REPORT 2020 October Cycle

GENERAL INFORMATION

Organization Information

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Head Of Organization

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Application Contact

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REPORT INFORMATION

Report Funding Cycle:	Report Date:
2020 October Cycle	09/29/2021 12:00 am

1: Please include in your report the dollar amount of the funds that were awarded, the date they were funded and what the funds supported.

Awarded Amount: 45,000	Date: 04/30/2021

2: Were the objectives cited in your original proposal met? Please address each started objective and how it was met.

Our program's objective was to grow economically disadvantaged students' interest and self-confidence in STEM by bringing science- and technology-rich summer camps to underserved communities. Throughout Texas, there is a significant disparity in academic performance that strongly correlates with family income. Economically disadvantaged kids have lower academic performance and often lack access to programs which build interest in STEM and provide knowledge of STEM career opportunities. Our STEM summer camps addressed this gap by giving economically disadvantaged students access to exciting and engaging summer STEM camps, located in their community and taught by local science teachers. We focused on students at Boerne ISD and East Central ISD.

Campers were nominated by teachers, with priority given to students from economically disadvantaged communities with large low-income, minority populations and substandard academic performance. Throughout camps, students engaged in team challenges, project-based design and building, and hands-on engagement through inquiry-based learning. Students experienced the excitement of "doing science" and imagining themselves as STEM entrepreneurs. They were introduced to a plethora of STEM careers (i.e., coding and programming, engineering, chemistry, life science, robotics), all with an emphasis on STEM entrepreneurship. Activities focused on building students' self-confidence, self-esteem, and helping them connect their in-school learning to the possibility of a future STEM career.

Outcome data (see below) following a week of camp demonstrated that we accomplished our objective. Greater than 87% of the students most impacted by the achievement gap left camp with a new appreciation for STEM and how STEM can play a role in their future.

3: Please explain any changes from the original proposal and the circumstances that lead to the modification of the objective.

The need for meaningful STEM programming is more important than ever. The COVID-19 pandemic has decimated an already weakened fabric of STEM education in economically disadvantaged communities. We recognize the significant role summer camps play in re-engaging and re-invigorating students in STEM learning for the 2021 school year. The challenges of the pandemic--and the vast educational inequities it has unveiled-- only strengthened our resolve to create equitable access to STEM programs. With the support of your funding, we achieved our objective of running six summer camps throughout the Boerne, San Antonio, and surrounding area. Each camp served our target demographic of students from economically disadvantaged communities with large low-income, minority populations and substandard academic performance.

Whereas we had hoped that the COVID-19 threat would be significantly diminished by summer 2021 and that we would be able to enroll 30 students in each of six camps (180 students total), however as the pandemic continued, it became a barrier to parents enrolling their students, particularly as the summer went on. Despite this challenge, 130 students were able to attend our summer camps with 92% of them feeling more confident and excited after the camp experience for their STEM classes in the fall.

As we contemplate what the school year will look like, it is clear that now more than ever students living in economically disadvantaged communities will need increased access to STEM enrichment programs. Najim funding has been critical for us to grow our summer camp programming.

4: What needs were addressed?

Summer STEM camps play important roles in engaging and increasing students' awareness and interest in learning. Low-income students, who were disproportionately affected by the pandemic, are often unable to envision themselves in future STEM careers for a variety of reasons - lack of access to STEM programs, little exposure to individuals from similar backgrounds in STEM careers, and limited knowledge of career pathways. Students struggle to see the connection between their in-school education and their life and potential careers, making them less likely to graduate high school or enter college. Our STEM summer camps are focused on narrowing this academic achievement gap by giving economically disadvantaged students access to out-of-school STEM programming in their community.

Our summer STEM camps are unique as they are taught by local science teachers aided by local high school students. They participate in a virtual, week-long professional development training on our STEM career curricula, and the pedagogy of inquiry-based learning, before leading our programs. Instructors increased their knowledge of innovative methods of STEM engagement and career integration that they can utilize in their future classrooms. As one teacher from Boerne ISD put it, "I am so honored to have been part of the science camp. It was a great way for me to learn new concepts to share with my students. I also got to work with teachers I would not normally be in the building with, and we all learned so much from each other... [Science Mill] staff made sure we were well equipped for our STEM journey."

5: What method of evaluation did you use to monitor and measure the project's outcome and what are the result?

We evaluated student growth and program impact throughout the summer program. Outcome data was collected through pre- and post-surveys, measuring student baseline and growth in areas such as self-efficacy, engagement, STEM interest and identity, and gains in knowledge and awareness of STEM careers. Success was measured through evaluating student interest and determination in enrolling in further STEM opportunities such as STEM extracurricular activities, choosing STEM electives, or STEM courses in the future.

2021 Student Outcome Results:

88% of campers believed that they can be successful in a STEM career.

92% of campers felt more confident and excited for their STEM classes this school year.

99% of campers think science, technology, engineering or math can be fun.

83% of campers were more interested in taking further STEM classes or joining STEM extracurricular activities after completing camp.

We also evaluated instructor growth throughout the training and execution of the summer camps. Outcome data was collected for the virtual training through pre-, post-, and daily participant surveys, and for summer camps through post-camp surveys. We measured instructor baseline and growth in areas such as knowledge of STEM concepts and career connections, technology integration, and shaping student interest, self-confidence and self-efficacy in STEM. At the end of the camp program, 100% of instructors felt that they have the tools, skills, and knowledge necessary to make STEM career connections for their students and 80% of instructors felt confident in their ability to spark students' interest in a variety of STEM areas.

6: Do you plan to continue this project, and if so, how do you plan to sustain it?

The experience and knowledge gained from creating and running these camps over the last 6 years has been invaluable to us and gives us the confidence to expand our program in the coming years. This year alone, we were able to enroll 615 students in 31 camps across 11 ISDs, with 97% of students attending camps on scholarships and representing our target demographic; economically disadvantaged communities throughout Central and South Texas with large low-income, minority populations and substandard academic performance.

Our commitment to bring equitable access for STEM learning to all students is greater than ever. We are taking two approaches to sustaining our STEM summer camp programs. The first is to continue working with individual donors, corporate and family foundations, and federal grant programs that are interested in bringing STEM programming to underserved communities. Additionally, this summer a number of our programs were funded directly from school districts. We see this as an increasingly more important source of funds, as school districts are looking to sources of informal education providers to help support the needs of their students. Our second approach is to continue utilizing virtual training for our instructors along with a remote platform for program delivery. These resources proved to be effective, affordable and accessible for expanding our summer camps to communities across the geographical region that otherwise would be challenging to serve.

7: Please provide any other comments ot information relevant to this grant.

From this year in particular, we have learned the value our summer camps also have for the teachers. Throughout their training and camp experience, teachers gain experience utilizing inquiry-based learning, career and technology integration, project-based learning, and entrepreneurial thinking, which they can bring into their classroom instruction during the school year. By giving teachers in underserved communities the training, resources, curricula and tools to engage, excite and encourage students in STEM careers, we have empowered change at the local level. In fact, 100% of the teachers who instructed these camps feel confident and able to shape the development of their students' STEM identities and STEM self-efficacy.

In addition to the attached Impact/Metrics Report, we would like to share the following video and teacher testimonial with the Najim Foundation:

Boerne ISD put together a "Boerne Insider Short" video to highlight the camp experience at Boerne Academy: https://www.youtube.com/watch?v=yzBWu7bpk6Y&t=5s.

When asked about her camp experience, Caitlyn Sangdhal, a Boerne ISD teacher, stated, "The training was fantastic, it helped me connect with the kids when they were struggling on certain items since it would usually be where the teachers struggled too. The flow and efficiency was great and allowed time for exploration of the experiments/topics which led to more questions and better understanding when we reconvened after." We believe our program, and its impacts on students and teachers, can be exported to in-need communities throughout Texas and beyond.

8: Please provide an updated detailed projected budget with expenses for the received grant. Also include the totals for the budgeted and actual amount. Explain any discrepancies between the budgeted and the actual expenses for the project.				
Line Item Description	**Total Project Funds Allocation**	**Najim Requested Funds**	**Project Funds Actual**	**Najim Funds Allocation**
Staffing: Training & Teaching	$164,640	$27,500	$173640	$28460
Technology & Equipment	$20,000	$0	$25000	$0
Supplies	$11,680	$2,000	$7280	$2400
Logistics Support	$15,000	$5,000	$18300	$4800
Curriculum Development	$6,250	$2,000	$6200	$2000
Registration & Parent Communications	$25,000	$5,000	$21000	$5200
Evaluation	$8,500	$2,500	$10000	$2500
Overhead/Insurance	$4,800	$1,000	$4800	$1000
TOTAL:	**$255,870**	**$45,000**	**$266,220**	**$46,360**
Signature Colleen King				