Quality Review Report
2017-2018

The Science And Medicine Middle School
Junior High-Intermediate-Middle 18K366
965 East 107Th Street
Brooklyn
NY 11236

Principal: Dennis Herring Jr

Dates of Review:
February 13, 2018 - February 14, 2018

Lead Reviewer: Michele Ashley
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

The Science And Medicine Middle School serves students in grade 6 through grade 8. 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>Area</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To what extent does the school...</strong></td>
<td></td>
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</tr>
<tr>
<td>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</td>
<td>Area of Celebration</td>
<td>Proficient</td>
</tr>
<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>Additional Finding</td>
<td>Proficient</td>
</tr>
<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>Additional Finding</td>
<td>Developing</td>
</tr>
</tbody>
</table>
### School Culture

<table>
<thead>
<tr>
<th>To what extent does the school...</th>
<th>Area</th>
<th>Rating</th>
</tr>
</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>
<td>Proficient</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>
<td>Proficient</td>
</tr>
</tbody>
</table>

### Systems for Improvement

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<thead>
<tr>
<th>To what extent does the school...</th>
<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>
<td>Proficient</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>
<td>Proficient</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>Area of Focus</td>
<td>Developing</td>
</tr>
<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>
<td>Proficient</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>
<td>Proficient</td>
</tr>
</tbody>
</table>
Area of Celebration

<table>
<thead>
<tr>
<th>Quality Indicator:</th>
<th>1.1 Curriculum</th>
<th>Rating:</th>
<th>Proficient</th>
</tr>
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</table>

Findings

Curricula align to Common Core Learning Standards and content standards and English Language Arts (ELA) and math lessons integrate technology, academic vocabulary, and real world applications. Tasks are planned and refined using interim assessment and exit ticket data.

Impact

Purposeful curricular decisions build coherence, and promote college and career readiness for all students. Teachers use data to plan tasks that engage students and provide access for diverse learners.

Supporting Evidence

- School leaders make purposeful decisions to align curricula to the Common Core and support the articulated instructional focus that students learn best through rigorous, highly engaging, standards-based instruction that connects academic content with real-world application and integrates technology to appeal to students’ learning styles. Across lesson and unit plans, teachers align learning objectives to identified Common Core standards. For example, a humanities lesson includes the learning objectives, “Students will be able to determine the central idea of a non-fiction text and support it with relevant textual evidence.”, and “Students will be able to cite textual evidence to support their analysis of central idea, mood, theme and tone.” This plan identifies aligned Common Core standards for reading informational text, writing, speaking, listening, and language.

- Leadership shared that to build coherence across planning documents, faculty has adopted the Science and Medicine Middle School 366 Lesson Plan Template. Most lesson plans reviewed utilize this format, which requires teachers to identify the learning objective, essential question, Common Core standards, materials, guiding questions, vocabulary, and planned differentiation. Most lesson plans include the use of technology to introduce and support lessons with visual and auditory supports and use real-world examples and images to support comprehension. Lesson plans also incorporate academic vocabulary across content areas. For example, a grade seven math plan tasks students to “define the variable and write an inequality” that represents visual images of everyday signs seen on roads and in business establishments. This lesson plan includes a review of the vocabulary terms equation, inequality, variable, coefficient, constant, properties, transposition, order of operations, additive, inverse, and substitute.

- Teachers use data from interim assessments and exit tickets to assign students to differentiated learning groups and to plan tiered support materials. In a math plan, the teacher would assign students to red, yellow and green working groups based on performance. The plan includes different math problems for each group, additional problems for some students, and a note that adds, “Tactile and kinesthetic learners may use algebraic tiles and substitute problem number 4 on page 205 with problem number 1 on page 214.” In a science lesson, the teacher would assign students to small groups based on student performance and identifies leveled tasks for each group. The assigned tasks vary in levels of difficulty and quantity, but all align to the same learning objectives, which indicate that students will read and understand a pedigree chart and create a pedigree chart for a given scenario. This lesson plan includes differentiated texts, graphic organizers, and a pedigree analysis “cheat sheet” that includes visuals, definitions, and a quick analysis of recessive and dominant gene actions.
**Area of Focus**

| Quality Indicator: | 4.1 Teacher Support and Supervision | Rating: | Developing |

**Findings**

School leaders support teachers, including those new to the profession, with infrequent cycles of observation and feedback. Although feedback captures strengths, challenges and next steps, the infrequency of feedback and lack of follow-up limits the development of teachers' strategies and practices.

**Impact**

Infrequency and a lack of time-bound feedback with expectations hinder the elevation of school-wide instructional practices and limit the implementation of strategies that promote professional growth and reflection for teachers.

**Supporting Evidence**

- Although school leaders conduct evaluative observations for all teachers, there is limited evidence that feedback occurs frequently or is effectively promoting the professional growth of teachers. Although leader feedback in Advance reports identifies specific next steps, leaders do not currently prioritize feedback for particular teachers, including those new to the profession, or hold teachers accountable to time-bound implementation. Leader feedback to a teacher included recommendations for improvements in the questioning and discussion domain of the Danielson Framework for Teaching in March 2017 and again in November 2017, with no evidence of feedback provided between the two observations. Although the report includes specific next steps such as, “Use sentence and discussion frames to assist students in responding to one another in discussions,” there is no indication of when leaders expect the teacher to implement the next steps or when they will be observed in practice.

- A review of the two most recent Advance observation reports for teachers across the school indicates extended timeframes between observations and the provision of observation feedback. There is also limited evidence of informal feedback provided to teachers in between Advance reports. The lack of more frequent effective feedback to teachers limits opportunities for leaders to articulate clear expectations for teaching practices that enhance learning outcomes. A lack of more frequent cycles of classroom observation and analysis of student data limits the professional growth and reflection of teachers.

- Leader feedback in Advance reports captures strengths, challenges and next steps for teachers. For example, in a December 2017 report, leader feedback commends the teacher for engaging students in learning, stating, “Students were engaged in relevant and grade-level content throughout the lesson.” This report also makes recommendations for improvement in designing coherent instruction, and includes the next step, “Set timeframes for tasks and plan to aggressively monitor.” However, there is no evidence of follow-up observations or feedback on the implementation of these next steps. Limited feedback to teachers hinders leaders’ ability to effectively support teacher development.
**Findings**

Teacher practices across most classrooms align to articulated beliefs that students learn best through the use of visual supports, as well as active monitoring and questioning. Teaching strategies consistently provide entry points for students.

**Impact**

Teaching practices informed by the Danielson *Framework for Teaching* engage all students, including English Language Learners (ELLs) and students with disabilities, in appropriately challenging tasks that enable students to demonstrate higher-order thinking.

**Supporting Evidence**

- Across most classrooms visited, teachers incorporated visual images and videos to support student comprehension and understanding. Teachers used technology to introduce do now activities at the beginning of lessons and used videos and online activities to model and engage students in independent tasks. For example, in a grade seven ELA lesson on understanding similarities and differences between fiction and non-fiction, the teacher showed students a video mini-lesson on comparing and contrasting. The video included examples and modeling comparing everyday objects. The teacher then posed the questions, “What does it mean to compare?”, “What does it mean to contrast?”, and “Why is it important to compare and contrast?” Students in this class were able to respond to all questions after watching the video presentation. Students then used a Venn diagram to compare and contrast the texts *Barrio Boy* and *A Day’s Wait*.

- Leaders shared that students learn best when teachers “Aggressively Monitor” student learning during instruction, a term used to describe the active observation of student learning. To actively monitor learning, teachers take notes on student performance and the levels of completion. Teachers across classes visited utilized a variety of note taking strategies to monitor student learning during independent work. In most classrooms, teachers moved from group to group, taking notes on the work completed and/or the number of correct responses. A review of teachers’ notes revealed that most teachers have a common practice of monitoring and recording student learning during instruction. For example, the notetaking tool used by a math teacher listed the names of students in one column and the corresponding headings, Do Now, Video, and Fluency. The teacher used a personalized note-taking system to record student performance in each category. Similar note-taking strategies are used across classes.

- Teachers consistently provide entry points for students using frequent questioning, tiered tasks, visuals, and teacher support. Across classes, teachers provided students with handouts and supports that included visuals and written and oral questions to assess student learning, guide their thinking, and engage students in tasks. In a humanities class, teachers listened to student discussions and asked questions to encourage students to share their thinking. For example, one teacher asked a small group of students, “Based on your text, what could be the main idea?”, and “Why would they try to silence her voice?” While supporting another group, this teacher circled particular phrases in their text to help them share their responses to questions, and added, “We may need to do another review of central idea.” In a math class where students were attempting to define inequalities based on a sign that read, “Requirement, Height over 48 inches,” the teacher asked targeted questions to help students define the variable in the equation. This teacher asked students, “Does greater than include 48 inches?” and “Can I be 48 and a half inches and get on the ride?”
Additional Finding

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

Teachers use assessments and content rubrics that align to the curricula, however, feedback to students varies across content areas. Across classrooms, teachers check for student understanding via monitoring and there is limited use of self-assessment practices.

Impact

Teachers provide limited feedback to students and inconsistently make effective adjustments to meet the learning needs of all students.

Supporting Evidence

- Teachers use interim assessments and content-based rubrics that align to the ELA, math, science, and social studies curricula. A review shows that rubrics identify Common Core aligned criteria that are assessed on a scale of Level 1 through Level 4 and provide descriptors that identify performance that is far below grade-level standards, approaching grade-level standards, meeting grade-level standards, and exceeding grade-level standards. For example, on a math rubric, the criterion entitled computation and implementation is described as, “The student performs solutions in an efficient and accurate manner, student attends to precision.” To achieve a Level 4 on this criterion, students must “display correct operations, calculations and verify work.” On a writing rubric, to achieve a Level 4 for the criterion entitled content and analysis, a student must “clearly introduce a topic in a manner that is compelling and follows logically from the task and purpose and demonstrates insightful analysis of texts.”

- Although teachers use assessments to gather data on students, teachers inconsistently provide actionable feedback to students across subjects. Although teachers report that they use data from assessments and rubrics to assign students to groups and plan scaffolds for student support, students report that teachers inconsistently provide them with actionable feedback on their achievement. A review of student work samples confirmed that some science and ELA teachers include next steps on assessed student work. Next steps on a Living Environment task included suggestions to write out the quantities of items, label the axes on a graph and explain the analysis of data. Sample ELA feedback asked a student to be sure to use only the most relevant evidence to support their topic and claim. Students shared that they receive feedback in some science and ELA classes but feedback is not consistently provided across classes or content areas.

- Although teachers have a consistent system of checking for understanding and recording observations of student learning, these observations inconsistently lead to adjustments of instruction in real-time. Teachers across classes were observed taking notes on student misconceptions but teachers rarely addressed misunderstandings in the moment. Teachers also rarely engaged students in self-assessment practices. In an ELA class, the teacher asked students to show a “thumbs up” if they understood the task and a “thumbs down” if they needed support. Not all students in this class responded to the prompt, and most classes did not have similar opportunities for students to self-assess.
**Additional Finding**

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<th>Quality Indicator:</th>
<th>3.4 High Expectations</th>
<th>Rating:</th>
<th>Proficient</th>
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**Findings**

School leaders provide training and consistently communicate high expectations to all staff via weekly email, faculty meetings, and a staff handbook. Most faculty consistently communicate with families regarding student progress using email, progress reports, workshops, and an online grading platform.

**Impact**

Consistent communication of high expectations to staff and families holds teachers accountable and helps families understand student progress toward learning expectations.

**Supporting Evidence**

- Leadership provides training to teachers during weekly professional development sessions. Teachers have received professional development on classroom learning environment expectations, the planning and preparation domain of the Danielson *Framework for Teaching*, and engaging students in learning. To hold teachers accountable to expectations for planning and delivering instruction, leadership has implemented the “10 – 20 – 10” framework. This framework serves as a guide for the delivery of instruction and recommends approximately ten minutes for a do now and mini-lesson, 20 minutes for student independent work and skill practice, and ten minutes for the teacher to close a lesson including an assessment. Across classes, the structure of lesson plans and instruction follow this basic format.

- Leadership communicates high expectations for learning to all staff via a staff handbook that is distributed at the beginning of the year. The 2017 – 2018 handbook includes guidelines for lesson plans and instructional delivery expectations. Leadership also shares expectations weekly at faculty meetings and in a weekly Sunday email to all staff that includes a calendar and reminders. A September 2017 faculty meeting agenda included a professional learning session on *Designing Coherent Instruction*. An October 2017 email reminded teachers that homework must be assigned every night with 30-minute tasks. A January 2018 email reminded faculty to create ten-minute visual presentations for College Access Day that include photos, school information, and information on campus life. This email also reminded teachers that all ELA classroom libraries were to be in place, organized, and leveled and that progress report number two must have been completed by Wednesday, January 17, 2018.

- Parents report open lines of communication between parents and faculty. Parents also shared that they attend events sponsored by the school including parent orientation, science workshops, meet the teacher night, and high school transition meetings. Faculty communicates student progress via an online grading platform, four parent - teacher conferences, and three progress reports distributed in October, January, and April. Leadership also communicates with families via letters and flyers that announce new initiatives and events. A December 2017 flyer invited families to a Family Science Night to explore science activities on solving a mystery, density, and ice-cream making. A September 2017 letter to families outlined expectations for marking periods, effective instructional strategies, the schoolwide grading policy, and communication with families. The principal noted, “Teachers will take consistent measures that will strengthen the vital line of communication between the household and school.”
Additional Finding

<table>
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<tr>
<th>Quality Indicator</th>
<th>4.2 Teacher Teams and Leadership Development</th>
<th>Rating: Proficient</th>
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Findings

The majority of teachers are engaged in structured collaboration on inquiry-based content teams. Teacher teams consistently analyze assessment data and student work.

Impact

Collaboration promotes the implementation of the Common Core and strengthens the instructional capacity of teachers, particularly in the design of coherent instruction. Teamwork leads to progress toward goals for groups of students.

Supporting Evidence

- Teachers are engaged in structured inquiry on content-based teams including a combined ELA - social studies team, as well as teams in math, and science. Content teams engage in collaborative inquiry that aligns to a question called an inquiry statement and identified instructional foci. Each team is focused on a target group of students and informs their work based on identified assessments. For example, the inquiry statement for the grade-six science team poses the question, “How can the Socratic seminar be used to increase students’ use of scientific terms in class discussions and promote intellectual debates?” This question aligns to an instructional focus on the use of scientific vocabulary in discussion and the use of the scientific method in investigations. This team uses student performance on class assessments, science journals, class discussions, and science reports to inform their work.

- A review of team agendas shows that grade level content teams maintain records of their inquiry work that include dates, participant attendance, minutes, and notes on next steps and progress. Minutes from a February 2018 grade - eight math meeting included a review of student work folders, learning center tasks, and the analysis of interim results. Next steps included plans to revise lesson plans, and add scaffolds and entry points for students based on the data analysis. Teachers and leaders shared that teacher capacity has improved in the area of designing coherent instruction and the use of the lesson plan template across classes, as well as the implementation of effective progress monitoring. Class visits and a review of lesson plans demonstrate that teachers across grades and content areas use the schoolwide lesson template to plan and develop lessons and to monitor student learning.

- Across inquiry teams, teachers analyze data from common formative and benchmark assessments, and student work. According to inquiry notes, the combined ELA - social studies team bases their analysis on the New York State ELA exam, baseline and interim assessments, and common writing assessments. Teachers shared that based on their collaboration and inquiry work in ELA and social studies, there has been progress toward goals for students in the use of the restate, answer, for example and this means (RAFT) strategy, as well as the quality and quantity of writing across the grades. A review of student writing samples demonstrated progress for students across the grades in the quantity of writing and providing evidence to support their claims. This progress aligns to the ELA - social studies inquiry statement and instructional focus, which read that students will “continue to focus on supporting their thinking with evidence from their fiction and non-fiction texts.”