Quality Review Report

2014-2015

The Computer School

Middle School 245

100 West 77th Street
New York
NY 10024

Principal: Henry Zymeck

Date of review: December 10, 2014
Lead Reviewer: Sandra Litrico
The School Context

Computer school is a middle school with 411 students from grade 6 through grade 8. The school population comprises 24% Black, 25% Hispanic, 40% White, and 10% Asian students and 1% multi-racial. The student body includes 2% English language learners and 16% special education students. Boys account for 44% of the students enrolled and girls account for 56%. The average attendance rate for the school year 2013-2014 was 97.2%.

School Quality Criteria

<table>
<thead>
<tr>
<th>Instructional Core</th>
<th>Area of:</th>
<th>Rating:</th>
</tr>
</thead>
<tbody>
<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>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>Additional Findings</td>
<td>Well Developed</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>Focus</td>
<td>Proficient</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School Culture</th>
<th>Area of:</th>
<th>Rating:</th>
</tr>
</thead>
<tbody>
<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 Findings</td>
<td>Well Developed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Systems for Improvement</th>
<th>Area of:</th>
<th>Rating:</th>
</tr>
</thead>
<tbody>
<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 Findings</td>
<td>Well Developed</td>
</tr>
</tbody>
</table>
Findings
The curriculum offers a wide range of experiences and choice during and after school, including engineering, the arts and technology, to facilitate student's ownership of learning so that they are college and career ready.

Impact
The development of interdisciplinary project based learning and collaboratively designed Common Core aligned curricula has given students the opportunity to undertake research, solve problems, investigate and be more active learners.

Supporting Evidence

- The school has implemented a Common Core Learning Standards (CCLS) aligned curriculum for the past three years. The administrators and teachers continue to refine and build upon the strong curricular to further enrich it. This year the school implemented interdisciplinary STEAM (Science, Technology, Engineering, Art, and Math) classes and connected it to their 6th and 7th grade science curriculum. The focus on STEAM is on engineering, hands-on exploration, analysis and iterative project-based learning. Developmental teachers collaboratively design CCLS-aligned curricular that are also in alignment with literacy standards.

- Specific learning tasks in science, social studies, art and Spanish are aligned with CCLS learning targets, both for subject specific standards and literacy development standards. In math, teachers collaboratively researched and selected textbooks that supported the big ideas and chose supporting materials based on alignment with the CCLS for both standard and accelerated levels. In 8th grade, Algebra and Earth science are derived from the New York State common core regents’ courses. English language arts and social studies curricula have received High School preparation course certification from the New York City Department of Education. The staff continually refines their subject specific learning targets and essential questions so that they are seamlessly aligned with accelerated 8th grade curricula for all students.

- The 8th grade English Language Arts curriculum map engages students in deep thought provoking texts and readings on subjects such as Place and Displacement. Each unit defines the genre, identifies an essential question and clearly outlines the knowledge and content students will know at the end of the unit including the transferable skills. Essential questions include “What defines one’s place in the world?” Students are asked to identify and analyze the theme and central idea of various texts and compare and contrast memoir excerpts with accompanying nonfiction text. Writing assignments across subjects use RACE (Restate the question, Answer the question, cite evidence, Explain evidence) strategy. Students writing samples consistently show students supporting their ideas with evidence and analysis.

- The curricular is extended and enriched through field trips to cultural institutions, such as Ellis Island and the Tenement Museum. There are technology based supports including IXL Learning embedded in the curriculum. Robotics, debate and open art studio programs further engage students in the curriculum.
Area of Focus

<table>
<thead>
<tr>
<th>Quality Indicator:</th>
<th>2.2 Assessment</th>
<th>Rating:</th>
<th>Proficient</th>
</tr>
</thead>
</table>

Findings
Teachers have a common understanding of effective assessment practices and use protocols to examine the data, make meaningful curricular adjustments and decisions so that students can be successful. Actionable feedback is provided to students in terms of clear next academic steps; however, not all students demonstrate increased mastery.

Impact
On-going assessment practices and curricular decisions guide instructional adjustments and feedback for most students.

Supporting Evidence

- The school has transitioned to a CCLS aligned standards-based grading system. Teachers collaboratively created departmental assessment rubrics, as well as school-wide writing rubrics derived from the CCLS. The rubrics serve as the primary basis for assessment. The rubrics are aligned with standards-based report card categories.

- In science and social studies, teacher’s collaboratively developed CCLS aligned skill tracking sheets for individual students. This system is used to monitor student progress and is also a check for understanding.

- Various methods of formative and summative assessments are utilized across subject areas, including pre and post assessments, self-assessment and peer assessment. The schools' assessment focus is on the gradual skill development towards standards, with decreased focus on averaging assessments over time.

- The school uses the Measures of Teacher Practice (MOTP) framework to enhance assessment practice in all subject areas and to tailor professional development to the needs of individual teachers and departments so that curricular and instruction is adjusted accordingly. The principal clearly stated that “assessment drives the bus” and effective assessment practices in the school encourage teachers to rethink and reflect on what they teach and why.
Additional Findings

| Quality Indicator: | 1.2 Pedagogy | Rating: | Well Developed |

Findings
Teaching practices are aligned to the instructional shifts and are marked by high level questioning and student to student discussion. Classes are clearly guided by student work products that demonstrate higher-order thinking skills.

Impact
Teachers strategically incorporate numerous practices into the curricular. Students engage in high levels of discussion and participation which culminate in meaningful work products.

Supporting Evidence

- The focus in classrooms is on questioning and discussion techniques that promote student thinking. In the STEAM classroom students posed questions and were involved in inquiry based learning. The goal for the pathway of investigation was to develop fluency with switches, potentiometers, conductive materials and sensors that control the flow of current to the outputs motors, lights and buzzers. There was evidence of differentiation and tasks were challenging as students were asked to invent and test new components, the students were also offered a challenge when asked “Can you make three lights turn on by wiring them three different ways?” All teachers in the classrooms observed used interactive whiteboards to support and extend student learning.

- Classrooms instruction is student centered. Students work both independently and collaboratively on product/project based tasks. Rubrics are utilized to ensure there are both clear and high expectations for each project. Teachers have developed check-in points to monitor student progress. There is intentional grouping, and use of scaffolds to support all students.

- During a social studies lesson, students engaged in meaningful discussions that revolved around three essential questions: How did the westward expansion provide opportunities for some groups while harming others? How did American values and beliefs fuel westward expansion? What geographical themes steered westward expansion? The task required one student in the group to pretend to be Thomas Jefferson and the rest of the members took on the role of newspaper reporters. The job of the reporters was to develop questions that would force Jefferson to explain why he thought the Louisiana Purchase was constitutional.

- There are high-level of student thinking. The 8th grade math regent’s class topic was “special functions”. The teacher used an electric bill to exemplify a real life example and cognitively engage students. He asked them to look carefully at the electric bill which was posted on the smart board. He went on to say “Have you ever noticed how there are separate charges based on usage? How this works is what we are doing today.” This led to the introduction and mini lesson on piecewise functions. The students went on to solve a problem on the cost of renting a karaoke machine for five days. The students worked in groups and independently to graph a step function that represented the relationship between the number of days and the total cost. They discussed the problem and strategies for solving it.
Quality Indicator: 3.4 High Expectations
Rating: Well Developed

Findings
There is a highly supportive environment where staff and parents share the school's high expectations for learning and behavior.

Impact
There is a culture of mutual accountability for these expectations and appropriate supports are provided to ensure the success of all students at the college or career level.

Supporting Evidence

- High expectations are communicated to parents during the tour process, curriculum nights, orientations, meetings and newsletters. The principal directly articulates that all curricula at the school are accelerated culminating in students engaging in recognized high school level work across content areas via regents (CC Algebra and Earth Science) and HSPCC courses (ELA and Global Studies). Parents said that the curriculum offers various degrees of challenge and students are taught to self-monitor and self-evaluate.

- The school's standards based grading promotes higher-order learning outcomes. High expectations are also articulated in content specific rubrics, universal assessment rubrics and skill tracking sheets.

- High expectations for leadership, citizenship and collegiality are promoted through student of the month, selection of Student Tour Guides, Student Athlete accountability form and student selection of graduation speakers.

- Eighth grade students attend weekly current event classes conducted by the principal. The focus is on exposing students to topics and behaviors related to college and career readiness. In addition, the curriculum and lunchtime and after school clubs such as Maker Space, robotics, debate, logic, peer leadership all support readiness skills such as working collaboratively, communicating in multiple formats, solving problems, developing self-reflection and time management.

- There is a school wide expectation that students receiving mandated services and accommodations in accordance with their IEPS and/or 504 plans are expected to achieve the same performance objectives as general education students. Many students have been moved into less restrictive environments and are successful.
Quality Indicator: 4.2 Teacher teams and leadership development  
Rating: Well Developed

Findings
The school staff is continually engaged in collaborative conversations that facilitate collecting, sharing and analyzing data to make instructional decisions and thoughtful adjustments to teacher practice.

Impact
Teacher teams’ clear instructional focus supported by professional structures and protocols around instructional inquiry has promoted the implementation of CCLS and the instructional shifts which result in improved teacher pedagogy and student achievement.

Supporting Evidence
- All teacher teams meet to discuss the challenges presented by individual students and groups and share effective instructional and behavioral strategies. Content area teacher teams meet during teacher planning and Professional Development (PD) time to align curricular with CCLS across houses and sections. Integrated Co-Teaching (ICT) team collaboratively set general goals for teacher collaboration within the ICT setting and specific goals for IEP students, and communicate IEP goals to General Education teachers. PD team collaboratively determines PD framework and topics for this year based on feedback from last year’s in-house PD survey.

- The 8th grade math teacher team used the book “The Effective Mathematics Classroom” as part of their inquiry cycle. They looked at student data and classroom observations and made a shift from teacher centered to student centered teaching. They included more high level questioning and collaborative learning. Student talk is now encouraged and students ask questions, explain their thinking and strategies. This was evident in the STEAM and math classrooms that were visited. Students worked in groups solving real world problems and took ownership of their own learning. They were encouraged to experiment and be innovative.

- During the ELA Team meeting, teachers shared what worked and what didn’t as they discussed their lesson on the teaching of symbolism in the novel “Of Mice and Men”. By looking at student work and learning target assessment checklists, teachers determined that some students were struggling with finding relevant evidence to support their claim. Teachers brainstormed ways to reteach and model and developed scaffolds to use during their next lesson.