# eureki! 

engage. discover. learn.

# BALTIMORE CITY PUBLIC SCHOOLS <br> 200 EAST NORTH AVENUE BALTIMORE, MD 21202 

# Data From Schools 

$$
\text { July 5th } 2022
$$

Good afternoon 00A,
You will find attached to this document several studies to help you understand the work we do with Title 1 children.

## Here's a bit of context to help your review.

1. We are currently a successful vendor for Baltimore City Schools, most recently approved for PQS Extended Learning Services 2021-1, with a total budget of $\$ 2,250,000$ to be used in the next three years. (Under Simplify Math Engagement Center LLC)
2. We are a small, (under 500 K in revenue in 2021), local (Baltimore County) based, certified minority owned (\# 21-001) woman owned business that is 3 years old in August 2022.
3. Our specialization is in mathematics which is a key area of focus and interest for Baltimore City Schools. We most recently met with members with the Office of Teaching and Learning specifically - Kerry Steinbrenner (Teaching and Learning Coordinator for Mathematics) and Matt Barrow, (Coordinator of Multi-tiered Systems of Support). Ms. Steinbrenner expressed she is getting requests for math help and based on our data, she suggested that we market our services to schools in the city that have needs in math and English.
4. Given your October 15th 2021 ESSA Consolidated Strategic Plan, our work addresses many of the identified priorities - specifically Expanded Enrichment Opportunities, Algebra Readiness in the Middle School for the Summer and School Year, Small Group Targeted Intervention, and increasing pedagogical knowledge with your math teachers. In these categories which you will read, we have quantifiable evidence of our effectiveness through both student scores as well as teacher/parent/student feedback.
5. We are a young, small, local company doing very good work in Baltimore City and would like to expand our work to ensure we use the funding the city has allotted. Your existing staff from Teaching and Learning requested that we work together to provide the support and data required to help them with continued ESSA funding.

Please feel free to give me a call or contact me directly if you have any questions. I'm eager and excited to present some of our good work to you for your review.

Warmest regards,

Phyllis Hillwig EdD
CEO and Founder
Simplify Math Engagement Center LLC (DBA Eurekii Learning)
cell: (443) 562-1086
phyllis@eurekii.com

## Study 1: Math and Science Preparation for Test of Essential Academic Skills (TEAS Prep for Nursing School Entrance)

We will need to hire the three secondary English teachers for both camps. They will work from June 29-August 7, 2020. It is possible to pay a one-time flat fee for the teachers to ensure they are paid in a timely manner. It is proposed that we will contract each teacher at a flat fee of $\$ 2500.00$ for the combined Summer camps.
have spoken with Dr. Anderson regarding the continuation of Dr. Hillwig 's contract until August 30, 2020, which will conclude the PEMSS funding period. Dr. Hillwig will provide the math academic support for the 2-week PEMSS Summer camp as well as the five-week Summer Melt Camp. Dr. Hillwig's contract will be funded under the Summer Melt Camp August 2020-September 2020. Please let me know the process to move this request forward.

We will need to hire the three secondary English teachers for both camps. They will work from June 29-August 7, 2020. It is possible to pay a one-time flat fee for the teachers to ensure they are paid in a timely manner. It is proposed that we will contract each teacher at a flat fee of $\$ 2500.00$ for the combined Summer camps.

| Targeted Students | Seniors, part of the GEAR Up program on the Allied Health Track |
| :--- | :--- |
| School | Edmondson WestSide High School |
| Partners/Funders | Morgan State University Department of Nursing |
| Description of the <br> Study/Interventio <br> n | Morgan State purchased ATI TEAS (Test of Essential Academic <br> Skills) electronic test prep tool to help Edmondson seniors <br> interested in allied health to test into nursing programs of their <br> choice. Approximately 20-25 seniors were in a class that had <br> students working through the online assessment preparation <br> platform starting September 2019. The class was not graded and <br> was supplemental to support their trade interest. <br> Within a few weeks, it was evident to the Morgan State team that <br> the students were not making progress with the technology tool <br> purchased. The scores remained unchanged and the students were <br> not engaged with the material, finding it too difficult despite the <br> videos and the personalized support. The average test score among <br> the group in math and science was less than 30\% proficiency. <br> Anticipating the lack of student progress would have negative <br> implications to their grant, Morgan State hired Eurekii (known then <br> as Simplify Math Engagement Center) to run in-person, small group |

$\left.\left.\begin{array}{|l|l|}\hline & \begin{array}{l}\text { intervention to support the math and science content found on the } \\ \text { TEAS test. The Eurekii team (3 tutors and a lead) came consistently } \\ \text { for 1.5 hours 2x a week for a total of 10 weeks during the fall of } \\ \text { 2019 and part of 2020 until schools were shut down for COVID. }\end{array} \\ \text { Intervention: Eurekii took the topics from the TEAS prep course } \\ \text { and outlined key skills required to master those topics. Prior to each } \\ \text { session, students would take a pre-quiz (3-5 questions) to } \\ \text { determine skill-level. The students then broke into groups of 4-5 } \\ \text { rotating 15 minutes between 4 stations (fluency, problem-solving, } \\ \text { test prep strategies, content/concept review). For example, if Ratio } \\ \text { and Proportion was a key topic, student groups would have 3-5 } \\ \text { questions on ratio topics similar to ones on the TEAS test. They } \\ \text { would then go through rotations of finding ratios (fluency), working } \\ \text { on word problems with ratios, practicing problems from the test } \\ \text { that have ratios, and then reviewing what a ratio was conceptually). } \\ \text { At the end of the session, students took a post-test quiz (similar 3-5 } \\ \text { questions) to determine whether they have mastered the skills that } \\ \text { were part of the pre-test. Each session had prior as well as new } \\ \text { skills to test mastery and understanding. While there were science } \\ \text { supports as well, the majority of the focus was on math. }\end{array}\right\} \begin{array}{l}\text { Results: Of the 20 students, 9 of them came consistently and } \\ \text { worked through the intervention with the Eurekii team. for those } \\ \text { that came, their TEAS tes-prep scores were significantly higher than } \\ \text { without the intervention. Most of them with an average score in } \\ \text { both math and science no less than 78\% proficiency. }\end{array}\right\}$

| Dates of Study | October 2019 - January 2020 |
| :--- | :--- |
| Other Factors to <br> Consider | Most of the pre and post-test quizzes were done on paper (because <br> it was math and we wanted to see their work) and we did not keep <br> student records electronically after the program for student privacy <br> reasons. Because we were a vendor to Morgan State and not part of <br> Edmondson Westside staff, we didn't have access to the cumulative <br> test scores that were in an electronic database at the school. If you <br> contact the school, they may have their pre and post-test scores to <br> verify our averages and records. |
| Of the 20-25 students in the class, 9 that were consistent but the <br> rest were consistently late, absent, or inconsistent with respect to <br> attendance and therefore were not counted in our post-test <br> reporting. If the class was a requirement for graduation, we believe <br> that more students would have improved with the intervention. |  |

Study 2: YouthWorks - Summer College and Career Readiness

| Targeted Students | Graduated Seniors - YouthWorks Program- College Readiness |
| :---: | :---: |
| School | Edmondson WestSide High School |
| Partners/Funders | Morgan State University Department of Nursing |
| Description of the Study/Interventio n | Upon the success of the fall TEAS prep program, Morgan State asked Eurekii to support a five-week summer program (College Readiness) for recent graduates to participate in small group virtual math and English review, anticipating the students will need to have a minimal Accuplacer score to test out of developmental English and Math courses if entering college or trade. <br> Approximately 20 5th/6th year seniors were invited to participate in the camp from mostly Edmondson Westside High School and a few from Douglas High School. About 15 attended regularly working in small groups based on ability. The groups were fluid, so that if a student was strong in one topic, they moved to another group working on the same topic but at a deeper level. <br> Intervention: The students participated 3 hours each day, two days a week for 5 weeks. The first 1.5 hours was dedicated to math, the other 1.5 to English. Each student was in one of three small groups (5-7 students in a group) and logged on virtually with an assigned tutor. The tutoring team went through the topics required for success in Accuplacer math focused skills, fluency, problem-solving, and test-taking strategies. <br> Results: Most of the students stayed on the five week summer program and developed a strong relationship with the tutors and the other students in the group. |
| Quantifiable Data and Evidence of Growth Summary | Due to the fact that the camp was entirely virtual, and the program leaders did not want the graduates to think of this as 'school' but an optional prep class to get them ready for college, we did not have a pre and post-test instrument to use for measurement of student growth. However, we did provide a student survey and their results (screenshots) are below. For the full survey results, please contact phyllis@eurekii.com and I will send you the entire excel file. |
| Contact for <br> Further Validation | Joice Stokes-James (retired) main coordinator for the program. Maija Anderson - Assistant Professor, Director of Nursing, School of |


| of the Study | Community Health \& Policy maija.anderson@morgan.edu |
| :--- | :--- |
| Dates of Study | July 2020 - August 2020 |
| Other Factors to <br> Consider | While we did also complete English/reading intervention the only <br> student survey available was the math one. Based on lessons <br> learned, we would include a pre and post-test to document gains. |


| Full Name |  |
| :--- | :--- |
| 15 responses |  |
| Jaleah Jupiter |  |
| Destiny Houston | Shayla Kennedy |
| jasmine Norris | Juwel Lewis |
| Jamal Jackson Jr | TiVonna Allen |
| Jolie Blackshear | tashawna Wesper |
| Armonie Small | Bria A Lawson |
| Jordan Willis | Florence Kanneh |

Would you recommend this experience to a friend?Copy
15 responses


- Yes
- No

What did you get most out of the sessions? Check all that apply.Copy
15 responses


Did your confidence in math increase after coming to these sessions?Copy
15 responses


## - Yes

- No

It stayed the same

Did you use Khan Academy to practice your skills in math?Copy
15 responses


Please share any other feedback you'd like us to know.

```
15 responses
```

N/A

Maybe don't go over stuff again if nobody said they needed it.

I honestly think it was a great five weeks, I don't have any feedback.

Jamal Jackson Jr

I have learned more and I am more confident with tests, quizzes and the s.a.t. now.

I've really enjoyed working with my tutor these past weeks he's been really helpful and patient with me.
i was very satisfied with my learning experience, the teachers made learning the new concepts a very smooth process. and brought concepts i never understood to new and brighter light.

Just so you know I understand Math for a while so mostly everything you taught us I already knew thank you for the more information you gave me about math.

The session was great! I was able to review material that I thought I had forgotten. Nikita was a great tutor, I loved his teaching methods.

I just want to thank you guys for all the help, I needed it. Y'all were very helpful.
none

Don't be boreding

This program helped prepare me for job interviews and college. It's very helpful.

It was a really cool experience for me and it definitely helped me a lot.

Study 3: One-on-One Tutoring for APEX Seniors

| Targeted Students | Seniors at risk of not graduating, using APEX Learning tools |
| :--- | :--- |
| School | Edmondson WestSide High School |
| Partners/Funders | Morgan State University Department of Nursing (Sept 2020-May <br> 2021 ) |
| Description of the <br> Study/Interventio | Intervention: Edmondson wanted us to be available for 1-1 tutoring <br> as needed during the school year to provide additional support for <br> those who are at risk of not meeting graduation requirements. |


| n | Initially, we created a schedule for the students and teachers to use, <br> knowing when support was available based on the subject or topic <br> at hand. This worked some of the time, but the majority of the time, <br> the students or teachers/coordinators reached out to use directly to <br> get support for individual students. |
| :--- | :--- |
|  | For the duration of the school year in 2020-2021 we worked with a <br> minimum of 10 students, providing 1-1 tutoring as needed. |
| Our one-on-one tutoring sessions had a few key elements - tutors <br> who were Socratic, relatable, who had content mastery and strong <br> pedagogical training. These are based on research-based best <br> practices in effective tutoring instruction. We used the research <br> below to inform our one-on-one tutoring strategies. |  |
| Best Practices for Tutoring Strategies <br> Lepper, M. R.,Woolverton, M. (2002) The Wisdom of Practice: Lessons <br> Learned from the Study of Highly Effective Tutors. Improving Academic <br> Achievement, (7): http://cachescan.bcub.ro/e-book/E2/580695/135-208.pdf <br> Wood, W.B., Tanner, K.D. (2012) The Role of the Lecturer as Tutor: Doing <br> What Effective Tutors Do in a Large Lecture Class. CBE-Life Sciences <br> Education, (11):3-9. http://doi.org/10/1187/cbe.11-12-0110 <br> High-Dosage Tutoring <br> Safran, S., Slavin R.E., Manko, J. Manekin, S., (2021) Literacy Tutoring for <br> Baltimore: What We Know, Where We Are, and How to Move Forward. The <br> Abell Report. Volume 34, No. 2 <br> https://eric.ed.gov/?id=ED613417 <br> de Ree, J., Maggioni, M.A., Paulle, B., Rossignoli, D., Ruijs, N., Walentek, D. <br> (2021) Closing the income-achievement gap? Experimental evidence from <br> high-dosage tutoring in Dutch primary education. <br> http://osf.io/preprints/socarxiv/qepc2/download <br> de Ree, J., Maggioni, M.A., Paulle, B., Rossignoli, D., Walentek, D. (2021) <br> High dosage tutoring in pre-vocational secondary education: Experimental <br> evidence from Amsterdam. https://osf.io/r56um/download <br> Tutor Evaluation <br> Mostow, J., Aist, G. (2001) Evaluating tutors that listen: An overview of <br> Project LISTEN. The MITPress (169-234). <br> and Evidence of <br> Growth Summary <br> Ritps:/psycnet.apa.org/record/2001-10194-006 S., Anderson, J.R., Koedinger, K.R., Corbett, A. (2007) Cognitive <br>  <br> Review, 14(2), 249-255. http://doi.org/10.3758/BF03194060 |  |
| Based on the information from Ms. Fitzpatrick the coordinator and <br> Stacey Royster, the Vice Principal, over 90\% of the students who <br> came to our sessions found them valuable and improved their |  |


|  | understanding, raising test and quiz scores. |
| :--- | :--- |
| Contact for <br> Further Validation <br> of the Study | Maija Anderson - Assistant Professor, Director of Nursing, School of <br> Community Health \& Policy maija.anderson@morgan.edu <br> Tamara FitzPatrick -APEX coordinator TFitzpatrick@bcps.k12.md.us <br> Stacey Royster - Vice Principal, Edmondson Westside High School <br> SVRoyster@bcps.k12.md.us |
| Dates of Study | September 2020 - May 2021 |
| Other Factors to <br> Consider | While the one-on-one tutoring was effective for each student, other <br> than anecdotal information from the students and Ms. Fitzpatrick <br> and Ms. Royster, we did not have exact scores or data on how many <br> points did the students who received tutoring improve from a |
| test/quiz or grade perspective. Many of these students did not come |  |
| to school consistently and were difficult to track down. Those that |  |
| did come to their sessions 100\% of them reported improved |  |
| confidence. Ms. Royster wanted to keep us on for the school year |  |
| 2021-2022 and we will be discussing our continuation with the |  |
| school for 2022-2023 in July of 2022. The supports were virtual due |  |
| to COVID which also made it challenging to track the students down |  |
| for their scheduled sessions. |  |$|$

Tutoring Schedule below before the students went to schedule directly with each tutor.

## TUTOR TIME!

Attention: Edmondson WestSide Students! Please come if you need help for tutoring! Make sure you have your login-information ahead of time and the work you'd like to work on!

Zoom Link is the same each time: https://us02web.zoom.us/j/4763364967

| DATES | TIMES | SUBJECTS | TUTOR Contact |
| :--- | :--- | :--- | :--- |
| MONDAY | 4:00-4:30pm | Math, English, <br> Chemistry, <br> Modern World <br> History | Lauren <br> ren@simplifymathcenter.com |
| TUESDAY | $3: 30-4: 30 \mathrm{pm}$ | Math, Biology, <br> Probability and <br> Statistics | Clare <br> clare@simplifymathcenter.com |
| WEDNESDAY | 10:00-11:00am | Math, English | ken <br> ken@simplifymathcenter.com |
| THURSDAY | $4: 00-4: 30$ pm | Math, English, <br> Chemistry, <br> Modern World <br> History | Lauren <br> ren@simplifymathcenter.com |
| Math, Biology <br> Probability and <br> Statistics | Clare <br> clare@simplifymathcenter.com |  |  |
| FRIDAY | 3:30-4:00pm | Math, Computer <br> Science, <br> Physics | charlie <br> charlie@simplifymathcenter.com |

Sponsored By:
鱼 MORCAN

In Partnership With:


Study 3: High-Dosage Enrichment For PreK and K students

| Targeted Students | Grades K and PreK students at grade-level |
| :--- | :--- |
| School | New Song Academy |
| Partners/Funders | New Song Academy via Professional Development Grant |
| Description of the <br> Study/Interventio <br> n | Intervention: Four students from grade K and PreK were provided <br> 25 minutes, 2x a week, virtual intervention for 10 weeks. The <br> students were working on topics beyond their existing grade level <br> -focused on addition and subtraction fluency, to provide additional <br> enrichment for those who did not need remediation. The students <br> also had to do a minimum of 15 minutes a day/3 days a week. At the <br> end of the 10 weeks, the teachers and parents filled out a survey to <br> confirm quantifiable growth with number facts and confidence. The <br> students also reported Khan minutes each week. <br> With the strong results, the school is looking to add this for all their <br> enrichment students grades PreK - 8 for the 2022-2023 school year <br> and is currently fundraising using the SongBird Enrichment model <br> as a differentiator for the school. |
| Quantifiable Data <br> and Evidence of <br> Growth Summary | 100\% of the families wanted to continue the program. Both teachers <br> of K and PreK wanted to continue the program and saw measurable <br> gains in test scores and ability. Both sets of students completed at <br> least 50\% more time on Khan practicing than expected. |
| Contact for <br> Further Validation <br> of the Study | Doug Fireside, Principal DLFireside@bcps.k12.md.us <br> Jayson Green, Executive Director, jgreen@newsongclc.org <br> Taneka Sleeger, Grade Pre-K teacher TSleeger@bcps.k12.md.us <br> Nicole Ahern, Grade K teacher NMahern@bcps.k12.md.us |
| Dates of Study | January 2022-March 2022 |
| Other Factors to <br> Consider | The intervention happened during small group center time so that <br> the teachers could continue to work with students that needed <br> more attention. |

Parent Survey Results below.

## eureki!

engage. discover. Learn.

1. Would you recommend New Song continue the Song Bird Enrichment program?

Copy
5 responses

2. Please check all that apply.

3. What would you tell the leadership, parents, and others in the New Song Community about this program?

5 responses

I would say that it prepares children for more advanced math and problem solving.

The program is helpful to get a head start on the children's learning ability.

The program is awesome!! I love that I get a weekly update on my child's progress.
af

It's very helpful fun and it challenges the children

## 4. How can we improve the program?

5 responses

Not sure at this point. It's really been helpful.

Technology and equipment from the school for the homework activities.

I didn't have any challenges with the program. The at home app was very easy to use and very convenient as we were able to log on at time of day to work on Oceans math skills.
ad

I would say switch up to do different activities as far as counting

## Teacher Survey Results below.

3 responses

2. Please check all that apply.
3 responses

3. What would you tell the leadership, parents, and others in the New Song Community about this program?

3 responses

They need and should implement this program at part of enrichment for students that are on grade level or above grade level math.

The kids really looked forward to these sessions each week. They were actively engaged each session and love to share what they experience and learn.

The program is helping the students to have fun while learning math skills.
4. How can we improve the program?

3 responses

Nothing at this current time

Logging on can sometimes be a hassel so maybe coming up with an easier way to log on.

Before the program starts, the students could be shown how to work the tablets.

Flyer - They are using it for recruiting and fundraising based on the program.

## SongBird Pilot Results



Four students from both Pre-K and K were selected to receive ten weeks of enrichment during the school day. During this time they worked on math concepts beyond the class curriculum. Children also completed a minimum of 30 minutes a week of Khan Academy practice for a total of 300 minutes outside of school.


- I've seen quantifiable improvements in test scores since the program began.
- They need to implement this program as part of enrichment for students that are on grade level or above grade level math.
- The kids really looked forward to these sessions each week. They were actively engaged in each session and loved to share what they experienced and learned.
- The program is helping the students to have fun while learning math skills.
- They have become more fluent in overall number sense and computation skills.


## Grade PRE-K

- Average extra practice a week: 513 minutes, 71\% above 300 min expectation!


## Grade K

## - Average extra practice a week:

 755 minutes, 150\% above 300 min expectation!
## Parent Feedback

- My child is getting stronger in concepts beyond what is expected in school.
- The program is helpful to get a head start on the children's learning ability.
- The program is awesome!! I love that I get a weekly update on my child's progress.
- It's very helpful, fun, and it challenges the children.
- I would say that it prepares children for more advanced math and problem-solving.
- I see improvements in their math skills and number sense.

Study 4: Grades 6-8 Small Group and One-on-One Tutoring in ELA and Math

| Targeted Students | Grades 6-8, English and Math |
| :--- | :--- |
| School | Franklin Square Elementary and Middle School |
| Partners/Funders | University of Maryland Department of Nursing |
| Description of the <br> Study/Interventio <br> n | Intervention: At least one math and English tutor came to support <br> teachers at Franklin Square Middle School with a variety of needs - <br> small group intervention, 1-1 tutoring, and whole class teaching. <br> Originally, the intervention was high-dosage tutoring - working in <br> small groups, each of our tutors work with a selected group of <br> students twice a week, developing rapport and focusing on specific <br> content so that we can measure pre and post-intervention results. |
| Due to the needs of the school and teachers, (lack of substitutes, <br> teachers leaving, shortage of staff, classroom challenges) We were <br> asked to triage what the teacher needed that day and time. The <br> teachers and staff found our team tremendously helpful and have <br> asked us to continue our work throughout the school year <br> 2022-2023. |  |
| Quantifiable Data <br> and Evidence of <br> Growth Summary | FSMS teachers and staff who have been identified in the report can <br> all attest to their students' growth and our tutor's intervention that <br> produced positive, quantitative results. |
| Contact for <br> Further Validation <br> of the Study | Each of the teachers noted in the March report should have specific <br> quantifiable evidence of our support. The other person is our <br> program lead, - Dr. Vanessa Fahie, Maija Anderson - Assistant <br> Professor, Director of Nursing, School of Community Health \& Policy <br> maiia.anderson@morgan.edu <br> She has seen our work at Edmondson Westside and brought us to <br> Franklin Square Middle School for the 2021-2022 school year. |
| Dates of Study | October 2021-June 2022 (School Year 2021-2022) |
| Other Factors to <br> Consider | While the original intent was to support a small group of students <br> with high-dosage tutoring, based on the varying needs of the <br> teachers, we as a team, decided to support the teachers in whatever <br> way they needed from us at the time which they found to be the <br> most effective use of our skills. The March progress report shows <br> the varying work being asked of us by the teachers. |

## March 2022 Franklin Square Progress Report

## Major Accomplishments this term:

This spring we have found three tutors that have developed strong relationships with both teachers and students. Across the thirteen visits that we have made to Franklin Square this month, we have worked on average with about 12 students per visit. However, this number varies widely. Some days tutors work with upwards of 60 students across all classes, and other days they focus on just a feww students. In total, our tutors provided about $\mathbf{8 0}$ hours of additional support in the classroom. Our tutors are very conscientious of providing whatever support is needed for the teacher and we have received positive feedback from the teachers on all of our tutors.

## Selected highlights:

| Date | Tutors | Teachers | Notable Achievements / Summary | Approx. <br> Students <br> worked with |
| :--- | :--- | :--- | :--- | :--- |
| $3 / 1$ | Ellie <br> Seguin | Ms. <br> Lindsey <br> (6th ELA) | Ellie worked with the sixth grade ELA to <br> understand the difference between verbs and <br> other parts of speech. This was an unusual day <br> due to an altercation between a student and the <br> teacher. As a result of the altercation, the <br> teacher left and the tutor took over. | 20 |
| $3 / 2$ | Aszana <br> Lopez-B <br> ell | Ms. <br> Berkeley <br> (6th <br> Math) | Students were working on labeling the <br> dimensions of shapes. Because 8th-grade <br> students were working on iReady, Aszana <br> worked with 6th-grade math. | 20 |
| $3 / 3$ | Aszana <br> Lopez-B <br> ell | Ms. <br> Arrington <br> (7th <br> Math) | Helped to break down a problem with a small <br> group that class was going over. | 4 |
| $3 / 3$ | Ellie | Ms. | In the ELA class, Ellie assisted with helping | 10 |


|  | Seguin | Thurmon <br> (7 \& 8 <br> ELA) <br> Ms. <br> Arrington <br> (7th math) | students decode longer words and focus on reading comprehension. <br> In the math class, students were working on finding the area of common shapes. |  |
| :---: | :---: | :---: | :---: | :---: |
| 3/4/22 | Aidan <br> Ferro | Ms. <br> Williams (8th math) | Students were working on calculating slope and were getting confused about positive or negative slope. Aidan was able to provide some tricks that helped students better understand the difference between the two. | 6 |
| 3/8 | Ellie <br> Seguin | Ms. Lindsey and Ms. Arrington | Teachers were especially appreciative of their support on this day. Ellie assisted students in editing a narrative writing assignment and helped them focus on creating more complex sentences. In Ms. Arrington's class, students worked on converting fractions to decimals. | 8 |
| 3/10 | Ellie <br> Seguin | Ms. Thurmon and Ms. Arrington | Teachers were vocal about their appreciation of how often the tutor jumps in to support students that need it. Students worked on figurative language in ELA. In math students continued to work on converting between fractions and decimals. | 3 |
| 3/11 | Aidan <br> Ferro | Ms. Williams | Aidan reported that Ms. Williams is very happy with the tutoring support. Particularly some of the one-on-one support with one of her students (Austin). Aidan supported students in solving two step equations. | 5 |
| 3/15 | Ellie Seguin | Ms. <br> Lindsey and Ms. Arrington | Ellie helped students to prepare for a quiz in health class during Ms. Lindsey's class and then helped in another section with a student who was preparing a presentation. In math class, Ellie supported Ms. Arrington's lecture on fractions with additional work written on the board. | 10 |
| 3/16 | Aszana <br> Lopez-B <br> ell | Ms. <br> Arrington | Aszana supported students with word problems during Ms. Arrington's class. In addition, she went to several other classes as it was a half-day and a little less structured than usual. | 15 |
| 3/18 | Ellie <br> Seguin | Ms. Thurmon | Ellie helped proctor a quiz in Ms. Thurmon's class today. Based on what Ellie has seen this | 5 |


|  |  | and Ms. <br> Arrington | year in class, the students have really grown as <br> writers in the few months that Ellie has worked <br> with them. In Ms. Arrington's class, the focus <br> was on building independence and confidence <br> in student math skills. |  |
| :--- | :--- | :--- | :--- | :--- |
| $3 / 22$ | Ellie <br> Seguin | Ms. <br> Lindsey <br> and Ms. <br> Arrington | Ellie took the initiative to play a vocabulary <br> game with students during class. This was <br> beneficial as some students were out of class <br> and the lesson was not proceeding forward. In <br> Ms. Arrington's class, Ellie assisted with helping <br> students prepare for the upcoming test. | 6 |
| $3 / 24$ | Ellie <br> Seguin | Ms. <br> Thurmon <br> and Ms. <br> Arrington | Ellie helped students prepare for an upcoming <br> reading comprehension assignment. Students <br> also needed support in essay writing and Ellie <br> helped guide them to stronger essays. In Ms. <br> Arrington's class, Ellie moved into a co-teaching <br> role and helped support the class discussion <br> with example problems on the board and <br> probing questions to help them understand the <br> problems better. | 40 |
| $3 / 25$ | Aidan <br> Ferro | Ms. <br> Williams | Ms. Williams was particularly appreciative of the <br> additional support today as students were <br> reviewing for an assessment. Aidan was able to <br> help students focus on setting up the problem <br> and helped them develop strategies for inding <br> the information they need from the problem <br> they are given. | 10 |
| $3 / 29$ | Ellie <br> Seguin | Ms. <br> Lindsey <br> and Ms. <br> Arrington | Ellie engaged students with more vocabulary <br> practice in Ms. Lindsey's class. In Ms. Arrington's <br> class, they continued to provide support around <br> the room with additional examples and practice <br> questions. | 40 |
| 31 | Ellie <br> Seguin | Ms. <br> Thurmon <br> and Ms. <br> Arrington | Ellie worked one-on-one with several students <br> in Ms. Thurmon's class today and assisted them <br> with their current English project. In Ms. <br> Arrington's class, they helped with additional <br> visual aids and one-on-one support. | 30 |

Study 5: Professional Development of Middle School Teachers for Summer Math Programming using Pre/Post Test and Puzzle Books
$\left.\begin{array}{|l|l|}\hline \text { Targeted Students } & \text { Grades 6-8 Math } \\ \hline \text { School } & \text { Academy of College and Career Exploration } \\ \hline \text { Partners/Funders } & \text { STEMBOARD Partnership } \\ \hline \begin{array}{l}\text { Description of the } \\ \text { Study/Interventio } \\ \text { n }\end{array} & \begin{array}{l}\text { Intervention: STEMBOARD asked Eurekii to provide middle school } \\ \text { math professional development training to non-math teachers and } \\ \text { paraprofessionals. (note: 1 of the 12 taught math). These } \\ \text { instructors were hired to work over the summer to prepare } \\ \text { students for key middle school math topics. Working with their } \\ \text { math lead at the school, we created a pre and post-test that would } \\ \text { test the core math skills that are required for grades 6-8 review. In } \\ \text { addition to the pre and and post-test, the instructors were trained } \\ \text { to use visual puzzles to support their instruction. }\end{array} \\ \hline \begin{array}{l}\text { The professional development intervention was a full day. Each of } \\ \text { the teachers took the same pre-test the students would take. The } \\ \text { teachers then worked through small group rotations to four } \\ \text { different stations that covered key topics - number sense, } \\ \text { problem-solving, content knowledge, testing strategies. }\end{array} \\ \hline \begin{array}{l}\text { Contact for } \\ \text { Further Validation } \\ \text { of the Study }\end{array} & \begin{array}{l}\text { After the completion of the class, the teachers took the post-test the } \\ \text { students would take so they see own improvement and } \\ \text { understanding of the content. The teachers reported confidence in } \\ \text { their math and pedagogy abilities to instruct the 6 week class with } \\ \text { students in grades 6-8. }\end{array} \\ \hline \text { quantifiable evidence of our support. The other person is our } \\ \text { program lead, - John FitzPatrick, who was the summer coordinator } \\ \text { and lead: fitzpatrick@theacceschool.org } \\ \text { In addition, all of the teachers who participated in the surveys, the } \\ \text { email information is below under 'who has responded.' They will be }\end{array}\right\}$

| Targeted Students | Grades 6-8 Math |
| :--- | :--- |
|  | able to provide additional data on the experience. |
| Dates of Study | Training was June 2021 - Program implementation by the teachers <br> was in July 2021. |
| Other Factors to <br> Consider | This is a model of PD that included multiple people from Eurekii <br> running small groups and providing the teachers assistance with <br> building their own math and pedagogy skills. Once they were <br> confident, their ability to support the kids was clear based on the <br> pre and post-test results. In this submission, we will include the <br> Pre-post test and the puzzle books used by the teachers and <br> students. |


| Name | WAIVER | PM PERMISSION | MATH DIAG out of 33 | \% score | Math POST test out of 32 | Score | \% Increase |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Azahria Webb (6th) |  |  |  |  |  |  |  |
| Caleb Banks (6th) | x | x | 7 | 21.21\% | 9 | 28.13\% | 32.59\% |
| Chloe Sheppard (Branch) (6th) | X | X | 10 | 30.30\% | No Data | No Data | No Data |
| Deshawn Johnson (7th) |  |  | 3 | 9.09\% | No Data | No Data | No Data |
| Saania Mykel Davis (7th) |  |  |  |  |  |  |  |
| Devonta Johnson (7th) | x |  | no data | No Data | No Data | No Data | No Data |
| Lundynn Dior'e Curbean-West (7th) | $x$ | x |  |  |  |  |  |
| Camren Scott (7th) | x | x | 3 | 9.09\% | Did not complete test | Did not compl | te test |
| Kennedy Kogah (7th) | X | X | 10 | 30.30\% | 9 | 28.13\% | -7.19\% |
| Dylan Nicholas (7th) |  |  | no data | No Data | No Data | No Data | No Data |
| DeChon K Shabazz (7th) | X | x | 20 | 60.61\% | 20 | 62.50\% | 3.13\% |
| Malachi Cummings (7th) | x |  | no data | No Data | 10 | 31.25\% | No Data |
| Spencer Laboo (8th) | x |  | 10 | 30.30\% | 8 | 25.00\% | -17.50\% |
| Antoine Judd (9th) | x | x | 5 | 15.15\% | 8 | 25.00\% | 65.00\% |
| Marcus Anderson (9th) | X |  | no data | No Data | 5 | 15.63\% | No Data |
| Cory Richards (9th) | x | x | 17 | 51.52\% | 21 | 65.63\% | 27.39\% |
| Taliyah Gross (9th) | X |  | 4 | 12.12\% | 12 | 37.50\% | 209.38\% |
| Ricco Rhyne (9th) |  |  | no data | No Data | 15 | 46.88\% | No Data |
| Khari J. Salmond-Wilkens (9th) | x | x | 7 | 21.21\% | 16 | 50.00\% | 135.71\% |
| Kai Lamont Sanders (9th) | X | x | 7 | 21.21\% | 13 | 40.63\% | 91.52\% |
| Emmanuel Owolabi (9th) | X | X | 17 | 51.52\% | 24 | 75.00\% | 45.59\% |
| Hasaan Hart Jr (9th) | X | x | 15 | 45.45\% | No Data | No Data | No Data |
| Mayan Myles (9th) | x | X | 8 | 24.24\% | 7 | 21.88\% | -9.77\% |
| Imer Bernardo Ramos Amaya (9th) | x | x | 12 | 36.36\% | 13 | 40.63\% | 11.72\% |
| Arielle K. Jonas (9th) | $x-V$ | x | 4 | 12.12\% | 7 | 21.88\% | 80.47\% |
| Cameron Banks (9th) | x | x | 16 | 48.48\% | 25 | 78.13\% | 61.13\% |
| Kota Fisher (9th) | X | X | 17 | 51.52\% | 21 | 65.63\% | 27.39\% |
|  |  |  |  |  |  |  |  |
| Average Math Increase |  |  |  |  |  |  | 50.44\% |

## Summer Teacher Training Survey

Would you recommend this math camp experience to a friend?Copy
7 responses


2, Check all that applies to you.Copy
7 responses

3. How can we improve the experience?

7 responses


## 4. What was your favorite part of the class?

7 responses

The games

I appreciated the fact that the math team was open to suggestions to the curriculum. I also like the one on one approach that some people needed and the help that was provided. It seems like most of the participants were enjoying themselves and there was little just down time

The games!

I enjoyed the interaction with my colleagues and those involved with the program. I appreciated the one-onone assistance and proved that I can do math. This gave me more confidence for sure.

Shout out to Aiden for his patience.

The math and fashion interactive workbook

Group activities!
5. Anything else you'd like to tell us to make the experience better?

7 responses

None

Na

It would be nice to have the training take place over more time (like 2 days)

N/A

Thank you!!

## Who has responded?

Email<br>xcrawford@theacceschool.org<br>brown@theacceschool.org<br>rdsmith3334@gmail.com<br>john.e.r.fitzpatrick@gmail.com<br>nwenze.jack@yahoo.com<br>johnson@theacceschool.org<br>rdsmith3334@gmail.com (1)

Study 6: Grades 3-5 Math High Dosage Enrichment Tutoring

| Targeted Students | Grades 3-5 Math |
| :--- | :--- |
| School | Mills Parole Elementary School, Annapolis MD |
| Partners/Funders | Community Action Agency of Anne Arundel County |
| Description of the <br> Study/Interventio <br> n | Intervention: 20 total students in third grade, divided into four <br> groups (5 students per group) to work on math puzzles during <br> intervention blocks virtually. We communicate with the teachers on <br> what the students are doing and she provides feedback for us to <br> hone in on what to focus on during the sessions. |
| Quantifiable Data <br> and Evidence of <br> Growth Summary | The coordinator of the program is in the process of collecting the <br> testing data and we will send that to Baltimore City once we have it. <br> They want to confirm the students who were enrolled in the |
| program showed the most gain compared to those students who |  |
| were not part of the program but in the same grade taking the same |  |
| math classes. |  |$|$| Contact for |
| :--- |
| Further Validation <br> of the Study |
| The coordinator of the school <br> Denise White: DWHITE@aacps.org <br> Community School Program Manager <br> $410-222-1626$ <br> $443-274-8269$ Cell - Note I gave you her phone number because the rest of <br> the contacts are from Baltimore City which you should have access to. |
| Dates of Study | | November 2021-May 2022 |
| :--- |
| Other Factors to <br> Consider |
| We started with Mills Parole in this school year and based on the <br> results, we have now expanded our schools in Anne Arundel County <br> to include Van Bokklen, Mead Middle and High School, and <br> Brockbridge Schools. |

School reported scores to us 6/29/2022

|  |  |  | Improved/not improved |  |
| :---: | :---: | :---: | :---: | :---: |
| Kyre |  | 35 | 62 | $43.55 \%$ |
|  |  |  |  |  |
| Amaya |  | 68.8 | 37 | $-85.95 \%$ |
| Jaden |  | 77.8 | 75 | $-3.73 \%$ |
| Deon |  | 35 | 87 | $59.77 \%$ |
| Jefferson |  | 11 | 75 | $85.33 \%$ |
|  |  |  |  |  |
| ading assessment |  |  |  |  |
| Cameron |  | 45 | 74 | $39.19 \%$ |
| Kyre | 72 | 28 | $-157.14 \%$ |  |
| Amaya |  | 39 | 51 | $23.53 \%$ |
| Jaden |  | 53 | 90 | $41.11 \%$ |
| Devan |  | 22 | 16 | $-100.00 \%$ |
| Ashley |  | 37 | 34 | $35.29 \%$ |
| Yelsi |  | 62 | $24.19 \%$ |  |
| 8/12 of students showed an increase of scores |  |  |  |  |

