



2016 Brain Forest Report

PROGRAM DESCRIPTION

The Brain Forest Summer Learning Program is a full-day, five week academic enrichment program offered by the Montgomery Education Foundation (MEF) in partnership with Montgomery Public Schools (MPS), the City of Montgomery and Montgomery Parks and Recreation Department (MPRD), the Montgomery County Commission, Central Alabama Community Foundation, Kiwanis Club of Montgomery Foundation, The Junior League of Montgomery, MT Selby Fund, BBVA Compass Bank, Till Family Charitable Fund, Loeb Family Fund, The Working Women's Home Association, Alpha Kappa Alpha Sorority, Inc., Beta Nu Chapter, and the Montgomery Area Food Bank.

The primary goal of the program is to prevent the academic skill loss that most students experience when their minds are not actively engaged during the summer.

The program was piloted in 2013 with 49 rising fourth grade students. Following the first year, key changes were made as part of a continued pilot. In 2014, the second year of the program, a total of 168 rising fourth, fifth and sixth grade students were enrolled and assigned to one of two school sites, Nixon Elementary and Carver High School. In 2015, the third year of the program, key changes were made as part of the continued pilot, serving an increased number of 204 rising fourth, fifth, and sixth grade students. In 2016, the *fourth* year of the program, a total of 237 students were enrolled; 230 students in attendance; 72 rising fourth grade students, 74 rising fifth grade students, and 84 rising sixth grade students. All students were served at Carver High School in one of 13 classrooms. Of the participating students, 85% qualified as low-income, and nearly 20% were returning "brain foresters." Participation was first-come, first-serve and was open to MPS students. Students from a total of 30 different MPS schools enrolled. Students enrolled through MEF; once enrolled in Brain Forest, students were dually enrolled through Montgomery Parks and Recreation Department for afternoon recreation activities.

The **four** key components of the program - academic instruction, cultural and arts enrichment, physical activity, and nutritious meals – were based on best practices. Students began each morning with breakfast, followed by three hours of reading and math instruction using a **project-based approach** in the classroom. After lunch, students participated in cultural and arts enrichment and physical activities provided by MPRD, a variety of community partners, and the Brain Forest Classroom Assistants. Fridays were reserved for field trips and other fun, enrichment activities.

This year, The Brain Forest Summer Learning program dedicated focus to two key areas: **parental engagement** and continued expansion of **professional development** for our teachers. For example, a parent orientation night was held over two days to meet the convenience of parental schedules. Parents were afforded the opportunity to meet their child's teacher, ask clarifying questions, and become more acclimated with offered programming. Secondly, teachers received a full week of training that encompassed two days of learning centered on project based learning in the classroom—led by Beth Sanders, Instructional Technology Director, Enterprise City Schools System. They also received ongoing, weekly professional development (2 hr. sessions) during the program, culminating in earned CEU credits for the first time in the program's history. MEF also partnered with MPS to make the training available to all MPS teachers.

Additional Highlights:

- Weekly financial literacy seminars for 5th grade students - provided by BBVA Compass
- *The Drum Circle* – a community building and leadership activity for 5th grade students
- Increased teacher and parental communication through *Remind* technology
- Increased staff communication through *GroupMe* technology
- Afternoon enrichment groups led by Montgomery Parks and Recreation Dept. (MPRD) and Classroom Assistants; MPRD offered kayaking, water play, swimming, archery and horseback riding.
- Assessment tool used (*Scantron Achievement Series*, formerly *Global Scholar*)
- Increased student enrollment
- Partnered with Starbase to provide STEM programming for 6th grade students
- Daily breakfast cereal and orange juice and milk (both provided by Borden Dairy Company)
- Partnered with Montgomery Area Food Bank to provide daily snacks and water
- Partnered with Junior League of Montgomery to provide on-site photographer

Academic Instruction

Students of all abilities were divided into classroom groups. Each classroom was led by a **certified teacher** and a **classroom assistant**. The classroom ratio was approximately 18:2, with 9 students for every teacher and classroom assistant. Two experienced **Instructional Directors** guided teachers through Scantron assessments, lesson plan development, behavior management, and professional development.

As part of a strategic teaching approach, MEF consulted with MPS Curriculum Department to **identify targeted standards per grade level with a keen focus on standards with typical low performance**. Using Scantron, pre and post tests were created to hone in on the

aforementioned deficits in both reading and math; the tests measured proficiency levels of the students at the beginning and culmination of the program.

Reading instruction was centered on novels which varied by grade level. The fourth grade students read *Lemonade War* by Jacqueline Davis, fifth grade students read *Wonder* by R.J. Palacio, and sixth grade students read *Out of My Mind* by Sharon Draper. Instructional activities focused on building skills like reading comprehension and vocabulary through **project-based** learning.

Math instruction was hands-on, with teachers utilizing a **project-based approach with students including manipulatives and activities outside of the classroom**. Teachers had access to SMART Boards as well as a class set of **16 iPads** for instruction. Teachers and students utilized apps such as Haiku Deck, Educreations, AdobeVoice, and QR Reader throughout the program. The program culminated with each grade level creating a short video presentation of all of their accomplishments during the program.

Nutritious Meals

On average, only one in seven children in the United States who are eligible to receive free and reduced lunch during the regular school year has access to these meals during the summer. With this fact in mind, the Brain Forest Program offered **breakfast** and **lunch** to every child daily. Lunch was provided through the USDA Summer Feeding Program. Snacks and bottled water were provided by the Montgomery Area Food Bank.

Cultural/Arts Enrichment and Physical Activity

In the afternoon, students engaged in a variety of enrichment activities. A change to the program this year included adding two afternoons a week of STEM activities led by the **Starbase** team. On Tuesday and Thursday afternoons, 6th grade students participated in Starbase 2.0., a program that centered on biology, chemistry, robotics, engineering, and energy. The kinesthetic portion of the lessons included students designing popsicle stick bridges; building robots; constructing DNA models out of gumdrops; exploring fingerprinting and bacteria swabs; and using technology for graphing.

Once a week, 5th grade students received **financial literacy** lessons, led by a team of *BBVA Compass* professionals. Students studied budget concepts for shopping; built fundamental, financial vocabulary; created spending plans with an emphasis on wants vs. needs; identified and calculated currency; integrated the function and usefulness of money with real world scenarios; and used mental computation for estimation and rounding.

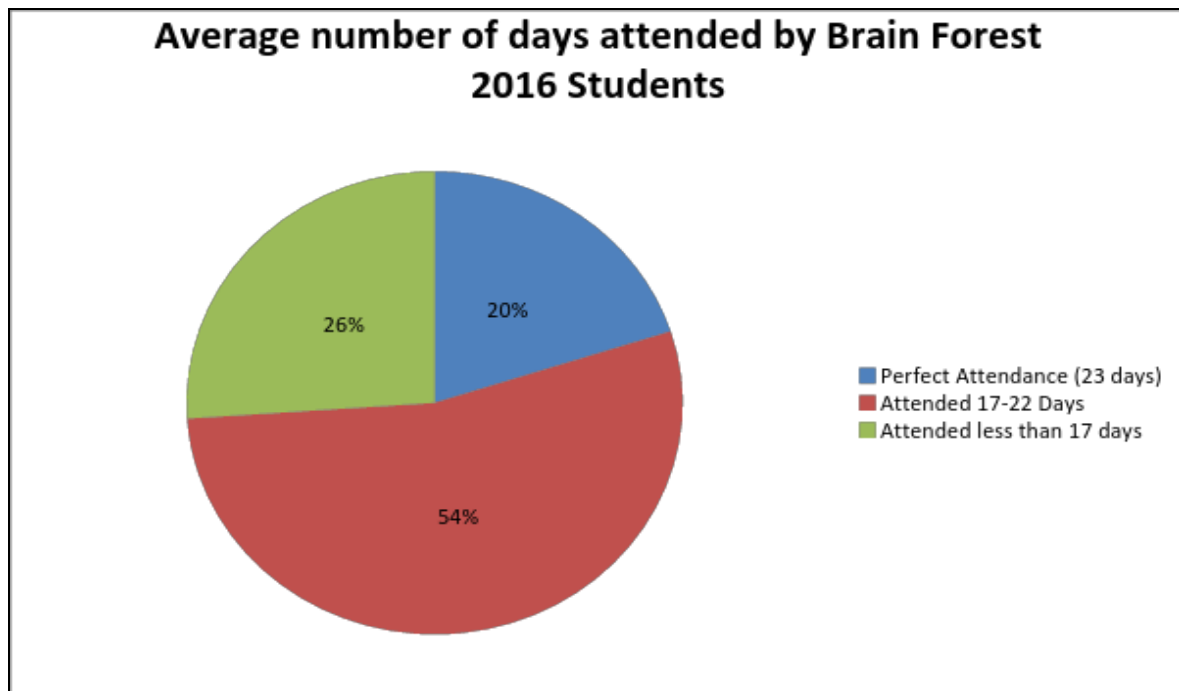
On Friday mornings, student continued their learning on **field trips** throughout the Montgomery area. This year's visits included the Civil Rights Memorial Center; Museum of Fine

Arts; the Arboretum provided through Montgomery Public Schools; the Montgomery Zoo; Governor's Mansion; Old Alabama Town; Alabama Dept. of Archives and History; and the Montgomery Police and Fire Station. Students also received two on-site field trips provided by WAKA's Meteorology Department and *Reading on Wheels*. Upon return from their field trips, students participated in activities led by Parks and Recreation.

In addition to these activities, students also participated in a variety of enrichment and physical activities through our partnership with MPRD. These activities occurred weekly and included swimming, horseback riding, kayaking, water play, and archery.

RESULTS

Attendance



Note: The *Brain Forest* Summer Learning Program is traditionally a 5-week program; moreover, only 23 instructional days are recognized due to the following events – July 4th and the last day of the program (Celebration of Learning event).

■ **46 Students (20% of student population)** had **perfect attendance**, attending all 23 days of the program.

■ ■ **170 Students (74% of student population) attended 75% to 100%** of the program, ranging from 17-23 days of the program.

■ **Only 60 Students (26% of student population) attended less than 17 days** of the program.

**Overall, student attendance is higher than previous years. In 2015, the average attendance rate was 73%, increasing to 85% in 2016. Best practices indicate program attendance should be above 80%.

- ❖ 2016 Average Student Attendance: 85% (20 days of the program)
- ❖ Student Enrollment: 237
- ❖ Student Attendance: 230

Scantron Achievement Series Reading and Mathematics Assessment

The *Scantron Achievement Series* Assessment was used as a **pre** and **post** test administered to all participating students during the first and last week. This Alabama-normed assessment is intended to measure proficiency in reading and math standards. As mentioned, targeted standards (deficiencies seen across the District) were identified and measured in reading and math.

On



average, no loss in math or reading was experienced:

- **Reading:** The greatest improvement in scores on average was a 7% gain across all three grade levels.
- **Math:** A 4% gain was experienced across all three grade levels.

Figure 1: Reading Proficiency

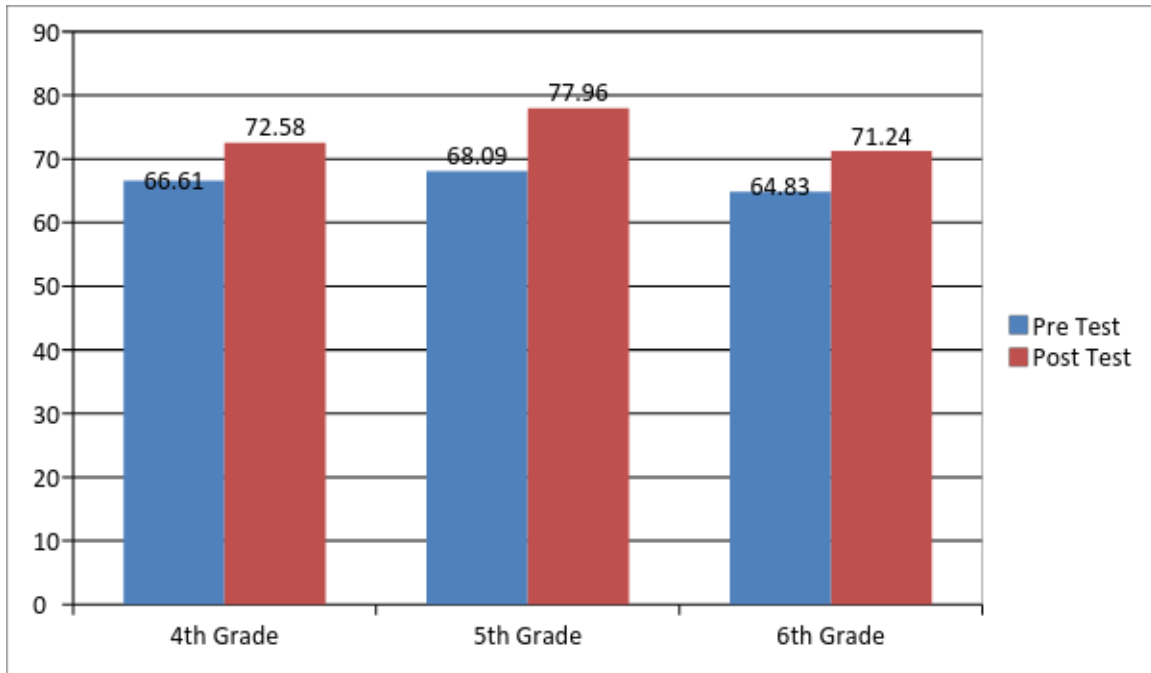


Figure 2: Math Proficiency

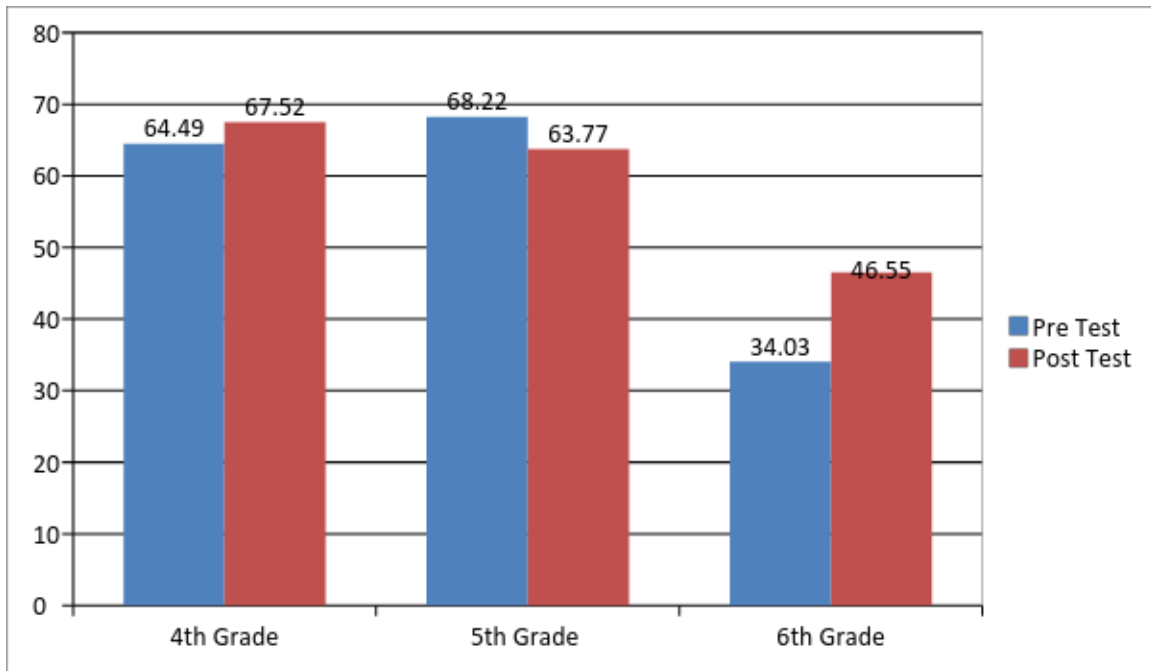
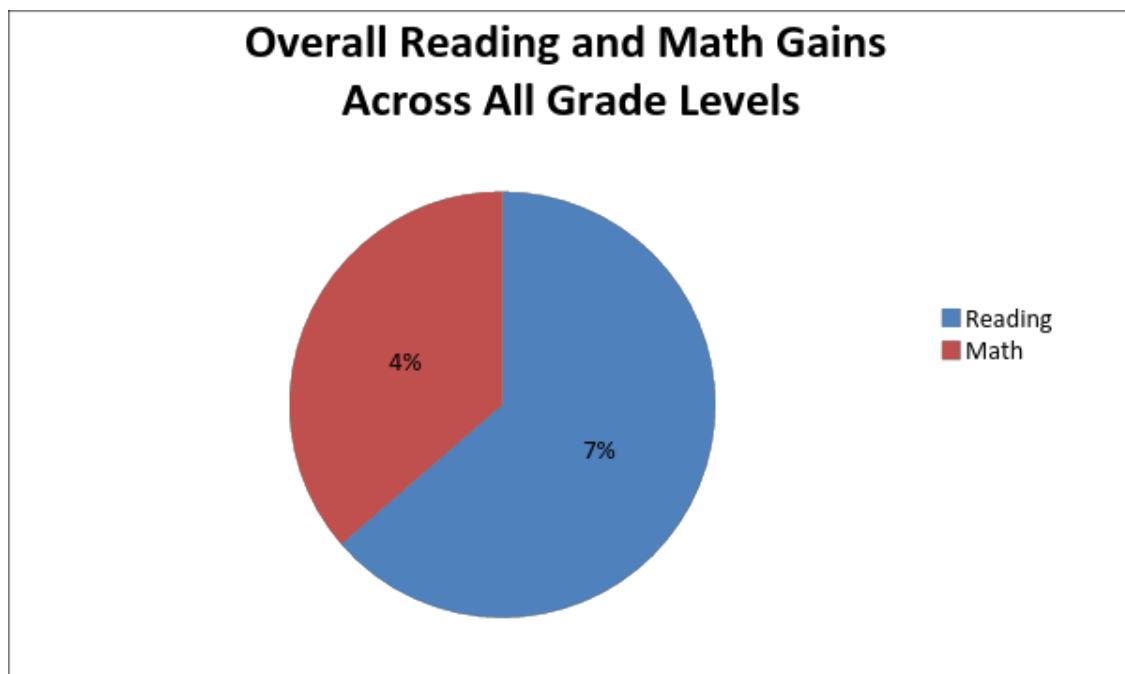
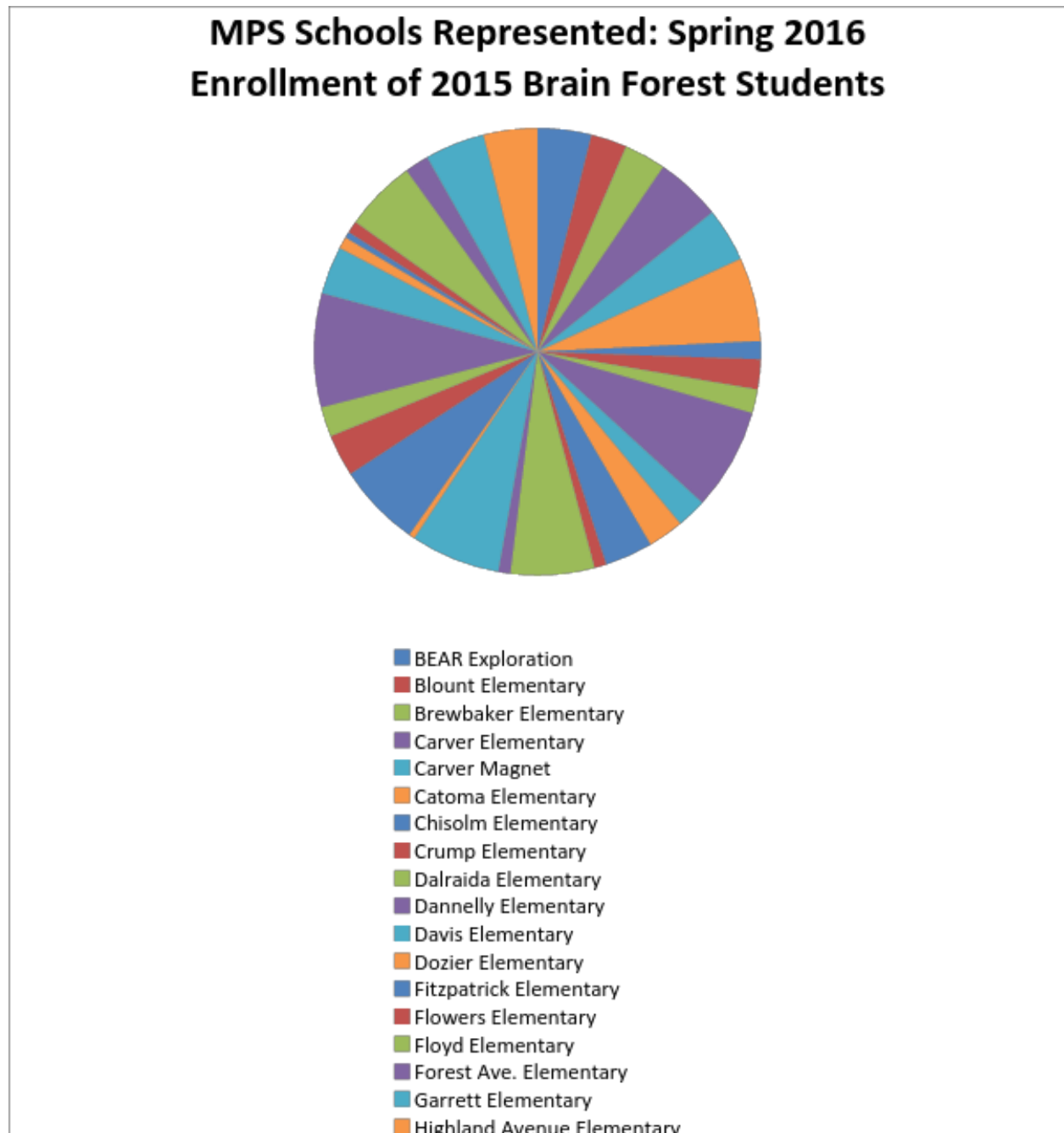


Figure 3: Overall Gains



MPS Schools Represented (Enrollment from Spring 2015)



- 30 MPS elementary schools represented

- **Schools with the highest numbers:**, Dannelly Elementary, Garrett Elementary, Catoma , Macmillan International, Halcyon, and Floyd

Returning Students: Overall, there were a total of 43 returning students, which is 18.60% of the population.

- ❖ 28% from 5th grade; 23% from 6th grade.

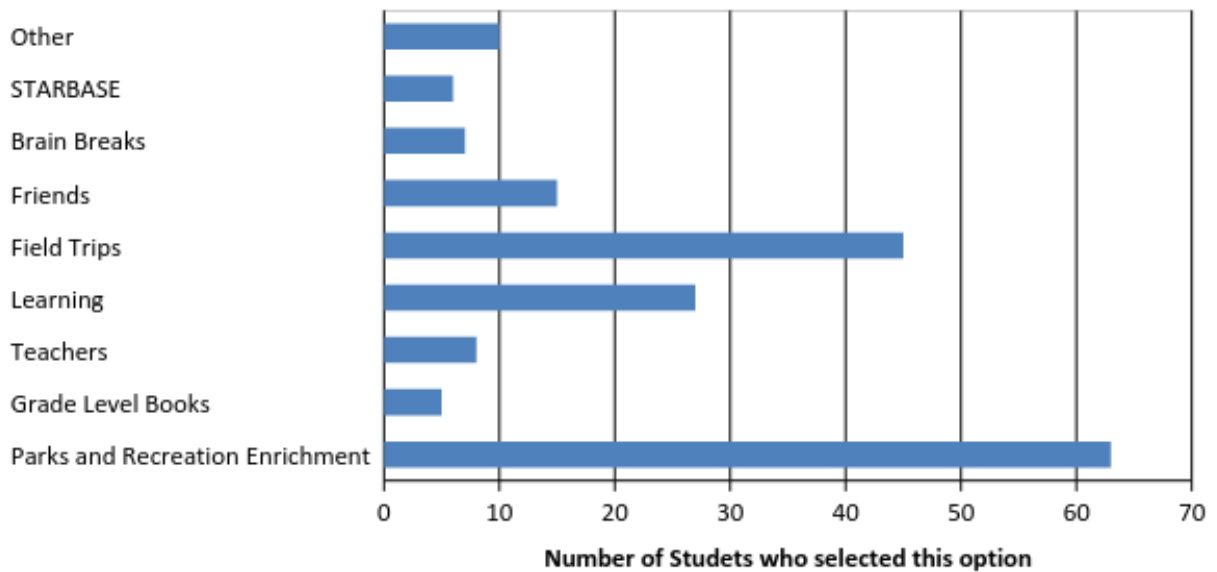
SURVEYS

Student Survey Results

Students in all three grade levels received a survey that they completed anonymously on site during the final week of the program. In total, 168 students (73% students represented) completed the survey.

92%	Agreed/strongly agreed that the program was fun
98%	Agreed/strongly agreed that their summer teachers care about them and want them to do their best
77%	Agreed that they learned new things about math and reading
83%	Agreed that they learned new ways to think during the summer
75%	Agreed that they would want to attend the program next year

What did you like most about the 2016 Brain Forest Program?



From the Voices of Our Students:

“What I liked most about Brain Forest was that they turned learning into something fun.” – 5th Grader

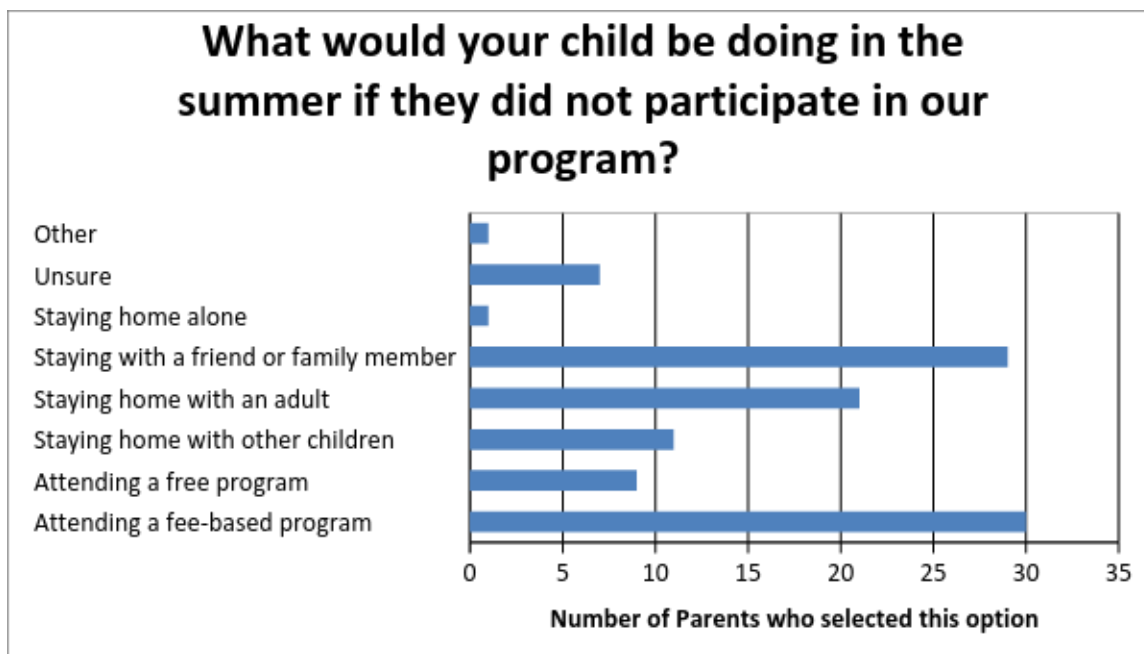
“The thing I like most about the program is that my teacher is teaching me new things. I appreciate my teacher.” – 4th Grader

Parent Survey Results

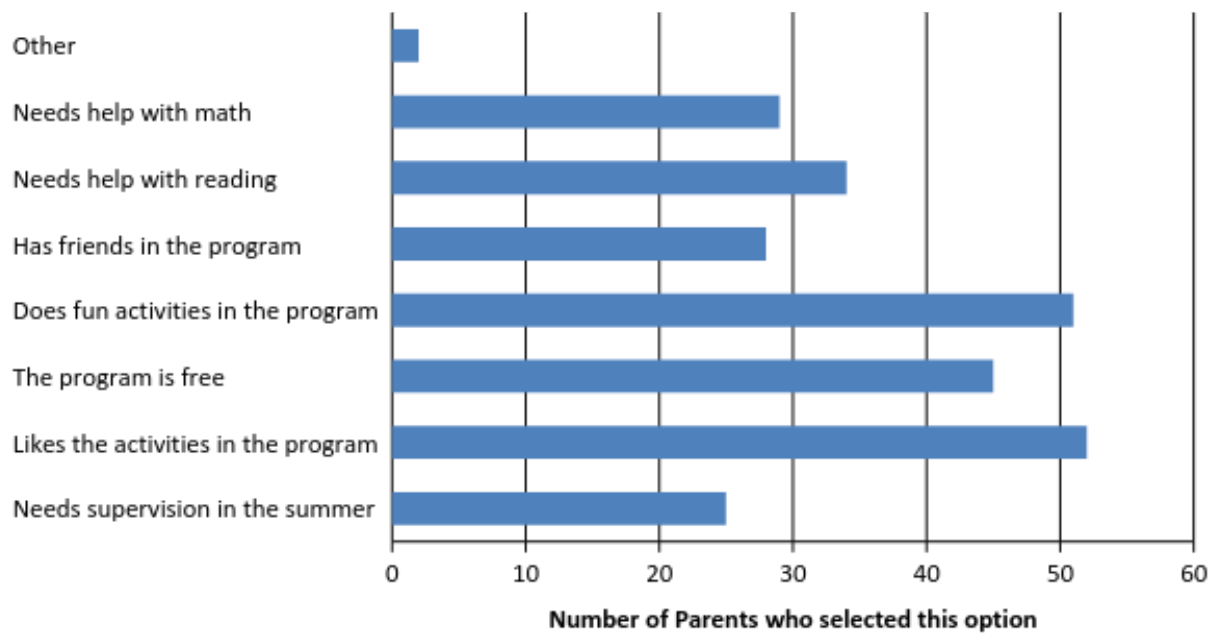
Parents/guardians of students in all three grade levels received anonymous surveys during the final week of the program. In total, 70 parents and/or guardians surveyed out of 230 (30% of parents are represented in the post survey).

94%	Rated the Brain Forest Program as good or excellent.
90%	Agreed or strongly agreed that Brain Forest staff were courteous and competent.
64%	Agreed or strongly agreed that they were satisfied with the level of communication between the Brain Forest staff and parents.

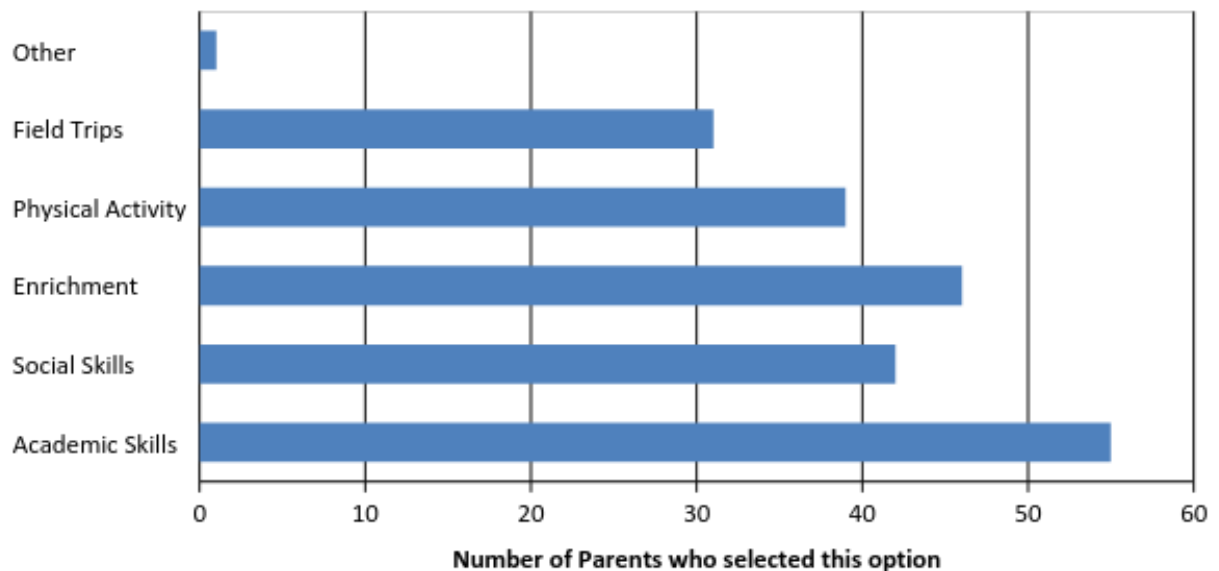
89%	Agreed or strongly agreed that their child's self-confidence in his or her math and reading skills improved during the summer.
89%	Agreed or strongly agreed that they would enroll their child again if the program is offered in summer of 2016.



Why did your child attend the summer program?



What activities are most important for your child to experience during their time in our program?



Staff Survey Results

Teachers and Classroom Assistants in all three grade levels received anonymous surveys during the final week of the program. Twelve teachers out of 13 submitted surveys, representing 92% of teacher survey data. Nine classroom assistants out of 13 submitted surveys, representing 69% of classroom assistants' data.

Training:

75%	Rated training week a 7 or above on a scale of 1 to 10 Two teachers rated it a full 10
100%	Agreed that the professional development was useful
83%	Agreed that training prepared them

Professional Growth:

100%	Agreed that they grew professionally during the program
100%	Agreed that they learned new skills, lesson, and approaches that they could take into their classroom during the school year
100%	Agreed that they felt that they made a difference in their students' lives

Implementation:

100%	Agreed that they will use what they learned in Brain Forest in their classrooms during the school year.
100%	Agreed that PD will be helpful to them in their classroom during the school year

Future Declarations:

83%	Agreed that they would want to teach again for the program
92%	Said they would recommend this program to their peers

When asked about their best experiences with The Brain Forest program, staff members responded with the following common themes:

- Relationships were built with other staff members (teachers and assistants).
- Professional development was useful during the program and will be in their own classrooms.
- New skills, lessons, and project based approaches were learned and valued from *Leaders of Their Own Learning* by Ron Berger.
- Confidence as an educator was evident
- Professional growth occurred using project-based learning
- The freedom of teaching to be creative and meet students' needs were valued
- Data and learning targets used in the classroom were appreciated

CONCLUSION AND RECOMMENDATIONS

The fourth year of the Brain Forest Summer Learning Program saw the successful prevention of summer learning loss. Through experimentation with various partners and scheduling, it continues to remain clear that the program operates most smoothly when incorporated within an existing enrichment program at a school site.

In its fifth year, the Brain Forest Program will strengthen the existing framework to allow for continued growth in enrollment, continue to diversify funding and support through community partnerships, and will continue to develop as a professional development institute for teachers and emerging education leaders. With these goals in mind, we present the following recommendations for the program:

Student Enrollment, Attendance and Parental Engagement

- Continue to serve rising 4th, 5th, and 6th grade students. The need among these grade levels is high and they are critical turning points in a child's academic career.
- Make concerted efforts to improve student attendance and consider incentivizing participation in the program through both students AND parents, i.e. students are entered into a drawing on testing day AND on the Celebration of Learning event; an attendance percentage to be set in order for students to be entered in drawings; parent drawings to include back-to-school items that could alleviate the stress of back-to-school.
- Research and implement more diverse tools for improving parent/guardian communication and involvement – ie. Implement one technology communication tool from both MEF and teachers
- Work more closely with MPS to identify and enroll students from across the district at greater numbers from **targeted** schools.
- Implement verification system for attendance – ie. must present last report card
- Implement an online application to meet the time constraints of MEF and provide convenience for parents.

Partnerships, Funding and Support

- Continue to diversify funding and support in order to establish a more stable and broad foundation for continuation of the program and specific program components, ie. character/social and emotional development.
- Work with current partners to continue expanding the program, either through increased collaboration or a change in collaboration model.
- Work with current partners to continue growth of shared ownership of the program.
- Identify new community partners to assume ownership over the program moving forward, ie. MA's Philanthropy 101 students

Teachers

- Continue to implement a six-week professional development curriculum centered on the chosen professional development text, i.e. *Leaders of Their Own Learning* by Ron Berger.
- Recruit teachers from **targeted** schools through school meetings in the fall
- Continue communication and support of previous Brain Forest teacher "alumni" to spread professional development influence into the MPS system.
- Network with previous staff to develop and strengthen relationships with MPS elementary and middle schools.
- Increase collaboration of CAs and teachers to build culture

Enrichment

- Continue to work with existing enrichment partners, as they have more experience and resources than MEF alone.
- Implement community enrichment for 4th graders, ie. social justice and service curriculum
- Continue implementation of STEM instruction.

The 2013, 2014, 2015, and 2016 pilots have provided valuable and extended insight into the successful impact a high quality program can deliver to prevent summer learning loss. The experience, knowledge, and conclusions gained during four continuous summers will inform MEF's vision for the future of the program. This work will also inform and support all community programs that serve or are considering serving children during the summer months.

Of particular note, it became evident again this year the scope of the demand for the program as all three grade levels filled up and had considerable wait lists with little push for publicizing registration. The impact of the program is being recognized as the program gains visibility in the community. This highlights the importance of increased partnerships and diverse funding, support and ownership of the program in order to allow the program to grow to meet demand. This work will require continued work with new and existing partners throughout the city of Montgomery and the state of Alabama.

The 2017 program will focus on piloting the long term scalable model that provides the greatest impact for students delivered in the most efficient manner to reach the most children in our community.