



**Department of
Education**
Carmen Fariña, Chancellor

Office of School Quality
Division of Teaching and Learning

Quality Review Report

2014-2015

Manhattan/Hunter Science

High School M541

**122 Amsterdam Avenue
New York
NY 10023**

Principal: Kevin Froner

**Date of review: January 16, 2015
Lead Reviewer: Marjory Matthieu-Kodjovi**

The School Context

Manhattan/Hunter Science is a high school with 449 students from grade 9 through grade 12. The school population comprises 16% Black, 38% Hispanic, 13% White, 25% Asian and 8% other students. The student body includes 0% English language learners and 7% special education students. Boys account for 42% of the students enrolled and girls account for 58%. The average attendance rate for the school year 2013-2014 was 97.0%.

School Quality Criteria

Instructional Core		
<i>To what extent does the school...</i>	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	Additional Findings	Well Developed
School Culture		
<i>To what extent does the school...</i>	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	Celebration	Well Developed
Systems for Improvement		
<i>To what extent does the school...</i>	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	Focus	Proficient

Area of Celebration

Quality Indicator:	3.4 High Expectations	Rating:	Well Developed
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Findings

School leaders and staff consistently and systematically communicate a uniform set of high expectations connected to a path to college and career readiness to all constituencies establishing a culture for learning, while providing ongoing feedback and guidance to all students.

Impact

The clear communication around the school's high expectations results in successful partnerships with families that support student progress. Clear, focused, and effective feedback to students, including high-needs subgroups, ensures that students own their educational experience and are prepared for the next level.

Supporting Evidence

- The school engages parents through a community newsletter (What's New at Manhattan Hunter Science High School), a new PTA website, academic updates in progress reports and Spotlight on Intervention (SOS) information, and through use of Jupiter Grades, an online system which allows teachers to provide feedback. The Pupil Personnel team (PPT) communicates information on mentoring, setting student goals, and raising funds for Scholastic Achievement Test (SAT) programs. The school hosts orientation programs for new students and their parents. Parents express that faculty and staff members communicate high expectations at the onset of each school year. Parents are provided with a calendar that outlines all activities and events happening throughout the year. At the school's annual curriculum night, students and parents receive contracts for each class and a breakdown of the grading requirements.
- According to teachers and students, teachers give feedback that is usually "straight forward". A student explained, "What I love about my science department is that they go in-depth and they truly write out the reasons why... and this helped me move to the next level." Another student shared, "My teacher called my mom and acknowledged how well I am really doing and the improvement that I was making...The teachers teach you well so that we are able to do our part." Parents and students shared that feedback from teachers was "instantaneous". In all classes visited, teachers were observed giving students verbal feedback as they did their work. Students, parents, and teachers reported that teachers always connect students' learning to college level expectations, experiences and continually and purposefully push them to do their best at all times. For example, twelfth graders shared that because of their college experience at Hunter College they have assumed responsibility and know "exactly" what they need to do, sharing, "I know exactly how to take notes," "I know exactly how to organize myself," "I know how to pace myself."
- The PPT team continuously refines the advisory program so that students receive intense social-emotional and academic support including SOS, relaxation training, tracking credit accumulation and college planning. All twelfth graders take college courses and college-like courses at Hunter College. Senior students explained that the school motto is "College ready in three years," noting that, "In the fourth year, we are already in college." This year, 40% of students received a full Janovic philanthropic college scholarship and 100% of students have applied to the City University of New York system.

Area of Focus

Quality Indicator:	4.2 Teacher teams and leadership development	Rating:	Proficient
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Findings

Teacher teams consistently analyze assessment data and student work for students they share or on whom they are focused. While distributive leadership opportunities within teacher teams build leadership capacity and allow for teachers' input into key school decisions, teachers are still refining skills to assume a more integral role in terms of decisions that effect student learning.

Impact

Teacher teams' s data analysis improves teacher practice and student progress. The principal is decreasing administrative input at team meetings to encourage greater teacher input into school-wide decision-making.

Supporting Evidence

- Department teams meet weekly to review data, discuss student work, group students, discuss scaffolding for students with disabilities, analyze assessments, and align curricula with Common Core and Early College Standards. They continually work together to update curricula binders to ensure vertical grade 9 to 12 alignment. For example, across grades, the Humanities department's work on task analysis has led to the inclusion of additional multi-step tasks that require students to use multiple text sources, as well as charts and maps to provide more comprehensive defense of their conclusions.
- The school's policy team composed of teachers and administrators attended a two-day training offered by Search and Cyberself at Google for a technology conference on mindfulness and emotional intelligence. The team looked at how the New York City Department of Education (NYCDOE) and national policies affect their school, and how they hoped to re-shape policy and create new programs. Upon their return, the team created a small space for contemplation, reflection, and meditation. Students created a weekly lunchtime meditation club in this space under the supervision of the special education teacher.
- All teacher teams use a tuning protocol to analyze and revise tasks based on common expectations using student work and data. Outcomes that result from tuning protocol activities are memorialized in Google Docs and are implemented during classroom practice. For example, the special education teacher team uses tracking sheets to record on-going common targeted assessment data collection to understand better the supports needed for students with Individual Education Plans (IEPs). Teachers and administrators express that the goal is to continuously strengthen best practices for differentiating and modifying lessons in every classroom through both planning and observations and to make even more informed decisions in terms of content and delivery.

Additional Findings

Quality Indicator:	1.1 Curriculum	Rating:	Well Developed
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Findings

Across a majority of classrooms, rigorous habits and higher-order skills are emphasized in curricula and academic tasks and are embedded in a coherent way across grades and subjects. The school continuously plans and refines curricula and tasks using student work and data.

Impact

All students, in groups or individually, including the lowest and highest achieving students, are cognitively engaged and demonstrate their thinking in academic tasks.

Supporting Evidence

- The alignment of high school and college courses to college readiness standards has been a priority since the school opened in 2003. The administration states that they knew that they needed to get students ready for advanced coursework by their senior year to live up to the school's motto, "College readiness in three years, success in four." Last year, administrators and staff re-examined the school's mission statement and added core values to the curricula that focus on embracing and appreciating cultural diversity, giving all school community members voice, and providing meaningful learning experiences and college and career preparation. This culminated in departments working to re-align curricula within the school's Scope and Sequence Skills Matrix. For example, the Humanities department worked on their portfolio, aligned their curricula to the new core values, and created a matrix listing expectations of what students should be able to do. During the student meeting, most students shared that one of their favorite departments was Humanities, noting that English and social studies, "...are set up similarly, because they (the teachers) want the classes to align, so we are doing the renaissance in history and we are reading a book that is somehow related to renaissance ideas."
- The administration described how they looked at what success in college looked like and built in new curricula components to support success. Last year, the school implemented a new vocabulary program to increase students' critical reading and SAT scores, as part of a school-wide effort to build in college skill components across the curricula. The principal stated that the school is "consistently monitoring its revision processes to ensure access and cognitive engagement for all students, including relevant sub-groups". The school exceeded its target for students with disabilities for weighted diploma weight as reported on the 2013-2014 NYCDOE School Quality Guide.
- Teacher teams looked at student work and concluded that students needed to develop skills in analyzing documents, organizing their work, assessing the quality of web sites, formulating and annotating bibliographies, and gaining a better understanding of what it entails to write 20 page papers. Department portfolios, continually re-visited, incorporate these college ready skills as per the school's scope and sequence matrix. Additionally, department chairpersons from Hunter College review curricula to ensure that students are ready for success at Hunter. Also, teachers' summer training influenced the school to change courses offered and rethink how science classes are taught adopting a flipped learning model in Physics, where students work out problems and then present their work.

Quality Indicator:	1.2 Pedagogy	Rating:	Well Developed
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Findings

Across the vast majority of classrooms, teaching strategies such as questioning and scaffolding strategically provide multiple entry points and high-quality supports and extensions into the curricula. Across the vast majority of classrooms, student work products and discussions reflect high levels of student thinking, participation, and ownership.

Impact

All learners, including students with disabilities, are engaged in appropriately challenging tasks and demonstrate higher-order thinking skills in their work products.

Supporting Evidence

- In a 10th grade Global History class, students discussed voter concerns in post-World War I Germany citing the geographic, social, political, and economic issues facing Germany in the 1920's and '30s. According to students, "For discussions in class, teachers require that you use your knowledge... use your documents and ... use evidence." Referring to history classes, students stated that they were expected to read assignments carefully and gather text evidence, noting, "We come into class prepared to connect with the discussion."
- During an Art class, students critiqued each other's artwork using language and terminology from the class curriculum. While some struggled with descriptive language, all students were engaged and all used strategies and skills. For example, one student stated, "When I first saw the sculpture, it reminded me of a candle that was melting ...the artist really drew away from that idea ...I like that the material is just not there but it is pretty messy in an organized way ..." All art lessons are rooted in a historical and social perspective, so that students understand the context for the creation of the art.
- In a ninth grade English language arts class, given the theme, "Nature within, nature without," students made new connections to the novel Frankenstein using textual evidence to support their verbal responses.
- In every classroom visited, students annotated text and were offered at least two different options for reading. Collaboration between students and teachers was evident. In lesson planning, teachers take into account students' personalities, needs, and behavior. Students are often grouped by performance level, preferred partnerships, and grade level. During a student presentation in a Spanish class, students were grouped in tables according to performance levels and unique IEP needs. Working with partners, students assumed mutual accountability in deciphering the task rubric, completing the assigned task, and evaluating work products.
- Across the vast majority of classrooms student work products reflect ownership. For example, in a music class (Orchestra), while practicing Ode to Joy, students took the lead and decided what they wanted to play and how they would like to play. Each instrument section, then, had a turn to lead. This rotation allowed everyone to demonstrate a working knowledge of proper playing techniques while actively participating in reflective thinking to create a collaborative artistic interpretation of the musical composition.

Quality Indicator:	2.2 Assessment	Rating:	Well Developed
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Findings

Across the vast majority of classrooms, teachers use common assessments that are well aligned to the school's curricula to determine student progress towards goals across grades and subject areas. Assessment practices consistently reflect the use of ongoing checks for understanding and student self-assessment.

Impact

Common assessments including student self-assessment practices provide actionable feedback and gauge students' progress so that teachers make effective curricula and instructional adjustments to meet all students' learning needs.

Supporting Evidence

- Administrators and staff analyzed SAT data and recognizing a need to improve critical reading skills, re-wrote curricula to emphasize and improve comprehension skills. Teachers were trained to implement the new curricula and met with students and families to help them understand how the use of annotation skills and collaborative learning would be integrated into all content areas.
- The school implements departmental mid-year exams to support success on final Regents exams. Also, Castle Learning has been integrated into curricula to assess readiness for NYS Regents examinations. In addition, the school administers mock SAT's twice a year and the data is analyzed and distributed to all eleventh grade teachers and students. Forty percent of students achieved over 600 in math, giving the school the highest set of SAT math scores in the CUNY network, and amongst schools that serve their sub-groups, that include some of the highest scores in New York State (NYS).
- The school uses Design Your Own on-going targeted assessment in all subjects as well as Regents, SATs, and data collection to understand better the supports needed for students with Individual Education Plans (IEPs). This on-going investigation includes the continued development of formative assessment practices in co-taught classes, SAT accommodations, and transition orientation.
- The school uses on-going assessment data (NYS Regents, SAT, college assessments) to adjust curricula. An SAT data review led to mid-year redesigned College Prep programs and to the implementation of a tenth grade literacy program. NYS Regents data from the school Progress Report is used to identify gaps and led to a rethinking of formative assessments and pedagogical adjustments to accommodate all students.
- Though students reported that they are given meaningful feedback, some students stated that they would like feedback that is "more challenging and extends their thinking". The school is aware and teachers are focusing on providing on-the-spot feedback as well as more in-depth written feedback to students.