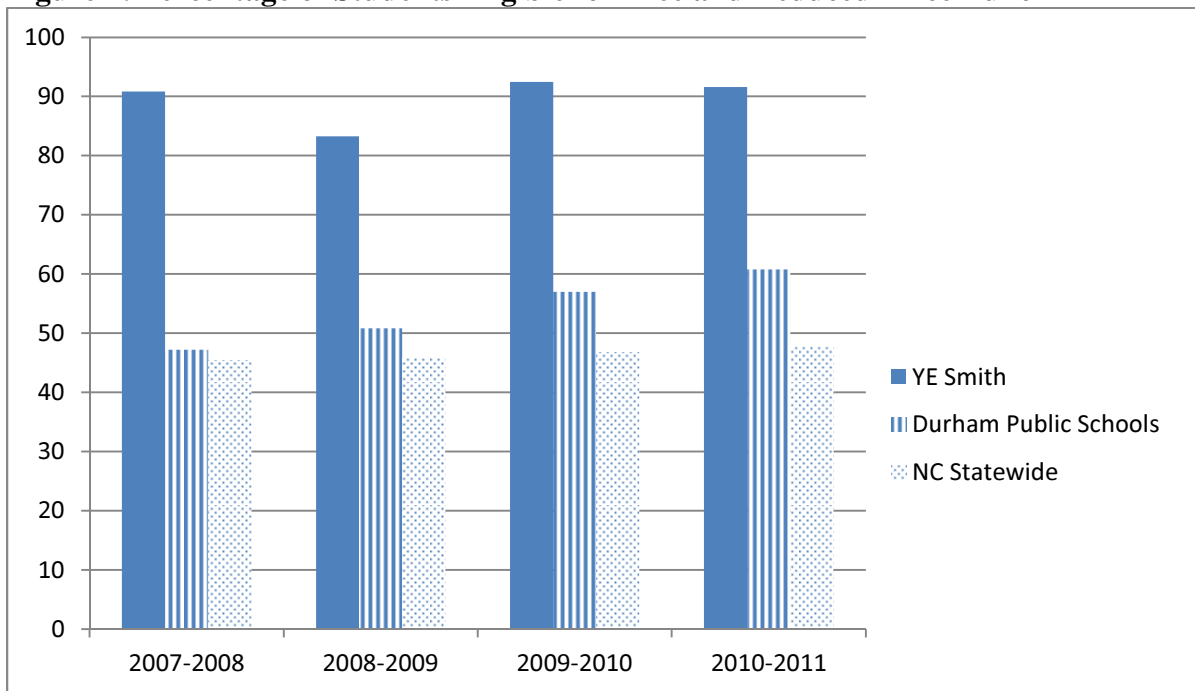
²¹ Dougherty, 1996, and Kim, 2004

²² Sloan McCombs et al, 2011; and Cooper et al, 1996

from 28 percent in 1995 to 61 percent in 2010.²³ The past four years exemplify this trend of consistent growth in the low-income student population as Figure 2 displays. During this time, DPS witnessed an increase of more than 4,000 students qualifying for FRPL in a district of 32,566 students.²⁴

Y.E. Smith Elementary School has had a consistently high percentage of students eligible for free and reduced-price lunch, hovering at approximately 92 percent in the past four years. Figure 2 illustrates that Y.E. Smith has a significantly higher percentage of economically disadvantaged students than DPS or the state, the group most adversely affected by summer learning loss.

Figure 2: Percentage of Students Eligible for Free and Reduced-Price Lunch



Source: *Durham Public Schools, Lunch Statistics. 2007-2010* and *NCES, Lunch Statistics Across States. 2007-2010.*

The transformation of economic status within the DPS student body has been accompanied by an equally significant shift in racial demographics, shown in Table 1. The proportion of white

²³ Durham Public Schools, 2010

²⁴ Durham Public Schools, 2010

students in DPS has shrunk by half, from 42.3 percent in 1995 to 21.1 percent in 2010. Over the same period of time, the percentage of Hispanic students has exploded from 1.5 percent to 20.9 percent, while the percentage of African-American students remained constant at around 53 percent.²⁵

Table 1: Race/Ethnic Demographics for DPS and Y.E. Smith, 1995 and 2010

	1995 (as % of total population)	2010 (as % of total population)
Durham Public Schools		
African-American Students	53	53
Hispanic Students	2	21
White Students	42	21
Y.E. Smith Elementary		
African-American Students	90	61
Hispanic Students	2	37
White Students	8	2

Source: Durham Public Schools, *Demographics*, 2010 and NCES, *School Demographics, 1995- 2011*.

Over this time, the percentage of Y.E. Smith’s student population also changed, with Hispanic students comprising an increasing percentage of the student population. The percent of Hispanic students steadily increased from 2 percent in 1995 to 43 percent in 2011. The percentage of African-American students enrolled decreased by 29 percent during this time.²⁶ Due to the inequitable proportion of low-income minority students, the student population at Y.E. Smith Elementary is more likely to suffer from summer learning loss.

Student Achievement in DPS and Y.E. Smith Elementary

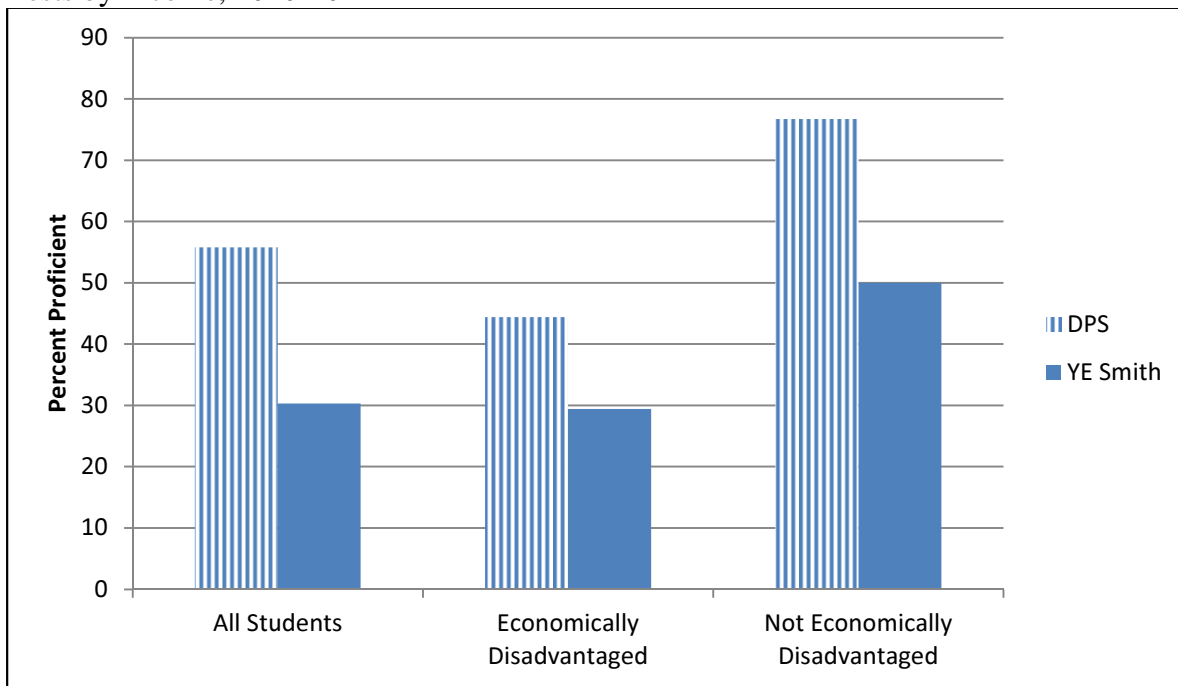
The recent demographic changes in DPS and Y.E. Smith Elementary School are particularly alarming when considering achievement gaps that exist between groups of students from

²⁵ DPS Demographics/Enrollment Data, 1995-2010. <http://www.dpsnc.net/about-dps/district-stats-and-scores/district-data/demographics-enrollment-data> Accessed October 28, 2011

²⁶ DPS Demographic/Enrollment Data, 2007-2011 <http://www.dpsnc.net/about-dps/district-stats-and-scores/district-data/demographics-enrollment-data> Accessed October 28, 2011

different socioeconomic statuses. Figure 3 illustrates that the gap in reading proficiency rates between economically disadvantaged and non-economically disadvantaged students- those eligible and not eligible for free and reduced price lunch, respectively- in DPS was approximately 30 percentage points on 3rd - 5th grade NC End-of-Grade (EOG) tests in 2011. This gap between economically disadvantaged and non-economically disadvantaged students at Y.E. Smith was slightly smaller, although still significant at about 22 percentage points.

Figure 3: Percentage of DPS and Y.E. Smith Students with Proficient Scores on Reading EOG Tests by Income, 2010-2011



Source: NC Department of Public Instruction. State/LEA and School Test Performance, 2010-2011.

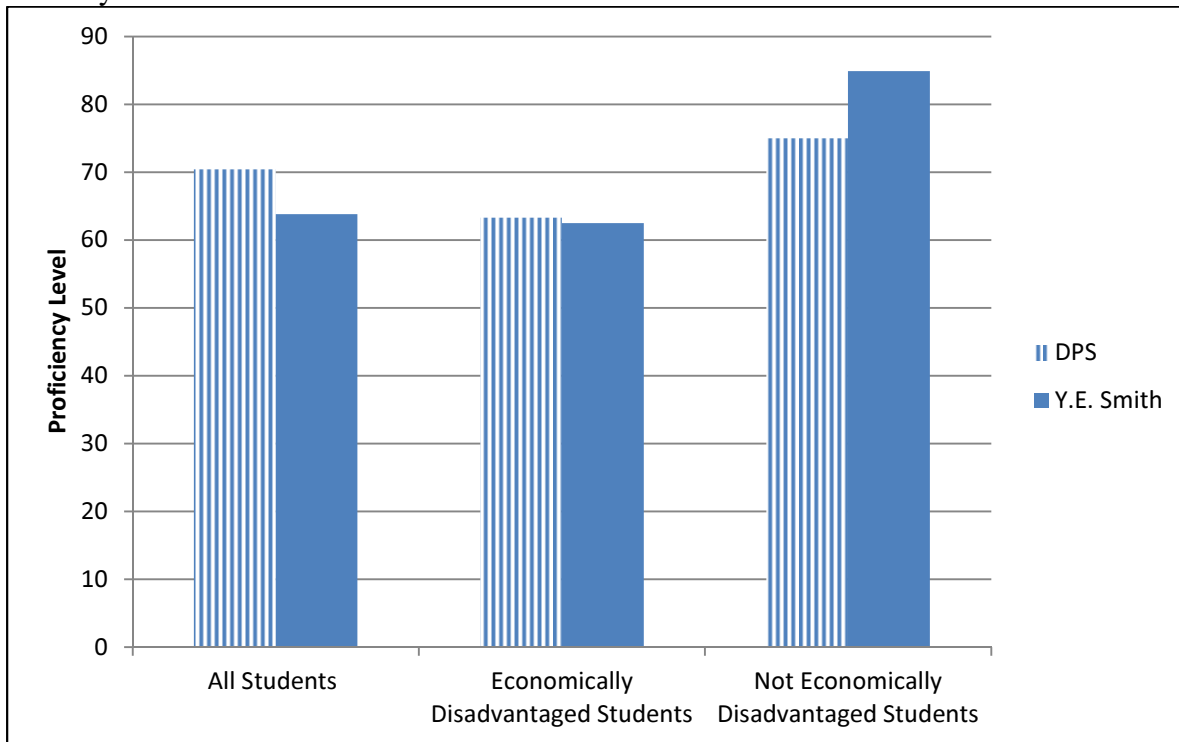
Overall, Y.E. Smith has lower levels of reading proficiency than the average for all DPS in 2011-2012.²⁷ Specifically, the reading proficiency levels of Limited English Proficiency (LEP) students enrolled at Y.E. Smith were even lower than the rates of economically disadvantaged students (at 32.7 percent). Y.E. Smith’s school improvement plan highlights the need to improve

²⁷ NC Department of Public Instruction. State/LEA and School Test Performance, 2010-2011 <http://accrpt.ncpublicschools.org/app/2011/disag/> 3rd grade proficiency was 28.6 percent, 4th grade was 23.7 percent, and 5th grade proficiency was 38.1 percent.

students' reading proficiency and places it as one of the school's top priorities for the 2011-2012 school year.²⁸

Both Y.E. Smith and all DPS students had higher math proficiency levels than reading proficiency levels (see Figure 4). Y.E. Smith students had math total math proficiency levels of approximately 62 percent across 3rd to 5th grades, about 8 percentage points lower than the DPS average. For Y.E. Smith students, the gap between economically disadvantaged and non-economically disadvantaged students is roughly similar to the gap in reading scores, totaling approximately 20 percentage points. The gap in math proficiency levels between these groups of DPS students is smaller, approximately 12 percent.

Figure 4: Percentage of DPS and Y.E. Smith Students with Proficient Scores on Math EOG Tests by Income



Source: NC Department of Public Instruction. State/LEA and School Test Performance, 2010-2011.

²⁸ Y.E. Smith Elementary Improvement Plan, <http://www.dpsnc.net/images/pdf/school-improvement-plans/SIP.400.pdf>

Research on summer learning loss generally focuses on students with similar demographic and economic profiles to the students that attend Y.E. Smith. The overwhelming evidence shows that these students are disproportionately and adversely affected by summer learning loss. These losses contribute significantly to the achievement gap and negative educational and ultimately life outcomes. However, research also shows that targeted summer programming can prevent summer learning loss in students similar to those at Y.E. Smith. Research specifically on LEP students shows that they are at risk of suffering even greater levels of learning loss over the summer.²⁹ Given the lower levels of reading proficiency among LEP students at Y.E. Smith, summer learning loss could be especially devastating for this group of students.

EDCI Resources, Goals, and Challenges for Summer Programming

EDCI Resources for Summer Programming

EDCI plans to leverage the resources necessary for the summer program from community partners and corporate sponsors, while providing a portion of the necessary funding. Currently, EDCI has not established financial parameters for potential summer programs. Although identifying the resources for programs is outside the scope of this project, cost-effectiveness is a critical component in analyzing and recommending a summer program. My project estimates the costs of program options, including cost estimates of scaling-up a program, and which components EDCI would do well to consider prioritizing.

Goals for Summer Programming

EDCI has multi-faceted goals for summer programming, which include:

- using evidenced-based practices
- providing a safe environment for students
- preventing summer learning loss and ideally increasing students' academic skills

²⁹ Katsiyannis, 1991

- maintaining high levels of parental involvement
- developing students’ social skills, including more positive engagement with school
- scaling-up summer programs to ensure all elementary-age students in EDCI’s focus area are enrolled in enriching summer programs

These goals inform the analyzed options and proposed action items in this project.

Challenges to Implementing a Summer Learning Program

Any organization faces challenges to implementing a summer learning program, although this project focuses on EDCI-specific challenges. EDCI’s primary challenge is financial, meaning that they may find it challenging to obtain the funding (or the fundraising capacity) to finance a high-quality summer program. EDCI also faces a challenge of hiring appropriate staff to run the program, including instructional staff. Another major challenge that EDCI faces is to ensure that the targeted students (targeted through academic performance and teacher recommendation) participate regularly in the program activities. A last significant challenge for organizations is the effort to scale-up their programs. Challenges with scaling-up are specifically addressed on page 52 of this project. This project uses best practice research and interviews with program personnel to address staffing, participation, and scaling-up challenges.

Current Summer Program Offerings for Elementary School Students in Durham

Summer Program Offerings in Durham

Like many districts, DPS implemented a mandatory summer school program for low-performing eighth grade students in 1996 after moving away from its previous policy of social promotion.³⁰ Despite an emerging literature indicating the effectiveness of summer school programs, DPS discontinued its summer school offerings in 2008 due to budgetary restrictions.³¹

³⁰ Harrington-Lueker, 1998

³¹ Matsudaira, 2008

DPS currently offers a limited set of courses to high school seniors still in need of credits for graduation.³²

EDCI identified other community organizations, besides themselves, that provide summer activities for low-income children in East Durham. For instance, Durham Department of Parks and Recreation (DPR) offers a nine-week camp featuring diverse athletic, nature, and arts activities for children between the ages of 5 and 13. DPR uses a sliding fee scale for participants to make it more affordable for lower-income families.³³ The Durham YMCA also offers a similar camp experience for children and teenagers, with scholarships available.³⁴ However, these programs do not necessarily have an academic focus.

A variety of other summer program options exist for low-income students in Durham. Getting an inventory of the other summer programs offered in Durham is important for EDCI to determine what is available in the community for families in the Initiative's focus area (the Community Education Department of Durham Public Schools does not have an inventory).

Proposed Action Items

- Create a concrete list of the current summer program options in Durham. EDCI could utilize the services of a volunteer or summer intern to complete this task.

EDCI Summer Programming

Currently, EDCI offer multiple summer programs with community partners for elementary age children in the EDCI area. Table 2, below, summarizes the programs that EDCI and its partners operate annually.

³² DPS website, 2011

³³ City of Durham, Department of Parks and Recreation, http://www.ci.durham.nc.us/departments/parks/summer_camp.cfm

³⁴ Durham YMCA, *Youth Programs*, http://www.ymcatriangle.org/Durham_YMCAs/Programs.aspx

Table 2: EDCI Summer Programs for Elementary-age Children

Program Name	Age Group	Description
Stepping Stones	4-5 year olds	Kindergarten readiness
Hill RAP Tutoring Program	3 rd -5 th grades	Intensive reading tutoring using Hill RAP curriculum with a 3:1 student-instructor ratio. After 2 hours of this curriculum, students participate in enrichment recreational activities
Durham READS	K-5 th grades	Students receive books in the mail matched to their reading level and interests.
Hunger-Free Summer Program	All children	Students receive free nutritious meals throughout the 10-week summer vacation

Source: EDCI website: <http://edci.org/pipeline/> and Interview with David Reese, October 18, 2011.

Best Practices for Summer Learning Programs

Cooper and Alexander suggest that additional research is needed to determine the specific program components and experiences that best support year-round learning for children, particularly for disadvantaged students.³⁵ Additionally, Alexander notes that research on effective summer programs needs a detailed, on-the-ground perspective.³⁶ Although more research is needed to determine the most effective specific components of summer programs, research does provide some recommendations about what program elements are critical for success.

A synthesis of the available research reveals eight characteristics of effective summer learning programs. Ideally, a summer learning program would contain all of these characteristics. An analysis of six effective summer learning programs (presented below on pages 28 - 40) and interviews with personnel, however, indicate that the first six components are critical for program success. These components divide into two general categories. The first three characteristics address program infrastructure elements:³⁷

³⁵ Alexander, August, 2009 and Cooper, 2009

³⁶ Alexander, 2009

³⁷ List compiled from: Kim, 2009; Cooper, 2009; McCombs et al, 2011; Bell and Carrillo, 2007; and NSLA, 2011

1. *Purpose*: mission, value statements, and goals for the program are established;
2. *Finance and Sustainability*: clear strategic plan and aligned funding is established;
3. *Advanced, Collaborative Planning*: comprehensive planning is completed early, which is inclusive of stakeholders and remains true to programs goals.

The second category covers the crucial role that program operation plays to ensure the organization achieves and maintains quality programming. Research suggests that effective summer programs generally utilize five operational components:³⁸

4. *Staff*: staff should have experience, training, resources, and clear expectations, with continuity of staff across years;
5. *Parental Engagement*: the program has a plan to ensure high levels of parent involvement;
6. *Focus on Learning*: instruction is individualized with substantial components aimed at math and reading instruction that are integrated with student learning during the school year;
7. *Program Culture*: program culture centers on academic achievement while being distinctive from the normal school year;
8. *Rigorous Evaluation*: programs should include a rigorous evaluation, and use it to inform future planning and best practices.

Ultimately, well-designed summer programs increase academic achievement, help keep children safe and healthy, increase engagement in learning, and develop new skills and talents.³⁹

The section below explains these eight best practices and proposes action items for EDCI to achieve success in each component. A full list of the proposed action items, prioritized by feasibility and importance is available on pages 53 - 55.

Program Infrastructure Components

Of the eight research-based components of effective summer learning programs, three components focus on program infrastructure: purpose, finance and sustainability, and planning. Each component is described below, with research-based proposed action items for EDCI.

1. Purpose

Ideally, program leadership establishes a mission and goals for the program, which are grounded in the needs of its community. Research suggests that the mission should be created

³⁸ List compiled from Cooper, 2009; McCombs et al, 2011; Bell and Carrillo, 2007; and NSLA, 2011

³⁹ Fairchild, McLaughlin, and Costigan, 2007

with input from relevant stakeholders and include the population to be served, type of outcomes the program is working towards, and a geographic area if appropriate. For instance, the mission of Building Educated Leaders for Life (BELL) summer program, discussed in detail later, is to “increase the educational achievements, self-esteem and life opportunities of elementary school children living in low-income, urban communities.”⁴⁰

This mission can inform the rigorous and feasible goals for student achievement during the summer that the organization sets each summer. Research suggests that quantitative goals in summer programs can be motivating for students and staff.⁴¹ Student achievement goals are most helpful when they include specific student outcomes to be accomplished during the program. Sumer Advantage USA has a goal that after their five-week program, every student will achieve a two month gain in reading and math skills and be able to articulate why community service is important as well as the effects of their own summer community service.⁴² Additionally, these goals can be used to track student achievement and adapt plans or instruction if necessary. Ultimately, these goals can be used for evaluation purposes, helping to provide evidence of whether the program is meeting its goal and the needs of stakeholders.⁴³

Proposed Action Items

- Develop a mission statement for this summer program which aligns with the organization’s overall mission, made jointly with relevant stakeholders.
- Set specific, rigorous, and feasible goals for student achievement each summer.

2. Finance and Sustainability

A key obstacle to sustainable summer learning programs is a lack of stable funding, so effective summer programs plan for sustainability and cost-effectiveness. Programs should also

⁴⁰ BELL website

⁴¹ NSLA, 2011

⁴² Summer Advantage USA <http://www.summeradvantage.org/impact.html>

⁴³ McCombs et al, 2011

share this financial information with key stakeholders to promote sustainability. To date, there have only been comprehensive cost studies of specific programs' costs, not of summer programs generally.⁴⁴ Despite this deficiency, research suggests certain components of cost-effectiveness for summer programs.

Four primary factors determine a program's cost:⁴⁵

1. *Enrollment information*- number of children, their age distribution, the percent who attend, and their level of need.
2. *Quantity*- number of hours per day, days per week, and weeks per year that a program operates. Often, programs that operate for a greater combined total number of hours can distribute fixed costs of operating a program across a greater number of hours, thus reducing the hourly cost per enrollee.
3. *Quality*- the quality of the program, as measured by structural elements such as student - instructor ratios, minimum education and training required of instructors, and the quality of the physical environment.
4. *Price of Resources*- The prices of resources differs substantially depending on the regional costs of goods and services. Important resources to consider are the characteristics of the local teacher or staff labor market, and accessibility to the program.

Monitoring these factors is also important to ensure program sustainability. Effective programs also closely evaluate these factors before implementing or expanding a program.

The key cost driver in summer programs is usually staffing. Therefore, utilizing a low student-instructor ratio, which is generally associated with higher-quality programs, has significant cost implications. One way to maintain low child-staff ratio is to train and utilize college students paid through federal work-study or volunteers.⁴⁶ Some summer programs, even those that receive public funding, address financial sustainability by charging fees. In some of these programs, the fees cover only a small portion of program expenses. Program leaders may set a low fee because they believe that free programs were not well attended.⁴⁷

⁴⁴ NSLA, 2011

⁴⁵ McCombs et al, 2011

⁴⁶ Bowman et al, 2006

⁴⁷ Padgett and Deich, 2009

The National Summer Learning Association (NSLA) estimates the cost it would take for a school district to provide summer school to a large number of students for 6 hours a day for 5 weeks in the summer. They range from \$7-\$19 per slot per hour, including costs for classroom-based programming and uniform values for cost of food, transportation, and facilities. This totals to about \$1,109 - \$2,801 per student per summer. These per-student costs are about 2/3 the cost of what providers pay during the school year.

Summer learning programs cost less when offered by school districts due, in part, to lower central office costs, use of multiple funding streams, and use of in-kind contributions of services, such as facilities and meals.⁴⁸ Programs led by external providers were generally more expensive than those led by districts, usually about \$2,058- \$2,801 per student for the summer. These programs generally have higher costs because of lower student-staff ratios- they typically spent almost \$3 more per slot per hour on school instructors and administrators than public school programs. Additionally, external providers usually pay more for central office functions because public schools often absorbed these costs in budgets separate from summer school.⁴⁹ Other research and interviews with program personnel suggests that most high-quality summer programs operating in one site spend less than this estimate, about \$1,000 to \$1,750 per student per summer.⁵⁰ These costs may be lower than the NSLA estimates due to partnerships with schools, use of volunteers, or in-kind contributions.

Currently, the EDCI summer program at Y.E. Smith costs between \$50,000 and \$55,000 in total. A rough break-down of these costs shows that about \$24,000 is spent to train the instructors in the HillRAP curriculum and the approximately \$34,000 remaining funds the daily

⁴⁸ McCombs et al, 2011

⁴⁹ NSLA, 2011

⁵⁰ McCombs et al, 2011 and Interview with Summer Advantage USA Founder and Director, Mr. Earl Phalen

activities of the camp. In total, the program roughly costs about \$161 per child per week for the six-week program.⁵¹ These costs are less than the NSLA estimates for a summer program at least partially because the program currently utilizes volunteer instructors. Additionally, the rough cost breakdown for EDCI does not include costs of the facilities, which the NSLA estimates include.

Proposed Action Items

- Calculate a true cost for the program at Y.E. Smith, including in-kind donations, facility, transportation, and meals, so it is possible to monitor those components and evaluate whether components are cost-effective.
- Monitor the four key components of cost-effectiveness.
- Offer a summer program at no cost to participants (EDCI currently implements this action item).

3. Planning

To produce high-quality learning and engagement, research suggests that the planning for summer learning programs should be done well in advance and be a collaborative process.

Ideally, planning for a summer program would begin at least six months in advance of the start date.⁵² This year, EDCI is finishing the planning process in March, about three months in advance. Early planning allows programs to conduct early hiring (thereby maximizing the instructor recruiting pool) and early recruiting (thereby maximizing student enrollment).⁵³

According to national interviews, parents and teachers both have made decisions about their summers by the end of February, necessitating early informing and recruiting of these groups.⁵⁴

Developing an outreach plan for potential staff and students is one strategy for ensuring good participation of both groups. Y.E. Smith staff currently reaches out to targeted students (targeted

⁵¹ Cost estimates obtained from EDCI, January 27, 2012

⁵² Bell and Carrillo, 2007

⁵³ McCombs et al, 2011

⁵⁴ McCombs et al, 2011

based on test scores and teacher recommendations) once decisions on targeting are made.

However, earlier notification would help ensure that appropriate participants are involved.

Research suggests that this planning should be done in conjunction with relevant stakeholders. For EDCI, these stakeholders include but are not limited to: the leadership at Y.E. Smith Elementary School, EDCI program staff, EDCI Program Advocates, and the Summer Program leadership. EDCI is already working with these stakeholders on summer programming. Ideally, this planning would result in a comprehensive structure for all programming throughout the summer.

Research also provides guidelines for the duration of summer learning program, although these guidelines range significantly. McLaughlin and Pitcock recommend that programs be a minimum of 80 hours in total. Winship recommends that programs be constructed with a much higher number of hours, about 360 split up as nine hours a day, five days a week, for eight weeks.⁵⁵ Johns Hopkins researchers find that a minimum of 150 hours of programming is needed for sustained, multi-year academic benefits.⁵⁶ The National Summer Learning Association also recommends a mid-level duration, suggesting that summer programs run for six hours or more for six to eight weeks, or about 180-240 hours.⁵⁷ Taken together, these estimates suggest that ideally students would receive programming for at least 150 hours.

Proposed Action Items

- Begin planning six months before the program's intended start date (so planning is complete before February).
- Create an outreach plan to maximize student enrollment and instructor recruiting.
- Make planning comprehensive and detailed so that all summer activities are planned.
- Plan so each participating student receives at least 150 hours of summer programming (EDCI currently implements this action item).

⁵⁵ McLaughlin and Pitcock, 2009 and Winship et al, 2005

⁵⁶ NSLA, "Statement on Expanded Learning." 2010

⁵⁷ Chaplin and Capizzano, 2006; Borman and Dowling, 2006; Fairchild, McLaughlin, and Costigan 2007

Program Operation Components

Of the eight research-based components of effective summer learning programs, five program focus on operations: staff, parental engagement, learning-focused, program culture, and rigorous evaluation. While all five are critical to program success, parental engagement is particularly important in the context of voluntary summer programs and for EDCI specifically.

4. Staff

The staff is a critical component of a program's operation but hiring and developing staff members can be especially challenging for summer programs. Ideally, instructors should have experience working in an instructional capacity.⁵⁸ The research that suggests experienced instructors are associated with higher quality programs may be at odds with EDCI's current use of college students as instructors. However, summer programs that use very structured curricula and utilize strong instructional support and mentorship can overcome variation in instructor effectiveness.

Although professional development can be challenging, ensuring that it is relevant for and behavior management contributes to high-quality instruction. Effective programs should provide extensive opportunities for staff development and advancement before and during the session. Part of this development often includes analyzing student data when available to identify students' strengths and weaknesses and to facilitate differentiated, individualized instruction. Effective programs also used an instructional coach to provide ongoing support for instructors.⁵⁹ When possible, the program should strive for continuity of staff across years, which can help programs ensure high-quality instruction and improve student attendance.

⁵⁸ McCombs, Kirby, and Mariano, 2009

⁵⁹ McCombs et al, 2011

Proposed Action Items

- Complete program planning early to enable early recruitment of effective instructors
- Utilize a staffing plan that includes description of ideal instructional candidates
- Utilize a staff development plan that begins with initial instructional training and has an ongoing, regularly scheduled feedback loop (EDCI currently implements this action item)
- Utilize student data when possible to inform staff development and instructional decisions (EDCI currently implements this action item)

5. Parental Engagement

Parental engagement is absolutely critical for summer programs to be successful, particularly in low-income communities, because student enrollment and attendance are voluntary. Regular enrollment and attendance are two critical components of high-quality voluntary summer programs.⁶⁰

The definition of parental involvement varies throughout the academic literature (please see Appendix 5 for a detailed discussion). For the purposes of this project, I use parental involvement to mean parental participation in the functioning of the summer program, which encapsulates communication and participation in program activities. This parental participation includes attending conferences or meetings, communicating with program leadership and teachers, and ensuring their child's regular attendance throughout the program. Other practices, such as helping children with homework or reading at home, are important, but will not be explicitly considered in this project because summer learning programs' major focus for parental engagement is typically to ensure regular attendance, enrollment, and communication.

Parental engagement is especially important for summer programs because it can help increase enrollment and regular attendance, which are vital for voluntary programs. Studies that examined the link between outcomes and attendance found that increased attendance improves

⁶⁰ McCombs et al, 2011

outcomes.⁶¹ One study found that each additional week of attendance in a high-quality summer learning program was associated with a 0.05 standard deviation increase in fall test scores.⁶²

Research consistently illustrates the strong and positive association between parental involvement in schooling and students' educational outcomes. Evidence shows that parental involvement is a strong indicator of student academic success, even after student academic abilities and family socioeconomic status are taken into account. Additionally, the benefits of parental involvement extend past academics to include improved student self-confidence and motivation.⁶³ Research also found the same positive effects of parental engagement for summer programs. Evidence shows that summer programs that included a parental involvement plan were associated with more positive achievement effects than those that did not.⁶⁴ For an in-depth literature review on the effects of parental engagement on student achievement and other outcomes, please see Appendix 6.

Best Practices and Strategies for Ensuring High Levels of Parental Involvement

Studies show that low-income parents and less-educated parents are less likely to be involved in their child's education and that their children are less likely to enroll in summer programs.⁶⁵ Specifically, children living in families below 200% of the Federal Poverty Line (FPL) are less likely to participate in summer learning programs than their higher-income peers.⁶⁶ This means that those children who might benefit the most are the least likely to have participated in summer programs.⁶⁷ Thus, an important first step for voluntary programs is to adopt targeted parental involvement strategies to build enrollment and maximize attendance.

⁶¹ McCombs, Kirby, and Mariano, 2009

⁶² Borman, Benson, and Overman, 2005

⁶³ Insert a summary of the authors on this work

⁶⁴ Cooper, Charlton et al, 2000

⁶⁵ Kim 2009 and Coots, 1998

⁶⁶ Terzian, Moore, and Hamilton, 2009

⁶⁷ Terzian, Moore, and Hamilton, 2009

Research indicates that several effective strategies exist to improve enrollment and attendance through parental involvement. School communication with parents is a vital part of those strategies. Many high-quality programs create a parent communication plan specifying the time, regularity, and purpose of parental communication.⁶⁸ These plans created more frequent opportunities for positive communication between the school and parents and ensure continuous interaction with families, which is beneficial for students.⁶⁹ Successful programs also provided training to staff members about how to effectively communicate with parents. The first step in this communication is to notify parents about the program early before they make summer plans, which is ideally completed in February. The early and collaborative planning (discussed above on pages 19 - 20) enables programs to start parental communication early. The information to be communicated should be readily accessible to parents.

Ongoing communication with parents is also crucial to program success. Some effective programs utilized parental involvement coordinators to act as liaisons between families and staff.⁷⁰ EDCI's parent advocates can readily fulfill this role for the families they work with during the regular school year. Although no benchmark exists for the correct amount of parent communication, the communication plan delineates clear expectations about how often program staff should communicate with parents. Research suggests that an important component of the communication plan is to contact parents when a child is absent, which can help boost attendance and improve interactions with parents.⁷¹

Summer programs used various other strategies to improve parental engagement and student attendance involvement. Some programs tried to ensure high levels of parental involvement by

⁶⁸ McCombs et al, 2011

⁶⁹ Machen et al, 2005 and Lopez, 2001

⁷⁰ Lopez, 2001

⁷¹ McCombs et al, 2011

requiring parents to sign attendance pledges, although no evidence exists to show whether this component was effective. Offering engaging enrichment activities, providing transportation, and offering full-day programs (which better suit the needs of many families) are also methods that effective programs use to improve involvement and attendance.⁷²

Proposed Action Items

- Establish a parental engagement plan before the program starts each summer.
- Create a detailed communication plan with a regular schedule and means for parental communication before the program begins, which includes a schedule for progress reports and protocol to follow if a child is absent.
- Provide training for staff on how to effectively communicate with parents.
- Provide opportunities for parents to contact program staff.
- Utilize EDCI Parent advocates to encourage student enrollment, attendance, and parental involvement (EDCI currently implements this action item).

6. Learning-focused

A focus on learning is crucial to effectively prevent summer learning loss (a major goal for EDCI's summer program). Research suggests that certain components of summer programs help to ensure success at preventing learning loss and improving academic skills. Smaller class size is associated with program effectiveness. Programs that capped class size at 20 students were more effective in producing achievement gains than programs with larger classes.⁷³ Studies have not confirmed whether programs with even smaller classes were more effective. Additionally, summer programs that intended to provide individualized instruction were most effective than programs without this intention.⁷⁴ Part of providing individualized instruction is to assess participants' needs early in the program and develop individualized strategies for meeting those needs.⁷⁵

⁷² Terzian, Moore, and Hamilton, 2009 and Machen et al, 2005.

⁷³ Cooper, Charlton et al, 2000

⁷⁴ Cooper, Charlton et al, 2000

⁷⁵ McCombs et al, 2011

Learning activities should be integrated with student experiences during the school year to ensure that program learning is meaningfully connected and continuous to school-year. Aligning the school-year and summer curricula improves the effectiveness of summer programming by relating summer learning to past and future learning objectives.⁷⁶ Ideally, summer academic content would be aligned with statewide, grade-level curricular standards for English Language Arts and Mathematics.⁷⁷

Proposed Action Items

- Ensure differentiated instruction based on available student data.
- Integrate activities with learning from the school year.
- Ensure academic content is aligned to statewide, grade-level curricular standards (EDCI currently implements this action item).
- Keep class size under 20 during the summer program (EDCI currently implements this action item).

7. Program culture

Effective summer learning programs create a summer culture that is different from the school year and promotes a sense of community, while still centering on academic achievement. While academic content should be integrated with school-year learning (as recommended above) effective programs also make it distinctive from activities during the school year. Ensuring that summer “feels different” than the regular school year through enrichment activities can also help improve student attendance and engagement.

Research shows that out-of-school strategies do not have to focus solely on academic activities to have positive effects on student achievement.⁷⁸ Summer instructional techniques are most effective when academic learning is woven into enrichment activities like field trips or

⁷⁶ McLaughlin and Pitcock, 2009

⁷⁷ Terzian, Moore, and Hamilton, 2009

⁷⁸ Lauer et al, 2003

learning a new skill.⁷⁹ Program personnel should ensure that the program focuses on a blended approach of both academic learning and enrichment activities that provides interactive, engaging programming that fosters critical skills, including collaboration, innovation, creativity, and communication.⁸⁰ High-quality programs often integrate hands-on activities, immersion, and experiential learning including games, group projects, field trips, nature expeditions, and science experiences- all ways to make learning more interesting and applied.⁸¹

Proposed Action Items

- Plan enriching activities aligned with learning content in the summer plan (EDCI currently implements this action item).

8. Rigorous evaluation

Rigorous evaluation can strengthen program quality by identifying areas for program improvements and potential replications.⁸² Although research has established the efficacy of summer learning programs, rigorous program evaluations will provide valuable information to policymakers and practitioners about specific program components that are successful. In addition, establishing an evaluation can help clarify program objectives, levers of change, and needed supports.⁸³ Programs can use evaluation results to adapt and improve components when possible. EDCI has already contracted with the Center for Child and Family Policy at Duke University to conduct a rigorous outcomes evaluation of programs, including their summer program at Y.E. Smith.

Proposed Action Items

- Ensure that the Center for Child and Family Policy has adequate time and information to plan and conduct a rigorous evaluation.

⁷⁹ Bell and Carrillo, 2007

⁸⁰ NSLA, 2010

⁸¹ NSLA, 2010

⁸² Bell and Carrillo, 2007

⁸³ McCombs et al, 2011

Ultimately, effective summer programs use a range of infrastructural and operational elements and there is not a single prescribed model to create an outstanding program. However, effective programs embody these eight components, adapted for local conditions and needs.

Analysis of Effective Summer Learning Programs

After an in-depth look at available summer programs, I carefully chose six programs that research suggest work and have evidence of preventing summer learning loss with a demographic group to similar to Y.E. Smith students. See Appendix 7 for a full list of the programs I researched, but omitted, from this in-depth analysis. All the interviews with personnel from these six programs closely mirrored the results discussed in the literature review and best practices explained in the section above. None of the interviews or analysis of how the program worked contradicted these best practices. The following comparative analysis of six summer learning programs allows a close look at program-specific components based on four criteria. This program analysis also informs the proposed action items for EDCI's summer program scaling-up efforts.

Criteria

I analyzed the six summer programs using four criteria chosen based on EDCI's needs that a program be evidence-based, replicable, and potentially scalable. I also evaluated programs evaluated based on per-student cost because of the importance and challenge of financing a high-quality summer program.

1. *Evidence-based*: the program has evidence of improving students' academic outcomes.
2. *Cost*: this criterion is expressed as the estimated cost per-student for the program and is explained for each program. Programs with extremely high cost per-students were excluded from this analysis.
3. *Replicable*: the program has been successfully replicated and can be replicated at Y.E. Smith Elementary.
4. *Scalable*: the program can be scaled to a larger group of students.

Table 3 illustrates how well each program meets the criteria of high-quality summer programs. Each program is analyzed in-depth below, starting with the program that EDCI currently operates and then in order of programs that satisfy the most criteria, which have the most learning to offer to EDCI.

Table 3: Program Analysis Matrix

Program	Criteria			
	Evidence-based	Cost	Replicable	Scalable
HillRAP	✓	~\$161	✓	✗
Bell Summer	✓	\$200	✓	~
Reading Partners	✓	~\$240	~	~
Summer Advantage USA	~	\$200	~	✓
SuperKids	✓	~\$180	~	~
Champions SkillBuilders	~	~\$225	~	✓

Key: ✓ Meets criterion ✗ Does not meet criterion ~ Partially meets criterion

Hill Reading Achievement Program (RAP)

The Hill Center developed the HillRAP curriculum as a school day intervention which pulls out struggling readers from their regular classrooms for short periods of time daily (45 minutes to one hour) to receive specialized literacy instruction. EDCI implemented the HillRAP curriculum during their six-week pilot program in the summers of 2010 and 2011. The summer program at Y.E. Smith currently uses the HillRAP curriculum in the morning, with enrichment activities in the afternoon.

Evidence-Based (✓)

HillRAP is an evidenced-based program with multiple evaluations that confirm its positive effects on students reading skills. Evaluation results for HillRAP implementation in Durham Public Schools show that it improved the reading proficiency of struggling readers, particularly younger readers and students with a more significant initial delay.⁸⁴ A study by RTI likewise showed that HillRAP significantly improved participants' reading skills. This study, however,

⁸⁴ Christopoulos, Rosanbalm, and Rabiner, May 2011

concluded that the impact of HillRAP is similar across student groups, while the Center for Child and Family Policy evaluation found subgroup differences.

Evidence from a study of HillRAP in Davie County middle schools suggest that the program improved the reading proficiency of struggling readers and began to close the achievement gap between these students and their peers on state-mandated tests and nationally-normed achievement tests. However, the results were highly variable among students and though the results are promising, causal conclusions about HillRAP and these outcomes could not be definitively made.⁸⁵ Overall, the evidence suggests that HillRAP can effectively improve students' reading skills although these results may not be uniform across student groups.

Cost

EDCI currently operates the HillRAP program for approximately \$161 per child per week. These per-student costs are below the research-based estimates for the cost of high-quality program which range between \$170 and \$250 per student for a six week program. The \$161 EDCI cost is a rough estimate which may not include the cost of the in-kind donation of the Y.E. Smith facilities. This program manages to keep this cost low partially because of the use of college students as instructors, paid through the federal work-study program.

Replicable (✓)

HillRAP is replicable because the program evaluations show it has been successfully used at various schools in Durham Public Schools and Davie County Schools, in addition to its use other students in North Carolina. HillRAP can readily be put into the context of Y.E. Smith because it is already operating in the school during the school day and as a summer program.

⁸⁵Christopoulos, Rosanbalm, and Rabiner, June 2011

Scalable (✘)

The HillRAP program is not scalable largely because it is not designed to be so. The program is meant for struggling readers and would be academically inappropriate for all students, who may not be struggling. Additionally, the program would likely be cost prohibitive to scale-up because of the extremely low student-instructor ratio and the high cost of training the instructors.

Building Educated Leaders for Life Summer Program (BELL Summer)

Bell Summer is a summer program for at-risk, urban youth in Kindergarten through 8th grades. The program currently operates in 56 public schools in four states. BELL Summer lasts five days per week, six-eight hours per day, for six weeks. The program consists of literacy and math instruction, in addition to a range of enrichment activities. BELL Summer's mission is to increase participants' educational achievements, self-esteem, and life opportunities.

Evidence-Based (✓)

Rigorous studies confirm the positive outcomes of BELL Summer. A random assignment study by Urban Institute found that BELL Summer has statistically significant increases on participants' reading achievement and parental engagement in education.⁸⁶ Participating students improved their reading skills by approximately one month of grade-level equivalency. They also took part in more academic activities, read more books, and were more encouraged by their parents to read.⁸⁷

Another independent study found that BELL Summer participants returned to school having gained almost one-half year in reading comprehension and vocabulary after at least two summers

⁸⁶ Chaplin and Capizzano, 2006

⁸⁷ Chaplin and Capizzano, 2006

of regular attendance.⁸⁸ Another study of the program found consistent gains of at least five months grade-level equivalency in reading and math. Program participants moved closer to their peers nationally, performing at the 50th and 42nd percentiles in reading and math, compared with 43rd and 31st percentiles when the program began.⁸⁹

Cost

Based on my calculations, BELL Summer costs approximately \$200 per child per week for a six week, eight hour per day program. This cost is more expensive than the HillRAP program currently used at Y.E. Smith; however BELL Summer lasts longer per-day than the Y.E. Smith program and includes math instruction which necessitates additional material and instructor training.

Replicable (✓)

BELL Summer has evidence of replicating successfully across 65 schools in four different states. All sites, including schools with large proportions of low-income and minority students, report repeatedly high results which suggests that Bell Summer program would be replicable at Y.E. Smith Elementary.

Scalable (~)

Whether BELL Summer could be successfully scaled to the entire Y.E. Smith population is unclear. The program may not be cost-effective to implement for an entire school. However cost may not be that large an impediment, for instance, Detroit Public Schools recently implemented BELL summer program in 17 schools, with BELL itself paying about one-fourth of program costs. Additionally, BELL summer program may be scalable because the curriculum is individualized and is more appropriate for a wider range of student abilities.

⁸⁸ Borman and Dowling, 2006

⁸⁹ Bell and Carrillo, 2007

Reading Partners

The Reading Partners program focuses on children from low-income communities who struggle with reading. Working with partner schools, the program offers children one-on-one tutoring with a volunteer twice a week in 45-minute sessions during the school day. Teachers refer English speaking, Kindergarten -5th grade students who have fallen behind in reading by six months to two years. Reading Partners currently operates in 65 schools in five different states. The organization is currently running a pilot program for summer programs with the Reading Partners curriculum.

Evidence-based (✓)

Reading Partners is evidence-based. In 2010-11, on average, students entered the program progressing at a rate of approximately 0.6 years for every year in school and finished the program progressing at a rate equivalent to 1.63 years for every year in school.⁹⁰ A three-year randomized evaluation study by the School of Education at Stanford University found that Reading Partners has a significant effect on participants' reading skills regardless of grade, reading level at enrollment, background characteristics (gender, ethnicity, or English Learner status), and school attended. Teacher surveys also show that participants have increased confidence in their academic ability. Additionally, Reading Partners has partnered with MDRC to design and implement a randomized control trial (RCT) study of student outcomes during the 2012-13 year.

Cost

I calculated the costs of operating Reading Partners as a summer program based on the organization's cost estimates for doing a school-year tutoring program at multiple schools in

⁹⁰ Reading Partners, 2011

Durham. Based on these calculations, Reading Partners would cost around \$240 per student per week of the summer program. See Appendix 8 for a description of the cost assumptions and calculations.

Replicable (~)

Whether Reading Partners is replicable as a summer program is unclear because the organization is still piloting their summer program. However, it is likely that the program would be replicable because the curriculum has a history of replicating effectively across its current sites as a school-day intervention. Evaluations show that the program is consistently effective across school sites, including schools with large portions of low-income and minority students (similar to the student population at Y.E. Smith Elementary).

Scalable (~)

Whether Reading Partners is easily scalable to an entire school population is unclear because the program is still piloting the summer program version of the curriculum.

Summer Advantage USA

Summer Advantage USA is a national nonprofit organization that partners with schools and school districts to provide high-quality summer learning programs for students in grades Kindergarten - 8th. The program operates six and a half hours per day, five days per week for five weeks. Classes are led by certified teachers with college students serving as teacher's assistants. This staffing means a 24:2 student-teacher ratio in each class. The curriculum focuses on literacy and math, with enrichment activities for two hours each afternoon and all day on Fridays.

Evidence-based (~)

The Summer Advantage program has not yet undergone a truly rigorous evaluation. However, pre and post data of the program suggest that Summer Advantage USA improves

students' academic skills over the summer. The data show that participants experience a two-month gain in reading and math achievements, while the Gates-MacGinitie evaluation tool showed participants gained approximately three months grade-level equivalency in reading skills. On the NCE, participants improved nine percentage points compared to peers nationally, moving from 42nd to 51st in national percentile ranking. Although these results are promising, a rigorous evaluation of this program is still needed.

Cost

The per-student cost for the entire Summer Advantage USA program is \$1,000. The program generally runs for five weeks (although in some locations, the program runs for only four weeks). This duration equals a cost of \$200 per student per week. This cost is more than the current program at Y.E. Smith, however, Summer Advantage utilizes certified teachers which increases costs.

Replicable (~)

Whether Summer Advantage USA is replicable is unclear because without rigorous evaluations it is difficult to determine whether its replications are successful. However, it seems likely that the program is replicable because it currently operates in over twenty school districts in three states. Additionally, the program utilizes a set curriculum which could be easily transferrable to other locations.

Scalable (✓)

Summer Advantage USA seems like it could be scaled easily to an entire school population. The program utilizes a 24:2 student-instructor ratio which would make it easier to scale than programs with smaller ratios. Additionally, the program has been used previously for whole

schools and its model is based on partnering with districts and schools for whole-school summer programs.

SuperKids Camp

SuperKids Camp in Baltimore, Maryland works to prevent summer learning loss and promote early childhood literacy development through a fun and engaging six-week summer program. The program utilizes a 10:1 student to staff ratio to combine traditional summer camp activities with a reading and math curriculum. The program is put on in partnership between Baltimore City Public Schools and the Parks and People Foundation, operating on a first come first served enrollment process.

Evidence-based (✓)

Although additional evaluations are necessary, preliminary evaluations show that SuperKids Camp improves participants' academic skills over the summer. The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) showed that participants demonstrated statistically significant growth. More than 80 percent of participants maintained or improved their literacy skills. Additionally, the Garfield Reading Survey (which measures student reading motivation and camp-related experiences) found that students' motivation to read was strong at the camp's conclusion. Staff surveys confirm this finding, indicating an overwhelming improvement in reading ability, reading interest, and attitude toward reading.

Cost

SuperKids costs about \$180 per student for the five week program, which is only slightly more expensive than the current Y.E. Smith program.

Replicable (~)

Whether SuperKids Camp is replicable is unclear. Currently, SuperKids Camp operates 10 sites throughout Baltimore, but has not been replicated outside of the city.

Scalable (~)

Whether SuperKids Camp is scalable to a whole school population is also unclear. Enrollment is limited and operates on a first come, first served basis, so the program has not been brought to scale previously.

Champions Summer SkillBuilders

Summer SkillBuilders is provided by Champions and offers a flexible summer school program designed to help students develop core academic skills. These programs are customizable for schools' and districts' unique needs. Using certified teachers, Summer SkillBuilders offers targeted instruction in reading and math as well as in writing, study skills, test-taking strategies, and science. Summer SkillBuilders offers enrichment activities in the afternoon.

Evidence-based (~)

Whether Summer SkillBuilders is evidence-based is unclear because a rigorous evaluation has not been performed. Pre and post data of the program suggest that Summer Advantage improve students' academic skills over the summer. Based on data from Champions' pre- and post-test data, students on average gained significantly in math and reading skills over the summer months.⁹¹ Although these results are promising, the program has not undergone a rigorous evaluation.

⁹¹ Champions, 2011 http://www.discoverchampions.com/main/do/Summer_Learning

Cost

Champions' summer program costs about \$225 per child per week. However, this rate varies slightly based on local prices for resources, staffing, and facilities. This cost is more expensive than the current cost of the program at Y.E. Smith; however, the program utilizes certified teachers, which may account for this difference.

Replicable (~)

Whether this program is replicable is unclear, although it seems likely that it is. The Summer SkillBuilders curriculum has been replicated across multiple school sites in Washington, DC, which have similar student demographics to Y.E. Smith. The program also has staff that work specifically with schools to fit the curriculum to their local needs. However, there is no evidence that shows these replications produced reliably positive outcomes.

Scalable (~)

Whether the program is scalable is also unclear. Entire schools have used the Summer SkillBuilders. However, there is no evidence from rigorous evaluations on whether these scaled programs have been successful.

Program Analysis Conclusion

The programs analyzed here reflect the highlight the eight evidence-based programming characteristics mentioned in the literature review. These six programs established the three program infrastructure components explained in the literature review: purpose, finance and sustainability, and advanced, collaborative planning. Personnel from all the programs articulated the program's mission and goals in interviews. Five of the six interviews highlighted the need to monitor program costs and the challenge in maintaining financial sustainability over time.

Although none mentioned advanced planning specifically, all these programs have a prescriptive method for implementing the program and a plan for hiring staff.

In interviews, all six program personnel highlighted the importance of the fourth program component, staff. The type of staff used differed across programs. Some programs used trained college students (as in HillRAP) while others tried to utilize certified teachers (as in Summer Advantage). Despite this difference, all the interviews explained the importance of having clear expectations and training for instructional staff.

This programs analysis also highlights the fifth component, parental engagement. Program personnel identified it as a critical and incredibly challenging aspect of summer programming in interviews. Summer Advantages is the most explicit in their engagement plan by requiring parents to attend an orientation meeting prior to the program's beginning. Additionally, Summer Advantage also develops a parent communication plan and has explicit training for staff on parental communication. Likewise, BELL Summer utilizes a parental engagement plan and training for staff on parental communication.

All these programs also reflect a strong commitment to an academic focus. Preventing summer learning loss and improving student academic skills were both common phrases and explanations of each program's work. Five of the six interviews also mentioned the importance of making the summer program fun for the students, referencing the seventh program component of creating a program culture that differs from the school year. Most programs here did so through offering engaging enrichment activities after academic instruction, by going on fieldtrips and physical recreational activities. SuperKids is unique in using traditional camp recreational activities because of their partnership with the Parks and Recreation department.

These programs also illustrate the importance of rigorous evaluation for ensuring accountability and improving program outcomes. HillRAP, BELL, and Reading Partners all utilized external evaluators to perform rigorous program evaluations. Likewise, EDCI already contracts with the Duke University Center for Child and Family Policy to perform a rigorous program evaluation. This program analysis shows the range of high-quality summer programs available and provides real examples of the program components, identified in research, that make them effective.

Best Practices for Scaling-Up Summer Programming

EDCI identified scaling-up summer programs as a policy challenge and goal that would ultimately ensure that all elementary-age children in the Initiative’s focus area, most of whom attend Y.E. Smith, participate in enriching summer learning programs. EDCI’s challenge for scaling-up is how to scale-up an opportunity to attend a high-quality summer learning program and to bring best practices (explained in detail on pages 40 - 46) to scale in summer programs, not necessarily scaling-up a specific program. This scale-up section explores the literature on scaling-up programs and analyzes options available to EDCI.

What does “Scale-Up” mean?

Scaling-up or going to scale has multiple uses and meanings in the literature. Fuchs and Fuchs define scaling-up as “activity meant to increase the use of an educational innovation that has been proved effective and practical by careful experimentation.”⁹² In this understanding of scale by expansion, to scale-up a program means to replicate the successful practice or program on a larger scale (meaning with more students, across more schools, or both).⁹³ Traditionally,

⁹² Fuchs and Fuchs, 1998

⁹³ Elmore, 1996 and Myers, 2000

scaling-up is understood as a “bottom-up” model that involves researchers or practitioners introducing proven interventions into new settings with the goal of producing similarly positive effects in a larger, more diverse population.⁹⁴

Other researchers define scaling-up in terms of what is being brought to scale. In this understanding, scaling-up may focus on:

- structure in quantitative scaling-up: organizations expand in size or constituencies.
- programs in functional scaling-up: organizations expand the number and type of activities.
- strategy in political scaling-up: organizations move beyond service delivery.
- resources in organizational scaling-up: organizations increase their financial and institutional base.⁹⁵

Quantitative scaling-up is the dimension that corresponds most closely with the common use of “going to scale.” This scaling can mean replicating a program at more sites or increasing the number of participants at the current site. The latter understanding of scaling-up is most applicable for summer programming at EDCI.

For EDCI, scaling-up means ensuring that all Y.E. Smith students and eventually all elementary-age students in the Initiative’s focus area have access to a high-quality summer program. This version of scaling-up differs slightly from the above definition in the research. Although research on scaling-up programs primarily deals with the challenges and best practices of replicating the same service to more participants at different sites, this literature can help inform the challenges and best practices for EDCI’s scaling-up access to a summer program.

⁹⁴ Klein, McArthur, and Stecher, 1995 and McDonald et al, 2006

⁹⁵ Uvin and Miller, 2001

Scaling-up is an increasingly popular topic in research and program evaluations, helped partially by the Obama administration's prioritization of scaling-up programs. Scaling-up is an important, and attractive, approach to expanding service provision because it replicates existing evidence-based programs with a record of success. Replicating successful programs and ending unsuccessful ones makes sense, especially with limited funding.

However, scaling-up is not appropriate for every program. Some initiatives or programs may be viable precisely because they are small. Additionally, certain programs may flourish because of their responsiveness to local needs and demands, well adapted to a local setting, and guided by the local community. Some programs may not be well suited to different demographic groups or adaptable to varying local conditions. No evidence suggests that every program is possible to bring to scale, and previous attempts to scale-up locally successful programs have often had mixed results. However, by utilizing research-based best practices, EDCI can facilitate a successful scale-up.

Components of Effective Scale-Ups

Prior research gives policymakers and practitioners almost no specific guidance on how to scale-up programs effectively. Past attempts have proven it to be a difficult and vexing issue.⁹⁶ The experience of programs that are effective at a small scale shows that they often have trouble maintaining that effectiveness when replicated broadly.⁹⁷ The challenges are far greater and their potential solutions more complex in multicultural and multilingual settings, especially in urban schools.⁹⁸

⁹⁶ Elmore, 1996; Granger, 2010; and King, 2012

⁹⁷ Granger, 2011

⁹⁸ Lee and Luykx, 2005

Although scaling-up the opportunity for summer programs will be challenging for EDCI, research and evaluations suggest that six practices may help mitigate these challenges: detailed but flexible planning, incremental progress, sufficient resources, appropriate monitoring, dynamic leadership, and support networks. Ideally, a scale-up would utilize all six practices, although research suggests that the first five are critical to a successful scale-up. Each of these components are described in detail below.

1. Detailed, but flexible planning

Scaling-up inevitably compromises conceptual rigor and fidelity of implementation of an innovation, due to the differences among varied educational settings. Detailed planning can help mitigate these infidelities, especially by planning differences in demographics and local circumstances. However, this concern about planning for different populations is low for EDCI, since their program scale-up would occur within the same student population.

Planning for bringing a program to scale will likely coincide with the early comprehensive planning done for the summer program (recommended earlier on pages 19 - 20). However, scaling-up necessitates reacting to different conditions, so ideally the planning would also be flexible and adaptable to changes. Planning for scaling-up should be based on appropriate and reliable monitoring of key data points including desired outcomes, facility capacities, and financial conditions. Research suggests that scaling-up is a learning process so that organizations should monitor these indicators and alter plans accordingly.⁹⁹ This will necessitate having a staff member actively monitor these data points and be capable to change the plans accordingly.

⁹⁹ Samoff, Sebatane, and Dembele, 2003

2. Incremental Progress

Organizations that bring a program to scale often have to make incremental progress at first to be successful. Expanding slowly helps the organization identify areas of weakness and address them before moving ahead. Additionally, incremental progress helps ensure that the scaled up program does not outpace the expansion of the needed support infrastructure. The amount of progress towards scaling-up should be based on appropriate and reliable monitoring of the key data points mentioned earlier.

Evidence on scale-up research indicates that having a staff person closely monitor potential areas of weakness and utilize risk management strategies is useful.¹⁰⁰ Incremental progress relates directly to flexible planning since this incremental progress may necessitate adjustment to the plan and is helpful to have a staff member monitoring both. For EDCI, incremental progress may mean slowly adding students to their summer program or referring students to other programs, increasing the number of students served annually instead of adding all 350 kids at one time.

3. Sufficient Resources

Insufficient resources are one of the most common reasons cited for failed scale-up attempts.¹⁰¹ Obtaining enough resources can be incredibly challenging, although necessary for the sustainability of the program scale-up. Sufficient resources include adequate central office staff to coordinate and oversee the expanded functions, as well as staff members to oversee the monitoring of data for the planning and incremental progress described above.¹⁰²

¹⁰⁰ Coburn, 2003

¹⁰¹ Samoff, Sebatane, and Dembele, 2003

¹⁰² Lee and Luykx, 2005

Scaling-up can increase costs so much that the new program becomes unsustainable. Often, practitioners assume that enlarging effective pilot programs will be associated with economies of scale and thus decrease per-participant cost. The evidence of whether scaled up programs achieve economies of scale (and therefore have decreased per-unit costs) is unclear.¹⁰³ Even if they do, initial economies of scale may be superseded by rising unit costs as expansion continues. Consequently, exploring the short term and long term cost implications of scaling-up, and thus the sustainability of the reform, should occur early and be based on sound cost projections.¹⁰⁴

4. Dynamic leadership

Dynamic leadership is integral to the success of scaling-up programs because inadequate support from leadership is a common reason cited for the failure of program scale-up attempts.¹⁰⁵ Dynamic leadership means having knowledgeable, adaptive, and capable leadership in charge of scaling-up. This type of leadership is so important because scaling-up programs risks distracting key leadership and spreading managerial and other capacities so widely that they can no longer effectively cope. Dynamic leaders can also help ensure positive communication with community and partner organizations, which is especially important for community-based organizations like EDCI. Research also suggests that scale-ups are more likely to succeed if program leadership is maintained and staff turnover during the scale-up process is low. This helps maintain important institutional knowledge and familiarity within the organization.¹⁰⁶

¹⁰³ Samoff, Sebatane, and Dembele, 2003 and King, 2012

¹⁰⁴ Uvin and Miller, 2001

¹⁰⁵ Klinger et al, 2003 and Taylor, Nelson, and Adelman, 1999

¹⁰⁶ Elias et al, 2003

5. Support Networks

Within program networks can help with scaling-up because they provide a way for personnel to support each other. The staff organizes around common ideas for improving practices and provides support to each other through observations, receiving feedback, and mutual help preparing materials.¹⁰⁷ For a summer program, it is important that staff leadership prioritize creating and nurturing these support networks. Explicitly training staff on how to be a part of a support professional network can also be useful.

Analyzing EDCI Options for Scaling-Up

For EDCI, “scaling-up” means ensuring that all students at Y.E. Smith Elementary and eventually all students in the Initiative’s focus area (who may not attend Y.E. Smith) are enrolled in enriching summer programs. The organization has various options for achieving this goal, which I analyze using four criteria based on the need for any scale-up to be financially feasible and consistent with the needs of EDCI, Y.E. Smith and individual students.

Criteria

Options for scaling-up are analyzed using four criteria: financially feasible, consistency with EDCI mission, academically appropriate, and aligned with school needs.

1. *Financially Feasible*: the scaled up program is financially feasible, which means that it would not increase the current weekly cost of \$161 per student. Research and interviews with personnel suggest that most high-quality summer programs cost about \$1,000 to \$1,750 per student for a six-week program.¹⁰⁸ EDCI independently spends \$15,000 - \$16,000 on their current summer program at Y.E. Smith and plans to maintain this level of funding after the program is scaled up. This desired constant level of funding would require EDCI to obtain funding from community partners or corporate sponsors.

¹⁰⁷ Guskey, 2000 and Klinger et al, 2001

¹⁰⁸ McCombs et al, 2011 and Interview with Summer Advantage USA Founder and Director, Mr. Earl Phalen

Table 4: Amount of Funding Needed for Scaled-up Program

# of Students	100	150	250	350
Estimated cost	100,000-175,000	150,000-262,500	250,000-437,500	350,000-612,500
EDCI funding	15,500	15,500	15,500	15,500
Amount needed	84,500-159,500	134,500-247,000	234,500-422,000	334,500-597,000

Source: Author calculations based on research and interviews

Table 4 shows the estimated amount of funding for a summer program that serves increasing number of students. The estimated costs are research-based on the estimate that high-quality programs costs \$1,000 - \$1,750. These estimates represent the cost of the entire program serving that number of students. EDCI’s funding remains constant across the programs. The amount needed shows how much funding EDCI would need to raise to meet the estimated costs.

2. *Consistent with EDCI mission:* the scaled up program is consistent with EDCI’s mission to provide a pipeline services for all children in its focus area.
3. *Academically appropriate:* the option addresses students’ differentiated academic needs.
4. *Aligned with school needs:* the program aligns with Y.E. Smith’s needs, particularly those in the school’s improvement plan for 2011- 2012, which states the school’s goals to improve reading proficiency and increase math scores.¹⁰⁹

Table 5 illustrates how well the four scale-up options meet these criteria. Each option is

analyzed in-depth below, starting with the option of scaling-up EDCI’s existing program and then in order of which satisfy the most criteria.

Table 5: Scale-Up Options Matrix

Scale-Up Option	Criteria			
	Financially Feasible	Consistent with EDCI Mission	Academically Appropriate	Aligned with School Needs
Scale-up Existing Program	~	✓	✗	~
Utilize 2 programs	~	✓	✓	✓
Continue current program and inform non-target students	✓	~	~	~
Enrichment for non-target students	✓	~	~	~

Key: ✓ Meets criterion ✗ Does not meet criterion ~ Partially meets criterion

¹⁰⁹ Y.E. Smith Elementary School. School Improvement Plan, 2011-2012

Scale-Up Existing Program

Scaling-up the existing EDCI summer program at Y.E. Smith would mean expanding the HillRAP instruction in the morning and the afternoon enrichment activities to include all students.

Financially Feasible (~)

Whether this option is financially feasible is unclear, although it is unlikely that it would be. The extremely low 3:1 student-instructor ratio of HillRAP and the expense of training instructors in the curriculum would increase substantially if the program expanded. Training in particular would be cost-intensive, since it currently accounts for almost half of current program expenses. Additionally, EDCI may find it difficult to hire enough high-quality college students to work as instructors for such a large student population, which may necessitate hiring staff directly and thereby increase costs.

Consistent with EDCI Mission (✓)

Scaling-up the existing HillRAP program is largely consistent with EDCI's mission because it would provide high-quality summer program to fill in their pipeline of services to children in the focus area.

Academically appropriate (✗)

Scaling-up the existing program is not academically appropriate. The HillRAP curriculum is for struggling readers and would be inappropriate for students who are above this level.

Aligned with school needs (~)

Whether scaling-up the current program aligns with school needs is unclear. Since this option is not academically appropriate, it would not necessarily improve all students' academic skills or align with school needs. However, since all the students would be in a supportive, learning-focused environment, it supports some of the school's needs.

Utilize Two Programs

For this option, EDCI would utilize two distinct summer learning programs in the morning and then combine these groups of students for the afternoon enrichment activities. Based on the above analysis of summer learning programs, using Reading Partners or BELL Summer in conjunction with HillRAP could also work.

Financially Feasible (~)

Whether this option is financially feasible depends on which program EDCI chooses for the students not enrolled in the HillRAP program. Combining the groups for afternoon enrichment activities helps achieve economies of scale in program staff, activity costs, and transportation which would mean a lower per-student cost for the afternoon. However, utilizing two programs would increase the need and cost of additional administrative support.

Consistent with EDCI Mission (✓)

This option is consistent with the EDCI mission to provide a safe and enriching environment that prevents summer learning loss.

Academically appropriate (✓)

This option is academically appropriate for students of various learning levels because it would allow students to attend differentiated programs.

Aligned with school needs (✓)

This option is aligned with the needs of Y.E. Smith to improve reading proficiency. However, the main consideration for the school under this option is the capacity of the facilities to handle two programs. To address potential facility constraints and reduce financial costs associated with a greater number of students, this option could utilize rotating cohorts of non-targeted students through the second summer program, meaning each group in the non-HillRAP group would enroll in a shorter, set number of weeks and then another group would do the same.

Continue the Current Programming and Inform Families about Other Summer Programs

Under this option, EDCI would continue the current HillRAP program at Y.E. Smith and inform the families of non-targeted students about summer program options with other organizations in East Durham. This option is helped by the earlier recommendation (made on page 13) that EDCI create an inventory of summer program options in Durham. If EDCI wanted to aggressively pursue this option, the organization could track the program each student attends and assist with payment if possible or necessary.

Financially Feasible (✓)

This option is financially feasible. It does not increase costs of the current program. Although creating the inventory would utilize staff time and resources, using a summer intern or volunteer could negate this cost. Forwarding information to families has a negligible cost and Y.E. Smith already provides families with some information on summer programs.

Consistent with EDCI Mission (~)

This option is partially consistent with EDCI's mission. It supports its goal of utilizing existing community organizations and programs to fill in their pipeline services. However, the other programs may not be academically focused and therefore would not achieve EDCI's goal of preventing summer learning loss and increasing students' academic skills.

Academically appropriate (~)

Whether this option is academically appropriate is unclear because it depends on which programs the students participate in. Certain programs may not be academically focused and so would not be academically appropriate for those students.

Aligned with school needs (~)

This option is only partially aligned with Y.E. Smith's needs. It aligns with the school's needs to improve reading proficiency among HillRAP participants. Other students, however,

may not receive academic support over the summer which does not align with the school's need to improve their reading proficiency.

Enrichment Only for Non-targeted Students

Engaging non-targeted students in enrichment activities would mean that students not chosen for the HillRAP program would only attend the afternoon enrichment activities and would not receive intensive literacy tutoring in the morning.

Financially Feasible (✓)

This option is likely to be financially feasible. The afternoon enrichment activities are already held for current program participants and do not necessitate a low student-staff ratio. The ability to expand the number of students without increasing the staff helps to make this option financially feasible. The only additional financial expense would be if the program provided additional transportation to the enrichment-only students. However, economies of scale could be achieved in transportation of students that all live within the focus area.

Consistent with EDCI Mission (~)

This option is partially consistent with EDCI mission. It provides a safe place for students to engage in enriching summer activities. This option does not, however, address the goal of preventing summer learning loss for non-targeted students who only attend the enrichment activities.

Academically appropriate (~)

This option is only academically appropriate for targeted students in the HillRAP tutoring. Non-targeted students, however, would not receive explicit academic intervention.

Aligned with school needs (~)

This option is partially consistent with school needs because it provides a safe place for students to engage in enriching activities. It does not, however, achieve the goal of preventing summer learning loss or improving reading skills of non-targeted students.

EDCI Specific Scale-Up Challenges

EDCI will face specific challenges to scale-up a summer learning program. The largest challenge to this service provision is funding; a challenge commonly cited by summer program leadership in interviews.¹¹⁰ Table 4 (on page 47) shows the estimated funding necessary to scale-up a program. These estimates would be a significant increase in fundraising for EDCI. Although this project does not offer recommendations for improving fundraising and financial development, it does highlight the importance of planning for and monitoring those metrics.

Maintaining high-quality staff while scaling-up will also be a challenge for EDCI. Utilizing a 3:1 student-instructor ratio necessitates a large staff if the program expands and qualified college students may not be available in suitable numbers. A scaled up program would also require additional administrative staff and staff to monitor the expansion itself.

Completing the planning early would help with early recruitment and retention of staff members. However, completing the advanced and flexible planning early in the year will also be challenging, particularly because organizations do not often focus on summer programs until mid-Spring.¹¹¹ This is also true for EDCI which has a small central office staff who operate many other programs. Both of these factors may interfere with advanced and flexible planning.

Scaling-up: Proposed Action Items

Based on the above analysis, to scale-up programming to ensure all students have access to a high-quality summer program, EDCI should consider utilizing another summer program for non-targeted students in addition to the current HillRAP program. Given the program analysis evaluated above on pages 28 - 40, Reading Partners or BELL Summer could both be a good supplemental program. Other programs that fulfill the set criteria could also help EDCI scale-up

¹¹⁰ McCombs et al, 2011

¹¹¹ McCombs et al, 2011

their summer programming. However, given planning and financial restrictions, this is not a feasible action item in the short term.

This analysis suggests that in the short term, EDCI should continue its current summer programming. Simultaneously, the organization should make an inventory of the current summer program options and use this to communicate other options for high-quality summer programming for students in the EDCI focus area.

Proposed Action Items

The following proposed action items for EDCI are founded on literature reviews, best practice research, and interviews with summer program practitioners, in addition to being informed by EDCI-specific goals and challenges. The action items are stated very directly here, however, EDCI's leadership will ultimately determine the appropriate action items to pursue for the summer program. Although EDCI will ultimately prioritize these action items, I organize them by importance and feasibility into four categories: already in use, immediate implementation, future implementation, and scale-up specific items for future implementation.

I also offer broad timeframe guidelines for each category, which are estimates of when it seems to be feasible for EDCI to successfully implement the action items. However, determining the appropriate timeline for implementation of these items likely require a formal discussion within the EDCI leadership.

Proposed Action Items in Use

EDCI fully or partially uses the following action items and should continue to do so:

1. Keep classes with fewer than 20 students for the summer program.
2. Utilize student data to inform staff development and instructional decisions.
3. Offer a summer program without charging fees to participants.
4. Utilize a staff development plan that begins with initial instructional training and has an ongoing, regularly scheduled feedback loop.
5. Utilize EDCI Parent Advocates to encourage student enrollment, attendance, and parental involvement.

6. Provide opportunities for parents to contact knowledgeable program staff, who have received training in parental communication strategies.
7. Integrate activities with school-year learning, with content aligned to statewide standards.
8. Give program participants at least 150 hours of summer programs.
9. Plan enriching activities aligned with learning content in the summer plan

Proposed Action Items for Immediate Implementation

Based on importance and feasibility, EDCI should engage in the following proposed action

items soon. These items seem feasible by the end of the 2012 calendar year:

1. Develop a mission statement for this summer program, which aligns with the organization's overall mission jointly with relevant stakeholders.
2. Set specific, rigorous, and feasible goals for student achievement each summer.
3. Calculate a true cost for the current program at Y.E. Smith, including in-kind donations, facility, transportation, and meals.
4. Monitor the four key components of cost-effectiveness: enrollment, quantity, quality, and price of resources.
5. Create an inventory of summer program options in Durham (utilizing the services of a volunteer or summer intern if available).
6. Disseminate information from this inventory to "non-targeted" Y.E. Smith students of the other summer programs available (this would begin EDCI's scale-up of the opportunity to attend a high-quality summer program).
7. Ensure that the Center for Child and Family Policy has adequate time and information to plan and execute a rigorous evaluation including data collection.

Proposed Action Items for Future Implementation

These proposed action items, while important for EDCI to pursue in the future, are not

feasible for immediate implementation. These actions items appear to be feasible before summer,

2013:

1. Begin comprehensive and detailed planning for summer programming six months before the intended start date (complete by February).
2. Create an outreach plan to maximize student enrollment and instructor recruiting.
3. Utilize a staffing plan that includes description of ideal instructional candidates.
4. Establish a parental engagement plan during the planning process.
5. Create a detailed communication plan with a regular schedule and means of communication with parents in advance of the summer program including times for progress reports and if a child is absent.

Scale-Up Specific Proposed Action Items for Future Implementation

These proposed action items are specifically for EDCI to scale-up the opportunity for a high-

quality program all students at Y.E. Smith and eventually all elementary-age students in the

Initiative's focus area. This scale-up does not seem feasible until after summer 2013, with a formal discussion by EDCI leadership and relevant stakeholders about the timeline and goals of this scale-up. Under those circumstances, EDCI should utilize the following practices:

1. Develop a detailed and flexible plan that allows for incremental progress.
2. Consciously build and train staff to participate in within-program support networks.
3. Ensure the program has sufficient resources to scale-up, including financial, facility, and human capital resources.
4. Utilizing two programs to serve Y.E. Smith students could be an academically appropriate scale-up option that aligns with EDCI's mission and with the school's needs; when it is financially viable.

Conclusion

Given the overwhelming evidence of summer learning loss and its contribution to the achievement gap, providing high-quality summer learning opportunities is a critical component of the EDCI service pipeline. To ensure a high-quality summer program, EDCI needs to know what works in summer learning programs for elementary-age students. This project addresses EDCI's policy challenge of developing and scaling-up summer programming in their focus area.

In this project, I highlight best practices and strategies for developing a high-quality summer program that improves students' academic skills over the summer. I also identified effective summer learning programs that operate with similar populations as Y.E. Smith and analyzed these programs to identify successful practices that may be relevant to EDCI. I performed a literature review of the scholarly research on scaling-up programs and examined the options available to EDCI, including potential challenges. From this research, I offer actions items for EDCI's current summer program and for scaling-up, prioritized based on importance and feasibility. The summer months offer an opportunity for EDCI to prevent summer learning loss in students most at-risk and this project emphasizes the use of research-based strategies and best practices to ensuring this time is successful.

Appendices	Pages
Appendix 1: List of People Interviewed	57
Appendix 2: Interview Questions	58
Appendix 3: Description of the Coding Process for Interviews with Program Personnel	59
Appendix 4: Summer Learning Loss Literature Review	60 – 64
Appendix 5: Defining Parental Engagement	65 – 66
Appendix 6: Parental Engagement Literature Review	67 – 69
Appendix 7: Programs Research but not Included in the Main Analysis	70 – 73
Appendix 8: Cost Assumptions and Calculations for Deriving the Per-Pupil Weekly Cost of Reading Partners as a Summer Program	74 – 75

Appendix 1: List of People Interviewed

1. Mr. Matt Aguiar Reading Partners, Chief Operating Officer
www.readingpartners.org
2. Ms. Nadia Bryan BELL, Mid-Atlantic Regional Director
www.experiencebell.org
3. Ms. Kim Jennings Champions, Summer Sale Director
www.discoverchampions.com
4. Ms. Letisha Judd Y.E. Smith Elementary, Principal
www.smith.dpsnc.net
5. Ms. Sherri Laupert The Hill Center, Tutoring Coordinator
www.hillcenter.org
6. Ms. Monica Logan SuperKids, Camp Director
www.parksandpeople.org/learn/summerprograms/superkids-camp/
7. Mr. Earl Phalen Summer Advantage USA, Director and Founder
www.summeradvantage.org

Appendix 2: Interview Questions

Program Personnel Interview Questions

1. What is the _____ program working to accomplish? What are the program's goals?
2. What program components do you consider critical to success?
3. What have been the program's "best" successes?
4. What have been the greatest challenges?
5. Do you use parental involvement strategies? If so, what are they and how did you select them?
6. (If Applicable): Which parental involvement strategies do you think are the most effective?
7. If you could change one or more components of your program, what would it/they be? Why?
8. What advice would you give to an organization beginning a summer program for about 350 elementary-age students in a low-income community?
9. What do you consider are some of the challenges in scaling-up _____ to a large student group?
10. (If Possible) What are the average costs in using _____ as a summer program?

Interview Questions for Mr. Judd, Y.E. Smith Elementary Principal

1. What components of a summer program do you consider critical to success at Y.E. Smith? Why?
2. What do you think the greatest challenges would be to a successful summer program at Y.E. Smith? Why?
3. What parental involvement strategies do you think would be the most effective for a summer program? Why these strategies?
4. What advice would you give to an organization beginning a summer program at Y.E. Smith?
5. What do you think will be the greatest challenges to scaling-up a program at Y.E. Smith?
6. Are there teachers or school staff that you think it would be beneficial for me to speak with about summer programming at the school?

Appendix 3: Description of the Coding Process for Interviews with Program Personnel

After transcribing the interviews, Dr. Nicole Lawrence (of the Duke University Center for Child and Family Policy) and I independently coded one interview. We then met to discuss the similarities and differences in our coding process. Through this discussion, we determined a set of categories to determine the coding: key contributions to success, parental involvement challenges and strategies, program challenges, program operations, program planning activities and processes. Using the interview coding software Atlas TI, I coded the interviews organized under the categories to obtain the interview results.

Appendix 4: Summer Learning Loss Literature Review

This literature of summer learning loss provides an additional synthesis of the research, which supplements the literature review included in the body of the document. Abundant research documents the disproportionate summer learning loss that affects low-income students compared to their more advantaged peers. Jamar found that students from higher socioeconomic status return to school in the fall with a considerable educational advantage over their less advantaged peers as a result of additional academic learning over the summer months.¹¹² This increased preparation contributes to the established achievement gap to place low income students at an increased disadvantage. Studies indicate that a large portion of the achievement gap between black and white students, and low and high income students is due to differentials in summer learning.¹¹³

A meta-analysis by Cooper, et al found that summer vacations created, on average, an annual achievement gap in reading of about three months between rich and poor students.¹¹⁴ This three-month annual gap can accumulate to a year and a half between the end of kindergarten and the end of 5th grade (a total of 5 summers). When this accumulating reading achievement gap is combined with the achievement gap between students when they begin school, students from lower-income families often find themselves two to three years behind.¹¹⁵

Some researchers argue that the amount of summer learning loss is actually greater than what current test data reveal, due to the fact that end-of-year tests are never given on the last day of school and that beginning-of-year tests are often administered after several weeks of review.¹¹⁶

¹¹² Jamar, 1994

¹¹³ Alexander, Entwisle, and Olson, 2007

¹¹⁴ Cooper, et al, 1996

¹¹⁵ Allington and McGill-Granzen 2003

¹¹⁶ Cooper, et al, 1996; and Klibanoff and Haggart, 1981

The effect of summer vacation would likely be more detrimental, perhaps dramatically so, if it were measured from the day school dismissed to the day students returned.

Summer Reading Loss: Reading

During the summer, low-income students lose, on average, one to three months on grade-level equivalence reading scores relative to where they finished the previous academic year. Meanwhile, their more advantaged peers tend to maintain their reading score or gain slightly over the course of the summer.¹¹⁷ Borman and D'Agostino found that the effects of remedial reading instruction during the school year were diminished when they included the summer vacation period.¹¹⁸ However, a meta-analysis by Cooper et al found that reading comprehension decreased for all income groups but declined more significantly for lower-class students.

Summer Learning Loss: Math

Cooper et al found that the effect of summer vacation was more detrimental for math than for reading overall. Specifically, they found that summer vacation was most detrimental for math computation.¹¹⁹ Additionally, G. Cooper and Sweller suggest that the relative lack of opportunity to practice computation, which is factually based, may make these skills more susceptible to decay.¹²⁰

Some research indicates that losses in math skills over the summer months occur for all students, regardless of income level.¹²¹ Murnane's research in 1975 supports this conclusion on the overall deterioration of math over the summer across student types, suggesting that math learning may be more restricted to formal school settings.¹²² However, Entwisle and Alexander

¹¹⁷ Fairchild, et al, 2006; and Cooper et al, 1996

¹¹⁸ Borman and D'Agostino, 1996

¹¹⁹ Cooper et al, 1996

¹²⁰ G. Cooper and Sweller, 1987

¹²¹ Fairchild et al, 2006

¹²² Murnane, 1975

found that learning loss in math also varies by family economic status, with low-income children consistently losing more skills compared to higher-income students who stayed the same or advanced in these skills.¹²³ Overall, the research suggests that all students lose math skills over the summer, although low-income students lose disproportionately more.

Summer Learning Loss: Students with Disability and English Language Learners

Research suggests that students with special learning needs are disproportionately affected by summer learning loss. Students who do not speak English at home and those with physical or learning disabilities may lose disproportionately over the summer due to their need for continuous instruction and service provision.¹²⁴ Cooper et al also found that English Language Learners disproportionately experienced summer learning loss since they lacked language support during the summer.¹²⁵ Multiple studies indicate that children with learning disabilities have a larger need for summer programming in addition to regular services during the school year.¹²⁶

Why does Summer Learning Loss Occur?

Researchers generally agree that summer learning loss occurs more for low-income students because they have fewer learning opportunities and less support for learning-related activities during the summer vacation.¹²⁷ Additionally, research suggests that the differential availability to practice different academic material over the summer and differences in the material's susceptibility to memory decay may play a role in summer learning loss (with fact- and procedure-based knowledge more easily forgotten than conceptual knowledge).¹²⁸ Many studies

¹²³ Entwisle and Alexander (1992,1994)

¹²⁴ Katsiyannis, 1991

¹²⁵ Cooper et al, 1996

¹²⁶ Sargent and Fidler, 1987 and Cooper et al *Meta-Analysis*

¹²⁷ Heyns, 1978; and Entwisle and Alexander, 1992 and 1994

¹²⁸ Heyns, 1978; Entwisle and Alexander, 1992 and 1994; Cooper et al, 1996; and G. Cooper and Sweller, 1987

indicate that low-income students' lack of access to books and less print-rich environments play a substantial role in summer learning loss.¹²⁹

Summer Learning Loss- Lasting Consequences

Summer learning loss seems to be cumulative and, over time, these periods of differential learning loss between lower and higher income students contribute substantially to the achievement gap.¹³⁰ Alexander, Entwisle, and Olson found that summer learning differences over the five years of elementary school account for more than half of the achievement gap between socioeconomic levels, a larger component than that built up over the preschool years.¹³¹ Researchers at Johns Hopkins University found that summer learning loss accounted for two-thirds of the overall achievement gap. Moreover, Hayes and Grether found that the differential progress during the four summers between 2nd and 6th grades accounted for more than 80 percent of the achievement difference between economically advantaged and disadvantaged students.¹³²

Most of the large gap in reading achievement found in 6th grade could be attributed to summer reading setback, along with the smaller initial achievement difference between the two groups when they began school.¹³³ Studies show that out-of-school learning during the elementary grades is linked to 9th grade achievement and to the achievement gap by family socioeconomic status, a gap which determines high school class placement, mode of high school exit, and future education or career opportunities.¹³⁴ Some researchers went even farther arguing that low-income students' summer shortfall relative to better-off children contributes to low

¹²⁹ Mraz and Rasinkski, 2007.

¹³⁰ Sloan McCombs et al, 2011

¹³¹ Alexander, Entwisle, and Olson, 2007

¹³² Hayes and Grethe, 1983; and Allington and McGill-Granzen, 2003

¹³³ Allington and McGill-Granzen, 2003

¹³⁴ Alexander, Entwisle, and Olson, 2007

success in high school and the perpetuation of family advantage and disadvantage across generations.¹³⁵

Researchers have also looked at how summer's out of school time affects students on variables aside from educational loss. Most children, particularly children at high risk of obesity, gain weight more rapidly when they are out of school during summer break.¹³⁶ Summer weight gains are especially large for three subgroups: African-American children, Hispanic children, and children who are already overweight.¹³⁷ At the same time, only one in seven students who receive free or reduced price meals during the regular 2009-2010 school year had access to summer meals in 2010.¹³⁸ Lack of access to nutritional meals and increases in obesity over the summer months have important consequences for children's future health outcomes.

Research also looks at the role of demographic characteristics on summer learning loss. Studies have not find gender to be a significant factor in summer learning loss and studies that explicitly examined race found that learning loss differentiated by race only because of its association with income disparities. In studies where race was explicitly examined and income level at least partially controlled for, racial differences were not found.¹³⁹

Research indicates that students' grade level affects their summer learning loss. The negative effect of summer increased as students' grade level increased.¹⁴⁰ However, the learning loss that occurs in earlier elementary grades is critically important since this sets the foundation for later achievement and achievement gaps. Despite differences in summer learning loss among grade levels, whenever this loss occurs it has well-documented detrimental effects on students.

¹³⁵ Alexander, Entwisle, and Olson, 2007; and Sloan McCombs et al, 2011

¹³⁶ von Hippel, et al 2007

¹³⁷ Pitcock, et al 2008

¹³⁸ Food Research and Action Center, 2011

¹³⁹ Cooper et al, Allington and McGill-Granzon, Entwisle and Alexander

¹⁴⁰ Cooper et al, 1996; and Alexander and Entwisle, 1992 and 1994

Appendix 5: Defining Parental Engagement

The definition of parental involvement in their child's education and school varies throughout the academic literature. A number of studies define parental involvement simply by using one criterion. For instance, the National Center for Education Statistics only uses the criteria of attendance at school events to study parental involvement.¹⁴¹ Other studies focus on other dimensions of parental involvement, such as the number of hours that parents volunteer at their child's school or the amount of time that parents spent reading at home with their children.¹⁴² However, these one-dimensional measurements may not encompass the full range of ways in which parents and families engage with and support their child's education.

Some researchers use a more comprehensive definition of parental involvement that understands it as a multifaceted concept.¹⁴³ According to this definition, parental involvement includes all the resources that parents dedicate to their child within a given domain. This understanding includes three forms of involvement: behavior (attending school activities), cognitive intellectual (engaging children intellectually outside of school), and personal (the child's perception of parents' feelings about school and learning generally). Additional research echoes the important benefits of this inclusive definition.¹⁴⁴

Epstein conceptualized parental engagement in education as six categories of involvement, which are summarized in Table 6.¹⁴⁵ These categories provide a useful framework for schools and summer programs as they determine parental engagement strategies and goals.

¹⁴¹ National Center for Education Statistics, 2004

¹⁴² Fantuzzo, Tighe, and Childs, 2000

¹⁴³ Grolnick and Slowiachzek, 1994

¹⁴⁴ Manz et al, 2004; Grolnick et al, 1997

¹⁴⁵ Epstein, 1992.

Table 6: Epstein’s Categories of Parental Involvement

Involvement Category	Description	Example Programs
Parenting	Families establish home environments to support children as students	<ul style="list-style-type: none">• parent education courses• family support programs
Communicating	Families utilize effective forms of communications about school programs and student progress	<ul style="list-style-type: none">• conferences• regular communication
Volunteering	Parents help and support at the school	<ul style="list-style-type: none">• volunteer program• parent room• annual surveys
Learning at Home	Parents help students at home with work and curriculum-related activities	<ul style="list-style-type: none">• info on grade-level skills• workshop on monitoring school work
Decision Making	Parents are involved in school decisions and may operate as parent leaders and representatives	<ul style="list-style-type: none">• active PTA/PTO• link families with representatives
Collaborating with Community	Parents integrate community resources and services to strengthen the school and student learning	<ul style="list-style-type: none">• information on community activities• service integration• alumni participation

In this project, I use parental involvement to mean parental participation in the functioning of the summer program. In Epstein’s framework, this encapsulates communicating and volunteering. These activities include attending conferences or meeting, communicating with program leadership and teachers, and ensuring their child’s continued attendance throughout the program. Other practices, such as helping children with homework or reading at home and being involved in school decisions, are important and valuable, but will not be explicitly considered for the sake of this project.

Appendix 6: Parental Engagement Literature Review

Benefits of Parental Involvement

This literature review of parental engagement is a more complete version of the review included in the body of the project. Research consistently illustrates the strong and positive association between parental involvement in schooling and students' educational outcomes. Evidence shows that parental involvement is a strong indicator of student academic success, even after student academic abilities and family socioeconomic status are taken into account. Additionally, the benefits of parental involvement extend past academics to include improved student self-confidence and motivation. Most studies focus on parental involvement in education during the school year, not summer programs specifically, however, the positive outcomes of parental involvements are applicable to academically-focused summer programs.

Studies consistently find that parental involvement improves academic achievement. A study of parental involvement of low-income families in early elementary school showed that children whose parents were more involved in their education spent fewer years in special education. In addition, parental involvement in kindergarten was positively associated with high school reading achievement and negatively associated with high school drop-out rates.¹⁴⁶ A meta-analysis of studies examining the relationship between parental involvement and the academic achievement of urban elementary school children found that parental involvement significantly improved students' academic achievement. This relationship held for white and minority students, and across income levels.¹⁴⁷ The academic benefits from parental engagement are so large that researchers find that parental involvement partially mediates the association between

¹⁴⁶ Miedel and Reynolds, 1999.

¹⁴⁷ Jeynes, 2005 and Tan and Goldberg, 2009.

family poverty and children's math and reading achievement in kindergarten.¹⁴⁸ Indeed, family participation in education was twice as predictive of students' academic success as family socioeconomic status.¹⁴⁹

The academic benefits of parental involvement continue as children progress to middle and high school, although the types of parental involvement often become less classroom-oriented and more about extracurricular and administrative involvement. A meta-analysis on the existing research on parental involvement in middle school showed that across studies, parental involvement was positively and significantly associated with student achievement.¹⁵⁰ These results hold across racial, ethnic, and income groups.¹⁵¹ A study of the effect of parental involvement on students' academic growth in high school found that parental involvement and expectations had a consistently positive effect on students' academic growth.¹⁵² These studies show that parental engagement at any stage in K-12 education improves academic achievement.

Parental involvement in education also improves students' attitudes towards learning. A study of students in a suburban Maryland school district specifically looked at the effect of psychosocial predictors and parent involvement on school adjustment and engagement.¹⁵³ This study found that school adjustment and engagement on average declined during middle school, but that greater levels of parental involvement protected students against these declines. A survey of school psychologists nationally confirms the study's results, finding that the amount of parental involvement in school had a major influence on students' confidence and motivation in

¹⁴⁸ Cooper et al, 2010.

¹⁴⁹ Walberg, 1984

¹⁵⁰ Hill and Tyson, 2009.

¹⁵¹ Jeynes, 2007

¹⁵² Fan, 2001.

¹⁵³ Simons-Morton and Crump, 2003

reading.¹⁵⁴ These data show that an active parental role in their child's education improves students' attitude towards and engagement in school.

Although evidence shows that parental involvement increases student achievement and confidence, studies also show that low-income parents and less-educated parents are less likely to be involved in their child's education.¹⁵⁵ Lower levels of education and income are correlated with lower levels of parental involvement.¹⁵⁶ Evidence conversely shows that the higher parents' income and education, the more likely they are to be involved in school. This suggests that students who would most benefit from increased parental involvement, do not experience high levels of involvement. These results also suggest that schools and programs working with low-income students could utilize parental engagement strategies to help improve academic achievement.

¹⁵⁴ Pelco et al, 2000.

¹⁵⁵ Kim 2009 and Coots, 1998

¹⁵⁶ Cucchiara et al, 2009; Kahlenberg, 2001; Silberman and Crain, 2008; and Davies, 1993

Appendix 7: Programs Researched but not Included in Main Analysis

Program Name	Location	Description	Results	Why excluded from main analysis
Redhound Enrichment	3 counties around Corbin, KY	21 st Century Community Learning Center thematic program that operates the whole summer and programs during the school year	Pre/post data: increased grades and test scores in math and reading	<ul style="list-style-type: none"> • Rural • Almost all white
KindergARTen Summer Camp	Baltimore, MD	Thematic summer program for students in the summer after Kindergarten	Mixed outcome results	<ul style="list-style-type: none"> • Mixed results on outcomes
Harlem RBI's REAL	Harlem, NY	Six week program with morning literacy workshops and a baseball camp in the afternoon	Pre/post data: increased reading achievement for some participants	<ul style="list-style-type: none"> • No rigorous evaluation • Only effective for some participants
Trail Blazers	NJ	Seven-week program targeting low-income students that focuses on literacy and a stay-away camp	No published results	<ul style="list-style-type: none"> • No rigorous evaluation • Based on stay-away camp
Houston Summer Opportunity Sessions	Houston, TX	Four-week math and science enrichment program	Pre/post data: increased participants' standardized test scores the next year	<ul style="list-style-type: none"> • focuses on middle and high school students
Horizons National	19 sites in 10 states	Partnership between public and private schools that provide a six-week program in reading and math for public school K-8 students from low-income families	Pre/post data: increased score on DIBELS for K-2 students and increased reading skills	<ul style="list-style-type: none"> • No effect reported above 2nd grade • No effect on math
Higher Achievement Program	Washington DC and Baltimore	After and summer school program to improve grades, test scores, and attendance	Pre/post data: increased participants' reading scores	<ul style="list-style-type: none"> • Focuses on 5th-8th graders • No rigorous evaluation
Bridges to a Brighter Future at	Greenville County, SC	Three-year program for low-income students, with a four-week residential	Higher rates of high school graduation and college	<ul style="list-style-type: none"> • Focuses on 9th-12th grade students

Furman University		experience each summer on campus with year-round contact and academic support	attendance	
Montana Migrant Education Program	Montana	Seven-week summer program for migrant work families to improve math and reading	Pre/post data: 80% increases in math and reading	<ul style="list-style-type: none"> • Focuses on students of migrant workers • No rigorous evaluation
Beyond the Bell	Sioux City, Iowa	Six-week program targeting students not proficient in math or reading. Instruction in mornings with afternoon enrichment		<ul style="list-style-type: none"> • No rigorous evaluation • Mainly white
Project Morry	White Plains, NY	Low-income students from NYC attend Camp Morry, a free sleep-away camp	No data	<ul style="list-style-type: none"> • Residential camp experience
AIM High	4 cities in CA	Program with small classes to prepare students for the following year, focuses on collaborative work and hands-on math and science project	Pre/post surveys show improved student confidence and motivation	<ul style="list-style-type: none"> • Focuses on students in grades 6-9 • No rigorous evaluation
Energy Express	West Virginia	Six-week program focused on reading and writing with morning on academic and afternoon on enrichment	Pre/post data: 70% maintained or increased skills	<ul style="list-style-type: none"> • Focus on Special Education students • No rigorous evaluation
CentroNia School Age/Youth Development Summer Program	Washington, DC	Holistic program to children and families with a multicultural foundation and arts-integrated pedagogy with focused academic content.	No evaluation to date	<ul style="list-style-type: none"> • No rigorous evaluation • Focus on bilingual students
Covenant House, Summer Enrichment Program	Washington, DC	Seven-week program with instruction in the morning and enrichment in the afternoon for students at high risk of pregnancy, substance abuse, violence, and low educational attainment.	No evaluation to date	<ul style="list-style-type: none"> • No rigorous evaluation • Focuses on children ages 11-17

Discovery Creek Children's Museum, Summer Nature Adventure Programs	Washington, DC	Based in DC's museums, the program has academic programs in the morning and enrichment in the afternoon.	No evaluation to date	<ul style="list-style-type: none"> • No rigorous evaluation • Museum-based instruction
Family Technology Resource Center, Summer Extravaganza	Atlanta, GA	A project-based science, math, and technology program exploring real-world issues.	Pre/post data: increases in participants' grades the next school year	<ul style="list-style-type: none"> • Focused on science, math and technology
Harlem Education Activities Fund, Summer Quest	NYC	Project-based academics designed to foster collaboration, communication, and leadership skills	No evaluation	<ul style="list-style-type: none"> • No evaluation • Focuses on middle school
Summer Community Learning Centers (CLCs) Program	Milwaukee, WI	Programs at over 30 middle and elementary schools receive services including academic support, nutritious meals, and exposure to enriching activities	Pre/post data: improved math and reading scores for some participants	<ul style="list-style-type: none"> • District-wide initiative • No rigorous evaluation
Newport Partnership for Families, Reading Reaps Rewards	Newport	Offers students literacy opportunities within summer recreational programs	Pre/post data: improved literacy skills for some participants	<ul style="list-style-type: none"> • No evaluation
Summerbridge Pittsburgh Summer Program	Pittsburgh, PA	Tuition-free, six-week program that works with at-risk middle-schoolers who attend 2 consecutive summers. The program uses the "student-teaching-students" model	Pre/post data: improved math and reading scores	<ul style="list-style-type: none"> • Focuses on middle school • No rigorous evaluation
Breakthrough Collaborative	33 locations	Tuition-free program that works with high-potential, low-income middle school students to inspire high school and college	Surveys show higher levels of confidence and motivation	<ul style="list-style-type: none"> • Focuses on middle school • No rigorous evaluation
Classroom, Inc.	Nearly 1,000 sites in 22 states	Tuition-free program that uses technology and real-world work experiences to help low-income adolescents transition to the real-world	Pre/post data: improved math and reading scores	<ul style="list-style-type: none"> • Focuses on middle and high school • No rigorous evaluation

Eureka! Summer Program	Orange County, CA	Programs focus on academic achievement, science, math, technology, health, fitness, leadership, college preparation, and career planning.	Survey results of participants: increased science knowledge and career/college knowledge	<ul style="list-style-type: none"> • No rigorous evaluations • Focuses on females in middle and high school
Read to Achieve: Summer Literacy Day Camp	Multiple locations	To improve literacy skills through a seven-week, 315 hour program with two hours per day devoted to literacy activities.	Pre/post data: improved reading comprehension and decoding abilities	<ul style="list-style-type: none"> • Evaluations show effect don't last past 9 month mark
Teach Baltimore	Baltimore, MD	Eight-week, six-hour per day summer program to prevent summer learning loss in low-income students in K and 1 st grade	<ul style="list-style-type: none"> -Mixed outcomes for math -Impacts on reading weren't statistically significant 	<ul style="list-style-type: none"> • Impacts on reading were not statistically significant
Keep Kids Learning	Chicago, IL	Initiative between the district and mayor's office that extended Chicago's three hour mandatory summer school program for academic and enrichment activities	Preliminary data from pilot suggests positive outcomes for students and parents	<ul style="list-style-type: none"> • No rigorous evaluation

Appendix 8: Cost Assumptions and Calculations for Deriving the Per-Pupil Weekly Cost of Reading Partners as a Summer Program

I calculated the per-pupil costs of Reading Partners based on the organization's cost projections for implementing the program at several schools in DPS during the school year. The chart below shows the cost projections that Reading Partners made for this school year interventions. I started with the projections for 2012-2013 because these costs were for serving 100 students (closest to the amount that is currently served at EDCI's program at Y.E. Smith). I started with that total program expenses of \$240,600 and eliminated one school site coordinator because the summer program would only need one, not two, site coordinators. This makes the new total \$214,200.

I divided that by the number of students in the program (100) which equaled \$2,142 per pupil for the year. The school year has two 45 minute sessions or 90 minutes of programming every week during the school year. DPS is in school 180 days out of the year, which is about 36 weeks. This means students get 3,240 minutes or 54 hours of the Reading Partners program a year. Since the program is \$2142 per student for 54 hours, each hour of programming costs about \$40. For a summer program with a 6 hour day, the cost would be \$240 per student.

Reading Partners' Cost Estimates for School-Year Programming in Durham

	<u>2011-12</u> (8/1/11- 7/31/12)	<u>2012-13</u> (8/1/12- 7/31/13)	<u>2013-14</u> (8/1/13- 7/31/14)	<u>2014-15</u> (8/1/14- 7/31/15)
READING PARTNERS DURHAM				
		-	-	-
Total Schools Served	0	2	4	6
Students served	0	100	200	300
Head Count				
Regional ED	0	0.25	0.4	0.4
Program Manager(s)	0	0.5	1	1.5
School Site Coordinators	0	1	4	6
Outreach Manager	0	0.1	0.2	0.2
Volunteer Outreach Coordinators	0.25	0.5	0.5	1
Total HC	0.25	2.35	6.1	9.1
Expenses				
Regional ED	0	25,500	41,760	41,760
School-based staff	27,000	58,000	160,000	240,000
Volunteer recruitment staff	5,000	16,000	22,000	32,000
Curriculum, books, supplies	9,000	13,000	8,000	12,000
Travel	5,000	10,000	12,000	15,000
Occupancy: school sites (in-kind)	0	44,000	88,000	132,000
Occupancy: regional office	0	12,000	12,000	12,000
<i>Sub Direct Expenses</i>	<i>46,000</i>	<i>178,500</i>	<i>343,760</i>	<i>484,760</i>
Fundraising	4,600	17,850	34,376	48,476
Administration (HR, acct'ng, national)	2,300	8,925	17,188	24,238
Research and Evaluation	2,300	8,925	17,188	24,238
<i>Sub Indirect Expenses</i>	<i>9,200</i>	<i>35,700</i>	<i>68,752</i>	<i>96,952</i>
Total Expenses	55,200	214,200	412,512	581,712

Note: Dr. Nicole Lawrence at the Duke University Center for Child and Family Policy shared these Reading Partners cost projections with me to calculate summer program cost estimates.

Bibliography

- Alexander, Karl. "Research in Brief: Summer Can Set Kids on the Right- or Wrong- Course." National Summer Learning Association. (August, 2009).
- Alexander, Karl L., Doris R. Entwisle, and Linda Steffel Olson. "Lasting Consequences of the Summer Learning Gap." *American Sociological Review* 72, no. 2 (2007): 167-180.
- Alexander, Karl L., Doris R. Entwisle, and Linda Steffel Olson. "Schools, Achievement, and Inequality: A Seasonal Perspective," *Educational Evaluation and Policy Analysis* 23, no. 2 (June 2001): 171-191.
- Allington, Richard and Anne McGill-Franzen. 2003. "Bridging the Summer Gap." *Instructor*. (May/June, 2003).
- Allington, Richard L., and Anne McGill-Franzen. "The Impact of Summer Setback on the Reading Achievement Gap." *The Phi Delta Kappan* 85, no. 1 (September 2003): 68-75.
- Bell, Susanne R. and Natalie Carrillo. "Characteristics of Effective Summer Learning Programs." *New Directions for Youth Development* 114 (2007): 45-63.
- Borman, Geoffrey, James Benson, and Laura Overman. "Families, Schools, and Summer Learning." *Elementary School Journal* 106, no. 2 (November 2005): 131-151.
- Borman, G.D., and J.V. D'Agostino. "Title I and student achievement: A meta-analysis of federal evaluation results." *Educational Evaluation and Policy Analysis*, 18 (1996): 309-326.
- Borman, Geoffrey and N. Maritza Dowling. "Longitudinal Achievement Effects of Multiyear Summer School: Evidence from the Teach Baltimore Randomized Field Trial." *Educational Evaluation and Policy Analysis* 28, no 1 (2006): 25-48.
- Borman, Geoffrey D., N. Martiza Dowling, Ron Fairchild, and Jody Libit. "Halting the Summer Achievement Slide: The Evaluation of the 2006 KindergARTen Summer Camp." National Summer Learning Association. (2007).
- Borman, Geoffrey, Michael Goetz, and N. Maritza Dowling. "Halting the Summer Achievement Slide: A Randomized Field Trial of the KindergARTen Summer Camp." *Journal of Education for Students Placed at Risk* 14, no. 2 (April 2009): 133-147.
- Brooks-Gunn, Jeanne, Pamela Klebanov, Judith Smith, Greg Duncan, and Kyunghye Lee. "The Black-White Test Score Gap in Young Children: Contributions of Test and Family Characteristics." *Applied Developmental Science* 7, no. 4 (2003): 239-52.
- Building Educated Leaders for Life (BELL). <http://www.experiencebell.org/programs/summer-learning>. (2011).

- Burkham, David, Douglas Ready, Valerie Lee, and Laura LoGerfo. "Social Class Differences in Summer Learning between Kindergarten and First Grade: Model Specification and Estimation." *Sociology of Education* 77, no. 1 (2004): 1-31.
- Capizzano, J., Adelman, S., and Stagner, M. What happens when the school year is over: The use and costs for child care for school age children during the summer months? Occasional Paper, 58. Washington, DC: The Urban Institute. (2002).
- Carran, D, J. Brady, and S. Bell. Creating a comprehensive Summer School Program: An Evaluation of Keep Kids Learning. Unpublished Report. Baltimore: Johns Hopkins University. (2006).
- Carter, L. F. The sustaining effects study of compensatory and elementary education. *Educational Researcher* 13, no. 7 (1984): 4-13.
- Census Data, Durham, NC. Durham Metro Area, Race/Ethnicity Data
<http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml>. (2010).
- Census Data, Durham, NC. Durham Metro Area, Income Data
<http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml>. (2010).
- Champions Academy. "Summer Programs."
http://www.discoverchampions.com/main/do/Summer_Learning. (2011).
- Chaplin, Duncan and Jeffrey Capizzano. Impacts of a Summer Learning Program: A Random Assignment Study of Building Educated Leaders for Life (BELL). *Urban Institute*.
http://www.urban.org/uploadedPDF/411350_bell_impacts.pdf. (2006).
- Christopoulos, Christina, Katie Rosanbalm, and David Rabiner. "Evaluation of the HillRAP Intervention in Davie County Middle Schools, 2008-2010, Final Report." Duke University Center for Child and Family Policy. (June 2011).
- Christopoulos, Christina, Katie Rosanbalm, and David Rabiner. "Evaluation of the HillRAP Intervention in Durham County Schools, 2008-2010, Final Report." Duke University Center for Child and Family Policy. (May 2011).
- City of Durham, Department of Parks and Recreation.
http://www.ci.durham.nc.us/departments/parks/summer_camp.cfm. (2011).
- Coburn, Cynthia. "Rethinking Scale: Moving Beyond Numbers to Deep and Lasting Change." *Educational Researcher* 32, no. 6 (2003): 3-12.
- Cooper, Carey E., Robert Crosnoe, Marie-Anne Suizzo, and Keenan A. Pituch. "Poverty, Race, and Parental Involvement During the Transition to Elementary School." *Journal of Family Issues* 31, no. 7 (2010): 859-883.

- Cooper, G., and J. Sweller. Effects of schema acquisition and rule automation on mathematical problem-solving transfer. *Journal of Education Psychology* 79 (1987): 347-362.
- Cooper, Harris. "Research in Brief: More Than a Hunch: Kids Lose Learning Skills Over the Summer Months." National Summer Learning Association. (2009).
- Cooper, Harris, Kelly Charlton, Jeff Valentine, and Laura Muhlenbruck. Making the Most of Summer School: A Meta-Analytic and Narrative Review. *Monographs of the Society for Research in Child Development*, Serial No. 260, Vol. 65, No. 1 (2000).
- Cooper, Harris, Barbara Nye, Kelly Charlton, James Lindsay, and Scott Greathouse. "The Effects of Summer Vacation on Achievement Test Scores: A Narrative and Meta-Analytic Review." *Review of Educational Research* (American Educational Research Association) 66, no. 3 (Autumn 1996): 227-268.
- Coots, J.J. Family resources and parental participation in schooling activities for their children with developmental delays. *The Journal of Special Education* 31 (1998): 498-520.
- Cucchiara, Maria Bloomfield and Erin McNamara Horvat. "Perils and Promises: Middle-Class Parental Involvement in Urban Schools." *American Educational Research Journal* 46, no. 4 (December, 2009): 971-1004.
- Darling-Hammond, L. and M.W. McLaughlin. "Policies that Support Professional Development in an Era of Reform. *Phi Delta Kappan* 76 (December, 2009): 597-604.
- Davies, D. "A More Distant Mirror: Progress Reports on a Cross-National Project to Study Family-School Partnerships." *Equity and Choice* 10, no. 1 (1993): 41-46.
- Dougherty, K. J. "Opportunity to Learn Standards: A sociological critique." *Sociology of Education*, Special Issue. (1996): 40-66.
- Duffett, A., J. Johnson, S. Farkas, S. King, and A. Ott. *All work and no play: Listening to what Kids and Parents Really Want from Out-of-School Time*. Washington, DC: Public Agenda, 2004.
- Durham Public Schools, Lunch Statistics, 2007-2010. <http://www.dpsnc.net/about-dps/district-stats-and-scores/district-data/free-and-reduced-lunch-statistics>
- Durham Public Schools, Demographics/Enrollment Data, 1995-2010. <http://www.dpsnc.net/about-dps/district-stats-and-scores/district-data/demographics-enrollment-data>.
- Durham YMCA. Youth Programs, 2011. http://www.ymcatriangle.org/Durham_YMCAs/Programs.aspx .

- Elias, Maurice J., Joseph E. Zins, Patricia A. Graczyk, and Roger P. Weissberg. "Implementation, Sustainability, and Scaling-up of Social-Emotional and Academic Innovations in Public Schools." *School Psychology Review*. 32, no. 3 (2003): 303-319.
- Elmore, Richard. "Getting to Scale with Good Educational Practice." *Harvard Educational Review*. 66, no. 1 (1996): 1-27.
- Entwisle, Doris R., and Karl L. Alexander. "Summer Setback: Race, Poverty, School Composition, and Mathematics Achievement in the First Two Years of School," *American Sociological Review* 57, no. 1 (February 1992): 72-84.
- Entwisle, D. R., and K.L. Alexander. "Winter setback: The racial composition of schools and learning to read." *American Sociological Review* 59 (1994): 446-460.
- Epstein, J.L. "School and Family Partnerships." *Practitioner* 18, no. 4 (1992).
- Eyler, A., J. Baldwin, C. Carnoske, J. Nickleson, P. Troped, L. Steinman, D. Pluto, J. Litt, K. Evenson, J. Terpstra, R. Brownson, and T. Schmid, T. "Parental Involvement in Active Transport to School Initiatives: A Multi-Site Case Study." *American Journal of Health Education* 39 (2008): 138-147.
- Eyler, Amy A., Ross C. Brownson, Mark P. Doescher, Kelly R. Evenson, Carrie E. Fesperman, Jill S. Litt, Delores Pluto, Lesley E. Steinman, Jennifer L. Terpstra, Philip J. Troped, and Thomas L. Schmid. "Policies Related to Active Transport to and from School: a Multisite Case Study." *Health Education Research* 23, no. 6 (2008): 936-975.
- Fairchild, R., B. McLaughlin, and J. Brady. *Making the most of summer: A Handbook on Effective Summer Programming and Thematic Learning*. Baltimore, MD: Center for Summer Learning, 2006.
- Fairchild, R., B. McLaughlin, and B. Costigan. "How did you Spend Your Summer Vacation? What Public Policies do (and don't do) to Support Summer Learning Opportunities for All Youth." *National Learning Association*, 2007.
- Fan, Xitao. "Parental Involvement and Students' Academic Achievement: A Growth Modeling Analysis." *The Journal of Experimental Education* 70, no. 1 (2001): 27-61.
- Fantuzzo, J., E. Tighe, and S. Childs, "Family involvement questionnaire: a multivariate assessment of family participation in early childhood education." *Journal of Educational Psychology* 92 (2000): 367-376.
- Fuchs, D. and L.S. Fuchs. "Researchers and Teachers Working Together to Adapt Instruction for Diverse Learners." *Learning Disabilities Research and Practice* 13, no. 3 (1998): 126-137.

- Granger, Robert C. "Learning from Scale-Up Initiatives: We Need to Gather Strong Data As We Go." *Education Week*, 2010.
- Granger, Robert C. "The Big Why? A Learning Agenda for the Scale-Up Movement." *Pathways*, Winter, 2011.
- Grolnick, W., C. Benjet, C. Kurowski, and N. Apostoleris. (1997). Predictors of parent involvement in children's schooling. *Journal of Educational Psychology*, 89, 538-548.
- Grolnick, W., and M. Slowiaczek. Parents' Involvement in Children's Schooling: A Multidimensional Conceptualization and Motivation Model. *Child Development* 65 (1994): 237-252.
- Gross, Elad. Interview with the author. (January 13, 2012).
- Grossman, J. B., and C.L. Sipe. Summer Training and Education Program (STEP). Philadelphia, PA: Public/Private Ventures. (1992).
- Guskey, T.R. *Evaluating Professional Development*. Thousand Oaks, CA: Corwin Press, (2000).
- Harrington-Lueker, Donna. "Retention vs. Social Promotion." *School Administrator* 55, no. 7 (1998): 6-12.
- Hill, Nancy E. and Diana F. Tyson. "Parental Involvement in Middle School: A Meta-Analytic Assessment of the Strategies that Promote Achievement." *Developmental Psychology* 45, no. 3 (May 2009): 740-763.
- Hayes, D. P., and J. Grether. The school year and vacations: When do students learn? Paper presented at the meeting of the Eastern Sociological Association, New York. (April, 1969).
- Heyns, Barbara. *Summer Learning and the Effects of Schooling*. New York: Academic Press. (1978).
- Heyns, Barbara. "Schooling and Cognitive Development: Is There a Season for Learning?" *Child Development* 58 (1987): 1151-1160.
- Jamar, I. Fall Testing: Are Some Students Differentially Disadvantaged? Pittsburgh, PA: University of Pittsburgh Learning Research and Development Center. (1994).
- Jeynes, William H. "The Relationship Between Parental Involvement and Urban Secondary School Student Academic Achievement: A Meta-Analysis." *Urban Education* 42, no. 1 (2007): 82-110.
- Jennings, Kim. Interview with the author. (March 27, 2012).

- Judd, Letisha. Interview with the author. (February 29, 2012).
- Kahlenberg, R.D. *All Together Now: Creating Middle-Class Parental Involvement*. Washington, DC: Brookings Institute. (2001).
- Katsiyannis, A. Extended school year policies: An established necessity. *Remedial and Special Education* 12 (1991): 24-28.
- King, Roger. "The Importance and Challenge of Scaling-up Nonprofits." Lecture at Duke University. (April 4, 2012).
- Kim, J. "Summer Reading and the Ethnic Achievement Gap." *Journal of Education for Students Placed At Risk* (2004).
- Kim, J. "Research in Brief: How to Make Summer Reading Effective." Baltimore, MD: National Center for Summer Learning Association. (2009).
- Kim, Y. "Minority Parental Involvement and School Barriers: Moving the Focus Away from Deficiencies of Parents." *Educational Research Review* 4 (2009): 80-102.
- Klein, S.P., D.J. McArthur, and B.M. Stecher. "What are the Challenges to 'Scaling-up' Reform?" *Joining Forces: Spreading Successful Strategies: Proceedings of the Invitational Conference on Systematic Reform*. Washington, DC: Department of Education and National Science Foundation, (1995).
- Klibanoff, L. S., and S.A. Haggart. "Summer Growth and the Effectiveness of Summer School." Mountain View, CA: RMC Research Corporation, (2008): rep. No. 8.
- Klingner, Janette K., Suzette Ahwee, Paola Pilonieta, and Rita Menendez. "Barriers and Facilitators in Scaling-up Research-Based Practices." *Exceptional Children*. 69, no. 4 (Summer, 2003): 411 - 429.
- Lauer, P.A., M. Akiba, S.B. Wilkerson, H.A. Apthorp, D. Snow, and M. Martin-Glenn. *The effectiveness of out-of-school time strategies in assisting low-achieving students in reading and mathematics*. Aurora, CO: Mid-continent Research for Education and Learning.
www.mcrel.org/PDF/SchoolImprovementReform/5032RR_RSOSTeffectiveness.pdf.
- Lee, Okhee and Aurolyn Luykx. "Dilemmas in Scaling-up Innovations in Elementary Science Instruction with Nonmainstream Students." *American Educational Research Journal*. 42, no. 3 (2005): 411-438.
- Lopez, Gerardo R., Jay D. Scribner, and Kanya Mahitivanichcha. "Redefining Parental Involvement: Lessons from High-Performing Migrant-Impacted Schools." *American Educational Research Journal* 38, no. 2 (Summer, 2001): 253-288.

- Machen, Sandra M., Janell D. Wilson, and Charles E. Notar. "Parental Involvement in the Classroom." *Journal of Instructional Psychology* 32, no. 1 (2005).
- Magnuson, Katherine and Jane Waldfogel (eds). *Steady Gains and Stalled Progress: Inequality and the Black-White Test Score Gap*. New York: Russell Sage Foundation. (2011).
- Manz, P., J. Fantuzzo, and T. Power, "Multidimensional Assessment of Family Involvement among Urban Elementary Students." *Journal of School Psychology* 42 (2004): 461-475.
- Matsudaira, Jordan. "Mandatory Summer School and Student Achievement." *Journal of Econometrics* 142, no. 2 (2008): 829-850
- McCombs, Jennifer Sloan, Catherine H. Augustine, Heather L. Schwartz, Susan J. Bodilly, Brian McInnis, Dahlia S. Lichter and Amanda Brown Cross. *Making Summer Count: How Summer Programs Can Boost Children's Learning*. Santa Monica, CA: RAND Corporation. (2011).
- McCombs, Jennifer S., Sheila N. Kirby, and Louis T. Mariano. *Ending Social Promotion without Leaving Children Behind: The Case of New York City*. Santa Monica: RAND Publishing.. (2009).
- McDonald, Sarah-Kathryn, Vanessa A. Keesler, Nils J. Kauffman, and Barbara Schneider. "Scaling-Up Exemplary Interventions." *Educational Researcher* 35, no. 3 (2006): 15-24.
- McLaughlin, Brenda and Sarah Pitcock. "Building Quality in Summer Learning Programs: Approaches and Recommendations." Baltimore, MD: National Summer Learning Association. (2009). <http://www.horizonsatharley.com/Building-Quality-in-Summer-Learning-Programs.pdf>.
- Miedel, W.T. and A.J. Reynolds. "Parental Involvement in Early Intervention for Disadvantaged Children: Does it Matter?" *Journal of School Psychology* 37 (1999): 379-402.
- Mraz, Maryann and Timothy Rasinski. "Issues and Trends in Literacy: Summer Reading Loss." *The Reading Teacher* 60, no. 8s (May, 2007): 784-798.
- Murnane, R. *The Impact of School Resources on Inner-City School Children*. Cambridge, MA: Ballenger. (1975).
- Myers, Robert. "Going to Scale: Expansion vs. Associations" in Judith L. Evans, Robert G. Myers, and Ellen M. Ilfeld. *Early Childhood Counts: A Programming Guide on Early Childhood Care for Development*. (2000).
- NAEP Report Card 2010: Achievement Gaps. (2010). <http://nces.ed.gov/nationsreportcard/studies/gaps/>.

- National Center for Education Statistics. "Issue Brief: School and Parent Interaction by Household Language and Poverty Status: 2002-03." (2004).
<http://nces.ed.gov/pubs2006/2006086.pdf>
- National Center for Education Statistics. Lunch Statistics Across States, 2007-2010.
http://nces.ed.gov/programs/digest/d10/tables/dt10_044.asp
- National Center for Education Statistics. Race/Ethnic Demographics by School, 1995-2010.
<http://nces.ed.gov/ccd/bat/selectcolumns.asp>
- NC Department of Public Instruction. State/LEA and School Test Performance, 2010-2011.
<http://accrpt.ncpublicschools.org/app/2011/disag/>
- National Summer Learning Association. A New Vision for Summer School. (2010).
- National Summer Learning Association. "Investments in Summer Learning Programs." (2008).
http://www.summerlearning.org/resource/resmgr/publications/2008_indy_resource_scan_full.pdf
- National Summer Learning Association. "Statement on Expanded Learning, Federal Policy, and 21st Century Community Learning Centers." (2010).
http://www.summerlearning.org/resource/resmgr/policy/2010_elt_statement.pdf
- O'Brien, D.M. Family and School Effects on the Cognitive Growth of Minority and Disadvantaged Elementary Students. Presented at the Annual Meeting of the Association for Public Policy Analysis and Management. (October 29-31, 1998).
- Padgette, H. Clapp and S. Deich. "Funding Summer Learning Programs: A Scan of Public Investments in Maryland." Baltimore, MD: National Summer Learning Association. (2009).
- Pelco, Lynn E., Lisa Jacobson, Roger R. Riest, and Susan Melka. "Perspectives and Practices in Family-School Partnerships: A National Survey of School Psychologists." *School Psychology Review* 29, no. 2 (2000): 235-250.
- Phelan, Earl. Interview with the author. (March 1, 2012).
- Reading Partners. Reading Partners Results. (2011). <http://readingpartners.org/program/results>
- Rothstein, Richard. *Class and Schools: Using Social, Economic and Educational Reform to Close the Black-White Achievement Gap*. New York: Teachers College Press. (2004).
- Samoff, Joel, E. Molapi Sebatane, and Martial Dembele. "Scaling-up by Focusing Down: Creating Space to Expand Education Reform." (2003).

- Sargent, L. R., and D.A. Fidler, "Extended school year programs: In support of the concept." *Education and Training in Mental Retardation*, 22 (1987): 3-9.
- Schacter, John and Booil Jo. "Learning when School is not in Session: a Reading Summer Day-Camp Intervention to Improve the Achievement of Exiting First-Grade Students who are Economically Disadvantaged." *Journal of Research in Reading* 28, no. 2 (May 2005): 158-169.
- Silberman, T. and J. Crain. *Striking a Balance: Parental Involvement and Support of Diversity in the Wake County Public School System*. Raleigh, NC: Wake Education Partnership. (2008).
- Simons-Morton, Bruce G. and Aria Davis Crump. "Association of Parental Involvement and Social Competence with School Adjustment and Engagement Among Sixth Graders." *Journal of School Health* 73, no. 3 (2003): 121-126.
- Stevens, Vonda K. "Parental Involvement in Two Elementary Schools: A Qualitative Case Study." PhD Dissertation: East Tennessee State University. (2007).
- Stone, Susan, Mimi Engel, Jenny Nagaoka, and Melissa Roderick. "Getting It The Second Time Around: Student Classroom Experience in Chicago's Summer Bridge Program." *Teachers College Record* 107, no. 5 (2005): 953-957.
- Summer Advantage USA. (2011). <http://www.summeradvantage.org/impact.html>.
- Tan, Edwin T., and Wendy A. Goldberg. "Parental School Involvement in Relation to Children's Grades and Adaptation to School." *Journal of Applied Developmental Psychology* 30 (2009): 442-453.
- Taylor, D. Bruce, Adriana Medina, Sandraluz Lara-Cinisomo. Freedom School Partners: Children's Defense Fund Freedom Schools Program. Evaluation Report, The Center for Adolescent Literacies at UNC Charlotte. (2010).
- Taylor, L., P. Nelson, and H.S. Adelman. "Scaling-up Reforms Across a School District." *Reading and Writing Quarterly* 15 (1999): 303-325.
- Terzian, Mary, Kristin Anderson Moore, and Kathleen Hamilton. "Effective and Promising Summer Learning Programs and Approaches for Economically-Disadvantaged Children and Youth: A White Paper for the Wallace Foundation." *Child Trends*. (July 10, 2009).
- Uvin, Peter and David Miller. "Scaling-up: Thinking Through the Lens." (2001). http://www.brown.edu/Departments/World_Hunger_Program/hungerweb/WHP/SCALIN_GU.html.

Von Hippel, P.T., B. Powell, D.B. Downey, and N. Rowland. "The effect of school on overweight in childhood: Gains in Children's Body Mass Index During the School Year and During Summer Vacation." *American Journal of Public Health* 97, no. 4 (2007): 796-802.

Warner, Laverne and John Barrera. "Improving Parental Involvement: 10 Tips for Success." *Texas Child Care* 27, no. 1 (2003): 24-27.

White, W. "Reviews Before and After Vacation." *American Education* (1906): 185-188.

Winship, Scott, Matissa Hollister, Joel Horwich, Pat Sharkey, and Christopher Wimer. "Promoting Educational Achievement and Opportunity through Summer Scholarships." Center for American Progress, 2005.
http://www.americanprogress.org/kf/summer_scholarship.pdf.

Y.E. Smith Elementary Improvement Plan. (2011). <http://www.dpsnc.net/images/pdf/school-improvement-plans/SIP.400.pdf>.