Quality Review Report
2016-2017

Bronx High School for Medical Science
Secondary School 09X413
240 East 172nd St.
Bronx
NY 10457

Principal: William Quintana

Dates of Review:
April 6, 2017 - April 7, 2017

Lead Reviewer: Daisy Concepción
The Quality Review Report

The Quality Review is a two-day school visit by an experienced educator. During the review, the reviewer visits classrooms, talks with parents, students, teachers, and school leaders and uses a rubric to evaluate how well the school is organized to support student achievement.

The Quality Review Report provides a rating for all ten indicators of the Quality Review Rubric in three categories: Instructional Core, School Culture, and Systems for Improvement. One indicator is identified as the **Area of Celebration** to highlight an area in which the school does well to support student learning and achievement. One indicator is identified as the **Area of Focus** to highlight an area the school should work on to support student learning and achievement. The remaining indicators are identified as **Additional Finding**. This report presents written findings, impact, and site-specific supporting evidence for six indicators.

Information about the School

Bronx High School for Medical Science serves students in grade 6 through grade 12. You will find information about this school, including enrollment, attendance, student demographics, and data regarding academic performance, at http://schools.nyc.gov/Accountability/tools/report/default.htm.

School Quality Ratings

<table>
<thead>
<tr>
<th>Instructional Core</th>
<th>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</th>
<th>Proficient</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Area of Celebration</strong></td>
<td>Proficient</td>
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<tr>
<td>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</td>
<td>Developing</td>
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<tr>
<td></td>
<td><strong>Area of Focus</strong></td>
<td>Developing</td>
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<tr>
<td>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</td>
<td>Developing</td>
<td></td>
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<tr>
<td></td>
<td><strong>Additional Finding</strong></td>
<td>Developing</td>
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</tbody>
</table>
### School Culture

<table>
<thead>
<tr>
<th>Area</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>1.4 Maintain a culture of mutual trust and positive attitudes that supports the academic and personal growth of students and adults</td>
<td>Additional Finding</td>
</tr>
<tr>
<td>3.4 Establish a culture for learning that communicates high expectations to staff, students and families, and provide supports to achieve those expectations</td>
<td>Additional Finding</td>
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### Systems for Improvement

<table>
<thead>
<tr>
<th>Area</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>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</td>
<td>Additional Finding</td>
</tr>
<tr>
<td>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</td>
<td>Additional Finding</td>
</tr>
<tr>
<td>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</td>
<td>Additional Finding</td>
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<tr>
<td>4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning</td>
<td>Additional Finding</td>
</tr>
<tr>
<td>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</td>
<td>Additional Finding</td>
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</tbody>
</table>
Area of Celebration

| Quality Indicator: | 1.1 Curriculum | Rating: | Proficient |

Findings
School leaders and faculty have adopted Understanding by Design to ensure that curricula are aligned to the Common Core Learning Standards, integrate the instructional shifts, and that academic tasks consistently emphasize higher-order thinking.

Impact
The purposeful decisions of school leaders and faculty build coherence and promote college and career readiness. Curricula and academic tasks consistently emphasize rigor across grades and subjects for all students.

Supporting Evidence

- School leaders have selected a variety of New York City Common Core aligned curriculum to meet student needs in grades six through twelve. To unify these curricula for the school, school leaders made a purposeful decision to use the Understanding by Design, (UbD) approach to develop unit and lesson plans across all content areas. Units and planning documents list all the Common Core Learning Standards and are beginning to demonstrate the school's new focus on disciplinary literacy. These documents show a clear focus on the instructional shifts and evidence the use of academic vocabulary, close reading, notetaking, and annotations across all grades and subjects. Aligned to the school's goal of ensuring that students are ready for college level writing, units reflect a focus on citing textual evidence, engaging in research, developing a claim and a thesis statement, and defending a position in an argumentative essay.

- Math units reflect the instructional shift of developing both conceptual understanding and application to support deep understanding. Students are required to write equations in different but equivalent forms and to learn quadratic functions as well as square roots and cube root functions. Students are required to summarize, represent, and interpret data on two categorical and quantity values, and build models that show relationships between quantities. A review of this unit also demonstrates the use of technology, such as a graphing calculator and inclusion of rigorous, tiered tasks for students.

- A review of tasks across the curricula show that they consistently emphasize rigor as they are aligned to Webb’s Depth of Knowledge level three. These tasks require students to look for multiple perspectives and viewpoints, and encourage divergent thinking such as in a social studies task on Utopian leaders in an advance placement United States History unit. Students are required to read manuscripts from historical figures such as William Broadford and John Winthrop and infer causes leading to the separation from the Anglican Church. English Language Arts units also demonstrate students engaging in analyzing literature or analyzing characters and inferring motives leading to behavior. A math unit on descriptive statistics calls for students to analyze information in order to understand relationships and interpret correlations in data.
Findings
Teaching practices are beginning to become aligned to the school’s belief of hands-on content based inquiry. Teaching practices, including the use of scaffolds, inconsistently provide multiple entry points into the curriculum leading to uneven levels of student participation.

Impact
Classroom practices are beginning to reflect student engagement in disciplinary learning; however, this belief is not yet supported by the teaching practices of jigsaw and questioning, presently in use. As such, there is unevenness in student demonstration of higher-order thinking in both conversations and work products.

Supporting Evidence

- In a discussion with school leaders, they stated that learning happens best when students are engaged in a process of inquiry that involves them in direct content discipline learning and not in rote memorization, summary, and repetition. They added that students need to be engaged in reading and thinking in the actual discipline. This school belief was observed in a few classes. In a social studies class, students read excerpts written by Utopian writers to understand the separation from the Anglican Church, and in an English class, students were immersed in the artwork, poetry, and music of the Harlem Renaissance. However, pedagogy in the majority of the classrooms observed did not reflect this belief.

- While students in the majority of classrooms engage in appropriately challenging materials, teaching strategies did not provide entry points into the curricula so that students could demonstrate higher-order thinking. Inconsistency in teaching strategies was apparent in two different social studies classrooms. In a global history class, the teacher used a jigsaw protocol to have students read various documents on China’s Cultural Revolution. Students read and highlighted documents in order to develop content background and analyze Mao’s attempt to transform Chinese society. A series of essential questions ensured that students were able to summarize and analyze the texts to make connections across documents and engage in conversation across tables that showed a deep understanding of content. A similar teaching strategy was observed in a US History class where students were grouped to look at different political cartoons on the Great Depression. Students looked at cartoons of breadlines and bank buildings that had crumpled. While students were able to describe what they were seeing, they were unable to answer the questions on their worksheets or make inferences on how these cartoons connected to the Great Depression. Teacher questions in this class focused on simple recall asking students to remember previous conversations. The teacher asked students to reference notes; however, notebooks reflected simple outlines on the subject with no depth and did not support thinking. This pattern of teachers using recall questions was seen in many classrooms, leading to uneven engagement and demonstration of higher-order thinking.

- While there were classrooms that demonstrated a high degree of student engagement and thinking, including a class where students annotated text from Elie Wiesel’s *Night* in order to prepare for a class discussion, many of the classes relied on worksheets, many of which were only partially complete. Additionally, in many classes, student conversations were limited to only a few students or the designated group leader.
Additional Finding

<table>
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<tr>
<th>Quality Indicator:</th>
<th>2.2 Assessment</th>
<th>Rating:</th>
<th>Developing</th>
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Findings

Assessment practices across the school are developing as rubrics are loosely aligned to the school’s curriculum, checks for understanding are inconsistently used, and school leaders and faculty are beginning to collect data from common assessments to measure student progress.

Impact

As a result, students receive limited feedback, teachers inconsistently make effective adjustment to meet student learning needs, and common assessments are inconsistently used to adjust curricula or instruction.

Supporting Evidence

- In a meeting with school leaders, the principal stated that one of the major undertakings of the year was to focus on developing a rigorous, aligned curricula supporting college readiness and as such, he was in the “pristine stage” of developing a “data driven school culture.” The school leaders and staff have recently adopted an assessment plan that includes beginning, middle, and end-of-year assessments. These common assessments are teacher created across content areas and designed to measure student progress towards the school’s newly adjusted curriculum. However, a review of these assessments shows that they are not always aligned to the Common Core Standards and are not yet used to make curricular or instructional adjustments.

- The approach to using rubrics across the school is inconsistent and they are not fully aligned to the curricula. Some classes, like a biology class on the food web, use simple checklists with criteria such as listing 10 organism or coloring a diagram. A fable rubric lists criteria as “includes some elements” as the descriptor for responses for levels two, three, and four. Written feedback to students ranges from focus words of encouragement to the use of punctuations. Teachers also use a Regent scoring rubric for providing feedback to students about their next instructional steps. As a result of these practices, students receive inconsistent feedback from a variety of sources, thus missing out on providing clear guidance as to next steps to improve the quality of their work products. Additionally, this practice results in limited feedback to teachers regarding student achievement, which hinders their ability to use the results to drive instructional or curricular adjustments. Also, the lack of specific and actionable feedback is reflected in students' portfolios that reflected students' next steps for improvement would be achieved “by studying,” “by focusing,” and “by trying harder” instead of listing a specific skill, strategy, or revision to improve student work or academic achievement.

- While in one class, the teacher used clickers, a technology program that allows the teacher to show real time responses on the board, to effectively adjust instructional groupings, there were very few adjustments seen across the majority of classrooms. In some classes, such as a grade nine class, the lesson was comprised of asking students to repeat the question being asked or to repeat an answer. In a grade seven English Language Arts class, students sat unengaged in front of blank worksheets with limited text on the Seven Wonders of the World. The teacher asked students, “What was a World Wonder?” Although students were unable to respond, the teacher proceeded with the lesson asking students how these Wonders could be preserved. In biology class on the flow of energy from predator to prey, students sat in groups with highly descriptive and poetic text from which they needed to identify producers and consumers in the food web. Students struggled to comprehend the text and use it to complete the worksheets. Although students were unengaged, unable to complete the organizer or engage in conversation, there were no checks for understanding and consequently no adjustments were made.
### Findings

School leaders consistently communicate high expectations aligned to college and career readiness to the entire staff who has established a culture for learning that communicates high expectations for all students.

### Impact

The faculty and staff are provided with training and support connected to the school's mission of creating college ready students. Teacher teams and staff provide students with personalized, detailed, and ongoing feedback preparing them for their next level.

### Supporting Evidence

- All communications, whether written or in person, consistently communicate an expectation that the mission of the school is to create students who are career and college ready. To that end, school leaders have focused on strengthening the alignment of their curriculum maps to the Common Core Standards and are designing rigorous tasks that increase student engagement. This focus is connected to Danielson’s *Framework for Teaching*. A review of the school professional plan shows that teachers have been provided with training on these elements and that conversations continue throughout the school year during Monday's professional development sessions and in teacher team meetings. Additionally, a review of observations evidences that school leaders hold teachers accountable to rigor and student engagement.

- In two student meetings, students stated that there is one very clear and consistent message delivered by school leaders and faculty that begins in grade six and persists until graduation; that message is college readiness. Students stated that they have benefitted from the rich and layered support advisement systems at the school provide them. Guidance and ongoing detailed feedback in transcript reviews prepares students for their next steps, and as such, they stated that there are frequent academic conversations and transcript reviews to help them plan their classes and track their progress towards graduation. Programs, like ‘College Access for All,’ ensure that every middle school student is exposed to college culture and he/she has an opportunity to visit a college campus. Connected to its mission of being a high school for medical science, there is a partnership with Jewish Home and Hospital allowing students to gain work experience in a geriatric center. As a result of this focus on graduation, the school has a 95 percent graduation rate while the City average is 72 percent. Additionally, while the college and career readiness index for the City hovers at 37 percent, the school's college and career readiness index is 58 percent, demonstrating the effectiveness of the school's guidance and advisement supports.

- In a meeting with eleventh-grade high school seniors, they spoke about their experience of being in the school's accelerated track. Students shared that they had received detailed advisement beginning in grade six that allowed them to be prepared for Regents work in grade seven. As a result, one third of the grade eleven students have passed all their Regents courses and exams and have accumulated the credits required to graduate high school. Through the school’s partnership with the College Now program, eleventh grade students have taken at least four college credits. One student in the meeting stated, "I don't know how many schools there are out there that allow you to graduate from high school in eleventh grade with 12 college credits. This makes me an upper class freshman in college and allows me to sign up for more courses and saves me financial aid money."
Findings
School leaders support teacher development through observations and data conversations. Teachers receive feedback that accurately captures their strengths and challenges, and provides next steps aligned to the Danielson Framework for Teaching.

Impact
Frequent cycles of classroom observations support teacher development by providing teachers with both clear expectations for their practices and effective feedback.

Supporting Evidence

- School leaders are focused on establishing routines and protocols to support student engagement based on the book *Teach Like a Champion*, which is being used as a professional development text. A review of school memoranda shows that school leaders use this text to outline expectations for teaching practices. In one memorandum to grade six teachers, school leaders asked teachers to read an excerpt from the book as it would serve as the focus for an upcoming learning walk. Consequently, a review of the notes from the learning walks demonstrates that teachers were provided with feedback aligned to the strategies in text. A review of formal observations follows up on this focus and deepens the work by providing teachers with feedback aligned to these shared expectations as seen in one observation that asks the teacher to read “chapter five on 'Lesson Structure'” in order to strengthen lesson planning. Additionally, a review of follow-up observations shows that teachers are able to incorporate school leader feedback, thus evidencing the effectiveness of feedback received from various cycles of observations.

- School leaders have established individual data meetings with teachers in order to provide them with written feedback. A review of data meeting emails shows that feedback focuses on student work and the results of common assessments. In one of the emails, the school leader asks the teacher to ensure that she uses checks for understanding connected to “high leverage” topics in order to ensure that student achievement measures “depth vs breadth.” This pattern of data meeting conversations aligned to assessment leading to clear expectations for teacher practice was seen across most of these emails.

- A review of the professional development plan reveals that teachers have received supports in disciplinary literacy, increasing rigor and the use of Cornell notes, questioning, and the use of vocabulary all aligned to the school’s mission of ensuring that students are college ready. Furthermore, a review of observation reports shows that teachers receive feedback that provides clear expectations for teacher practices aligned towards these shared expectations. In one observation, the school leader reminds the teacher that the goal is to ensure that students read primary documents and approach this reading like a “historian,” aligned to disciplinary literacy. In another observation, the school leader reminds a teacher that the goals are to ensure that students are annotating and using Cornell notes. Teachers use this feedback to develop goals and select professional development that supports their practice in meeting both their professional goals and the school expectations.
## Additional Finding

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<th>Quality Indicator:</th>
<th>4.2 Teacher Teams and Leadership Development</th>
<th>Rating: Developing</th>
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### Findings

Teacher teams are in the process of developing inquiry-based professional collaborations and participating in the analysis of student work and data related to the school's goals on supporting student engagement.

### Impact

The teacher team inquiry process has not yet strengthened teachers' instructional capacity or increased student progress.

### Supporting Evidence

- Teacher teams meet regularly to unpack, discuss, and plan instructional approaches that align with the school's instructional goal of deepening disciplinary literacy, strengthening the use of data, and accelerating college readiness. A review of teacher team agendas and notes reflects team members’ discussions that included the review of credit accumulation, data, and/or curricula revisions. However, the implementation of inquiry-based structures such as the use of protocols and processes for reviewing student data related to the goals of the school was not evidenced at the school.

- During a math team meeting, teachers reviewed student work on function of operations involving polynomials. In a vertical math team meeting, two grade nine teachers shared out their noticing on student work with their colleagues. They shared observations such as the fact that students had trouble with composite numbers, factoring perfect squares and difficulties changing the signs of polynomials following the use of the subtraction symbols. While these teachers created a long list of the difficulties that students presented, they did not list implications for addressing these findings until their colleagues held them accountable by asking them how they would address the patterns seen in the student work. As there was no response from the presenting teachers, the other math teachers offered math strategies in addition to making suggestions such as simplifying the process by breaking apart the numbers or chunking the task. The presenting teachers stated that their plan was to create student-led tutoring groups where a more proficient student would work with struggling students so as to allow them to move on with their curriculum. The grade nine teacher added that this would be difficult for the students leading the re-teaching as the number of students needing remediation in this topic was large. Team meetings such as this limit improving teacher practice or supporting progress towards goals by groups of students.

- School leaders have created vertical teams that span grades six through twelve, to build curricular coherence across the grades and refine instruction to promote career and college readiness. However, a review of teacher team notes shows that teacher teams do not yet focus consistently and strategically on looking at student work and data to ensure improved teacher practice and close the student achievement gap. In a math team meeting, grade nine teachers sat with grade six teachers. As the grade nine teachers presented student work, they stated that the errors that they were seeing in student work actually stemmed from misconceptions in grade six. Teachers in this meeting stated that they were still addressing gaps created by the adoption of the Common Core Learning Standards in elementary school. Teachers in this vertical team did not use this opportunity to engage in a conversation on how these errors could inform schoolwide curricular changes, thus the use of an inquiry approach is developing.