Department of Education
Carmen Fariña, Chancellor

Office of School Quality
Division of Teaching and Learning

Quality Review Report

2014-2015

Brooklyn School of Inquiry

Elementary School K686

50 Avenue P
Brooklyn
NY 11204

Principal: Donna Taylor

Date of review: March 26, 2015
Lead Reviewer: Heidi Pierovich

The School Context

Brooklyn School of Inquiry is an elementary school with 437 students from kindergarten through grade 6. The school population comprises 5% Black, 5% Hispanic, 73% White, and 16% Asian students. The student body includes 6% English language learners and 5% special education students. Boys account for 48% of the students enrolled and girls account for 52%. The average attendance rate for the school year 2013-2014 was 96.0%.

School Quality Criteria

Instructional Core		
To what extent does the school…	**Area of:**	**Rating:**
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	**Additional Findings**	**Well Developed**
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	**Additional Findings**	**Well Developed**
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	**Focus**	**Well Developed**
School Culture		
To what extent does the school…	**Area of:**	**Rating:**
3.4 Establish a culture for learning that communicates high expectations to staff, students, and families, and provide supports to achieve those expectations	**Additional Findings**	**Well Developed**
Systems for Improvement		
To what extent does the school…	**Area of:**	**Rating:**
4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning	**Celebration**	**Well Developed**

Area of Celebration

Quality Indicator:	4.2 Teacher teams and leadership development	Rating:	Well Developed

Findings
The vast majority of teachers are engaged in inquiry-based, structured professional collaborations that have strengthened teacher instructional capacity and promoted the implementation of the Common Core Learning Standards and the instructional shifts. Distributed leadership structures are embedded.

Impact
As a result of inquiry-based structured professional collaborations, there is school-wide instructional coherence and increased student achievement. Effective teacher leadership is well established and teachers play an integral role in key decisions affecting student learning across the school.

Supporting Evidence

- The principal devised a master schedule that provides teachers a three-period block weekly to meet in teams. A teacher on special assignment, one each for grades K-2 and 3-6 and a math coach and the principal supports each team. As the school's name suggests all stakeholders are involved in inquiry school-wide, teacher teams, students, and administration. The principal stated and teachers agreed that, "Teachers are transparent in the learning process and often intervisit because that is our school culture." Teacher teams use an inquiry process to guide their work in aligning curricula and instruction to Common Core standards and instructional shifts, revising based on student work and data. For example, a sixth grade teacher provided students with a text-based argumentative essay to write and revise as they learned the writing process. Student work demonstrated a lack of revisions and editing. The teacher worked with her team to revise the lesson ensuring that students had hands-on experiences to revise and edit their essays over a set time frame.

- Since there are two teachers per grade only, in addition to meeting as a grade, teachers meet in math and humanities teams to ensure coherence vertically and horizontally. Teachers are expected to own this process and assume leadership in contributing to key decisions as part of their work. For example in one teacher team meeting the grade team teachers supported each other in developing a new advisory inquiry about how students think using a non-fiction article about the construction of the brain during adolescence as a resource. Another team, consisting of the two teachers on special assignment and a fifth grade teacher who conducts a Tribes Learning Community and Responsive Classroom program to support social-emotional development spearheaded inquiry support and resolutions regarding community, leadership, and instruction-pedagogy for all teachers.

- Each inquiry team meets weekly and then reports back what they have learned to the whole staff during teacher-created professional development sessions. This method enables all to collaborate on topics and be the "expert" and, as teachers explained, be mutually supported by their colleagues. Teachers shared that they have a "deep sense of collegiality" that they have never experienced elsewhere. They cited the school's constructivist education philosophy as one of the major reasons for teaching at the school but unanimously agreed that the greatest reason to teach at the school was the students. In their own words, teachers described the school environment as "one where everyone is always learning".

Area of Focus

Quality Indicator:	2.2 Assessment	Rating:	Well Developed

Findings
Although teachers use or create common assessments, rubrics, and grading policies that are aligned with the school's curricula that offer a clear portrait of student mastery and track progress toward goals across grades and subjects, some action plans created to adjust curricular and instructional decisions do not reflect the same depth of planning as assessments.

Impact
Actionable and meaningful feedback guide students and teachers in understanding student achievement and adjustments so that all students demonstrate increased mastery.

Supporting Evidence

- The staff writes their own curriculum and assessments as each grade is added to the school using the essential understandings and questions of each unit to develop the criteria being taught and assessed. Common assessments, rubrics, and checklists for all assignments gauge student progress toward goals, across the school and subjects supporting vertical and horizontal alignment. For a baseline and quarterly assessment, the staff uses and has been normed on Fountas and Pinnell and Teacher's College running records to assess reading levels and comprehension. To move to the next reading level, students need to successfully read gateway books that teachers have determined assess both decoding and comprehension acumen. Coaches spot check to support the norming.

- On large common assessments, teachers develop item analysis action plans, and use these to support student mastery. Although this deep dive into the data reveals direction for reteaching with teacher-created action plans, lessons, and mini-lessons, not all data analyses are equal. A review of student reading notebook entries yielded a plan to reteach and foster greater engagement. Yet an item analysis action plan for Common Core Reading Language Standard 5.3 read, "Review question and why 'a' and 'c' are not correct." Each of the missed items on this analysis had a similar action plan. So, although most teacher analysis of student work yields adjusted curricular and instruction so that all students demonstrate increased mastery, not all action plans support this demonstration.

- Teachers provide students with actionable feedback on their work, individually and in groups. The feedback, rooted in the rubric, and tailored for each student, often pushes student's thinking with additional questions to move them to the next level. Feedback includes positive comments and areas in need of growth with a copy of the rubric attached. For example, on first grade science models regarding precipitation, feedback ranged from comments such as, "Those look like happy fish. Animals need the water cycle to happen, so it fits that you included them in your model. Where could you have put the precipitation?" to "Your model shows condensation, evaporation, and precipitation and what causes them- the cold mountain top, the warm sun? Did you know that it also shows another part of the water cycle that we didn't even learn yet? Water vapor also comes from trees and other plants. It is called evapotranspiration!"

- Students stated they know their reading goals and track their progress toward these goals. In one class, a teacher-created chart suggested students increase the variety of reading by selecting other genres, reflecting on their thinking, and spending more time reading daily.

Additional Findings

Quality Indicator:	1.1 Curriculum	Rating:	Well Developed

Findings
School leaders and faculty ensure that curricula are aligned to Common Core Learning Standards and/or content standards, strategically integrate the instructional shifts, and plan and refine curricula and academic tasks using student work and data.

Impact
Curricular coherence across grades and subject areas promote college and career readiness, and careful refinement of tasks based on student data ensures that all students have access to the curricula and tasks and are cognitively engaged.

Supporting Evidence

- Curricula maps reflect purposeful planning for Common Core alignment in documents that provide overviews, scope and sequence, and detailed unit lessons. Lesson plans include components such as objective/teaching aim/learning target, differentiation strategies and scaffolds to support all learners, materials needed, teacher/staff roles, assessments and checking for understanding methods, and next steps. Additionally, plans outline timed sections within the workshop model for whole class introductions, independent work, partner work, conferencing called congress and reflection. Although the titles of some of these sections vary slightly, the contents remain coherent in depth of rigor, differentiation, higher-order questions, and inquiry. For example, rigorous questions in lesson plans include, “How do fractions or negative integers impact an expression?” in a sixth grade algebra lesson, “Can we as scientists predict the behavior of a rolling cup?” in a second grade science lesson, and “How do we convince others to agree with us?” in an English language arts first grade lesson.

- To meet the needs of the gifted and talented student population and the subgroups of students therein, the curricula used is a strategic conglomeration of previously revised teacher-created curricula, Teacher’s College Reading and Writing Curricula, Context for Learning, TERC Investigations, New York City Department of Education (NYCDOE) project-based units, EngageNY, NYCDOE social studies scope and sequence, and other materials. To ensure that the curricula are coherent, it is placed on a continuum by grade level for English language arts and math, where teachers ensure students have hands-on projects that involve inquiry. The curriculum overviews include subjects, assessments, word study, social studies, science, integrated art projects and integrated technology projects, trips, and enrichment. Integrated nonfiction units demonstrate big idea and essential questions as well as of the standards as they are unwrapped to show the knowledge and skills with matching higher levels of Depth of Knowledge questions, such as in grade two, “What makes nonfiction easy to understand?” Additionally, incorporation of word study is integral because students of all grades learn vocabulary with additional emphasis placed on supporting students whom English is not their first language.

- The staff is committed to integrating learning in units that include science, humanities, technology, art, and math (SHTEAM). To this end, staff examines curricula to determine what students will be doing, ensuring that the unit meets the Depth of Knowledge levels that the Common Core standards require, supports and extensions for all students, and at which level they will be assessed.

Quality Indicator:	1.2 Pedagogy	Rating:	Well Developed

Findings
Across the vast majority of classrooms, teaching practices are aligned to the curricula, informed by the Danielson Framework and Common Core instructional shifts, and reflect a coherent set of beliefs about how students learn best as reflected in student work products and discussions.

Impact
All students benefit from challenging inquiry-based learning experiences that cognitively challenge them resulting in in high levels of student thinking, participation, and ownership.

Supporting Evidence

- The school's focus is on sharpening questioning and discussion techniques. Across classes, questions were high level on the Depth of Knowledge scale and open-ended for students to discuss, predict, and discover real-world applications. In a sixth grade algebra class questions included, "How do fractions or negative integers impact an expression?" In a fifth grade math class, in small groups students created situations to model multiplication and division of fractions and mixed numbers. Students were tasked to model and write an equation for the scenario that they created to represent two divided by one-third.

- The staff and administration believe that students learn best through inquiry in rigorous hands-on tasks that integrate multiple subject areas. In a sixth grade algebra class, students worked in small groups or pairs in an expression investigation to substitute numbers, some random, some systematic, to determine if the equations are greater, less than, or equal to "x + 5". While working in data-determined pairs or small groups, students collaborated and used previous knowledge from the day's lesson and previous ones. The teacher conferenced with students, tracking responses to inform data-determined flexible groups. The lesson was differentiated and provided students choice as evidenced by students self-selecting where to begin, how to solve, and how to sort their answers on a graphic organizer. Some students used whiteboard tables as scratch paper drawing a number line and solving equations. Similarly, in a second grade science class, students worked in data-determined groups where they had roles and discussed their hypothesis, predicting the behavior of a rolling cup on a slanted surface. The teacher differentiated the tasks for leveled groups, the members, and each challenge posted. Groups were to roll the cup a different way to track data, providing leveled tasks to groups. The teacher conferenced with groups tracking responses, using this information for the next day's data-determined groups and tasks. Also in a first grade class, students in pairs and data-determined groups sorted and charted shapes using manipulatives, by defining attributes, vertices, angles, sides, etc. Afterward, using sentence starters, students explained what they learned about the shapes and how they sorted them.

- In grades observed, teachers worked with students as they read, predicted, and discovered textual connections between other texts, themselves, and the world. In a third grade class, students worked in peer partnerships and were given a choice to either follow along, listen, or take notes, employing their best learning strategies as the teacher read-aloud. The teacher asked open-ended discussion questions requiring students to predict and infer and tracked their responses to inform instruction and grouping. In a fifth grade class, students discussed a book, generating and owning their thinking in what the teacher calls the "circle of talkingness", where they make textual connections to other texts, themselves, and the world. The teacher tracked responses to inform the next day's lesson and grouping.

Quality Indicator:	3.4 High Expectations	Rating:	Well Developed

Findings
School leaders consistently communicate high expectations aligned to the Danielson Framework to the entire staff, and provide training. Staff and school leaders effectively communicate expectations connected to a path to college and career readiness and successfully partner with families.

Impact
A culture of mutual accountability for set expectations results in all stakeholders supporting student progress toward those expectations.

Supporting Evidence

- Across the school, each stakeholder shared the high expectations held by all. Parents shared that the teachers and administration are responsive and in constant contact with them, through emails, phone calls, and text messages, touting that communication is “clear and consistent” as the whole community collaborates toward helping “their children” progress toward goals. Parents shared stories of how quickly they received multiple responses to emailed homework questions on a weekend or evening, testifying as to the support and genuine caring of staff. Students shared that their teachers work with them to create and accomplish goals, whether in reading, writing, or math and that these are often kept in the student’s conference notebook. Students shared that upon starting a new task, they reflect on the goals, as teachers reference the goals and use preferred learning styles.

- Parents stated that teachers provide materials for them to support their child’s learning at home throughout the year including breaks and summer. They agreed that the staff and administration support and communicate their child’s growth toward goals, in core classes or genius hour, where students explore their passions extending and integrating learning and inquiry. Furthermore, parents said that students are supported toward the next level, whether it is middle school, selecting high school, or college, and that goals are not limited just to college but include careers, personal inquiries, and hobbies. They shared that the inquiry method of learning through real-world applications supports all students to think critically and express their thinking through discussion. Parents said they were pleased that the school “helps their children discover the kind of learner they are so that they can own their learning processes, because many are not linear thinkers”.

- Teachers stated that the staff and administration believe that students and teachers alike learn best through inquiry and so questioning and discussion are a focus through the Danielson Framework for Teaching. Teachers are supported through a cycle of observations, feedback sessions, and professional development. The administration also has a focus on feedback, whether from administration to teachers, teachers to teachers, teachers to students, or students to students. To this end, it is one of the major streams of inquiry that the staff has embarked upon this year. The principal models this reflective learning through professional development for both staff and administration, stating that everyone at the school is a learner and improving daily. Staff intervisit to observe each other’s best practices and this adds to the culture of mutual accountability. Teachers also co-teach once a week to support students on their independent projects and in small groups. Teachers stated that teaching gifted and talented students requires a continuous improvement model to refine and revise the levels of questioning and discussion to ensure extensions of learning.