



**Department of
Education**
Carmen Fariña, Chancellor

**Quality Review
Office of School Quality
Division of Academics, Performance, and Support
2013-2014**

Quality Review Report

2013-2014

The Brooklyn School for Math and Research

High School K168

**400 Irving Avenue
Brooklyn
NY 11237**

Principal: Dr. Perry Rainey

Dates of review: October 22-23, 2013

Lead Reviewer: Sheryl L. Watkins

Information about the school

The Brooklyn School for Math and Research (BSMART) is a high school with 207 students from grade 9 through grade 11. The school population comprises 55% Black, 37% Hispanic, 2% White, and 2% Asian students. The student body includes 5% English language learners and 11% special education students. Boys account for 60% of the students enrolled and girls account for 40%. The average attendance rate for the school year 2012 - 2013 was 86.0%.

Overall Evaluation

This school is proficient.

What the school does well

- A highly supportive and mutually respectful learning environment results in high levels of student personal and academic growth. (1.4)
 - Beginning after acceptance into the school, students are strongly encouraged to participate in a 5 week intensive summer program to ensure that their math skills are strong enough to meet the challenge of taking Physics and two periods of math in their first semester. This high expectation not only fosters the development of trusting and mutually respectful relationships between students and staff but additionally sets the standard and provides the supports for academic, scholarship and behavioral expectations. The school lives by the belief and theory of action that embodies the “broken window” theory in that is proactive in addressing possible infractions before they occur. Students’ state feeling valued, as their voice is heard in response to requests for, school clubs, recreational activities and content related trips. The student government’s lobbying for extensions to learning has resulted in activities such as Twin Day, 80’s Day and Nerd Day, as well as trips to Smugglers Notch and Great Adventures. In addition, discussions, where students must take the lead in planning and executing learning experiences are under way to enable students to travel internationally to extend their humanities studies.
 - One full time and one part time guidance counselor, a dean and an assistant dean support a highly effective youth development focus. In addition, each 9th and 10th grade student is programmed for an advisory class four days a week in which a dedicated curriculum is imparted, supported by community based organizations. A 13 week workshop addresses life choices of students such as drugs and alcohol through a decision-making approach. The school additionally implements “No Kidding,” straight talk from teen parents which addresses the choices students make that have an impact on their college and career plans. Parents state that these frank and open discussions assist their children in making positive choices related to pursuing their academic and career goals. In addition, the school has moved to student led conferences, where children are responsible for sharing their academic and social/emotional accomplishments in the presence of their teachers with their families. As a result, there has been a 15% decrease in low level occurrences of behavioral infractions, and 85% of families now participate in parent-teacher conferences, demonstrating the strong communication links between the school and home.
- The school’s commitment to effective and consistent communication to students, families and staff regarding expectations for learning ensure a cohesive roadmap to reach higher levels of achievement.(3.4)
 - School leaders express targeted expectations to staff using the Danielson framework to establish and monitor expected pedagogical practices, and provide explicit teacher action and intervention plans for those in need of improvement. The aforementioned advisory curriculum that promotes college awareness and readiness consistently reinforces student

expectations. The on-line system, Pupil Path, furthermore supports partnerships with parents by providing access to current student performance information as well as homework assignments and attendance data; training on this system is provided by the school community to the parents. As a result, there is a strong culture of accountability for teacher and student success that cements the high performance expectations of students. In addition, ongoing and supportive professional development for teacher practice has resulted in a 100% retention rate for staff within the school.

- Updated standards based common core aligned curriculum with multiple resources and supports promote the engagement of all students in learning experiences that result in high levels of achievement. (1.1)
 - A strategic and focused analysis of student learning outcomes has led to teachers cohesive revisions and extensions to last year's curriculum and respectful common core tasks in all core subject areas to include essential questions that ensure high levels of student thinking, adding direct common core alignment to content standards, and the expansion of learning tasks and supports that now ensures that all students have access to learning and are able to defend their thinking with facts gleaned from Socratic Seminars and research. For example, to support English language learners, the vast majority of teachers offer dual language learning tasks to ensure understanding while building English proficiency. Building on the writing focus and to ensure that all students are ready for the challenges of college, all students in the 11th grade, including those performing at lower levels, are currently drafting college application essays. A strong emphasis on scholarship, along with the ongoing analysis of student performance has resulted in Regents pass rates that include English language learners and students with disabilities, of 100% on Geometry Regents, 89% on the US History Regents, and 87% on the Living Environment Regents exams.
- The strategic use of assessments by all teachers allow for ongoing adjustments to planning and instruction, ensuring that progress is made for all groups of students. (2.2)
 - The school uses a highly sophisticated data analysis system to understand student performance and identify trends. An item analysis is conducted after the administration of all formative assessments that are in full alignment with standards. This provides teachers with detailed information as to which concepts and skills have been mastered and those in need of strengthening. Regents scoring rubrics are consistently used to assess mastery in learning tasks and written work products as well as provide actionable feedback to both teachers and students related to expectations and performance. Most often, student groupings within classrooms are determined based on assessment analysis. In addition, adjustments to planning and instruction are made to ensure that the vast majority of students are able to demonstrate mastery. Teachers routinely check for understanding during instructional periods by asking students to support their oral and written responses and by requiring all students to complete exit tickets that are related to the essential teaching points, during the summation phase of lessons. These data points guide planning for future lessons. In response to the feedback they receive, students are

able to clearly articulate what their next steps are in order to take greater ownership of their learning. In addition, former Regents exams are administered to students three times a year. These assessments guide instructional modifications and have a 90% accuracy rate of predicting what score students will achieve when they sit for the actual exams, resulting in the high levels of passing rates. In addition, as a result of the focused analysis of student performance, 85% of 9th graders, and 80% of 10th graders have earned at least the 10 credits needed to be able to reach graduation within a 4 year period.

What the school needs to improve

- Ensure that instruction includes multiple entry points, learning experiences and extensions in order to ensure meeting the needs of all learners. (1.2 P)
 - All staff honors the school's beliefs related to student learning that embraces the practices of all learning being measurable, assessable and is ongoing. Higher order questioning is embedded within lesson plans, and students articulate that they must "defend their thinking" during instructional periods and in homework assignments and projects. A classroom structure of small group work ensures high levels of participation and engagement. Student groupings vary in that some are based on student performance while others place high achieving students in groups to support their peers. Most lesson plans include accommodations for students. However, students express that they are not routinely provided with varied entry points into learning experiences and tasks, and while supports such as graphic organizers and language translations are offered for English language learners and students with disabilities, they do not always challenge some students, specifically those achieving at the highest levels to extend their learning. These practices limit teachers' ability to consistently meet the needs of all learners, limit high quality supports and extensions, thus preventing even higher levels of achievement.
- Strengthen inquiry-based collaborations that use the instructional core to reflectively evaluate student work in order to address the learning needs of all students. (4.2 P)
 - All teachers are provided with time to meet at least 4 times per week. Wednesdays are truncate days of school, which allows for an additional 1 ½ hours of dedicated teacher team meeting time in the afternoon. During the 2012-13 school year much of teacher team meeting time was dedicated to unpacking the Danielson framework and building consistent assessment practices, a goal of the school. The evaluation of the work of teams did not meet administrative expectations, thereby identifying the need to focus more strongly on assessment information to guide strategies to bolster higher achievement for larger numbers of students. Therefore, this year, teacher team meetings include set and coherent protocol usage to increase the commitment to the inquiry cycle and how it drives higher levels of progress for struggling students. This reenergized focus has not yet led to shared improvements in teacher practice or progress towards mastery of goals for groups of students.

Part 3: School Quality Criteria 2013-2014

School name: The Brooklyn School for Math and Research	UD	D	P	WD
Overall QR Score			X	
Instructional Core				
To what extent does the school regularly...	UD	D	P	WD
1.1 Ensure engaging, rigorous, and coherent curricula in all subjects, accessible for a variety of learners and aligned to Common Core Learning Standards and/or content standards?				X
1.2 Develop teacher pedagogy from a coherent set of beliefs about how students learn best that is informed by the instructional shifts and Danielson Framework for Teaching, aligned to the curricula, engaging, and meets the needs of all learners so that all students produce meaningful work products?			X	
2.2 Align assessments to curricula, use on-going assessment and grading practices, and analyze information on student learning outcomes to adjust instructional decisions at the team and classroom levels?				X
School Culture				
To what extent does the school ...	UD	D	P	WD
1.4 Maintain a culture of mutual trust and positive attitudes that supports the academic and personal growth of students and adults?				X
3.4 Establish a culture for learning that communicates high expectations to staff, students and families, and provide supports to achieve those expectations?				X
Systems for Improvement				
To what extent does the school ...	UD	D	P	WD
1.3 Make strategic organizational decisions to support the school's instructional goals and meet student learning needs, as evidenced by meaningful student work products?			X	
3.1 Establish a coherent vision of school improvement that is reflected in a short list of focused, data-based goals that are tracked for progress and are understood and supported by the entire school community?			X	
4.1 Observe teachers using the Danielson Framework for Teaching along with the analysis of learning outcomes to elevate school-wide instructional practices and implement strategies that promote professional growth and reflection?			X	
4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning?			X	
5.1 Evaluate the quality of school- level decisions, making adjustments as needed to increase the coherence of policies and practices across the school, with particular attention to the CCLS?			X	

Quality Review Scoring Key