Quality Review Report

2016-2017

New Explorations into Science, Technology and Math High School

K-12 all grades 01M539

111 Columbia St.
Manhattan
NY 10002

Principal: Mark Berkowitz

Dates of Review:
April 27, 2017 - April 28, 2017

Lead Reviewer: Edward Hazen
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


School Quality Ratings

<table>
<thead>
<tr>
<th>Instructional Core</th>
<th>Area</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent does the school...</td>
<td></td>
<td></td>
</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>Well Developed</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>Area of Focus</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>Proficient</td>
</tr>
</tbody>
</table>
### School Quality Ratings continued

#### School Culture

<table>
<thead>
<tr>
<th>Area</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>To what extent does the school...</strong></td>
</tr>
<tr>
<td></td>
<td>1.4 Maintain a culture of mutual trust and positive attitudes that supports the academic and personal growth of students and adults</td>
</tr>
<tr>
<td></td>
<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>
</tr>
</tbody>
</table>

#### Systems for Improvement

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

| Quality Indicator: 1.1 Curriculum | Rating: Well Developed |

Findings
Curricula are aligned to the Common Core Learning Standards strategically integrating the instructional shifts. Rigorous habits and skills are emphasized in curricula and academic tasks.

Impact
There is curricular coherence across grades and subject areas that promotes college readiness. Students demonstrate rigorous habits and critical thinking in their academic tasks.

Supporting Evidence

- The engagement of students in purposeful reading and writing within every lesson is an instructional priority schoolwide. This focus is stated in the school’s Strategic Instructional Action Plan. The goal of implementing the instructional shifts and the Common Core Learning Standards across content areas and grades is outlined in the plan as well. Consequently, the leadership team strategically added courses that require students to engage in increased writing tasks across grade levels and disciplines. For example, the leadership team decided to supplement their English Language Arts (ELA) curricula in kindergarten through fifth grade by utilizing the Teachers College Reading and Writing Program (TCRWP) to increase opportunities for students to engage in writing tasks using the workshop model for instruction.

- High interest electives were added to the curricula at the high school level. Classes, such as a project based computer science course, allow students to use higher-order reasoning and synthesizing to design computer applications. Similarly, most incoming ninth graders take the literacy theater course that emphasizes both key Common Core literacy standards as well as important discussion, debate, and presentation skills that are critical for students to acquire to become college and career ready. The class serves as a team building experience for students to foster positive peer to peer relationships and promote risk taking in their other classes. Students in the class stated they feel more compelled to participate in group discussions in their other courses as a result of taking this theater class. To meet the demands of the Common Core Learning Standards for the middle grades, the eighth grade teacher team, based off the structure that was already in place in the ninth grade, introduced statement, proof, and analysis (SPA) as a tool for students to write short response paragraphs that incorporate the instructional shifts. SPA requires students to collect sufficient textual evidence to support their claim and assess the level of analysis they have done on their supporting evidence.

- Higher-order skills and rigorous habits are promoted across grade levels and disciplines for all students through the implementation of schoolwide practices such as aligning essential questions, learning objectives, teacher questioning, and academic tasks to level three and level four of Webb’s Depth of Knowledge protocol. Developing academic tasks that require students to think accurately with clarity while identifying and considering multiple meanings, take and support positions, and engage in disciplined inquiry and thought is a schoolwide instructional priority. This was evident in a third grade English Language Arts unit of study in which students were required to write their own fairy tale. Students then made an adaptation by changing a character trait that would lead to a different outcome in the story. Students shared their adapted story with a peer and justified the new outcome in three scenes or less. The peers were responsible for providing feedback to one another on the adapted version of their stories including next steps for improvement. Students reported choosing to apply to the school because of its reputation for providing rigorous instruction.
Teaching strategies align to schoolwide goals and provide entry points through the use of scaffolds for all learners to participate in academic tasks and discussion.

Impact

Students engage in high levels of thinking and discussion leading to the development of meaningful work products across classrooms. However, as of yet, full engagement is not seen in the vast majority of classes.

Supporting Evidence

- Across classrooms, instructional practices are aligned to the schools' articulated set of beliefs about how students learn best. One of the overarching schoolwide beliefs is that the pedagogy must engage students in purposeful reading and writing within every lesson in order to strengthen the capacity for all students to exhibit high levels of learning. The school leaders and elementary teachers identified utilization of the TCWRP workshop model as the best way to align instructional practices to the schoolwide goal and ensure that students are engaged in rigorous academic tasks in kindergarten through fifth grade. The workshop model was observed being utilized by elementary teachers. However, since it is in the first year of implementation, there is insufficient evidence of the impact on student achievement.

- In most classrooms, lessons and teaching documents represent deep content knowledge and understanding of students' diverse needs, resulting in academic tasks and activities that engage students in high-levels of cognitive activity. Most lessons include academic tasks and supports such as scaffolds and generate challenging discourse to intellectually engage all students, including students with disabilities, struggling students, and the highest achieving students. In a ninth grade English Language Arts class students worked in groups to make revisions to memoirs they were writing. The teacher used purposeful grouping by pairing high and low achieving students with one another and provided sentence and discussion starters as scaffolds for students. Probing questions asking for contrasting reflections were posed to facilitate students' reflections on their peer's memoir.

- In a fourth grade classroom, students were required to close read informational texts on the American Revolution in order to write their own informational text about one of the causes of the Revolution such as the Stamp Act or Townshend Act. Students were allowed to choose which event to write about based on their interest. The teacher and her assistant grouped the students by ability and provided them with leveled texts according to their reading ability. All students were provided with self-assessment rubrics, which served as a checklist to ensure that they were citing sufficient text and including enough information to score in the proficient or mastery level.
Findings
Across classrooms, teachers use common assessment data to make adjustments to curricula and instruction. Rubrics are created that align with the curricula across grades and subjects.

Impact
The use of rubrics leads to effective feedback to teachers regarding student progress and performance. Common assessment data is used to assess students’ progress toward meeting the standards and inform revisions made to the curricula and pedagogy.

Supporting Evidence

- Across disciplines and grade levels, teachers use common assessments and rubrics that are aligned to the grade level curricula, Common Core Learning Standards, and to the content standards. Teachers align rubrics to the grade level state assessment when applicable, or to the Advanced Placement (AP) and Regents assessments in AP and Regents bearing classes. For example, the English Language Arts department uses a Common Core aligned rubric in grades nine through twelve to assess student progress toward mastery of the standards. The social studies department uses AP rubrics, anchor papers, and exemplars to set a benchmark for students and assess the quality of their writing. Students stated that the use of exemplars in conjunction with teacher and peer feedback has helped improve their writing and feel that it is preparing them for the AP exam. However, a review of student work indicated that the quality of actionable feedback they received varied across grades and classes.

- The middle level science department uses a teacher created rubric that aligns to the Common Core literacy standards to assess students’ informational and expository writing in science. Actionable feedback is provided with next steps for students to follow to improve their work. In kindergarten through fifth grade, teachers use the TCWRP rubric and student checklist to support students. The checklists serve as a guide for students to ensure they include all of the components required to achieve proficiency or above, and promotes student ownership of their work. Students reported that rubrics, checklists, anchor papers, and teacher feedback have contributed to them becoming better writers.

- Across grades and departments, teachers use common assessments to determine student progress toward achieving mastery of the standards and to identify trends in student achievement and make adjustments to curricula and pedagogy accordingly. School leaders and teachers reported that the decision to adopt the TCWRP writing program was made after an analysis of assessment data and student work samples revealed that some students were struggling to reach mastery level in their writing. Similarly, to improve the quality of student writing in grades nine through twelve, the members of the English Language Arts department in the upper grade school decided to work with an outside educational expert to revise their curricula and assessments to align with the Common Core and create more rigorous, relevant, and engaging lessons with real life application by showcasing students’ writing in response to their reading of the Ta Nahisi Coates text “Between the World and Me.” The decision was made after analysis of student assessment data showed gaps in the number of students achieving mastery.
Findings
The school leaders and faculty consistently communicate high expectations to students and their families. A culture for learning is maintained and is unified and communicated across the school community.

Impact
Systems of accountability for students and partnerships with families ensure that all students, including English Language Learners and students with disabilities and their families, are aware of their progress toward graduation and college and career readiness.

Supporting Evidence

- School leaders and staff members implement effective strategies for communicating high expectations about college and career readiness and partner with families to ensure that all students are challenged to meet or exceed those expectations. The principal hosts monthly “Principal’s Coffee” sessions with the lower grades (kindergarten to fifth), middle grades (sixth to eighth), and upper grades (ninth to twelfth) schools respectively, to engage parents in discussions about curricula, pedagogy and college and career readiness. In the middle grades, the expectation is for students to be prepared to take the Regents assessment as their culminating final exam in their math, science, and social studies classes. Students that are enrolled in the Spanish and Mandarin classes are encouraged to take the Second Language Proficiency (SLP) exam. For the upper grades, school leaders have adopted the AP for all philosophy in which all students are pushed to take advanced coursework. Students and parents reported that they are aware of the school's expectations to prepare all students for college and that they receive regular updates on their progress through traditional report cards. The majority of students and parents stated that they regularly use the school’s online grade reporting system to monitor academic progress. Parents expressed appreciation that they can access information about upcoming events and workshops via the school’s website and through online access.

- There is a strong, active partnership between the Parent Teacher Association (PTA) and the school leadership and faculty. When the school leadership team identified a need to increase the amount of time students are engaged in writing tasks at the elementary level the PTA partnered with the school to assist with the adoption of the TCWRP by providing significant funding for the program. A review of correspondence from the school indicates that parents are regularly invited to learn how to support their students’ writing progress during the school's publishing celebrations and “Family Friday” events.

- The school's leadership team and faculty are committed to not only communicating high expectations to students, but also to providing the ongoing support that is required to meet those expectations and promote ownership of student academic work. The staff has a set of clear, systematic structures, such as guidance, college preparatory advisement and assistance, and college counseling that ensures that students are aware of progress toward their college and career goals. Parents reported that if their child is struggling in a class, they are immediately notified and offered additional academic support. All students reported that they are aware of the high expectations the school leaders and teachers have set and feel that they are being adequately prepared for the next level. Upper grade school seniors shared that they had been accepted to the college of their choice and felt they were well prepared to take college level classes since most of the courses they had taken were at the AP level.
**Findings**

School leaders support the professional growth of teachers using cycles of observations. Feedback addresses strengths and challenges while including next steps for improvement.

**Impact**

School leaders have an effective system to observe teachers and support their practice through follow up professional learning opportunities, resulting in the adoption of common instructional practices that results in increased student achievement.

**Supporting Evidence**

- The school leadership team has an effective formal observation cycle in place that supports the professional development of teachers and provides actionable feedback on instructional practices with next steps for improvement. Additionally, teachers submit a midyear reflection on their pedagogy highlighting their strengths and indicating those areas they will continue to address to improve their teaching. The school leadership team conducts “coaching conversations” with teachers in between their formal observations. The teacher midyear reflection and notes from informal instructional walks serve as talking points for the coaching conversations. Data collected from formal and informal observations and the coaching conversations are used to identify trends and patterns so that professional learning needs can be identified and addressed.

- School leaders have established inquiry based professional learning cycles, which run five to six weeks in duration and serve to support teachers in meeting the articulated instructional foci of the school. Within each learning cycle, teachers identify specific learning objectives that will strengthen their ability to address the instructional focus centered on engaging students in the close analysis of text and purposeful writing across disciplines. School leaders actively participate in Professional Learning Community (PLC) teams that analyze trends in instruction, student achievement data, and student work products to inform changes to pedagogy that are required in order to achieve the schoolwide goals.

- The school’s instructional goals are clearly articulated in the school’s Comprehensive Education Plan. Additionally, PLC teams have identified instructional priorities, which are communicated regularly to staff in the principal’s “Notes for the Week,” a weekly email sent to faculty. Post-observation conversations and informal coaching conversations serve as regular reminders to teachers of the articulated schoolwide expectations. A review of teacher observation feedback indicates comments to teachers that clearly articulates next steps for improvement and identifies supports to improve their practice. In addition, school leaders have created a ‘faculty portal' which is an online document system that serves as a resource center for teachers.
Additional Finding

| Quality Indicator: | 4.2 Teacher Teams and Leadership Development | Rating: | Proficient |

Findings

The majority of teacher teams are engaged in structured inquiry-based collaborations that align to the school goals.

Impact

The increased instructional capacity has strengthened and improved teacher's pedagogy, positively affecting student learning across grades and content areas.

Supporting Evidence

- The majority of teachers are engaged in inquiry based professional collaborations to ensure the implementation of the Common Learning Standards across grade levels and content areas. School leaders have created PLC teams that meet weekly to collaborate on revisions to curricula and instructional resources, while sharing best practices that support multiple entry points into lessons for a variety of learners. The work products generated by the collaborative teacher teams, such as lesson plans, unit plans, and student materials, are shared at departmental meetings and posted in the school’s ‘faculty portal,’ a shared drive to allow access to the documents by all staff members. An Integrated Co-Teacher reported that it makes co-planning and planning for students that she supports easier because she has access to all of the curricula for the classes that she works with.

- School leaders have created structured time for most teachers to meet in grade level or departmentalized teams. A review of agendas and meeting minutes indicate that teachers use this time to analyze trends in student achievement data and student work products to inform changes to curricula and pedagogy. In the lower and middle grades, teachers are provided common planning time. Teachers in the elementary grades use their planning time to analyze student writing samples to make adjustments to the scope and sequence of the writing portion of the Teachers College Reading and Writing Program. Teachers in grades sixth through eight use common assessments to make adjustments to their curricula and instruction. The high school teachers meet in departmentalized teacher teams to analyze Regents and AP exams, common assessments, and student work samples to adjust instruction. However, teachers reported that they do not meet as frequently as the kindergarten through eighth grade teachers because they don’t share common planning time.

- Teacher teams use a structured protocol to examine student work samples to ensure that there is alignment to the Common Core, the instructional shifts, and the school's instructional foci. During a fourth grade team meeting, teachers were observed using “A what do you notice, what do you wonder” protocol to examine student essays. Teachers noticed that the majority of students were using the Teachers College writing structure resulting in well-structured essays. They also noted that students had low-level introductions. They decided to revise the middle of the unit lessons and focus on the writing of introductions and conclusions. As a wondering, teachers discussed changing the scope and sequence of the units for the following year to address what they noticed in students’ writing samples. One teacher noted, “Next year we need to teach them that there is more than one way to start an introduction because they are getting too focused on the structures, especially for the high learners.”