

Student Growth Report

November 2019

About CEI

The Center for Educational Innovation (CEI) is a non-profit education organization and a recognized leader in advancing meaningful reforms in public education. We believe the school is the center and driving force of public education reform and innovation. Therefore, we work directly with school leaders, teachers, students and the community to create high performing schools in low-resourced communities, preparing students to compete in the 21st century. CEI works with both traditional district-based public schools and public charter schools. We provide student-centered innovations, customized support and life-changing enrichment programs for at risk students. CEI's areas of focus are:

- Whole school turnaround for schools in need of improvement.
- Capacity-building for teachers, leaders, administrators and parents to improve student engagement, school climate and student achievement.
- Direct enrichment programs for students.

About Project BOOST

Project BOOST is CEI's signature enrichment program. BOOST stands for "Building Options and Opportunities for Students" and represents what CEI aims to provide students: experiences that help them build the skills and talents necessary for long term growth and success. During the 2018-2019 school year, 600 students in grades 4-8 from 20 schools across New York City participated in the comprehensive version of Project BOOST, which includes all four programs listed below. Another 780 students from 36 more schools took part in at least one of Project BOOST's core programs:





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November 2019

Dear Friends of CEI and Project BOOST:

Since 2003, the Center for Educational Innovation (CEI) has had the privilege of operating Project BOOST for students in grades 4 through 8 in New York City's public schools. BOOST stands for "Building Options and Opportunities for Students" and is designed to give economically-disadvantaged students the same kinds of "boosts"—academic, cultural, social-emotional—that their more affluent peers access as a regular part of their education and life experiences. Project BOOST students attend Broadway shows, learn to program robots, engage in major social-change projects, get the additional tutoring and training necessary to give them a leg-up in the New York City high school application process, and much more.

For the first 16 years of Project BOOST, we focused on continually expanding the opportunities available to our students and bringing greater equity to the public school system. CEI built partnerships with innovative organizations and experts in STEM education, arts education, academic tutoring, high school and college readiness, and social-impact programming. During the 2018-2019 school year, we were able to provide more than 600 students from 20 schools with a comprehensive suite of programs. An additional 780 students from 36 schools took part in at least one of Project BOOST's core programs.

We recognize, however, that providing "inputs" is not sufficient when it comes to delivering quality educational programs. Therefore, in summer 2019, CEI conducted a student survey to find out the impact of Project BOOST in their lives. We asked our 7th graders to tell us how much progress they felt they made during the 2018-2019 school year in skills and knowledge associated with five "Critical Impact Areas": 1) Academic Achievement; 2) Social Competency; 3) Collaboration; 4) Leadership; 5) College Motivation. We were delighted to find that *a vast majority (88%) of students* reported progress in one or more of the five Critical Areas.

The following report provides a summary of the 7th grade student survey, what we have learned from our students about their Project BOOST experiences, and our plans for the future. In the end, I hope you agree with one of our students who described their overall experience of Project BOOST this way: "Project BOOST exposed me to new experiences and subjects that I never imagined before. I feel as if every child or student deserves a chance to experience it for themselves."

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Michael Kohlhagen Chief Executive Officer Center for Educational Innovation



Student Growth Report

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PROGRAM SUMMARY

Project BOOST is CEI's signature enrichment program. BOOST stands for **"Building Options and Opportunities for Students"** and represents what CEI aims to provide students: experiences that help them build the skills and talents necessary for long term growth and success. During the 2018-2019 school year, 600 students in grades 4-8 from 20 schools across New York City participated in the comprehensive Project BOOST program. They engaged in four innovative program areas aimed at nurturing their talents and interests.





Through CEI's Academic Futures, students learn how to set and pursue college and career goals. They learn practical things like how to apply to their preferred high school and what courses they need to take to be ready for college, as well as engage in aspirational activities such as going on real and "virtual" tours of colleges.

CEI's Robotics allows students to engage in active, hands-on-learning as they work in teams to design, build and test robotic creations. They learn how to effectively collaborate while learning computer science concepts such as algorithms, abstractions, coding, communication, programming and prototyping.

CEI's Early Stages program takes students to renowned performing arts venues such as Broadway theaters, Lincoln Center and Carnegie Hall. After these trips, students reflect on the performances and their real-life experiences through workshops, discussion groups and journaling.

CEI Benchmarks: Youth Setting the Standard for Social Change is a comprehensive student arts residency program that inspires young people to address major social issues and become engaged citizens. Students take part in guided research on their chosen topic and then create large-scale murals on benches related to the topic for public display in New York City parks.

An additional 780 students from 36 schools participated in one or more of the programs described above. This survey only includes responses from students in the comprehensive program in order to measure the full impact of Project BOOST.

FIVE AREAS OF CRITICAL IMPACT

For decades, educators and parents have focused almost exclusively on academic achievement as the main indicator of whether or not students are progressing towards post-secondary success. Recent research shows that while academic achievement is still at the core, there are a number of other areas of development that are critical for students to become ready for life-long success. We group these into what we call our five "Critical Impact" areas:

- **1. Academic Achievement**
- 2. Social Competency
- 3. Collaboration

- 4. College Motivation
- 5. Leadership

Research on student persistence in college—not just getting in, but continuing to completion—requires more than the traditional college preparatory program, particularly for *first generation and economically-challenged youth*.

For example, how a student receives critical feedback from a teacher and their peers can positively or adversely impact their sense of "belonging" at college and persistence in their chosen major. The College Transition Collaborative explains that "By viewing belonging as a process that develops over time over which [students] have some control, students are more likely to remain socially and academically engaged in the face of challenges (e.g., attending office hours, joining student groups) and ultimately demonstrate greater academic persistence and achievement."¹ The Mindset Scholars Network provides a flowchart to envision how a student's mindset in relation to "belonging" can shape the actions, reactions and interactions necessary for college success:¹¹



Source: Mindset Scholars Network

MEASURING STUDENT GROWTH IN PROJECT BOOST

Growth mindset research makes it clear that while it is important to provide students with training in the skills necessary for success, it is equally as important to *help students recognize that they have and can use these skills to bring about their own success.* CEI conducted an evaluation of our 2018-2019 implementation of Project BOOST to see how well we are doing in helping students grow in the five Critical Impact Areas <u>and</u> recognize their growth. We asked our 7th graders who had access to all four programs to tell us how much progress they felt they made during the 2018-2019 school year in skills and knowledge associated with the five Critical Impact Areas. We asked them to rate this progress in relation to their participation in Project BOOST activities, not their regular school day. We selected 7th graders because:

- 7th graders in BOOST have access to all four programs.
- 7th grade is known as a "keystone year" for education—it is a critical year for students to develop the skills they need for long term success.ⁱⁱⁱ
- 7th graders can engage in meta-cognitive evaluations of their learning experiences ("think about how they are thinking").^{iv}
- Because Project BOOST is cohort-based, we will be able to repeat this survey when the students are in 8th grade to measure progress across multiple years.

A total of 90 students completed the comprehensive survey; following are the results.













Demographics of Respondents^v

Students in Project BOOST are primarily economically-challenged students from diverse communities. Below are responses from our 7th graders (n=90) about how they identify in terms of gender, race and ethnicity, as well as their reporting of economic status and primary language. Note that we asked students to report directly (answer the questions) rather than pull demographic data from student information systems. This approach was designed to understand our students' perceptions of themselves and their socio-economic backgrounds.



ECONOMIC STATUS Are you eligible for free or reduced-price lunch?



RACE/ETHNICITY How would you describe your racial/ethnic background?



ENGLISH LANGUAGE LEARNERS

Is English your first language?



THEIR FIRST LANGUAGES

If no, what is your first language? (Listed in order to prevalence of response)

- Tagalog (Filipino)
- Cantonese

- Haitian Creole

Overall Progress

A vast majority (88%) of student respondents reported progress in one or more of the five Critical Areas.

Academic Achievement – 80% of students reported progress in specific academic skills such as the use of advanced math and secondary concepts through robotics as well as general academic mindsets such as confidence in using advanced science concepts or addressing openended questions or problems. A significant outcome goal for Project BOOST is to prepare students for the competitive high school admissions process in New York City. For one measure of this outcome, 92% of 7th graders reported increased readiness to take the specialized high school exam.

Social Competency – An overwhelming 97% of students reported progress in skills and attributes that relate to social competency. Social competency consists of social, emotional, cognitive and behavioral skills needed for successful social



adaptation. Students who are socially competent are able to take another's perspective concerning a situation, learn from past experiences, and apply that learning to the changes in life and learning environments.

Collaboration - Research shows that educational experiences that are active, social, contextual, engaging, and student-owned lead to deeper learning. These are the cornerstones of collaborative learning and are fundamental to postsecondary success. Students who are able to collaborate effectively typically exhibit corollary strengths in higher-level thinking, oral communication, self-management, and leadership.^{vi} Among the students in Project BOOST, 91% report progress in developing collaboration skills.

Leadership – Strong leaders are goal oriented, willing to serve others, good communicators, and effective decisionmakers. While not every student will become class president, all can develop leadership skills when given the opportunity. In Project BOOST, 88% of students reported increases in leadership skills that they developed through various contexts ranging from facilitating group projects to speaking at large public events.

College Motivated – It is not enough to encourage students to go to college—they have to <u>want</u> to go to college and take specific actions to achieve this goal. Being "college motivated" includes actively researching and selecting a "good fit" college, understanding and preparing for the financial aspects of college, and setting goals for high school that align with college readiness. Among our students, 85% reported progress in these skills, exhibiting that they are self-motivated to succeed in college.

Academic Achievement



80% of students reported progress

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THE BIG PICTURE

Among the students surveyed, 80% reported progress in specific academic skills such as the use of advanced math and secondary concepts through robotics as well as general academic mindsets such as confidence in using advanced science concepts or addressing openended questions or problems. A particular outcome goal for Project BOOST is to prepare students for the competitive high school admissions process in New York City. For one measure of this outcome, 92% of 7th graders reported increased readiness to take the specialized high school exam.

SNAPSHOT: What developing ADADEMIC SKILLS looks like in Project BOOST

While students develop academic skills across all Project BOOST programs, a look at CEI Robotics shows how students develop these skills in contextual, active learning environments. Project BOOST students learn STEM concepts by making their own robots. They learn to design, build and program their robots to complete specific tasks. Younger students start with the basics, using apps to accomplish the programming, while older students learn to code their robots directly, preparing them for advanced study of computer science.



TARGET OUTCOMES

Target Outcomes – Academic Achievement	Project BOOST Program	Percentage Reporting Progress
Ready to take the specialized high school exam.	Futures	92%
Able to engage in a college-preparatory high school curriculum.	Futures	72%
Able to use advanced math and/or secondary concepts.	(@	78%
Able to use advanced science concepts.	(@	75%
Able to address open-ended design questions or problems (e.g. How to program a robot to move through a maze).		71%
Able to use technical art skills (e.g. design, drawing, sculpting, etc.) to create original artwork.	BENCHMARKS	90%

Social Competency



97% of students reported progress

THE BIG PICTURE

An overwhelming 97% of students reported progress in skills and attributes that relate to social competency. Social competency consists of social, emotional, cognitive and behavioral skills needed for successful social adaptation. Students who are socially competent are able to take another's perspective concerning a situation, learn from past experiences, and apply that learning to the changes in life and learning environments.

SNAPSHOT: What developing SOCIAL COMPETENCY looks like in Project BOOST

CEI Benchmarks: Youth Setting the Standard for Social Change is a comprehensive student arts residency program that inspires young people to address major community issues such as racism, gender inequality, drug abuse, gun violence, and pollution. Students work collaboratively to select and research an issue, formulate a message for social change, and then translate their message into a mural painted on a public bench. The benches are featured in a citywide summer exhibition in NYC parks that reaches hundreds of thousands of people. As the program culminates, students become the teachers and lead a social action arts workshop for their peers.



TARGET OUTCOMES

Target Outcomes – Social Competency	Project BOOST Program	Percentage Reporting Progress
Able to empathize with others (identify and understand other people's stories and experiences).	BENCHMARKS Early Stages	96%
Willing to accept ideas and points of view that differ from my own.	BENCHMARKS Early Stages	97%
Able to identify important social issues facing my peers and community.	BENCHMARKS	98%
Able to identify important social issues facing the world.	BENCHMARKS	96%
Able to explore important social issues through research and discussion.	BENCHMARKS	96%

Collaboration



91% of students reported progress

THE BIG PICTURE

Research shows that educational experiences that are active, social, contextual, engaging, and student-owned lead to deeper learning. These are the cornerstones of collaborative learning and are fundamental to postsecondary success. Students who are able to collaborate effectively typically exhibit corollary strengths in higher-level thinking, oral communication, self-management, and leadership. Among students surveyed, 91% reported progress in developing collaboration skills.

SNAPSHOT: What developing COLLABORATION skills looks like in Project BOOST

At most science fairs, students stand in front of their display, answering questions from adults about the science project that they created independently. While our students take part in the traditional science fair, they also join in science competitions where they work in teams to solve problems and innovate solutions. When they aren't in their labs, Project BOOST students can be found discussing the latest Broadway show that they attended, debating the morals of the show's protagonist and working on adapting the show to perform at their own school. Teamwork is at the heart of all we do in Project BOOST.



TARGET OUTCOMES

Target Outcomes - Collaboration	Project BOOST Program	Percentage Reporting Progress
Work in teams to solve shared problems.		89%
Attend events with my peers with confidence.	Early Stages	93%
Go to museums and theatre with my peers with confidence.	Early Stages	97%
Work with peers to complete projects and achieve shared goals.	Early Stages BENCHMARKS	93%

Leadership



88% of students reported progress

THE BIG PICTURE

Strong leaders are goal oriented, willing to serve others, good communicators, and effective decision-makers. While not every student will become class president, all can develop leadership skills when given the opportunity. In Project BOOST, 88% of students reported increases in leadership skills that they developed through various contexts ranging from facilitating group projects to speaking at large public events.

SNAPSHOT: What developing LEADERSHIP skills looks like in Project BOOST

When Michael Abonia showed up with his classmates in a Queens park to unveil their social action bench, he expected to celebrate with his peers. What he didn't expect was to be interviewed by the local news about why he and his classmates created the bench and their chosen message about climate change.^{vii} At the Benchmark's Exhibition kickoff event in Washington Square Park, students from 30 schools across New York City's five boroughs displayed their benches and spoke out on a wide range of issues, including racism, gun violence, suicide, drug abuse, bullying and the environment. Coverage by the Queens Chronicle highlighted



the leadership role of the students: "Mental health. Bullying. Discrimination. The environment. These are among the issues taken on by groups of young students from six Queens public schools in an effort to effect social change. And their offense comes in the form of art."^{viii}

TARGET OUTCOMES

Target Outcomes - Leadership	Project BOOST Program	Percentage Reporting Progress
Able to lead groups of my peers to complete projects and achieve shared goals.	BENCHMARKS	89%
Confident in presenting my work and ideas publicly.	ENCHMARKS	93%

College Motivation



85% of students reported progress

THE BIG PICTURE

It is not enough to encourage students to go to college—they have to <u>want</u> to go to college and take specific actions to achieve this goal. Being "college motivated" includes actively researching and selecting a "good fit" college, understanding and preparing for the financial aspects of college, and setting goals for high school that align with college readiness. Among students surveyed, 85% reported progress in these skills, exhibiting that they are self-motivated to succeed in college.

SNAPSHOT: What becoming COLLEGE MOTIVATED looks like in Project BOOST

What is the difference between attending a small liberal arts school in New England and a large public research university in the Midwest? Project BOOST students are able to ask such a question and gets answers in the same day by taking "virtual tours" of college campuses. What courses should I take in high school if I want to major in computer engineering at college? Project BOOST students learn how to set college goals and map out specific strategies to meet those goals, such as identifying what classes and grades they need in order to be ready for a specific college major.



TARGET OUTCOMES

Target Outcomes – College Motivation	Project BOOST Program	Percentage Reporting Progress
Able to recognize the various kinds of college and university experiences available (e.g. public/private, small liberal arts, research university, etc.).	Futures	85%
Understand what is required to gain admission to a four-year college.	Futures	86%
Understand how to pick a "good fit" college or university.	Futures	79%
Understand the financial aspects of college (e.g. FAFSA, difference between public and private loans, grants, scholarships, etc.).	Futures	84%
Able to set goals for high school, college and career.	Sacademic Futures	93%



In their own words...

Project BOOST students tell us what they think about the programs.

STUDENT FEEDBACK

In addition to rating their progress related to the Five Areas of Critical Impact, we asked students to share with us if they had a particularly meaningful experience through Project BOOST. Themes that stood out in their feedback are: creative expression, collaboration, new experiences, diversity, self-expression, social impact, and recognition for their accomplishments.

Creative Expression

"When we went to the benches in Washington Square Park, I liked that every single bench beamed positivity through creativity."

"The benchmark program was a chance for me to become more creative."

Collaboration

"The bench mural project was the most positive to me because I got to show what my peers and I accomplished as a team. It was also very positive because deep down, I knew our bench would make a difference."

"The particular experience that stands out is being able to work together."

"It was fun to be able to work with your peers to create something."

New Experiences

"BOOST allows young learners to experience new things like making art to improve awareness of problems."

"Seeing a Broadway show was amazing and I really loved it. This was the best field trip ever!" "Watching *King Kong* in real life with sound effects and movement was outstanding."

"I liked the robotics program since it was very different from normal school subjects."

"The trip to the El Barrio museum was really cool."

Diversity

"The program is a great way to express yourself and experience different cultures."

"The bench trip was a very good experience because I was able to spend time with my peers and meet new people from other schools."

"Benchmarks was an amazing experience because I was able to learn even more about the LGBTQ community and do art that represents the LGBTQ community."

Self Expression

"A particular experience that stands out is the social issue bench because I like how we put the issue in the world and put it on a bench."

"The social action bench project was one of my favorites. It was fun to work with and express my thoughts to society."

Social Impact

"The social action bench project stands out to me because it was beautiful and showed tons of issues on one bench."

"I feel that the benches can really help our communities be aware of all the issues so it can create change."

Unique Learning Experiences

"I liked the virtual reality college tours a lot because I got to see what it is like at colleges almost like I was there myself in person."

"The math classes stood out to me because I learned things we didn't learn in our regular classes."

Recognition for Accomplishments

"It was amazing to speak in front of the news."

"A good overwhelming experience was at the awards gala where they called my name for scholar roll and I was so happy."

STUDENT SUGGESTIONS

We also asked students to tell us what we can do to improve Project BOOST. One group of students told us they wanted "less talking" and more "doing" during virtual school tour sessions, which has guided us to flip the format so that they learn about the purpose of that technology prior to using it so they can jump right in. Their positive comments basically fell into two categories:

More, please!

"Having robotics more than 2 times a week."

"More theatre shows."

"More trips!"

"More classes a week instead of just one."

"Project BOOST exposed me to new experiences and subjects that I never imagined before. I feel as if every child or student deserves a chance to experience it for themselves."

Don't change!

"It was perfect, in my opinion. I wouldn't change anything. I loved how positive it was."

"Thank you for creating a community where schools all over can create a bench on what they believe in, what they support and cherish."

"It was perfect the way it was. Fun to do. They should keep doing what they are doing."

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FUTURE PLANS

While a number of our students told us not to change anything about Project BOOST, we are committed to continuous improvement and have made changes for the 2019-2020 school year. The changes are informed by the student feedback as well as feedback from the Project BOOST Coordinators who run the programs at our schools. Below are descriptions of the main changes.

More Hands-on STEM

Students overwhelmingly expressed high levels of engagement with hands-on, projectbased learning activities. The CEI Robotics program offers that opportunity with a STEM focus that is aligned with the NYC DOE's Computer Science for All initiative. This school year, we are expanding implementation of the robotics program to more schools and students. They will engage in a multi-week course to learn how to design, build, and program robots using sensors, motors, wheels and other components. We plan to track student progress related to the following learning outcome goals with more focused assessments and survey questions:

- **Engineering** Students will learn to identify parts and their purposes by examining robots and their applications.
- **Coding** Students will engage in critical, sequential thinking while learning programming syntax in a Blockly style software environment.
- **Building** Students will think in three-dimensional space through both instructional app-led and self-led procedures.
- Design Students will learn to use the Design Process Framework to connect applied need and system design.
- **Collaboration and Communication** Students will work in teams to build and resolve design issues for openended challenges.

More Support Preparing for the SHSAT

While the New York City Department of Education works on a new approach for admission to the city's specialized high schools, CEI will continue to help students navigate the existing process. In particular, we will expand SHSAT prep at our Project BOOST schools by providing students with direct tutoring from educators who are experts in the SHSAT process. Project BOOST students come from communities that are currently under-represented at specialized high schools and we are committed to helping those students access the same kinds of test-prep training available to more affluent peers.

More Students Engaging in Social Change

The overwhelmingly popular CEI Benchmarks program has already resulted in 30 social-impact public benches in parks across New York City. For SY 2019-2020, we aim to add more benches to the city and state's parks and empower more young people to become social activists through art.









More Theatre Trips

Last year, Project BOOST students used a total of 5,024 tickets to attend Broadway, off Broadway or other theatrical performances in New York City. For more than 90% of the students, this was their first time experiencing a Broadway show. This year, our goal is to distribute 5,500 tickets to students—both in Project BOOST and their peers at their schools—in order to grow students' confidence in attending public events with their peers.



New Program!

CEI Esports is a new component of Project BOOST for SY 2019-2020. It provides students with an overview of the Esports ecosystem and helps them develop the critical communication, collaboration and problem solving skills students need to thrive in the game world as well as school and life. Esports engages students in innovative ways while improving school culture, building character and promoting career and college readiness. Learning outcome goals for the CEI Esports program are described below.

- **Community Gaming** Students build a strong community of participants who demonstrate leadership, accountability and commitment. Integral to this program are scrimmages, strategy development and problem solving skills.
- Social and Emotional Learning Character building is an important component of this program. Students practice social and emotional skills such as understanding and managing emotions, setting and achieving positive goals, feeling and showing empathy for others, building resilience and establishing and maintaining positive relationships while engaging in competitive activities.



- Equity CEI Esports provides students from diverse backgrounds to engage in online gaming—an arena that has been critiqued for exclusion of females and members of minority communities. The playing field is leveled in CEI Esports to provide equitable opportunities for all children to engage in this emerging field.
- **College and Career Readiness** Students learn both technical and career readiness skills; marketing and business techniques through exposure to the process of designing a culminating tournament. Students learn about broadcasting through commentating of the game play and what to follow on the screen, interviewing and speaking on camera and clipping videos for social media.

Comprehensive Program Evaluation

Project BOOST started out in just 9 schools in 2 boroughs back in 2003. The program has expanded tremendously in terms of students, schools, geographical reach and programming. As reflected in this report, CEI's goal now is to engage in continuous improvement processes to make sure that Project BOOST is giving all of our participants the "boosts" we promise. For SY 2019-2020, we will again conduct this student growth survey, as well as specific program assessments targeted to measure student growth in each of the program areas. We are pursuing additional funding to engage in a robust program evaluation with an external evaluation firm.

NOTES

ⁱ The College Transition Collaborative. See http://collegetransitioncollaborative.org/social-belonging/ (retrieved October 2019).

ⁱⁱ Mindset Scholars Network. See https://mindsetscholarsnetwork.org (retrieved October 2019).

ⁱⁱⁱ Scholastic describes the importance of 7th grade as a transitional year: "By 7th grade it is expected that students have acclimated to life as a middle school student and are therefore expected to work more independently and organize their time and schedules with less (but still some) guidance. In general, in 7th grade, students build on the skills they learned in 6th grade by writing and reading more complex and longer texts and essays, using more sophisticated language and strategies in their writing, studying more complex topics across all subjects, and solving and studying more complex mathematical and scientific concepts... they are pushed to deepen their analytic skills in both ELA and Social Studies... This work will prepare them for 8th grade where they will cement and further their skills, ultimately setting them up for success in high school." Learn more about how 7th grade is a critical year in a student's educational journey at https://www.scholastic.com/parents/school-success/school-success-guides/guide-to-7th-grade.html (retrieved October 2019).

^{iv} Research on metacognition and education typically examines different pedagogical approaches and instructional programs relative to a specific discipline. Current research on 7th grade and metacognition recognizes metacognitive thinking as a critical development skill among this age group. See, for example, "Schema-Based Instruction: Effects of Experienced and Novice Teacher Implementers on Seventh Grade Students' Proportional Problem Solving," (Jitendra, Harwell, Karl, et al, 2016); "Metacognition in Mathematics: Do Different Metacognitive Monitoring Measures Make a Difference?" (Lingel, Lenhart, Schnieder, Wolfgang), 2019); "Effects of a Research-Based Intervention to Improve Seventh-Grade Students' Proportional Problem Solving: A Cluster Randomized Trial," (Jitendra, Harwell, Dupluis, et al, 2015); "How Restudy Decisions Affect Overall Comprehension for Seventh-Grade Students," (Thiede, Redfor, et al, 2017); "Effectiveness of Design-Based Science on Students' Learning in Electrical Energy and Metacognitive Self-Regulation," (Tas, Aksoy, Cengiz, 2019); "The Effects of Using Interactive Student Notebooks and Specific Written Feedback on Seventh Grade Students' Science Process Skills," (Mallozzi, Heilbronner, 2013); "Investigation of the Cognitive Emotion Regulation Strategies Employed by Middle School Students to Deal with Negative Affective Situations," (Osmanoglu, Roksun, 2018).

^v Students who participated in this survey attend schools where Project BOOST is support by a number of New York City Council Members. Therefore, the students surveyed come from schools within these districts and reflect their local communities. These Council Members and their districts are: Margaret S. Chin (1), Corey Johnson (3), Diana Ayala (8), Ydanis Rodriguez (10), Andrew Cohen (11), Mark Gjonaj (13), Ritchie J. Torres (15), Vanessa L. Gibson (16), Rafael Salamanca, Jr. (17), Ruben Diaz, Sr. (18), Rory I. Lancman (24), Daniel Dromn (25), Antonio Reynoso (34), Carlos Menchaca (38), Farah N. Louis (45), Mark Treyger (47), and Deborah Rose (49).

^{vi} See https://teaching.cornell.edu/teaching-resources/engaging-students/collaborative-learning (retrieved October 2019).

^{vii} See https://www.ny1.com/nyc/queens/news/2019/06/11/students-explore-global-issues-using-parkbenches?cid=share_fb&fbclid=IwAR02SKme8tanzAgGPZxKg5q7aYYsjo5dGhWbSB92NpYAShNapMGfdpSJHGo and https://www.qchron.com/editions/queenswide/have-a-seat-and-change-the-world/article_16c01682-9941-5ee1affd-bdf999a595fc.html (retrieved October 2019).

^{viii} https://www.qchron.com/editions/queenswide/have-a-seat-and-change-the-world/article_16c01682-9941-5ee1affd-bdf999a595fc.html (retrieved October 2019).



Partner Organizations

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YouVisit allows students to explore over 600 colleges through immersive virtual tours.



Brienza's Academic Advantage provides proven K-12 tutoring, test preparation and professional development services at their full-service learning centers and in schools.



UBTECH Education is a division of UBTECH—a global leader in intelligent, humanoid robots for consumers, business, and industry. They created UKITs to immerse students in hands-on STEM+C learning by merging modular robotics construction with engineering, math, and language arts, as well as physical and life science.



The Museum of Modern Art, American Museum of Natural History, and El Museo del Barrio sponsor Project BOOST students to tour the museums and experience their unique exhibits.

Funders

New York City Council Members

Margaret S. Chin (1) | Corey Johnson (3) | Diana Ayala (8) | Ydanis Rodriguez (10) | Andrew Cohen (11) Mark
Gjonaj (13) | Ritchie J. Torres (15) | Vanessa L. Gibson (16) | Rafael Salamanca, Jr. (17)
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Carlos Menchaca (38) | Farah N. Louis (45) | Mark Treyger (47) | Deborah Rose (49).

New York State Senators

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