

May 2019

Office of Shared Accountability

MONTGOMERY COUNTY PUBLIC SCHOOLS, ROCKVILLE, MARYLAND



Evaluation of the Summer Unleash Potential (Summer UP) Pilot Program

Middle School Level

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Highlights: Evaluation of the Summer Unleash Potential (Summer UP) Pilot Program in MCPS: Middle School Level

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Purpose of Study

The Summer UP program, piloted in 2018, provided expanded learning opportunities for 302 students in MCPS middle schools. The program aimed to increase students’ literacy and math skills, increase students’ interest in school, and improve students’ social-emotional skills. The purpose of the evaluation was: (1) to provide formative information, collected through stakeholder surveys and interviews, to facilitate future program planning; and (2) to assess the changes in the academic achievement of students enrolled in the program by comparing their reading and math performance with that of a matched sample of non-enrolled students. In addition, attendance data was examined in the outcome analyses, as research shows that students with high attendance benefitted more from summer programming than students who attended fewer days.

Selected Recommendations

- With recommended revisions, continue to provide a structured summer learning program for middle school students in MCPS focus schools. Consider specifically targeting rising Grade 6 students since findings in this study suggest the strongest impact on this grade level.
- Consider expanding the program to at least four weeks, ideally more. Research suggests that the intensity and duration of instruction can impact student outcomes and recommends at least three hours a day in one subject, five days per week, for five to six weeks to observe an impact (Augustine, 2016; Schwartz, 2018).
- Engage with MCPS curriculum experts to ensure the Summer UP instructional program aligns with the district’s curriculum, fits within the instructional time of the summer program and differentiates activities (Schwartz, 2018).
- Coordinate a meeting prior to the start of Summer UP for site coordinators and administrators to share effective practices and information related to budget, staffing, payroll, transportation, and supply procurement.
- Ensure school staff and enrichment providers collaborate prior to the start of the program and meet regularly for the duration of the program.
- Continue to track attendance and engage in outreach to students whose attendance decreases over the course of the program.

What the Study Found

- Evidence from stakeholder surveys and site coordinator interviews indicated that most features of Summer UP were implemented as envisioned by MCPS leadership, while a few areas were identified as needing additional support. Survey findings from teachers, parents and enrichment staff indicated that most respondents across stakeholder groups had positive feedback regarding curriculum and program operations.
- Evidence from the implementation evaluation indicated stakeholders perceived positive benefits of the Summer UP program on student’s academic skills, motivation and engagement, and social emotional learning.
- Summer UP maintained relatively high levels of attendance. Almost three fourths of students (74%) enrolled in Summer UP had high attendance as defined by attending at least 75% of the program days.
- The Summer UP program did not demonstrate statistically significant findings for any of the grades or subgroups analyzed in reading or in math. One subgroup—Grade 6 FARMS—showed a practically significant positive effect of the Summer UP program for reading ($d=.20$) and for math ($d=.25$).

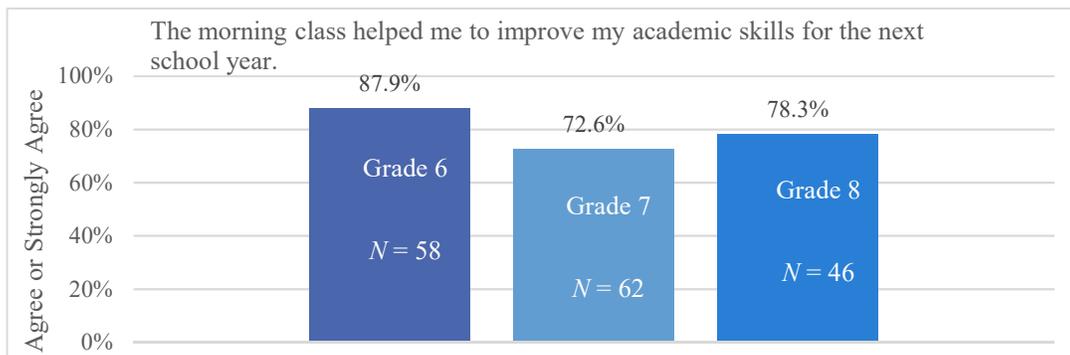


Figure. Student responses to survey item about improving academic skills.

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Executive Summary

The Office of Curriculum and Instructional Programs in Montgomery County Public Schools (MCPS) asked the Office of Shared Accountability to conduct an evaluation of the Summer Unleash Potential (Summer UP) program in MCPS, offered during the summer of 2018 for Grades 6 through 8. The Summer UP program provided expanded learning opportunities for MCPS students attending schools with a high concentration of students receiving Free and Reduced-price Meals System (FARMS) services. The aim was to create an engaging program that offered academic and enrichment activities while seeking to increase students' literacy and math skills, increase students' interest in school, and improve students' social-emotional skills. The purpose of this evaluation was to provide information to facilitate future program planning as well as to assess perceived benefits of the program and any changes in the academic achievement of students enrolled in the program.

Summary of Methodology

A multimethod design was used to conduct this evaluation of the 2018 Summer UP Program. To assess implementation, multiple measures were used to gather information including surveys, interviews, and program documents. Surveys regarding the experiences of students, teachers, site coordinators, and parents in the program were administered at each of the Summer UP sites. The survey response rates were 49% for students (n=171), 78% for teachers (n=14) and 11% for parents (n=39). All site coordinators were interviewed (n=3). A descriptive analysis of program attendance rates provided further information regarding program implementation.

The Fall 2018 Measures of Academic Progress in Reading (MAP-R) and Measures of Academic Progress in Math (MAP-M) were used to assess academic outcomes. Advanced statistical analyses were conducted to compare the reading and mathematics performance of Summer UP attendees and non-attendees while controlling for students' characteristics, including their initial abilities as measured by the Spring 2018 MAP-R and MAP-M. Participants included in the study were 182 students (66 in reading classes and 116 in math classes) in Grades 6, 7, or 8 who attended at least 75% of the days in the Summer UP program. A larger number of students attended the program but were not included in the analysis because they attended less than 75% of the days. The matched comparison groups were made up of students from the same focus schools that enrolled the Summer UP students, who were selected using an advanced statistical matching method. The demographic composition of the analytic groups—attendees and non-attendees—was similar within each subject. In the reading groups, about two thirds of the students were Hispanic/Latino and about one quarter were Black or African American. In the mathematics groups, about 45% of the students were Hispanic/Latino, and about one third were Black or African American. About 20% of students in each group were enrolled in English for Speakers of Other Languages (ESOL) classes, between 60% and 80% received FARMS services, and between 9% and 15% received special education services.

Summary of Implementation Evaluation Findings

Question 1: *How was the Summer UP program implemented in MCPS?*

Evidence from stakeholder surveys and site coordinator interviews indicated that certain aspects of Summer UP were implemented as envisioned by MCPS leadership, while a few areas were identified as needing additional support. Notable findings are described below.

Student selection and enrollment. The program was successful in recruiting and enrolling at-risk students, as 71% of enrolled students were receiving FARMS services. Site coordinators at each of the three sites reported that the students selected for recruitment were those who did not meet the criteria for attainment of the MCPS Evidence of Learning measures in math or reading, or both. Two of the sites specifically recruited students receiving ESOL services and one of those sites specifically recruited students enrolled in the Multidisciplinary Educational Training and Support program. Academic teachers at the schools also gave input on which students should be recruited to attend the program.

Design of the program, instructional and enrichment activities. Summer UP academic staff developed a range of instructional programs for the morning academic classes; content was aligned with the English Language Arts and the Math Common Core State Standards, as applicable. Almost all staff responding to the survey indicated during the academic portion of the day that a variety of instructional and assessment techniques were used that would typically be found in a middle school classroom. Use of technology, direct instruction, and independent practice were the instructional techniques that responding teachers reported they most frequently used; while small group guided instruction and differentiation were the next most frequently used instructional methods. To assess students, responding teacher report that checks for understanding were the most frequently used, assessment method, followed by student journals and one to one student feedback.

Site coordinators reported deliberately choosing enrichment activities they thought would be of high interest to students. A wide range of enrichment activities were offered across middle school Summer UP sites like Science, Technology, Engineering, and Math activities, sports activities, writing and poetry lessons, cooking, video production, and leadership skills. At two sites, outside providers delivered the enrichment activities and at the third site, MCPS staff delivered the enrichment activities. In addition, two sites provided specific enrichment activities that addressed acculturation and integration into American schools for newly arrived students. One site offered a class focusing on leadership skills and mentoring for students who are at-risk behaviorally. The content area block was delivered in one continuous block in the morning with enrichment activities delivered separately in the afternoon. The frequency and quantity of the field trips varied across sites.

Staffing and Transportation. Site coordinators reported no difficulty hiring highly qualified MCPS teachers who were experienced teaching students with varying levels of need for the program. However, due to the condensed timeline for planning the program, coordinators did report some challenges with transportation logistics given the unique geographical contexts of their school.

Question 1a: *What were the perceptions of site based coordinators, academic teachers, enrichment staff, and parents/guardians with regard to the curriculum and program operations?*

Survey findings from teachers, parents and enrichment staff indicated that most respondents in all stakeholder groups had positive feedback regarding curriculum and program operations.

Program Curriculum, Preparation and Planning. Academic teachers responding to the survey items reported strong positive agreement across almost all items related to course content and delivering instruction ranging from 93% to 100%. All responding teachers report that the content fit the learning needs of their students. Most responding teachers ($n = 10$, 71%) agreed they had a sufficient amount of time for lesson planning, although a lower percentage of teachers agreed that they had an adequate amount of supplies ($n=9$, 64%) or the instructional resources needed to do the job well ($n=8$, 57%).

Program Communication and Collaboration. A majority of academic teachers ($n=13$, 93%), parents ($n=38$, 92%) and all enrichment staff agreed that communication regarding Summer UP was timely and consistent. Teachers indicated the highest level of agreement with items asking about the role, activities and availability of the Summer UP site leaders, but they reported substantially lower levels of agreement with items related to the understanding of what was happening in the afternoon enrichment activities ($n=3$, 21%) or collaborating with enrichment staff ($n=3$, 21%). Just over half of the responding teachers agreed that they received information on procedures like fire drills or substitutes for the summer program ($n=9$, 65%).

Taken together, the evidence indicates that the middle school Summer UP program was implemented as MCPS leadership envisioned: as a full-day program of academic and enrichment learning opportunities delivered using a variety of instructional strategies. Responding staff and parents expressed satisfaction with program preparation, planning, communication and collaboration. More than 80% of parents and staff were highly satisfied with course content and communication, although responding staff noted the need for additional resources and information about summer program procedures. Some program challenges related to transportation and budget processes were noted by responding parents and site coordinators due to the short time line within which the staff worked to develop the program. Additionally, academic teachers reported less agreement items related to communication and collaboration with afternoon enrichment staff.

Question 2: *What were the perceptions of teachers, parents, enrichment staff, and students with regard to program benefits?*

Feedback from stakeholders indicated positive perceptions of the benefits of the Summer UP program.

Academic Benefits. Across stakeholder groups, respondents were positive about the academic benefits of the program. All responding teachers and all enrichment staff agreed with statements that students showed academic progress, improved academic skills and that the program had a positive impact academically. Similarly, 80% of responding students agreed that the morning class helped them improve their academic skills for the next year and 78% felt good about the skills they learned in the afternoon class. Almost nine out of ten parents also agreed that Summer UP improved students' academic skills.

Motivation and Engagement. Across stakeholder groups, respondents were positive about the program's capacity to motivate and engage students. Students reported less positive agreement than other groups. Of the 14 academic teachers responding to the survey, 90% or more reported strong positive agreement with items that addressed student engagement and motivation during the Summer UP academic activities like student enjoyment of activities, work completion and that the enrichment activities motivated students to attend the program. For the academic portion of the day, 70% of responding students agreed that they enjoyed the learning activities in the morning.

All responding enrichment staff agreed that the afternoon enrichment activities motivated students to attend the program. About three-quarters of responding students agreed that there was at least one activity to interest them each day in the afternoon. Two-thirds of students responding reported strong positive agreement to items that asked if the afternoon class motivated them to want to learn more about different topics. Parents showed a similar level of agreement that the afternoon activities increased their child's interest attending ($n=26$, 67%). Most responding parents reported their child enjoyed attending the program ($n=34$, 87%), and that their child liked the activities in the program ($n=32$, 82%). Overall, sixty three percent of responding students reported they were excited to come to the program each day.

Social Emotional Learning. Across stakeholder groups, respondents were positive in response to items reflecting social emotional learning, with students reporting the lowest levels of agreement compared to parents, and academic teachers. Parents indicated positive agreement with statements about social emotional learning, such as Summer UP improved their child's confidence ($n=31$, 80%) and their child had friends in the program ($n=32$, 82%). All responding teachers ($n=14$, 100%) indicated positive agreement with statements about social emotional learning, such as students felt comfortable in the program and the program facilitated positive behavior among students. Finally, on questions related to social emotional learning, sixty percent or more of responding students reported that they participated in activities with other students; had friends in the program; had at least one adult in the program they could talk to; and felt like they belonged in the program.

Although this was not explicitly stated in the program goals, an apparent overall benefit of the Summer UP program is that it provide structured summer program for students who might not otherwise have it. Almost three quarters ($n= 39$, 74%) of parent respondents indicated their child would be staying at home if they were not attending the Summer UP program. Evidence from the implementation evaluation indicates that stakeholders' perceived positive benefits of the Summer UP program on student's academic skills, motivation and engagement, and social emotional learning.

Question 3: *What were the program attendance rates for students who participated in Summer UP?*

The program maintained relatively high levels of attendance from enrolled students. Almost three quarters of the students (74%) enrolled in Summer UP had high attendance as defined by attending 75% of the program days or more. Students typically attended 80% of the program days, which was similar across grades and subgroups. Over the duration of the three week program, attendance rates varied each week from 81% the first week, to a high of 83% the second week and declining slightly to 77% the third week.

Outcome Evaluation Highlights**Question 4: *What was the impact of the Summer UP program on student reading achievement skills? Did the impact of the program vary by MCPS focus group? ¹***

The Summer UP program did not demonstrate statistically significant differences in performance between students who attended Summer UP and a comparison group for any of the grades or subgroups analyzed in reading. However, one subgroup—Grade 6 FARMS—showed a positive effect size that was large enough to be of practical significance to educators ($d=.20$).

Question 5: *What was the impact of the Summer UP program on student math achievement skills? Did the impact of the program vary by MCPS focus groups?*

The Summer UP program did not demonstrate statistically significant findings for any of the grades or subgroups analyzed in math. However, among Grade 6 students who were receiving FARMS services, the difference in mathematics performance between Summer UP attendees and the comparison group was large enough to be of practical significance to educators ($d = .25$).

Conclusion and Recommendations

The results of this evaluation suggest that Summer UP provided a structured summer experience with some of the quality characteristics identified in the literature (e.g., Schwartz, et al., 2018). For all students in each grade, the academic outcomes did not show an immediate impact on fall achievement. However, among Grade 6 students who received FARMS services, the effect for Summer UP on both reading and mathematics was large enough to be of practical significance to educators, indicating that, for this subgroup of students, the program may strengthen academic skills. Further, feedback from stakeholders indicated that the design of Summer UP provided opportunities for learning experiences that may build and support socio-emotional skills for students and promote engagement in learning.

¹ MCPS focus groups are defined as 1) non-FARMS All Other Students (not African American nor Hispanic), 2) non-FARMS Black or African American, 3) non-FARMS Hispanic/Latino, 4) FARMS All Other Students, 5) FARMS Black or African American, and 6) FARMS Hispanic/Latino.

Based on the findings of this evaluation, the following recommendations are suggested:

1. With recommended revisions, continue to provide a structured summer learning program for middle school students in MCPS focus schools. Consider specifically targeting rising Grade 6 students since findings in this study suggest the strongest impact on this grade level.
2. Consider expanding the program to at least four weeks, ideally more. Research suggests that the intensity and duration of instruction can impact student outcomes and recommends at least three hours a day in one subject, five days per week, for five to six weeks to observe an impact (Augustine, 2016; Schwartz, 2018).
3. Engage with MCPS curriculum experts to ensure the Summer UP instructional program aligns with the district's curriculum, fits within the instructional time of the summer program and differentiates activities (Schwartz, 2018).
4. Coordinate a meeting for site coordinators and administrators prior to Summer UP implementation to share effective practices from the prior year, as well as provide detailed information related to staffing, payroll, transportation, supply procurement and contracting with the enrichment provider.
5. Ensure school staff and the enrichment staff have time to collaborate prior to the start of the program to jointly plan curriculum, understand policies and procedures related to Summer UP, and to clarify details related to budget and supply lists. In addition, establish regular meetings between school staff and the enrichment staff during the program.
6. Continue to track program attendance and engage in outreach to students whose attendance decreases over the course of the program.
7. Consider the use of pre and post program measures to assess academic and/or socio-emotional benefits of Summer UP. In this way, evaluation outcomes can be aligned more closely with program content and the specific benefits of the program to be identified.

Evaluation of the Middle School Summer UP Pilot Learning Program in MCPS

Background

Montgomery County Public Schools (MCPS) is focused on expanding opportunities to learn so outcomes are not predictable by race, ethnicity, gender, socioeconomic status, language proficiency or disability. To prepare all students to thrive in their futures, MCPS has strategically worked to expand options and access to programs that will promote student success.

One important way MCPS has expanded access for underserved students is to provide Extended Learning Opportunities (ELO) aimed at reducing learning loss students may experience over the summer. MCPS programs like Extended Learning Opportunities-Summer Adventures in Learning (ELO-SAIL) and Building Educated Leaders for Life (BELL) have provided academic instruction combined with a mix of enrichment opportunities to mitigate summer learning loss for elementary students. Following this model of programming, MCPS launched a pilot program called Summer Unleash Potential (Summer UP), in the summer of 2018. The goal of Summer UP was to prevent summer learning loss and enhance students' social-emotional skills by providing high quality instructional and enrichment activities. The program was designed to serve students attending elementary and middle schools with high proportions of economically disadvantaged students.

MCPS planned and implemented the 2018 Summer UP pilot in a collaboration with selected Montgomery County organizations who provided instructional enrichment activities at the sites. Almost 600 rising third through eighth grade students attended the pilot program located at three elementary and three middle school sites.

The Office of Shared Accountability (OSA) was asked to conduct an evaluation of the program. This report addresses the implementation of the middle school Summer UP program, as well as student outcomes associated with participation in the program. The purpose of this evaluation is to provide information to facilitate future program planning as well as to assess the changes in the academic achievement of students enrolled in the program.

Program Description

The Summer UP program was designed to achieve the following goals:

- Increase student's literacy and math skills.
- Increase students' interest in school by providing enrichment activities.
- Improve students' social-emotional skills.

To achieve these goals, the middle school program provided a mix of academic instruction and enrichment programming for selected rising sixth through eighth graders.

Participating Schools, Students, and Staff

The middle school summer program was located at three MCPS sites in summer 2018. The three middle school sites were selected based on the percentage of students receiving free and reduced meal services. The three Summer UP sites were:

1. Argyle Middle School.
2. Neelsville Middle School.
3. Gaithersburg Middle School.

Criteria for Selection

The target population was rising 6th, 7th, and 8th grade students receiving Free and Reduced-price Meals (FARMS) services who showed academic need. All schools used FARMS status as a criterion for selection along with English for Speakers of Other Languages (ESOL) status. One school selected some students enrolled in Multidisciplinary Educational Training and Support (METS) program.² Two schools selected students who were not attaining one or more measures based upon the MCPS Evidence of Learning Framework. (This framework uses multiple sources of evidence of student learning and examines them at multiple points in time to monitor student progress.) Over 350 students were identified for eligibility in the program, and their parents/guardians were sent a description of the summer program with an application to enroll.

Staff at each site consisted of a site coordinator, academic teachers, and enrichment teachers. School administrators hired site coordinators and academic teachers. Academic teachers were typically content area teachers; some schools also hired ESOL teachers. Community providers contracted with two sites for the enrichment portion of the day; at the third school, the administration hired the enrichment teachers.

Program Characteristics

The program components varied across middle schools, as seen in Table 1 and are also described below.

Duration

The program started on July 9, 2018 and continued over a three-week period; it ran for 6.5 hours per day (Table 1). Certified teachers delivered three hours of academic learning each morning. The remaining time was spent in enrichment opportunities. The program ran five days a week at two schools and four days a week at one school.

² Students enrolled in METS are English language learners who have had limited or no previous schooling or significant schooling gaps due to interrupted or disrupted education.

**Table 1
Middle School Summer UP Program Characteristics**

Characteristic	Argyle MS	Gaithersburg MS	Neelsville MS
Criteria for selection	<ul style="list-style-type: none"> Evidence of Learning measures ESOL FARMS 	<ul style="list-style-type: none"> Evidence of Learning measures ESOL METS FARMS 	<ul style="list-style-type: none"> Teacher recommendations ESOL FARMS
Duration	July 9 – July 27 (5 days per week)	July 9 – July 27 (5 days per week)	July 9 – July 26 (4 days per week)
Program Structure	<p>One academic class in the morning</p> <p>Rotating enrichment activities in the afternoon</p>	<p>One academic class in the morning</p> <p>One enrichment activity in the afternoon.</p> <ul style="list-style-type: none"> <i>Rotated to a new activity each week.</i> 	<p>One academic class in the morning</p> <p>Rotating enrichment activities in the afternoon</p>
Enrichment Provider Organization(s)	<ul style="list-style-type: none"> Montgomery County Recreation Department 	<ul style="list-style-type: none"> MCPS Identity, Inc. 	<ul style="list-style-type: none"> Story Tapestries Family Learning Solutions Identity, Inc.
Academic Components	<ul style="list-style-type: none"> Reading 6 Reading 7/8 Algebra 1 Investigations in Math Film Technology 	<ul style="list-style-type: none"> ESOL METS Reading 6 Algebra 1 IM Math 6 	<ul style="list-style-type: none"> ESOL Reading 6/7 Reading 7/8 Math 6
Enrichment Component	<ul style="list-style-type: none"> Art Digital Art Cooking Boxing 	<ul style="list-style-type: none"> Art TV studio Movie making STEM Acculturation activities – <i>delivered in Spanish</i> 	<ul style="list-style-type: none"> Art Sports Video production Writing/Poetry Leadership Skills Acculturation activities – <i>delivered in Spanish</i>
Field Trips	<ul style="list-style-type: none"> National Building Museum Indoor Rock Climbing Wheaton Ice Arena Local Pool 	<ul style="list-style-type: none"> C&O Canal Guest speakers (e.g. drumming) 	<ul style="list-style-type: none"> C&O Canal Guest speakers (e.g. drumming)

Program Structure

As Table 1 shows, each of the three middle school sites designed their own program for morning and afternoon. Students received academic instruction in one subject area only based on identified area of need. Students rotated to enrichment programming in the afternoon. For two schools, classes were delivered Monday through Friday mornings for the length of the program. At the third schools, classes were delivered Monday through Thursday mornings for the length of the program.

The academic components offered at the middle school level varied by site and depended upon needs of the students (as defined by the principal and staff). As Table 1 shows, two sites offered specific classes for ESOL and/or METS students along with English language arts and math subjects. Another site offered classes that aligned with the magnet program offered at that school, like technology and film to address student interest in those subject areas.

Table 1 also describes the enrichment opportunities offered across the sites. These activities were designed to provide high quality enrichment activities that would engage students and/or enhance socio-emotional skills. Two of the sites contracted with Identity, Inc. to provide programming for ESOL students and/or students newly arrived to the country. This class provided a positive youth development curriculum called Achieve for part of the time, and other activities like literature circles and soccer development for the remainder of the day.

Across middle school sites, the number of field trips ranged from two to four and included activities like indoor rock climbing and an experience at the C&O Canal.

Review of Select Literature

The summer break typically is associated with a loss of learning that accrued over the academic year (Skibbe, Grimm, Bowles, & Morrison, 2012), thus many summer education models focus on maintaining students' skill levels. Research consistently shows that the detrimental effect of summer break is more pronounced for economically disadvantaged than middle class students (Cooper et. al.,1996). Over the past decade, the number of summer programs increased nationwide as an emerging body of research provided evidence that all types of summer programs could ameliorate summer learning losses and even lead to achievement gains (McCombs, et al., 2011).

A recent analysis from a multi-year study by the RAND Corporation (Augustine, et al., 2016) found that students benefitted from summer programming in math and language arts achievement. Using a randomized control trial, the study examined the impact of a summer program in five school districts over two years for students in 3rd grade. Results from this type of study are considered "strong" under the definitions of levels of evidence provided by the *Every Student Succeeds Act of 2015* and What Works Clearinghouse standards (U.S. Department of Education, 2014). The study demonstrated the benefits in mathematics achievement for the fall and the persistence of those effects into the spring. There was no clear evidence that two summers of programming added to the achievement benefits.

The RAND authors also used a correlational analysis to examine the impact of attendance on reading, math and social emotional outcomes. Results from these types of studies are considered “promising” under ESSA. Using this technique, Augustine et al. demonstrated a positive impact in math and reading achievement for high-attending students. High attending students are defined as attending at least 20 days of the program and attending the program for two consecutive summers. Specifically, the study demonstrated promising evidence that:

- High attendance in one summer led to mathematics benefits that persisted into the following spring.
- High attendance in the second summer led to mathematics and language arts benefits that persisted.
- High attenders in the second summer benefited in terms of social-emotional outcomes.

Locally, research on MCPS summer programs also indicated some positive academic gains for certain groups of elementary students who attended a summer program. These studies suggest greater positive impacts in the fall than at the end of the school year following the program (Cooper-Martin, Wolanin, Jang, Modaressi, and Zhao, 2016); positive findings in math and reading for students impacted by poverty (Cooper-Martin and Zhao, 2016); and positive findings for the academic achievement of African American students, Hispanic students and students impacted by poverty (Zhao, Modaressi and Jang, 2016). Cooper-Martin and McNary (2007) found some evidence of a positive effect in mathematics for Grade 6 students who attended an extended year summer program.

While there are many studies of elementary summer school programs (including some that have found positive impacts) across the nation, there are few studies of the impact of summer programs on middle school students. Somers, Welbeck, Grossman, & Gooden (2015) published an evaluation of a BELL middle school academic summer program implemented across three districts in Grades 6 – 8. The study used an experimental research design to analyze the impact of the program on math and reading achievement. The findings suggest that the summer program had positive effects on middle school students’ math achievement; however, there was no effect for reading achievement. BELL students outperformed non-BELL students by the equivalent of about one month of learning, which is the effect size that one would expect from a five-week program during the regular school year.

Most of the research on summer programs have not included programs that implemented a specific set of activities targeted to improve specific social-emotional skills like self-regulation or communication. Rather, the programs provided broader opportunities for “leadership” or “character development.” These evaluations found no significant differences on such social emotional outcomes and mixed effects on negative behavioral outcomes such as school discipline and suspension. Evaluations of academic programs have not demonstrated consistent results for non-cognitive skills either (McCombs, 2014). However, a meta-analysis of out-of-school-time programs found that when the programs explicitly targeted specific skills students demonstrated positive outcomes such as increases in positive social behaviors, self-perception, and academic achievement (Durlak, Weissberg, and Pachan, 2010). As such, researchers strongly suggest that social emotional experiences beyond academic learning need to be measured when evaluating extended learning opportunities (McCombs, 2014).

Evaluation Scope and Questions

The evaluation was conducted using formative and summative approaches. The formative evaluation aimed to provide information regarding the implementation of the Summer UP program, including perspectives and experiences of stakeholders to inform program improvement. The summative evaluation compared the Fall 2018 academic performance (reading and math) of students enrolled in the 2018 Summer UP program to the performance of a matched sample of students. Attendance data was used to define the group of program attendees, as research shows that students with high attendance benefitted more from summer programming (Augustine et. al., 2016) than students who attended fewer days.

The following questions guided the evaluation:

1. How was the Summer UP program implemented in MCPS?
 - 1a. What were the perceptions of site-based coordinators, afternoon enrichment staff, and academic teachers with regard to the curriculum and program operations?
2. What were the perceptions of academic staff, parents, students and enrichment staff with regard to program benefits?
3. What were the program attendance rates for students who participated in Summer UP?
4. What was the impact of the Summer UP program on student reading achievement skills in the fall? Did the impact of the program vary by student subgroups, including MCPS focus groups?³
5. What was the impact of the Summer UP program on student math achievement skills in the fall? Did the impact of the program vary by student subgroups, including MCPS focus groups?

Methodology

Evaluation Design

A summary of the evaluation questions, along with the methodology and data sources for each, is presented in Appendix A, Table A-1.

Formative Evaluation. Evaluation Questions 1 through 3 used a nonexperimental design. Interviews, program document review, and stakeholder surveys provided information on program implementation processes and stakeholder experiences. A descriptive analysis of program attendance was conducted using program attendance records.

Summative Evaluation. Evaluation Questions 4 and 5 used a quasi-experimental design (Shadish, Cook & Campbell, 2002) as shown in Figure 1. Results from this type of study are considered “promising” under ESSA. Reading and mathematics performance of two groups—

³ MCPS focus groups are defined as 1) FARMS African American, 2) Non-FARMS African American, 3) FARMS Hispanic, 4) non-FARMS Hispanic, 5) FARMS Other (not African American nor Hispanic), and 6) non-FARMS Other.

students attending the program and students in a matched comparison group—were compared. This design maximizes the internal validity of the study by controlling for confounding in two ways: control by study design through the use of a matched comparison group and control by statistical techniques through the use of advanced statistical analyses.

	<u>Pre-program</u>		<u>Summer Program</u>		<u>Post-program</u>
Summer UP Student Group	O_1	=>	X	=>	O_2
Comparison Group (Non-Summer UP)	O_1	=>	C	=>	O_2

- O_1 – Spring 2018 local assessment results for rising Grades 6 through 8 in mathematics and reading
- X – Three weeks of summer program treatment from July 9 through July 27, 2018
- C – No summer program treatment
- O_2 – Fall 2018 local assessment results for Grades 6 through 8 in mathematics and reading

Figure 1. Design of the Summer UP Program evaluation of reading and mathematics performance

Data Sources and Measures: Implementation Evaluation

Interviews with program administrators were conducted with MCPS school-based administrators who selected and recruited students, as well as with site coordinators who were managing the summer programs at each of the three middle school sites. Topics for interviews were developed in collaboration with program administrators to provide the most effective feedback for ongoing implementation and improvement of the program. Interview topics included: staffing the site; coordination and communication between academic and enrichment staff; support from MCPS; coordination with other programs on site; and implementation challenges.

Program documents and records were reviewed, including program descriptions, classroom schedules and teacher resources.

Student attendance at the summer program was recorded daily by staff at each summer program site. Student-level attendance data was provided by the program to OSA for analysis.

Survey development and administration. Surveys were used to gather feedback from teachers, enrichment staff, parents, and students. Surveys for each group were administered during the last week of the program. Stakeholders were informed that responses were anonymous and findings would only be reported in the aggregate.

On all surveys, a 5-point Likert scale was used to measure the degree to which the stakeholder agreed with statements on the survey. Topics included implementation of the program, stakeholders’ experience with the operation of the program, and stakeholders’ perceptions of program benefits. Survey topics were developed in collaboration with program administrators to ensure that information received from stakeholders would be useful in program implementation and future planning.

Student surveys. Links to the student survey were sent to Summer UP staff with a request to have students complete the survey during the Summer UP program before the final day. Students were provided the option of taking the survey in English or Spanish.

Parent surveys. E-mail correspondence was sent to parents of all Summer UP students explaining the evaluation study and requesting that they participate in the survey. A link to the survey was included in the e-mail. Families were provided the option of taking the survey in English or Spanish.

Teacher surveys. E-mail correspondence was sent to teachers explaining the evaluation study and requesting that they participate in the survey by using the link included in the e-mail.

Enrichment staff survey. E-mail correspondence was sent explaining the evaluation study and requesting that they participate in the survey by using the link included in the e-mail.

Survey response rates are summarized in Table 2.

Table 2
Survey Response Rate

Stakeholder	N	n	Response rate (%)
Students	346	171	49.4
Parents	346	39	11.3
Academic Teachers	18	14	77.8
Enrichment Staff	16	14	87.5

Data Sources and Measures: Outcome Evaluation

Reading. For each grade, the fall 2018 (following the summer program) Rasch Unit (RIT scores) from Measures of Academic Progress-Reading (MAP-R) were used as the outcome (or post-program) measure. The spring 2018 MAP-R RIT scores were used as the pre-program measure.

Mathematics. RIT scores for mathematics from the fall 2018 Measures of Academic Progress-Math (MAP-M) were used as the outcome or post-program measure. RIT scores for mathematics from the spring 2018 MAP-M were used as the pre-program measure.

The equal-interval property of the RIT scale scores makes them especially appropriate for various statistical purposes, including measuring change over time.

MCPS student data. MCPS student records provided demographic data (race, gender, and receipt of ESOL, FARMS, METS or special education services) for students in the summer program and

students in the matched comparison group. Program attendance data were provided by each site coordinator and sent via email to the evaluator.

Study Sample

The Middle School Summer UP sample was all 352 middle school students who enrolled in the Summer UP 2018 program. The demographic characteristics of the students are summarized in Table 3. Among these students, a little more than one half were male (56%). More than half (58%) were Hispanic/Latino, and 28% were Black or African American. Regarding services received in 2017–2018, 71% of the Summer UP enrollees received FARMS, 36% received ESOL, and 16% received special education. Among MCPS focus groups, the largest was FARMS Hispanic/Latino (48%) (Table 3).

Table 3
Characteristics of 2018 Middle School Summer UP Enrollees

	<i>N</i>	%
All students enrolled	352	100.0
Grade level as of Fall 2018		
6	124	35.2
7	140	39.8
8	88	25.0
Gender		
Female	154	43.8
Male	198	56.3
Race/ethnicity		
American Indian	<10	<10
Asian	29	8.2
Black or African American	100	28.4
Hispanic/Latino	204	58.0
White	12	3.4
Two or More Races	6	1.7
Receipt of services during the school year 2017–2018		
ESOL	126	35.8
FARMS	248	70.5
Special Education	55	15.6
Focus groups		
All Other Students: Non-FARMS	29	8.2
Black or African American: Non-FARMS	39	11.1
Hispanic/Latino: Non-FARMS	36	10.2
All Other Students: FARMS	19	5.4
Black or African American: FARMS	61	17.3
Hispanic/Latino: FARMS	168	47.7

Note. There were no Native Hawaiian or other Pacific Islander.

Analytic samples. Two groups of students, attendees and non-attendees, comprised the analytic samples for each of the evaluation questions addressing academic performance. The analytic samples of attendees were made up only of students who were enrolled in a morning class for reading or mathematics. To align the academic outcome measures with Summer UP instruction, performance outcomes were assessed only in the subject of the academic class they attended. In other words, reading performance, measured by MAP-R, was assessed for students who attended morning reading classes, and math performance, measured by MAP-M, was assessed for students who attended math classes. Only attendees with attendance of at least 75% of the program days (9 or 11 days, depending on the site) were included in the analysis.

For the analysis of reading performance (Evaluation Question 4) the analytic sample of attendees was 66 students who attended a Summer UP morning reading class. For the analysis of mathematics performance (Evaluation Question 5), the analytic sample of attendees was 116 students who attended a morning mathematics or technology class.

The comparison groups ($N = 65$ for reading, $N = 112$ for math) were selected from among students enrolled in the participating schools who did not attend the Summer UP program. Comparison groups were made up of students matched to the Summer UP participants using propensity scores. Propensity scores were computed for each grade (6, 7, and 8) using gender, race/ethnicity, and receipt of FARMS, ESOL, or special education services.

Table 4 presents the demographic characteristics of the Summer UP analytic groups--attendees and non-attending comparison group--used for Evaluation Questions 4 (Reading) and 5 (Mathematics). The demographic composition of the attendee groups and their comparison groups were similar; differences were less than five percentage points on most characteristics. A few analytic groups had somewhat larger differences between attendee and comparison groups: In Reading analyses, attendee group had higher percentages than comparison group of Hispanic/Latino, FARMS, and FARMS Hispanic/Latino focus group; in Mathematics analyses, attendee group had lower percentage of FARMS than comparison group (Table 4).

Table 4
Characteristics of Analytic Groups:
Students who Attended Middle School Summer UP and Comparison Group

	Reading				Mathematics			
	Attendees ^a		Non-attendees		Attendees ^a		Non-attendees	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
	66	100.0	65	100.0	116	100.0	112	100.0
Grade level as of Fall 2018								
Grade 6	41	62.1	41	63.1	42	36.2	42	37.5
Grade 7	21	31.8	20	30.8	47	40.5	45	40.2
Grade 8	<10		<10		27	23.3	25	22.3
Race/ethnicity								
American Indian	<10		<10		<10		<10	
Asian	<10		<10		12	10.3	9	8.0
Black or African American	18	27.3	18	27.7	44	37.9	39	34.8
Hispanic/Latino	45	68.2	39	60.0	52	44.8	52	46.4
White	<10		<10		<10		8	7.1
Receipt of services during 2017–2018								
ESOL	14	21.5	15	23.1	25	21.6	26	23.2
FARMS	52	78.8	47	72.3	70	60.3	75	67.0
Special education	7	10.8	6	9.2	18	15.5	12	10.7
Focus Groups								
Non-FARMS All Other Student Groups	<10		<10		14	12.1	15	13.4
Non-FARMS Black or African American	5	9.2	5	7.6	18	15.5	12	10.7
Non-FARMS Hispanic/Latino	8	12.1	8	12.3	14	12.1	10	8.9
FARMS All Other Student Groups	<10		<10		6	5.2	6	5.4
FARMS Black or African American	13	19.7	12	18.5	26	22.4	27	24.1
FARMS Hispanic/Latino	37	56.1	31	47.7	38	32.8	42	37.5

^aLimited to students who attended Summer UP for 75% or more days. Subgroups are not shown when there were fewer than 5 students across all analytic groups, but all students were included in grade-level analyses.

Analytic Procedures

To address the first and second evaluation questions on implementation, data collected during site visits, surveys and interviews were analyzed and reported descriptively. To address the third evaluation question on attendance, data from program attendance records were analyzed.

To address the fourth and fifth evaluation questions on outcomes, both statistical significance tests and effect sizes were used (where appropriate). The ANCOVA procedure was utilized in this study to evaluate the outcomes of the summer program while controlling for differences in demographic characteristics and initial (pre-program) achievement level. Effect sizes were calculated to judge whether the observed differences between analytic groups (summer program vs. comparison) were

large enough to be of practical significance to educators (American Psychological Association, 2010). When the number of students in analytic groups was large enough, outcomes also were examined by student subgroups, including receipt of services (FARMS, ESOL, and special education) and MCPS focus groups.

Strengths and Limitations

Strengths. The outcome findings presented in this report are based on a sound evaluation design and appropriate analyses. The authors employed two control techniques for improving the internal validity of the findings and for estimating a less biased effect of the Summer UP program.

- *Control by study design.* The key component of the quasi-experimental design is the use of appropriate comparison groups when evaluating a program's outcomes. In this evaluation, comparison groups in each grade were selected from a pool of students from the Summer UP schools who did not attend the program. Propensity scores were computed for matching students with similar characteristics (i.e., grade level, gender, race/ethnicity, receipt of FARMS, ESOL, or special education services).
- *Control by statistical techniques.* Since students were not randomly assigned to the treatment or comparison group, the possibility remains that pre-existing differences may influence the outcome, which can impact the validity of the findings. To control for other factors that may influence the association between the independent and dependent variables, ANCOVA procedures were used in this study to control for differences in demographic characteristics and pre-program achievement.

Further, analyses included both statistical and practical significance tests when interpreting results. Additionally, Summer UP participants were limited to students with high attendance (about 75% or more of the program days), thus ensuring that students who received low dosages of the program were not included.

In this evaluation, the triangulation of data collected from multiple stakeholders increased the rigor, thoroughness and credibility of the findings. The generalization of the survey results depends mostly upon the sampling techniques and the response rates. In this study, the census administration (i.e., all members of stakeholder group were offered surveys) guarded against the sampling error by including all the major Summer UP stakeholders (teachers, students, parents) in the sampling frame so that everyone had a chance to participate. The response rates in this study were modest for students (49%) and teachers (78%).

Limitations. As mentioned previously, this study relied on a quasi-experimental design, comparing the outcomes of students who participated in the program to a comparison group of students who did not participate. Nonetheless, only a classical experiment with a random assignment of students to the program or a control group safeguards against each of the sources that may threaten internal validity, such as selection bias, maturation, history, or attrition. (Babbie, 1992; Judd, Smith, & Kidder, 1991; Hedrick et al., 1993). Therefore, causality may not be inferred from this study due to the lack of an experimental design. Further, although the comparison group in this study did not attend the Summer UP program, it is not known whether these students

participated in other academic or enrichment programs during the summer, or whether they differed from attendees in other ways (e.g., motivation, academic need).

This evaluation measured the effectiveness of Summer UP by using students' scores on MAP-M and MAP-R from fall 2018. However, the gap in time between the end of the summer program and the post-program test administration during the school year could have allowed other factors, different from the program, to influence students' performance. In the case of fall 2018 assessments, the window to administer MAP-R or MAP-M was almost two months (from September 11 to November 2, 2018). Participants who took these tests at the end of the assessment period rather than at the beginning were more likely to be exposed to other factors, such as more instruction days, not necessarily attributed to the program.

Other potential program effects (e.g., critical thinking, engagement, etc.) were not addressed by this study. Further, a progress measure of English language learning for students who attended ESOL classes was not available at the time of this analysis.

Finally, the response rate for the parent survey was 11%, meaning that the majority of parents who received the survey did not respond. Therefore, the survey responses may not be representative of all parents with middle school students in the Summer UP program.

Results

Findings for Evaluation Question 1: How was the Summer UP program implemented in MCPS?

The following section describes the responses from site coordinator interviews and surveys of academic teachers regarding how the Summer Up program was implemented during the summer of 2018. Information from program documents also provided data for this evaluation question.

Site-Based Coordinators' reports of Summer UP program implementation

All of the site coordinators were MCPS employees at the schools where the Summer UP program was located with varying roles like principal, assistant principal and ESOL teacher.

Student Selection Criteria. The coordinators at each site reported using multiple pieces of data from the EOL framework, like grades, district assessments and MAP-R/MAP-M to make decisions about who should attend the Summer UP program. Site coordinators reported that student selection criteria for the Summer UP program was based on academic need in reading and/or math as well as English language development. For the morning ESOL classes, school sites targeted students who needed to be acclimated to the school, like incoming 6th grade students or students new to the school. For METS classes, students enrolled in METS during the 2017–2018 school year were recruited. One site reported using behavioral data and trying to target students not engaged in school.

Enrollment and attendance processes. When asked to describe the enrollment procedures, all of the site coordinators reported sending letters home in Spring, inviting students to the program and attaching an application with directions. All sites also reported using *myMCPS* Connect in conjunction with the letter as well as for subsequent follow-up phone calls to boost enrollment. Site coordinators reported that teachers assisted with advertising the program to students and with follow-up phone calls. Families of rising sixth grade students had to be contacted by telephone since students attended the feeder elementary school.

When asked how attendance was tracked and monitored, each site reported that teachers tracked daily attendance. One site used Google sheets to have teachers enter data while the other two sites had teachers report attendance to the site coordinator.

Staffing at the site. Academic teachers for the program were hired from at the school hosting the Summer Up program. For the academic classes, the teachers hired were the teachers who taught that subject during the school year. A list of substitutes was created from the school staff that worked during the academic year at the school hosting the Summer Up program. Summer UP staff would use the list to contact substitutes when needed. Depending upon the Summer UP site, enrichment staff were either comprised entirely of MCPS teachers, or they were all hired from outside MCPS, or they were a mix of MCPS staff and outside staff.

Transportation. All coordinators ($n=3$) reported that overall transportation worked out well, however two coordinators reported that the shortened timeline created some difficulty in

securing transportation to the site. One site coordinator reported that costs were higher for transportation at their site because there were fewer students who walked to school, thus more buses were needed across a widely dispersed geographical area. Another coordinator reported that students attending the METS program lived outside the school's boundary, so coordinating transportation was more complicated and the shortened timeline impacted the coordination with MCPS transportation. All of them reported that the MCPS Department of Transportation was helpful in planning and problem solving.

Summer UP curriculum, and instructional program. The academic curriculum for the Summer UP program was developed by MCPS staff at each site. Classes were developed to either improve deficits in reading and/or math skills, offer a preview of the curriculum for Investigations in Math, Algebra 1, and Reading or improve English language development skills. One site provided two technology classes that align with the school's magnet program. Site coordinators reported that for the academic classes content was based on the MCPS curriculum and the Common Core State Standards by grade level; for ESOL and METS classes the content was based on the World-Class Instructional Design and Assessment English language development standards, of which the state of Maryland is a member.

The enrichment curriculum was either developed by the provider or the MCPS staff responsible for delivering the class. All site coordinators report similar goals for the enrichment curriculum: to provide activities that would engage students, offer activities to which they may not have access to, and address socio-emotional skills. The types of classes had some common themes. All sites offered a technology or Science, Technology, Engineering, and Math (STEM) component such as movie making or robotics, a sports component like boxing, and an art class like digital art or poetry. Classes that varied by site were options like cooking or TV studio. At each site, students completed a culminating project(s) based on learning in the enrichment classes. Two sites provided specific enrichment activities that addressed acculturation for newly arrived students to address the experience of integrating into American schools; one of these sites also added a focus on leadership skills and provided mentoring for students who are at-risk behaviorally.

Academic Teacher Reports of Summer UP program implementation

Tables 5 and 6 summarize the instructional and assessment methods used during Summer UP as reported by middle school academic teachers. Staff was asked the frequency with which they used various instructional and assessment methods during the academic instructional time.

Instructional Methods. Teachers responding to the survey reported using a variety of instructional methods over the course of the program week (Table 5). All responding teachers reported using technology, independent practice, and direct instruction two to three times per week or more than three times per week. Three out of four responding teachers also reported using the following strategies two to three times per week or more than three times per week: small group guided instruction ($n=13$, 93%), differentiated instruction ($n=12$, 86%) and individualized instruction ($n=11$, 79%). About half of the teachers reported using collaborative activities and

station rotation two to three times per week or more than three times per week (50%). Academic teachers also reported several techniques that were used less frequently during the program; 11 teachers (79%) report that demonstration activities were used only once a week or not at all; 9 teachers (70%) reported that project based learning was used only once a week or not at all, and 10 responding teachers (71%) reported that hands on activities were used only once a week or not at all .

The instructional method used least often was the demonstration method with 57% of responding teachers indicating they did not use this method at all followed by project based learning with 54% of teachers reporting they did not use this method at all during Summer UP.

Table 5
Types of Instructional Methods Used in Summer UP Classes as Reported by Middle School Academic Teachers

<i>Instructional Methods</i>	More than three times a week		Two to three times a week		Once A Week		Not at All	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Technology used by students (e.g., computers, online tutorials, scientific calculator)	13	92.9%	1	7.1%	0	0.0%	0	0.0%
Independent practice (e.g., worksheets, computer program, etc.)	10	71.4%	4	28.6%	0	0.0%	0	0.0%
Direct instruction - Teacher presenting to the whole class	8	57.1%	6	42.9%	0	0.0%	0	0.0%
Small group guided instruction (2 or more students)	7	50.0%	6	42.9%	1	7.1%	0	0.0%
Class discussion	7	50.0%	5	35.7%	2	14.3%	0	0.0%
Writing activities	6	50.0%	1	8.3%	4	33.3%	1	8.3%
Enrichment activities (e.g., games, puzzles, art, problem solving journal)	5	35.7%	3	21.4%	5	35.7%	1	7.1%
Project Based Learning	3	23.1%	1	7.7%	2	15.4%	7	53.8%
Differentiated instruction	3	21.4%	9	64.3%	2	14.3%	0	0.0%
Station rotation	3	21.4%	4	28.6%	3	21.4%	4	28.6%
Individualized instruction (one on one)	2	14.3%	9	64.3%	1	7.1%	2	14.3%
Collaborative activities (e.g., group projects)	2	14.3%	5	35.7%	4	28.6%	3	21.4%
Hand on activities (e.g., experiments, art projects)	2	14.3%	2	14.3%	6	42.9%	4	28.6%
Demonstrations (e.g., experiments)	1	7.1%	2	14.3%	3	21.4%	8	57.1%
Real world applications (calculating the area of a room, writing a letter or article)	1	7.1%	7	50.0%	3	21.4%	3	21.4%

Assessment Methods. Academic teachers were asked about the types of assessment activities used to inform instruction during Summer UP. Teachers used a mix of assessment types with varying levels of frequency each week (Table 6). The most commonly reported assessment method used by academic teachers were checks for understanding, with a little over three quarters ($n=11$, 79%) of responding teachers reporting that they used them more than three times per week or two to three times per week. One half of the responding teachers reported using student journals and one on one feedback more than three times per week or two to three times per week. A little under half of the responding teachers indicated they use formative assessments ($n=6$, 43%) or individual projects ($n=6$, 43%) more than three times per week or two to three times per week. Responding teachers reported using pre and post testing ($n=12$, 86%) and summative assessments ($n=10$, 71%) at least once a week. Responding teachers reported very little use of extended response problems with 64% reporting they did not use that method at all. Similarly, over half ($n= 8$, 57%) report they did not use student presentations or demonstrations.

Table 6
Types of Assessment Methods Used in Summer UP Classes as Reported by Middle School Academic Teachers

<i>On average, please indicate how often you engaged in the following assessment and summarizer activities with your class this summer.</i>	More than three times a week		Two to three times a week		Once A Week		Not at All	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
	Checks for understanding (e.g., exit card)	5	35.7	6	42.9	1	7.1	2
Student journals	4	28.6	3	21.4	1	7.1	6	42.9
Formative assessments (e.g., quizzes, digital tools)	3	21.4	3	21.4	3	21.4	5	35.7
One-on-one feedback (e.g., verbal or written feedback, error analysis)	3	21.4	4	28.6	4	28.6	3	21.4
Individual Projects	3	21.4	3	21.4	3	21.4	5	35.7
Summative assessments (e.g., test, final project or essay)	1	7.1	0	0.0	10	71.4	3	21.4
Student Presentation or Demonstrations	1	7.1	1	7.1	4	28.6	8	57.1
Group Projects	1	7.1	3	21.4	4	28.6	6	42.9
Pre and Post Testing	0	0.0	0	0.0	12	85.7	2	14.3
Extended response problems	0	0.0	3	21.4	2	14.3	9	64.3

Summary of Findings for Evaluation Question 1

To address Evaluation Question 1, the survey responses of academic teachers and interviews of coordinators were analyzed, and their responses are summarized below and organized by key topics.

Student selection and enrollment. All site coordinators reported that a combination of factors were used when selecting students for the Summer UP program, thus the intended target audience for the program did not align with the actual recipients of the program. While one main criterion was the student's attainment (or not) of 2017–2018 Evidence of Learning measures such as grades, progress checks and MAP-R and MAP-M scores from the 2017–2018 school year, other selection criteria were used as well. For example, sites reported selecting students who needed additional instruction in English language development, student attending METS, students who needed to preview the curriculum for the following year, students who were new to the school and needed to be acclimated, and students who had behavioral issues.

Design of the program. A major design goal of the Summer UP program was to provide engaging instructional activities when addressing the English Language Arts and Math Common Core State Standards during the academic portion of the program. Rather than a prescribed academic curriculum, coordinators reported that academic staff developed the curriculum based on content area. Enrichment activities were either delivered by an outside provider or delivered by MCPS staff. All coordinators discussed the importance of the enrichment activities to increase students' motivation to attend the program and provide opportunities students might not otherwise have access to outside of the school.

Instructional and assessment techniques. Responding academic teachers indicated a variety of instructional and assessment techniques were used that are commensurate with what one might find in a middle school classroom during the school year. The most frequently reported techniques were technology, direct instruction and independent practice each week followed by class discussion, small group guided instruction, and differentiated and individualized instruction. Several instructional techniques that were used less frequently during the program were demonstration activities, and project based learning and hands on activities, with the majority of academic teachers reporting that they were used these type of instructional methods only once a week or not at all.

To monitor and assess student progress during the program, a majority of responding teachers reported using assessment methods typically found in the middle school classroom. Checks for understanding ($n=11$, 79%), student journals ($n=7$, 50%) and one-on-one feedback ($n=7$, 50%) were the most commonly reported assessment methods by all the teachers. A majority responding teachers reported using pre and post testing ($n=12$, 86%) and summative assessments ($n=10$, 71%) at least once a week to assess student progress.

Findings for Evaluation Question 1a: What were the perceptions of site-based coordinators, academic teachers, afternoon enrichment teachers and parents with regard to the curriculum and program operations?

The following section describes the survey responses of academic teachers, enrichment staff, and parents about the Summer UP curriculum and related program operations. Additional information from the site-based coordinator interviews is provided after the analysis of survey responses. The survey response rates were 49% for students (n=171), 78% for teachers (n=14) and 11% for parents (n=39).

Academic Teacher perceptions of Summer UP program curriculum and operations

Curriculum Preparation and Operations. On survey items related to curriculum preparation and planning, the percentage of responding teachers indicating positive agreement ranged from 57% to 100% (Table 7). All responding teachers felt that the content fit the learning needs of students (n=14, 100%). More than 90% of the teachers who responded to the survey indicated they felt prepared to teach the curriculum for their class (n=13, 93%). Slightly fewer responding teachers agreed that they were provided a sufficient amount of time for lesson planning (n=10, 71%). The lowest levels of agreement were related to items about having supplies (n=9, 64% reported an adequate amount of supplies (n=9, 64%) and having resources (n=8, 57%) reported they had the instructional resources needed to do their job well (n=8, 57%).

Table 7
Teachers’ Satisfaction with Summer UP Curriculum Preparation and Planning

<i>Please indicate your overall level of agreement...</i>	N	Strongly Agree or Agree	
		n	%
I found that the content I taught fit the learning needs of my students.	14	14	100.0
I felt prepared to teach the curriculum for my class.	14	13	92.9
I was provided a sufficient amount of time for lesson planning.	14	10	71.4
An adequate amount of supplies (e.g. paper, markers, pens, etc.) were available.	14	9	64.3
I had the instructional resources (e.g. leveled reading materials, manipulatives, etc.) I needed to do my job well.	14	8	57.1

Program Communication and Collaboration. On survey items related to communication and collaboration, the percentage of responding teachers indicating positive agreement ranged from 3 (21%) to 13 teachers (93%) (Table 8). Teachers indicated the highest level of agreement with items related to the role and availability of the Summer UP site leader. Teachers indicated strong positive agreement with statements pertaining to regular communication during the summer program from site leaders (n=13, 93%), visibility of site leaders around the site (n=13, 93%), and site leaders’ clear communication of expectations around job role and responsibilities (n=12, 86%).

Just over half of the responding teachers agreed that they received information on procedures like fire drills or substitutes for the summer program ($n=9$, 64%). The lowest levels of agreement from respondents were related to items about what was happening in the afternoon program. Of teachers who responded to the survey, 36% agreed that they knew what type of activities were happening in the afternoon classes each day, and about one fifth of respondents agreed that they collaborated with afternoon staff about implementation of afternoon activities ($n=3$, 21%) or collaborated with staff about managing student behavior ($n=3$, 21%).

Table 8
Middle School Academic Teachers' Satisfaction
with Summer UP Communication and Collaboration

<i>Please indicate your overall level of agreement...</i>	<i>N</i>	<i>Strongly Agree or Agree</i>	
		<i>n</i>	<i>%</i>
I received regular communication during the summer program from my site leaders.	14	13	92.9
Site leaders were highly visible around the site.	14	13	92.9
My site leaders clearly communicated the expectations around my job role and responsibilities.	14	12	85.7
I received information on procedures for the summer program (e.g., transportation, fire drills, substitutes, schedules, discipline, etc.)	14	9	64.3
I knew what type of activities were happening in the afternoon classes each day.	14	5	35.7
I collaborated with afternoon staff about implementation of afternoon activities.	14	3	21.4
I collaborated with afternoon staff about managing student behavior.	14	3	21.4

In response to an open-ended survey question asking ‘*What are some areas for improvement for the Summer UP program?*’, 11 teachers provided feedback. The most frequently mentioned areas for improvement was communication between the morning and afternoon programs ($n=4$) and clarification on roles and responsibilities for academic teachers and site coordinators ($n=3$). Two teachers mentioned the need to have increased supplies and timely delivery of supplies. Other areas mentioned once are listed below:

- More time to prepare in classroom
- Add an extra week to program
- Reduce the 3 ½ hours in the morning
- Smaller class sizes
- Increase supervision during lunch

- More organized curriculum

Parent perceptions of Summer UP program operations

Parents responding to the survey indicated strong positive agreement to all survey questions related to program operations with the exception of transportation (Table 9). The strongest positive agreement was for items related to program communications and program hours; information was easy to understand ($n=35, 92\%$), information was communicated in a timely manner ($n=32, 84\%$) and the full day of the summer program was convenient for them ($n=31, 82\%$). The lowest level of agreement among respondents was for the item related to transportation, with just over half of the parents responding indicating that the transportation was adequate ($n=21, 58\%$)

Table 9
Number and Percent of Responding Parents Indicating Level of Agreement with Aspects of the Summer UP Program Operations

<i>Please indicate your level of agreement ...</i>	N	Strongly Agree or Agree	
		<i>n</i>	%
<i>Program Operations</i>			
Information about the summer program was communicated to me in a way that I could easily understand.	38	35	92.1
Information about the program was communicated in a timely manner.	38	32	84.2
The fact that the summer program was a full day was convenient for me.	38	31	81.6
Transportation for the program was adequate.	36	21	58.3

Enrichment staff perceptions of the Summer UP curriculum and program operations

Secondary enrichment staff had the opportunity to respond to a survey asking questions about program operations and benefits (Table 10). All responding enrichment staff indicated strong positive agreement across all questions regarding logistics, resources and curriculum, such as: the program clearly communicated the expectations around job role and responsibilities, transportation was adequate, technology was available for use in the program and overall, the full-day summer program was the right mix of enrichment activities and learning. Ninety percent or more of responding enrichment staff, indicated the site leader was available when they needed help ($n=12, 92\%$) and that they collaborated with morning staff about activities implemented in the afternoon ($n=10, 91\%$). The only item with less than 90% of enrichment staff responding positively asked staff if they received regular communication during the summer program from the program and/or site leaders ($n=11, 85\%$).

Table 10
Enrichment Staff Satisfaction
with Summer UP Operations and Communication

<i>Please indicate your overall level of agreement...</i>	Strongly Agree or Agree		
	All Respondents		
	N	n	%
My summer program clearly communicated the expectations around my job role and responsibilities.	14	14	100.0
I collaborated with morning staff about managing student behavior.	14	14	100.0
Transportation was adequate when needed for activities.	13	13	100.0
Technology (e.g., computers, Promethean boards, etc.) was available for use in the program.	14	14	100.0
Overall, the full-day summer program was the right mix of enrichment activities and learning.	11	11	100.0
Site leaders were available when I had questions are needed help.	13	12	92.3
I collaborated with morning staff about activities implemented in the afternoon.	11	10	90.9
I received regular communication during the summer program from my program and/or site leaders.	13	11	84.6

In response to an open-ended survey question asking ‘*What are some areas for improvement for the Summer UP program?*’ enrichment staff offered a range of suggestions for the program. Of 14 responses to the question, the area most often mentioned were improving communication ($n=5$) with suggestions such as “Clearer and consistent discipline and behavioral policies and procedures outlined prior to the start of the program” and “...notifying students and parents at least a month prior to program start date.” The next area mentioned most often was increasing collaboration between school staff and provider staff ($n=3$) with suggestions such as “More collaboration between specials teachers and academic teachers.” and “...having a stronger connection to what they were doing in the morning.”. Finally, two respondents also mentioned increasing the length of the program ($n=2$) with one of them suggesting “...the impact would’ve been greater on the youth we worked with if we would have had a longer period of time to work with them and their families.”

Site-based coordinators perceptions of Summer UP Operations

All site coordinators were asked an open-ended question “*What improvements do you think are needed in the summer program?*” All site coordinators stated that a longer time line to plan the program would be beneficial. All three mentioned the need for more time during the spring to do the following: recruit students; purchase the correct supplies and materials; secure transportation particularly for students coming from outside the boundary area; receive and

understand budget information; and contract with their first choice of provider. Each coordinator also pointed out that knowing the details of the budget much earlier in the process is important because it impacts the forms used to enroll students and how payroll is conducted like “Having all the details in the beginning—budget, transportation,” and another said, “Having a checklist, knowing what we need and communication from Central Office.” Two coordinators also discussed content. One coordinator said having more time will allow them to create even better opportunities for students since they are developing their own curriculum. Another stated they hoped to offer more technology based classes and perhaps funding could be used for other content areas rather than just reading or math.

Summary of Findings for Evaluation Question 1A

Program Curriculum Preparation and Planning. Teachers responding to the survey items reported strong positive agreement across almost all items related to course content and delivering instruction. All teachers responding agreed the curriculum met the learning needs of their students and over 90% of teachers responding reported they felt prepared to teach the curriculum ($n=13$, 93%). Items relating to planning, resource and materials received slightly lower ratings like having an adequate amount of supplies ($n=9$, 64%) and having the instructional resources needed to do the job well ($n=8$, 57%). Related to program planning, 71% of responding teachers agreed they had a sufficient amount of time for lesson planning. Site coordinators unanimously agreed that more time to plan the program would be beneficial for program operations particularly as it relates to understanding budget details for enrollment, payroll and ordering supplies. Responding enrichment staff indicated strong positive agreement across all questions that asked about logistics. An additional area mentioned by site coordinators is that the shortened timeline impacted transportation planning. Parents echoed this issue with a little over half of the responding parents agreeing that transportation was adequate ($n=21$, 58%).

Program Communication and Collaboration. At least 90 percent of parents and academic staff agreed that communication regarding Summer UP was timely and consistent. Responding teachers indicated at least 80% of agreement or higher with items asking about the role, activities and availability of the Summer UP site leaders. Fewer teachers had positive responses on items regarding collaboration with the enrichment staff like the understanding of what was happening in the afternoon enrichment activities ($n=5$, 36%) or collaborating with enrichment staff ($n=3$, 21%). In contrast, 90% of responding enrichment staff indicated they collaborated with morning staff about activities implemented in the afternoon.

Findings for Evaluation Question 2: What were the perceptions of academic teachers, enrichment staff, parents/guardians, and students with regard to program benefits?

Academic teachers, enrichment staff, parents, and students reported their perceptions of the Summer UP program benefits through their responses to surveys administered during the final week of the program. The survey response rates were 49% for students ($n=171$), 78% for teachers ($n=14$) and 11% for parents ($n=39$).

Academic Teacher perceptions of Summer UP program benefits

Teachers responding to the survey reported strong positive agreement on most survey items related to the benefits of the Summer UP Program (Table 11).

On survey items addressing teachers' perceptions of student engagement and motivation in the program, respondents indicated 100% positive agreement with statements like "students completed work I assigned", "my class was successful in helping students engage in work that will help them for school in the fall", and "the program was the right mix of enrichment activities and learning". Almost all teachers reported positive agreement that students enjoyed the learning activities implemented in the classroom ($n=13$, 93%).

The next set of survey items in Table 11 related to the overall benefits of the program, both for academic and social emotional learning. All responding teachers ($n=14$, 100%) agreed with statements that students showed progress in the summer class, that they improved their academic skills, and that the program had a positive impact academically. Similarly, for questions related to social-emotional learning 100% of teachers agreed that students felt comfortable in the program and the program facilitated positive behavior among students. Only one item related to program benefits received less than unanimous agreement from responding teachers: "Working with Summer UP has helped me develop my professional skills" ($n=11$, 79%).

Table 11
Middle School Academic Teachers’ Perceptions of Program Activities and Benefits

<i>Please indicate your overall level of agreement...</i>	N	Strongly Agree or Agree	
		<i>n</i>	%
<i>Student Engagement and Motivation</i>			
In my class, students completed the work I assigned.	14	14	100.0
I felt my class was successful in helping students engage in work that will help them for school in the fall.	14	14	100.0
Overall, the program was the right mix of enrichment activities and learning.	13	13	100.0
In my class, students enjoyed the learning activities I implemented in the classroom.	14	13	92.9
<i>Program Benefits</i>			
Overall, students showed progress in the summer class I taught.	14	14	100.0
Overall, students improved their academic skills in the summer class I taught.	14	14	100.0
Overall, the program had a positive impact on my students academically.	13	13	100.0
Overall, students seemed comfortable in the summer program.	13	13	100.0
Overall, the program facilitated positive behavior among students.	13	13	100.0
Working with Summer UP has helped me develop my professional skills.	14	11	78.6

Enrichment Staff perceptions of Summer UP program benefits

Middle school enrichment staff had the opportunity to respond to survey questions about program benefits (Table 12). All responding enrichment staff indicated 100% positive agreement across all questions that asked about student engagement and motivation such as “the program was the right mix of enrichment activities and learning”, “the enrichment activities in the afternoon motivated students to attend the summer program in the morning”, and “the program increases student interests in other areas besides academics.”

The next set of survey items were related to the overall program benefits. All responding enrichment staff agreed with statements that the program allows students to integrate academic

skills into other areas and provides experiences the students would not otherwise have. Likewise, for the four questions related to social-emotional learning 100% of responding enrichment staff agreed that the enrichment portion of the program improved student social relationships and self-confidence.

Table 12
Middle School Enrichment Staff Perceptions of Program Activities and Benefits

<i>Please indicate your overall level of agreement...</i>	N	Strongly Agree or Agree	
		<i>n</i>	%
<i>Student Engagement and Motivation</i>			
Overall, the full-day summer program was the right mix of enrichment activities and learning.	11	11	100.0
The enrichment activities in the afternoon motivated students to attend the summer program in the morning.	13	13	100.0
The program increases student interests in other areas besides academics (e.g., arts, STEM, leadership, cooking, athletics).	14	14	100.0
<i>Program Benefits</i>			
Allows students to integrate academic skills into other areas.	14	14	100.0
Provides experiences that students would not otherwise have.	14	14	100.0
Improves student's social relationships.	14	14	100.0
Improves student's self-confidence.	14	14	100.0
Improved student literacy skills.	13	13	100.0
Improved student math skills.	12	12	100.0

Parent perceptions of Summer UP program benefits

Parents responding to the survey generally reported intermediate to strong positive agreement with statements regarding the benefits of the Summer UP program, ranging from 67% to 97% agreement (Table 13). All responding parents indicated strong positive agreement with the statements around motivation and engagement, such as their child enjoyed attending the summer program ($n=34$, 87%) and their child liked the activities in the program ($n=32$, 82%). Fewer parents agreed that Summer UP helped their child develop new interests ($n=27$, 69%); and the non-academic activities increased their child's interest in attending the summer program ($n=26$, 67%) (Table 13).

Almost all parents agreed with statements about social emotional learning. Over 90% of responding parents agreed their child felt safe at the program ($n=38$, 97%) and that their child felt comfortable going to the program ($n=37$, 95%). Slightly fewer parents agreed that their child had friends in the program ($n=32$, 82%) and that the program helped their child’s confidence ($n=31$, 80%). Nine out of 10 responding parents indicated they would send their child to Summer UP again and they would recommend the program to other families.

Table 13
Parent Perceptions of Program Activities and Benefits

<i>Please indicate your level of agreement with...</i>	Total	Strongly Agree - Agree	
	N	<i>n</i>	%
My child felt safe in the summer program.	39	38	97.4
My child was comfortable going the summer program.	39	37	94.9
I would send my child to this summer program again.	39	35	89.7
I would recommend this program to other families.	39	35	89.7
My child enjoyed attending the summer program.	39	34	87.2
The program helped my child improve academic skills.	38	33	86.8
My child liked the activities in the summer program.	39	32	82.1
My child had friends in the summer program.	39	32	82.1
The program helped my child to be more confident.	39	31	79.5
The program helped my child develop new interests.	39	27	69.2
The non-academic activities increased my child’s interest in attending the summer program.	39	26	66.7

Parents were asked an open-ended question about what their child would be doing if they were not attending this program ($n =39$). Figure 2 shows that almost three quarters ($n=29$, 74%) of parent respondents indicated their child would be staying at home if they were not attending the Summer UP program. Only 13% of parent respondents indicated their student would attend another summer program if not attending Summer UP.

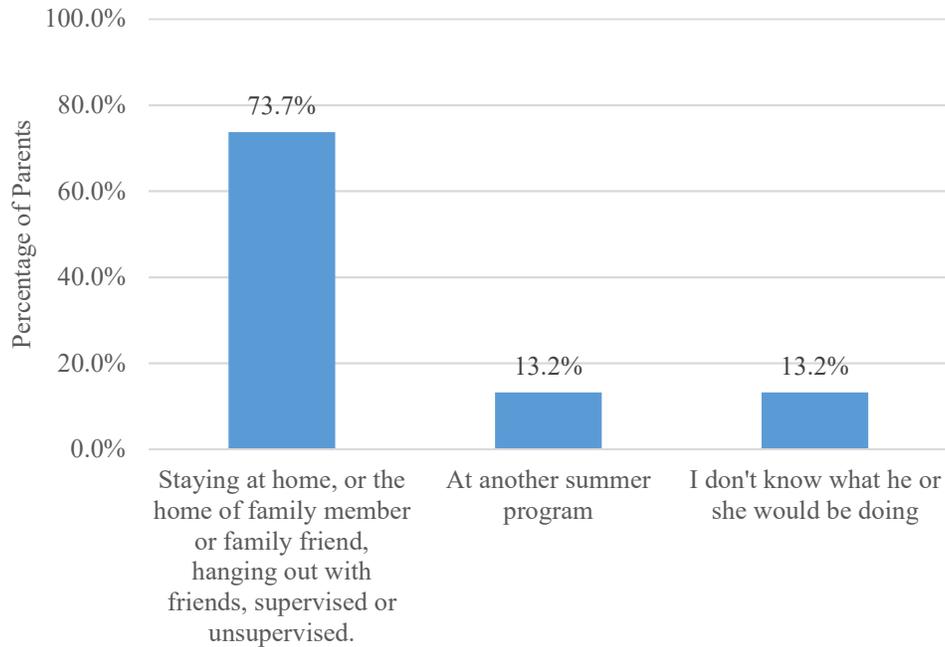


Figure 2. Parent reports of what their child would be doing if not attending Summer UP (n=39)

Seventeen parents provided a response to an open-ended survey question asking what they would change about Summer UP. Respondents most frequently noted they would not change anything ($n=7$). Three responding parents suggested extending the number of days of the program or the number of hours in the day. Other suggestions concerned logistical issues; three parents asked to receive information on the program earlier and two described transportation issues with buses. Two parents noted a desire for instructional changes, stating they would like Summer UP to offer “all the subjects students have issues with” or “less time on the computers.”

Twenty-nine parents named their favorite aspect of the Summer UP program in response to a second open-ended question (Table 14). Respondents most frequently noted that Summer UP provided additional instruction and support for their child ($n=11$, 31%). Six parents mentioned the mix of activities as their favorite aspect of the Summer UP program. Similarly, five parents responding reported that the program provided somewhere to send their child during the summer and provided socio-emotional benefits.

Table 14
 Favorite Aspects of Summer UP
 Reported by Parents Responding to Open-End Survey Questions (N=29)

Favorite Part	<i>n</i>	%
Provided additional instruction and support	11	31.4
Mix of activities	6	17.1
Somewhere to send child during the summer	5	14.3
Socio-emotional benefits (e.g., friends)	5	14.3
Fun	3	8.6
Helped transition to middle school	2	5.7
All of it	2	5.7
Food	1	2.9

Note. Respondents could report more than one item.

Student perceptions of Summer UP program benefits

Survey responses from middle school students were generally positive toward the Summer UP program (Tables 15a, 15b, 15c). Students were asked about the program instruction and activities in the morning and the afternoon enrichment classes, as well items reflecting social emotional learning.

Table 15a shows responding student’s agreement for items related to the program of instruction and activities that occurred in the morning. About two-thirds agreed that they knew what the learning objective was (69%) and that they received one-on-one help instruction or help if needed (64%). Slightly over half of the students agreed that they received feedback on the work did in class (58%). Eighty percent agreed that the morning class helped them improve their academic skills for the next school year and 70% said they enjoyed the learning activities in the morning class. Although a lower percentage of Grade 8 students (60%) compared with Grade 6 and 7 (79% and 69%) enjoyed the learning activities in the morning, students in all grades agreed that the morning class helped them improve their academic skills for next year (73% to 88%).

Table 15a
Middle School Students’ Perceptions of Morning Program Instruction and Activities

<i>Please indicate your level of agreement...</i>	Strongly Agree or Agree											
	All Respondents			Grade 6			Grade 7			Grade 8		
	N	n	%	N	n	%	N	n	%	N	n	%
<i>Morning Program Instruction and Activities</i>												
I knew what the learning objective was each day.	167	115	68.9	59	42	71.2	62	40	64.5	46	33	71.7
I received one-on-one help or instruction when I needed it.	167	107	64.1	60	38	63.3	61	37	60.7	46	32	69.6
I received feedback on the work I did in class.	166	97	58.4	59	29	49.2	61	38	62.3	46	30	65.2
I enjoyed the learning activities in the morning class.	165	116	70.3	58	46	79.3	62	43	69.4	45	27	60.0
The morning class helped me to improve my academic skills for the next school year.	166	132	79.5	58	51	87.9	62	45	72.6	46	36	78.3

Table 15b displays responding students’ agreement to items that asked about the afternoon program of instruction and activities. Almost 80% agreed that they felt good about the skills they learned in the afternoon class (78%). At least 70% of students agreed that they participated in hands-on activities (77%), that there was at least one activity of interest to them each day (76%) and that they participated in collaborative activities (70%). Grade 7 students compared to Grade 6 and 8 students report higher agreement when asked if they participated in collaborative activities (75% vs 65% and 67%). Just over two-thirds of all student respondents agreed that the afternoon class motivated them to want to learn more about different topics (66%).

Table 15b
Middle School Students’ Perceptions of Afternoon Program Instruction and Activities

<i>Please indicate your level of agreement...</i>	Strongly Agree or Agree											
	All Respondents			Grade 6			Grade 7			Grade 8		
	N	n	%	N	n	%	N	n	%	N	n	%
<i>Afternoon Program Instruction and Activities</i>												
I participated in hands on activities in the afternoon class (experiments, art, sports).	156	120	76.9	53	42	79.2	61	46	75.4	42	32	76.2
I participated in collaborative activities (like group projects or team problem solving).	154	107	69.5	52	34	65.4	60	45	75.0	42	28	66.7
There was at least one activity of interest to me each day in the afternoon.	154	117	76.0	53	41	77.4	59	45	76.3	42	31	73.8
The afternoon class motivated me to want to learn more about different topics.	152	101	66.4	51	33	64.7	60	41	68.3	41	27	65.9
I felt good about the skills learned in the afternoon class(es).	155	121	78.1	53	42	79.2	60	48	80.0	42	31	73.8

Table 15c details students responses to survey items related to social and emotional learning. The statement with the highest percentage of students indicating positive agreement was “I feel safe when I am at this program” (71%) (Table 15c). On three other survey items related to social and emotional learning, approximately two thirds (64%) of the responding students agreed that they felt like they belonged in the summer program, that they were excited to attend the program every day and that they had at least one adult they were comfortable talking with in the program. Seventy percent of the students agreed that they would participate in the program again if given the chance. Compared to Grade 6 and 7 students, Grade 8 student respondents reported less agreement on three survey items; “I felt safe when I am at this program” (57% vs 78% and 71%), “I had at least one adult I was comfortable talking with in the program” (55% vs 69% and 67%) and “I would participate in this program again if given the chance” (64% vs. 72% and 72%).

Table 15c
Middle School Students’ Perceptions of Social Emotional Learning

<i>Please indicate your level of agreement...</i>	Strongly Agree or Agree											
	All Respondents			Grade 6			Grade 7			Grade 8		
	N	n	%	N	n	%	N	n	%	N	n	%
<i>Social Emotional Learning</i>												
I feel safe when I am at this program.	159	113	71.1	55	43	78.2	60	45	75.0	44	25	56.8
I had at least one adult I was comfortable talking to at this program.	158	101	63.9	54	37	68.5	60	40	66.7	44	24	54.5
I was excited to come to the summer program every day.	159	101	63.5	55	37	67.3	60	36	60.0	44	28	63.6
I felt like I belonged in the summer program.	157	101	64.3	53	33	62.3	60	40	66.7	44	28	63.6
I would participate again in this summer program if given the chance.	158	110	69.6	54	39	72.2	60	43	71.7	44	28	63.6

In response to an open-ended survey question about their favorite parts of the Summer UP program, 151 students provided further information (Table 16)

Table 16
Favorite Parts of the Summer UP Program Reported by Middle School
Students Responding to an Open Ended Survey Question ($N = 151$)

Favorite Part	Number	Percent of Respondents Mentioning
Activities (e.g., games, competitions, incentives, etc.)	47	27.5
Sports (soccer, boxing, etc.)	41	24.0
Socio-emotional (Making friends, learning leadership skills)	21	12.3
Instruction (methods teacher used to teach)	17	9.9
Nothing	17	9.9
Breaks	15	8.8
Reading specific books or topic studied in reading class	13	7.6
Art	11	6.4
Staff (teaching style, relationships, friendliness, etc.)	11	6.4
Learning new or additional skills	11	6.4
Learning about robots and/or coding	10	5.8
Single mentions	9	5.3
Collaborative learning	9	5.3
All of it	8	4.7
Learning about film	6	3.5
Use of computers	5	2.9
Don't know	5	2.9
Food	5	2.9
Negative comments	5	2.9
Field Trips	4	2.3
Time with Identity	4	2.3
Learning English	4	2.3
Working hard	2	1.2
Cooking	2	1.2

Note: 99 students responded with more than one activity.

The largest percent of student respondents named activities ($n=47$, 28%) and sports ($n=41$, 24%) as their favorite part of the Summer UP program. Other favorite program components were socio-emotional aspects ($n=21$, 12%) and instructional methods ($n=17$, 10%).

- Some representative examples of students' comments are shown here:

“That I learned more about the IM class for next year and I learned many things to prepare me for next year IM for 6th grade.”

“I love everything. We had the chance to have fun and learn at the same time, I really like this program, and I hope this program will be part of this school next year.”

“When we got to build robots and programming them, this class was really fun.”

“My favorite part was how the teacher taught us how to find the main ideas in a text and how to read better.”

Summary of Findings for Evaluation Question 2

To address Evaluation Question 2, the perceptions of academic teachers, enrichment staff, parents and students were gathered through surveys about the benefits of the Summer UP program. Their responses are summarized here, organized by key topics.

Academic Benefits. Across stakeholder groups, respondents were positive about the academic benefits of the program. All responding teachers and all enrichment staff agreed with statements that students showed academic progress, improved academic skills and that the program had a positive impact academically. Similarly, 80% of responding students agreed that the morning class helped them improve their academic skills for the next year and 78% felt good about the skills they learned in the afternoon class. Almost 9 out of 10 parents also agreed that Summer UP improved students' academic skills.

Motivation and Engagement. Across stakeholder groups, respondents were positive about the program's capacity to motivate and engage students with students reporting less positive agreement than other groups. Almost all academic teachers reported strong positive agreement with items that addressed student engagement and motivation during the Summer UP academic activities like student enjoyment of activities ($n=13$, 93%) and that the program was the right mix of enrichment activities and learning ($n=13$, 100%). All responding enrichment staff agreed that enrichment activities motivated students to attend the program. About three-quarters of responding students agreed that there was at least one activity to interest them each day in the afternoon and two-thirds reported strong positive agreement to items that asked if the afternoon class motivated them to want to learn more about different topics. Over 80 percent of responding parents indicated strong positive agreement with the statements that their child liked that activities

in the program ($n=32$, 82%), and that their child enjoyed attending the summer program ($n=34$, 87%).

Social Emotional Learning. Across stakeholder groups, respondents were positive in response to items reflecting social emotional learning, with students reporting the lowest levels of agreement compared to parents, academic staff and enrichment staff. All responding teachers ($n=14$, 100%) indicated positive agreement with statements about social emotional learning, such as students felt comfortable in the program and the program facilitated positive behavior among students. Almost two thirds of responding students indicated positive agreement on survey items related to social emotional learning, like feeling like they belonged and having one adult they were comfortable talking to. Parents also indicated positive agreement with statements about social emotional learning, like Summer UP improved their child's confidence ($n=31$, 80%) and their child had friends in the program ($n=32$, 82%).

Although this wasn't explicitly stated in the program goals, an apparent overall benefit of the Summer UP program is that it provide structured summer program for students who might not otherwise have it. Almost three quarters (74%) of parent respondents indicated their child would be staying at home if they were not attending the Summer UP program.

Findings for Evaluation Question 3: What were the program attendance rates for middle school students who participated in Summer UP?

To answer this question, we conducted a descriptive analysis of original attendance records. Each Summer UP site electronically tracked student attendance on a daily basis. At the completion of the program, each site sent their records to the evaluation team.

Overall Attendance

Initially, 352 students enrolled in Summer UP program for 2018. Of those 352 students, one site did not provide records for 44 students, so attendance records were available for 308 students.

Figure 3 summarizes the attendance of Summer UP participants for whom attendance records were available. High attendance classification was based on previous research and analyses of Summer UP data to define an attendance threshold. The high attendance designation represents attending 11 days or more of the 15-day program (73% of the days) at Argyle or Gaithersburg Middle School, or 9 or more days of the 12-day program (75% of the days) at Neelsville Middle School.

Students were divided into three groups: those who did not show up at all, those with relatively low attendance (attended less than about 75% of program days), and those with relatively high attendance (about 75% of program days or more).

Among all students with attendance data ($N = 308$), nearly three quarters (74%) were high attenders (i.e., attended about 75% of the program days), about one quarter of them (24%) were low attenders, and 2% did not attend any days (Figure 3).

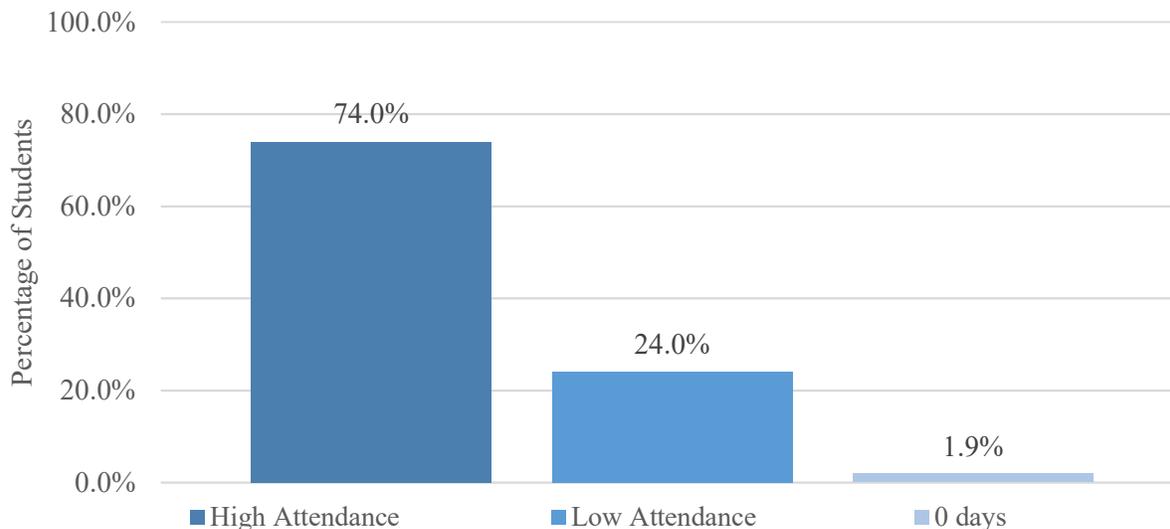


Figure 3. Percentage of Students in Summer UP by High and Low Attendance Groups (n=308)

Program Attendance Rates by Demographic Characteristics, School, and Class Subject

Table 17 displays the program attendance rates for students who attended at least one day of the program by demographic characteristics and Summer UP site. Students who attended at least one day of the program and for whom attendance records were available ($n=302$) attended on average about 80% of the program days. Attendance rates in the program varied slightly across grades; Grade 6 students had the highest attendance rate, at 82% of program days, Grade 7 students attended 81% of program days, and Grade 8 students attended about 74% of program days on average. Attendance at the three middle school sites showed slight variations; Neelsville Middle School had the highest attendance rate (82%), Gaithersburg Middle School’s attendance rate was 80%, and Argyle Middle School’s attendance rate was 75%.

The program attendance rate for males was slightly higher than the rate for females, 81% and 78% respectively. Across all MCPS focus groups, the rate of attendance ranged from 76% for non-FARMS Black or African American students to 87% for non-FARMS All Other Student subgroups. Attendance rates for students in different morning class subjects differed by only two percentage points (79% to 81%) (Table 17).

Table 17
Program Attendance Rates by Demographic Characteristics and School:
Students Attending at Least One Day of Middle School Summer UP Program 2018

	<i>n</i>	Attendance Rate for Students Attending At Least One Day (% days attended)	Attendance Range (Students Attending At Least One Day) (% days attended)
Total	302	79.7	7.0 - 100.0
<i>By Grade</i>			
Grade 6	110	82.2	7.0 - 100.0
Grade 7	117	81.3	13.0 - 100.0
Grade 8	75	73.7	7.0 - 100.0
<i>By School</i>			
Argyle MS	66	75.3	7.0 - 100.0
Gaithersburg MS	113	79.8	7.0 - 100.0
Neelsville MS	123	82.1	17.0 - 100.0
<i>Gender</i>			
Female	136	78.0	7.0 - 100.0
Male	166	81.1	7.0 - 100.0
<i>By MCPS Focus Group</i>			
Non-FARMS All Other Students	17	87.4	50.0 - 100.0
Non-FARMS Black or African American	35	76.1	7.0 - 100.0
Non-FARMS Hispanic/Latino	35	83.3	25.0 - 100.0
FARMS All Other Students	15	81.2	25.0 - 100.0
FARMS Black or African American	50	79.8	7.0 - 100.0
FARMS Hispanic/Latino	150	78.6	7.0 - 100.0
<i>Subject in Morning Class</i>			
Math or technology	148	80.3	7.0 - 100.0
Reading	84	80.1	7.0 - 100.0
ESOL	61	78.8	17.0 - 100.0
Film	6	81.1	27.0 - 100.0

Attendance Rates by Program Week

To get a sense of attendance rates over the duration of the program, Figure 4 displays the percentage of program days attended during each week of the program. Rates are based on

attendance of all students who attended at least one day. Attendance rates were highest during week 2 (83%), and declined to 77% during the third week of the program.

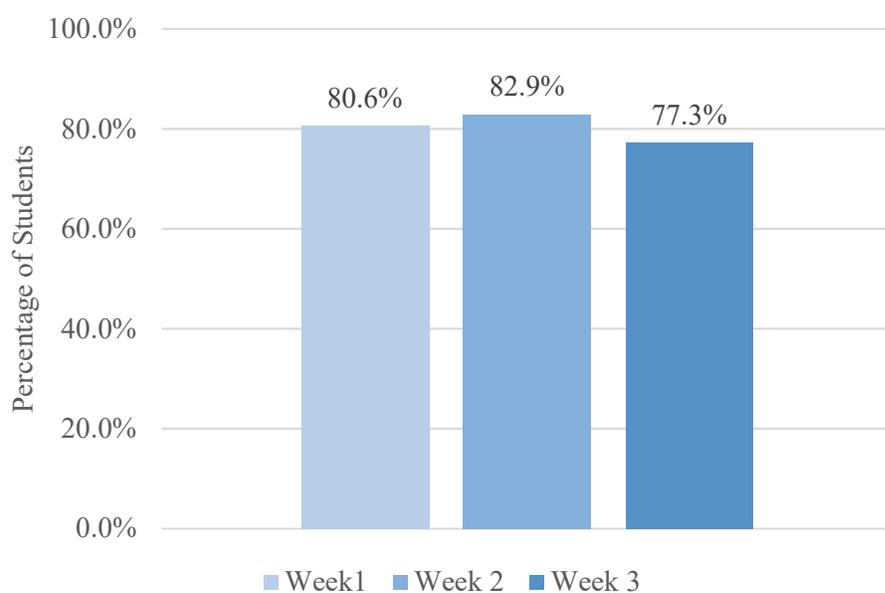


Figure 4. Summer UP Middle School Program Attendance Rates by Week, Summer 2018

Findings for Question 4: What was the impact of the Summer UP program on student reading skills? Did the impact of the program vary by student subgroups?

Study results for reading performance are reported for each grade separately. Results from advanced statistical analyses of the reading performance of Summer UP attendees and non-attendees are shown for all students and for subgroups of students with 15 or more students in both the attendees and non-attendees groups. MAP-R scale scores, adjusted for demographic characteristics of the groups and prior performance, are shown for all students in the grade and for the subgroups tested.

To provide descriptive information on the reading performance of student subgroups, mean MAP-R scale scores, without adjustment for differences in the demographic characteristics of the groups or for previous mathematics performance are shown for Summer UP attendees and non-attendees in Appendix B. The tables in Appendix B include all students in the grade levels and subgroups when the number of students is ten or more.

Grade 6

Among all Grade 6 students, there were no statistically or practically significant differences between attendees and non-attendees in reading performance (Table 18).

Table 18
Grade 6 Students' Reading Performance: Comparison of Adjusted Mean Fall 2018 MAP-R Scale Scores for Summer UP Reading Class Attendees and Non-Attendees

Groups	Attendees			Non-attendees			Mean diff.	<i>p</i>	Effect size (<i>d</i>)
	<i>N</i>	Adjusted Mean	Standard error	<i>N</i>	Adjusted Mean	Standard error			
All Grade 6 students	41	207.53	1.54	37	205.93	1.60	.77	.49	.10
Receipt of services during 2017–2018									
FARMS	33	206.00	1.69	28	202.69	1.95	3.31	.20	.20
Focus Groups									
FARMS Hispanic/Latino	22	202.56	2.21	20	202.15	2.23	.41	.90	.03

Note. Analyses include students with Spring 2018 and Fall 2018 MAP-R scores. Means are adjusted for demographic characteristics and previous mathematics performance (Spring 2018 MAP-R). Only subgroup analyses with 15 or more students in both groups are reported.

Among students receiving FARMS, comparison of the performance of Summer UP attendees and non-attendees revealed no statistically significant difference, but a small practically significant effect was observed ($d = .20$) in favor of Summer UP students, indicating the mean difference was large enough to be of significance to educators. Comparison of performance for students in the FARMS Hispanic/Latino focus group revealed no statistically or practically significant difference between the MAP-R scores of Summer UP attendees and non-attendees.

Other student subgroups did not have enough students to allow advanced statistical analysis.

Grade 7

Advanced statistical analyses of reading performance of Grade 7 Summer UP attendees and non-attendees revealed no statistically or practically significant difference in the performance of all Grade 7 students (Table 19). Only one subgroup had enough students for advanced statistical analysis: among students receiving FARMS, comparison of the reading performance of Summer UP attendees and non-attendees revealed no statistically or practically significant differences.

Table 19
Grade 7 Students' Reading Performance: Comparison of Adjusted Mean Fall 2018 MAP-R Scale Scores for Summer UP Reading Class Attendees and Non-Attendees

Groups	Attendees			Non-attendees			Mean diff.	<i>p</i>	Effect size (<i>d</i>)
	<i>N</i>	Adjusted Mean	Standard error	<i>N</i>	Adjusted Mean	Standard error			
All Grade 7 students	19	210.84	2.31	19	210.21	2.87	.64	.87	.04
Receipt of services during 2017–2018									
FARMS	15	211.30	2.40	15	209.84	2.64	1.46	.84	.09

Note. Analyses include students with Spring 2018 and Fall 2018 MAP-R scores. Means are adjusted for demographic characteristics and previous mathematics performance (Spring 2018 MAP-R). Only subgroup analyses with 15 or more students in both groups are reported.

Grade 8

Fewer than five Grade 8 students attended a Summer UP reading class so advanced analysis of reading performance was not conducted. Further, descriptive statistics may not be reliable for the small number of attendees so Appendix B does not present the mean MAP-R scores for this group.

Summary of Findings for Question 4: Reading

The small number of students who attended a morning reading class in each grade made analysis of academic outcomes challenging. Only Grade 6 and Grade 7 students comprised large enough groups for analysis, and only three subgroups could be analyzed within the grades.

When the reading performance of all students in each of the grades—Grade 6 and Grade 7—was analyzed, the students who attended the Summer UP program did not perform statistically significantly better than the matched comparison group. The finding of no difference was the same for two of the subgroups tested. However, among Grade 6 students who were receiving FARMS services, the difference in reading performance between Summer UP attendees and the comparison group was large enough to be of practical significance to educators ($d = .20$).

Findings for Question 5: What was the impact of the Summer UP program on student mathematics skills? Did the impact of the program vary by student subgroups?

Study results for mathematics performance are reported for each grade separately. Results from advanced statistical analyses of the math performance of Summer UP attendees and non-attendees are shown for all students and for subgroups of students with 15 or more students in both the attendees and non-attendees groups. MAP-M scale scores, adjusted for demographic characteristics of the groups and prior performance, are shown for all students in the grade and for the subgroups tested.

To provide descriptive information on the mathematics performance of student subgroups, mean MAP-M scale scores, without adjustment for differences in the demographic characteristics of the groups or for previous mathematics performance, are shown for Summer UP attendees and non-attendees in Appendix C. Unadjusted mean MAP-M scale scores are reported for all students in the grade levels, and for subgroups of students when the number of students is 10 or more.

Grade 6

Among all Grade 6 students, there were no statistically or practically significant differences between attendees and non-attendees in mathematics performance (Table 20).

Table 20
Grade 6 Students' Mathematics Performance: Comparison of Adjusted Mean Fall 2018 MAP-M Scale Scores for Summer UP Mathematics Class Attendees and Non-Attendees

Groups	Attendees			Non-attendees			Mean diff.	<i>p</i>	Effect size (<i>d</i>)
	<i>N</i>	Adjusted Mean	Standard error	<i>N</i>	Adjusted Mean	Standard error			
All Grade 6 students	41	208.02	.91	38	207.25	.97	.77	.56	.05
Receipt of services during 2017–2018									
FARMS	27	205.84	1.27	30	203.29	1.19	2.55	.15	.25
Focus Groups									
FARMS Hispanic/Latino	19	206.08	1.93	16	203.89	1.70	2.19	.62	.13

Note. Analyses include students with Spring 2018 and Fall 2018 MAP-M scores. Means are adjusted for demographic characteristics and previous mathematics performance (Spring 2018 MAP-M). Only subgroup analyses with ≥ 15 students in both groups are reported.

Among Grade 6 students receiving FARMS services, comparison of the performance of Summer UP attendees and non-attendees revealed no statistically significant difference. However, a small but practically significant effect ($d = .25$) was observed, indicating that for this subgroup of students, the mean difference in mathematics performance was large enough to be of significance to educators.

Comparison of performance for students in the FARMS Hispanic/Latino focus group revealed no statistically or practically significant difference between the MAP-M scores of Summer UP attendees and non-attendees; other student subgroups did not have enough students to allow advanced statistical analysis.

Grade 7

Among all Grade 7 students, there were no statistically or practically significant differences between attendees and non-attendees in mathematics performance (Table 21).

Table 21
Grade 7 Students' Mathematics Performance: Comparison of Adjusted Mean Fall 2018 MAP-M Scale Scores for Summer UP Mathematics Class Attendees and Non-Attendees

Groups	Attendees			Non-attendees			Mean diff.	<i>p</i>	Effect size (<i>d</i>)
	<i>N</i>	Adjusted Mean	Standard error	<i>N</i>	Adjusted Mean	Standard error			
All Grade 7 students	41	215.28	1.06	32	215.86	1.28	-.58	.73	-.03
Receipt of services during 2017–2018									
FARMS	24	209.42	1.26	18	210.79	1.89	-1.37	.55	-.10

Note. Analyses include students with Spring 2018 and Fall 2018 MAP-M scores. Means are adjusted for demographic characteristics and previous mathematics performance (Spring 2018 MAP-P). Only subgroup analyses with ≥ 15 students in both groups are reported.

Only one Grade 7 subgroup had enough students for advanced statistical analysis: among students receiving FARMS, comparison of the performance of Summer UP attendees and non-attendees revealed no statistically or practically significant difference.

Grade 8

Among all Grade 8 students, there were no statistically or practically significant differences between attendees and non-attendees in mathematics performance (Table 22).

Table 22
Grade 8 Students' Mathematics Performance: Comparison of Adjusted Mean Fall 2018 MAP-M Scale Scores for Summer UP Mathematics Class Attendees and Non-Attendees

Groups	Attendees			Non-attendees			Mean diff.	<i>p</i>	Effect size (<i>d</i>)
	<i>N</i>	Adjusted Mean	Standard error	<i>N</i>	Adjusted Mean	Standard error			
All Grade 8 students	24	219.57	2.99	23	219.17	3.12	.41	.92	.02
Receipt of services during 2017–2018									
FARMS	15	216.18	2.57	16	214.32	2.61	1.87	.81	.10

Note. Analyses include students with Spring 2018 and Fall 2018 MAP-M scores. Means are adjusted for demographic characteristics and previous mathematics performance (Spring 2018 MAP-P). Only subgroup analyses with ≥ 15 students in both groups are reported.

Only one Grade 8 subgroup had enough students for advanced statistical analysis: among students receiving FARMS, comparison of the performance of Summer UP attendees and non-attendees revealed no statistically or practically significant difference.

Summary of Findings for Question 5: Mathematics

Findings for analyses of mathematics performance were similar to those for reading. When the mathematics performance of all students in each of the grades—Grades 6, 7, and 8—was analyzed, the students who attended the Summer UP program did not perform statistically significantly better than the matched comparison groups. The finding of no difference was the same for all but one of the subgroups tested. However, among Grade 6 students who were receiving FARMS services, the difference in mathematics performance between Summer UP attendees and the comparison group was large enough to be of practical significance to educators ($d = .25$).

Conclusion and Discussion

Implementation Findings

Multiple sources, including stakeholder surveys, interviews, and review of program records, provided evidence that many of the features of the Summer UP program were implemented as planned during the Summer of 2018. These features include the program offered three weeks of academic and enrichment programming with transportation and meals at no cost for 6.5 hours per day; the program was successful in recruiting and enrolling at-risk students; and the program maintained moderate levels of attendance from enrolled students. Each site offered a variety of enrichment activities tailored to the unique needs of the student population.

Some features of the Summer UP program align with recommendations described in a recent longitudinal study conducted by RAND (Schwartz, 2018) which examined the effects of summer learning in multiple ways. Specifically, the Summer UP program in MCPS provided both academic and enrichment activities, the academic instruction was scheduled in one block and teachers with relevant content knowledge were hired. Feedback was collected from stakeholders to strengthen program implementation.

Responses from academic and enrichment staff showed positive perceptions of program communication and logistics although a few significant challenges were noted due to the short timeline to develop the program. A majority of academic teachers ($n=13$, 93%), parents ($n=35$, 92%) and enrichment staff ($n=11$, 85%) agreed that communication regarding Summer UP was timely and consistent. Academic and enrichment staff generally had strong positive perceptions about program communication, the role of the site coordinators, preparing for the program, and the overall curriculum. Perceptions were less positive for two items regarding communication that revealed lower levels of agreement by academic teachers and enrichment staff. Only 9 of the 14 (64%) responding teachers agreed they received information on procedures for the summer program (e.g., fire drills); and eleven of the fourteen enrichment staff agreed that they received regular communication from their program or site leaders.

Site coordinators were ultimately able to implement a summer program that provided a wide variety of activities. However, some significant challenges noted by the site coordinators and administrators were largely due to the short time line staff had to develop the program, including: understanding budget processes and details related to the program; determining which students to

recruit; planning enrichment activities; and transportation logistics. Likewise the lowest level of agreement among responding parents was for the survey item related to transportation, with 21 of 36 parents (58%) indicating that the transportation was adequate.

Academic teachers reported lower levels of agreement (21%) with items related to the communication and collaboration with enrichment staff, while ninety percent of responding enrichment staff indicated they collaborated with morning staff about activities implemented in the afternoon.

Previous research suggests that a key benefit of an extended learning opportunity like the Summer UP program is that it helps to close the opportunity gap between students from high-income and low-income families by providing experiences to students that they may otherwise not have access to (McCombs, 2014). Parent survey findings found that students attended the Summer UP program when they would have otherwise been at home during the three weeks of the program; almost three quarters ($n=34$, 87%) of parents indicated that their child would be at home or did not know what they would be doing if they were not attending the Summer UP program. Furthermore, once students enrolled they tended to remain in the program and do so with moderate to high attendance rates of 77% or greater.

The research also strongly suggests that experiences beyond academic learning need to be measured when evaluating a summer program like social emotional skills (McCombs, 2014). Although a specific social-emotional curriculum was not implemented during the Summer UP program, responses across surveys and instruments indicated that students may reap some social-emotional benefits from attending Summer UP, like feeling safe at the program, having positive relationships with adults in the program and promoting positive student behavior. Over 60% of responding students reported that they had at least one adult they could talk to in the program, felt like they belonged in the program and were excited to attend the program. Parents echoed the student responses with almost all saying their child felt safe ($n=38$, 97%), was comfortable attending ($n=37$, 95%) and they would send their child to the program again ($n=35$, 90%). Additionally, all academic teachers and enrichment staff reported that Summer UP facilitated positive behavior among students.

The addition of the enrichment activities may have increased the motivation for students to attend the program. Site coordinators reported deliberately choosing enrichment activities they thought would be of high interest to students. All academic teachers reported that the enrichment activities in the afternoon motivated students to attend the summer program in the morning ($n=14$, 100%) Parents showed slightly less agreement that the afternoon activities increased their child's interest attending ($n=26$, 67%), but most responding parents reported their child enjoyed attending the program ($n=34$, 87%). Over three-quarters (76%) of responding students reported that there was at least one activity of interest to them in the afternoon and seventy percent of students indicated that would participate in the summer program again if given the chance.

Outcome Findings

A comparative analysis of the reading and math performance of Grade 6, 7, and 8 students revealed no statistically significant differences in the performance of Summer UP attendees and non-attendees. Only two student subgroups in each grade were large enough for analysis: students receiving FARMS services, and students in the FARMS Hispanic/Latino focus group.

Two of the subgroup comparisons yielded effects that were large enough to be considered practically significant in an educational setting: Grade 6 FARMS Summer UP attendees performed better in both reading ($d=.20$) and mathematics ($d=.25$) than non-attendees. These measures of effect size suggest a positive impact of the program on rising Grade 6 students, particularly those who received FARMS services.

The small sample sizes made determining achievement effects challenging. Although over 300 students initially enrolled in the Summer UP program, students were distributed across grades and enrolled in variety of subject area courses at each school. This distribution limited the number of students available for analysis by grade and subject (e.g., 8th grade math), and only students who attended at least three quarters of the program days were included. As such, possible achievement effects may be masked due to the small sample sizes

It might be that a combination of experiences over a course of years contributes more to academic attainment and youth development than does one individual program (McCombs, 2017); thus, the academic effects of Summer UP might be hard to discern given that this was the first year of program implementation.

Overall Conclusion

The results of this evaluation suggest that Summer UP provided a structured summer experience with some of the quality characteristics identified in the literature (e.g., Schwartz, et al., 2018). For all students in each grade, the academic outcomes did not show an immediate impact on fall achievement. However, among Grade 6 students who received FARMS services, the effect for Summer UP on both reading and mathematics was large enough to be of practical significance to educators, indicating that, for this subgroup of students, the program may strengthen academic skills. Further, feedback from stakeholders indicated that the design of Summer UP provided opportunities for learning experiences that may build and support socio-emotional skills for students and promote engagement in learning.

Recommendations

Based on the findings of this evaluation, the following recommendations are suggested:

1. With recommended revisions, continue to provide a structured summer learning program for middle school students in MCPS focus schools. Consider specifically targeting rising Grade 6 students since findings in this study suggest the strongest impact on this grade level.

2. Consider expanding the program to at least four weeks, ideally more. Research suggests that the intensity and duration of instruction can impact student outcomes and recommends at least three hours a day in one subject, five days per week, for five to six weeks to observe an impact (Augustine, 2016; Schwartz, 2018).
3. Engage with MCPS curriculum experts to ensure the Summer UP instructional program aligns with the district's curriculum, fits within the instructional time of the summer program and differentiates activities (Schwartz, 2018).
4. Coordinate a meeting for site coordinators and administrators prior to Summer UP implementation to share effective practices from the prior year, as well as provide detailed information related to staffing, payroll, transportation, supply procurement and contracting with the enrichment provider.
5. Ensure school staff and the enrichment staff have time to collaborate prior to the start of the program to jointly plan curriculum, understand policies and procedures related to Summer UP, and to clarify details related to budget and supply lists. In addition, establish regular meetings between school staff and the enrichment staff during the program.
6. Continue to track program attendance and engage in outreach to students whose attendance decreases over the course of the program. Consider using a standard procedure for recording and reporting attendance at the program.
7. Consider the use of pre and post program measures to assess academic and/or socio-emotional benefits of Summer UP. In this way, evaluation outcomes can be aligned more closely with program content and the specific benefits of the program to be identified.

Acknowledgments

The evaluators thank Dr. Elizabeth Cooper-Martin, evaluation specialist, Program Evaluation Unit (PEU), for her careful and thoughtful reviews of the report, Juan Carlos Davila Valencia, evaluation support specialist, PEU, for instrument review, survey translation and review of the final report, and Natalie Wolanin., logistics support specialist and Dr. Nyambura Maina, evaluation specialist, PEU, for assistance with instrument development. We also thank Ms. Maria Allendes, office assistant, PEU, for technical support.

The authors also appreciate assistance in acquiring information and data from Summer UP site coordinators and staff as well as the review of this report provided by Kevin Lowndes, associate superintendent, Office of Special Education.

Finally, the authors thank Dr. Shahpar Modarresi, supervisor, PEU, for her guidance and support throughout this study.

Appendix A

Table A-1
Summer UP Evaluation Information

Evaluation Question	Proposed Methodology	Data Source
1 How was the Summer UP program implemented in MCPS?	In-depth interviews and document analysis	School administration, site coordinators, program documents
1a What were the perceptions of site based coordinators, academic teachers, enrichment staff, and parents/guardians with regard to the <i>curriculum and program operations</i> ?	In-depth interviews and surveys	Site based coordinators, academic teachers, enrichment staff, and parents/guardians
2 What were the perceptions of academic teachers, enrichment staff, parents/guardians, and students with regard to <i>program benefits</i> ?	Surveys	Academic teachers, enrichment staff, parents, and students
3 What were the attendance rates for students who participated in Summer UP?	Descriptive data analysis by school level and MCPS student focus groups.	School site attendance records
4 What was the impact of the Summer UP program on student reading skills? Did the impact of the program vary by the MCPS focus groups?	Data Analysis - ANCOVA	NWEA MAP-R – Spring and Fall
5 What was the impact of the Summer UP program on student math skills? Did the impact of the program vary by the student focus groups?	Data Analysis - ANCOVA	NWEA MAP-M – Spring and Fall

Appendix B

Unadjusted Fall 2018 Reading (MAP-R) Scale Scores

Table B-1
Grade 6 Students' Reading Performance: Unadjusted Fall 2018 Mean MAP-R Scale Scores for Summer UP Attendees and Non-Attendees

Groups	Attendees			Non-Attendees		
	<i>n</i>	Unadjusted Mean	Std. deviation	<i>n</i>	Unadjusted Mean	Std. deviation
All Grade 6 students	41	208.8	12.6	37	205.6	18.8
Receipt of services during school year 2017–2018						
ESOL	10	193.8	15.2	< 10		
FARMS	33	207.7	13.6	28	201.5	18.7
Special education	< 10			< 10		
Focus Groups						
Non-FARMS all other student groups (Monitoring group)	< 10			< 10		
Non-FARMS Black or African American	< 10			< 10		
Non-FARMS Hispanic/Latino	< 10			< 10		
FARMS all other student groups	< 10			< 10		
FARMS Black or African American	< 10			13	202.9	12.8
FARMS Hispanic/Latino	22	206.2	14.5	20	200.7	17.1

Table B-2
Grade 7 Students’ Reading Performance: Unadjusted Fall 2018 Mean MAP-R Scale
Scores for Summer UP Attendees and Non-Attendees

Groups	Attendees			Non-Attendees		
	<i>n</i>	Unadjusted Mean	Std. deviation	<i>n</i>	Unadjusted Mean	Std. deviation
All Grade 7 students	19	207.8	15.6	19	215.1	19.9
Receipt of services during school year 2017–2018						
ESOL	< 10			< 10		
FARMS	15	207.2	16.7	15	216.4	16.0
Special education	< 10			< 10		
Focus Groups						
Non-FARMS all other student groups (Monitoring group)	< 10			< 10		
Non-FARMS Black or African American	< 10			< 10		
Non-FARMS Hispanic/Latino	< 10			< 10		
FARMS all other student groups	< 10			< 10		
FARMS Black or African American	< 10			< 10		
FARMS Hispanic/Latino	13	206.4	17.4	< 10		

Too few Grade 8 students in Reading classes to report

Appendix C

Unadjusted Fall 2018 Math (MAP-M) Scale Scores

Table C-1
Grade 6 Students' Mathematics Performance: Unadjusted Fall 2018 Mean MAP-M Scale Scores for Summer UP Attendees and Non-Attendees

Groups	Attendees			Non-Attendees		
	<i>n</i>	Unadjusted Mean	Std. deviation	<i>n</i>	Unadjusted Mean	Std. deviation
All Grade 6 students	41	207.5	16.3	38	207.1	16.3
Receipt of services during school year 2017–2018						
ESOL	15	194.7	16.5	13	199.9	21.4
FARMS	27	205.3	19.2	30	202.7	13.8
Special education	< 10			< 10		
Focus Groups						
Non-FARMS all other student groups (Monitoring group)	< 10			< 10		
Non-FARMS Black or African American	< 10			13	202.9	12.8
Non-FARMS Hispanic/Latino	< 10			< 10		
FARMS all other student groups	< 10			< 10		
FARMS Black or African American	< 10			< 10		
FARMS Hispanic/Latino	19	206.6	18.0	16	202.6	15.4

Table C-2
Grade 7 Students' Mathematics Performance: Unadjusted Fall 2018 Mean MAP-M Scale
Scores for Summer UP Attendees and Non-Attendees

Groups	Attendees			Non-Attendees		
	<i>n</i>	Unadjusted Mean	Std. deviation	<i>n</i>	Unadjusted Mean	Std. deviation
All Grade 7 students	41	213.0	17.4	32	218.9	20.5
Receipt of services during school year 2017–2018						
ESOL	< 10			< 10		
FARMS	24	208.7	16.9	18	212.5	18.7
Special education	< 10			< 10		
Focus Groups						
Non-FARMS all other student groups (Monitoring group)	< 10			< 10		
Non-FARMS Black or African American	< 10			< 10		
Non-FARMS Hispanic/Latino	< 10			< 10		
FARMS all other student groups	< 10			< 10		
FARMS Black or African American	10	212.7	16.5	< 10		
FARMS Hispanic/Latino	13	203.7	15.8	11	211.9	14.2

Table C-3
Grade 8 Students’ Mathematics Performance: Unadjusted Fall 2018 Mean MAP-M Scale
Scores for Summer UP Attendees and Non-Attendees

Groups	Attendees			Non-Attendees		
	<i>n</i>	Unadjusted Mean	Std. deviation	<i>n</i>	Unadjusted Mean	Std. deviation
All Grade 8 students	24	219.79	20.1	23	219.6	17.4
Receipt of services during school year 2017–2018						
ESOL	< 10			< 10		
FARMS	15	219.6	20.7	16	214.8	15.9
Special education	< 10			< 10		
Focus Groups						
Non-FARMS all other student groups (Monitoring group)	< 10			< 10		
Non-FARMS Black or African American	< 10			< 10		
Non-FARMS Hispanic/Latino	< 10			< 10		
FARMS all other student groups	< 10			< 10		
FARMS Black or African American	< 10			< 10		
FARMS Hispanic/Latino	< 10			< 10		

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