



**Department of
Education**
Carmen Fariña, Chancellor

**Office of School Quality
Division of Teaching and Learning**

Quality Review Report

2014-2015

High School for Energy and Technology

High School X565

**2474 Crotona Avenue
Bronx
NY 10458**

Principal: Ignazio Accardi

**Date of review: April 21, 2015
Reviewer: Kristine Mustillo**

The School Context

High School for Energy and Technology is a high school with 306 students from grade 9 through grade 11. The school population comprises 28% Black, 70% Hispanic, 1% White, and 1% Asian students. The student body includes 9% English language learners and 28% special education students. Boys account for 84% of the students enrolled and girls account for 16%. The average attendance rate for the school year 2013-2014 was 85.0%.

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	Proficient
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	Focus	Proficient
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	Additional Findings	Proficient

Area of Celebration

Quality Indicator:	3.4 High Expectations	Rating:	Well Developed
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Findings

School leaders consistently communicate high expectations to staff, provide training, and have established systems of accountability for those expectations. Teacher teams and staff establish a culture for learning that systematically communicates high expectations for all learners.

Impact

Structures for communication and collaboration result in a culture of mutual accountability. Guidance and advisement ensure that all learners, including high need sub-groups, own their educational experience and are preparing for post-secondary life.

Supporting Evidence

- High expectations are conveyed to teachers through the Danielson Framework for Teaching, Common Core Learning Standards and Habits of Mind. In addition to cycles of observation and feedback aligned to the framework, teachers participate in individual goal setting which is reinforced through professional learning opportunities and professional collaborations in and outside of school. Teachers complete professional learning matrices where they collaboratively develop individual goals aligned to school goals and student outcomes. Teacher meet with administration and peers regularly to reflect on progress and determine professional learning opportunities that will support development including collaborative planning and inter-visitations. Teachers also participate in regular reflections on improvements in practice and the impact on student progress.
- The school conveys high expectations to students through frequent town hall meetings, advisory, and ongoing progress data accessible through Pupil Path and at the end of each marking period. During town hall meetings, students have the opportunity to hear guest speakers from colleges and businesses. Students also receive color coded transcripts which identify where they are on the path to graduation. Transcripts and Pupil Path include all course and exam requirements and progress towards meeting them. Present data shows that 75% of the students in the 2016 cohort are on track for graduation, with another 13% approaching. The school has developed a committee that supports students who are not on track. This committee meets one on one with students and families to develop graduation plans that include opportunities for credit recovery.
- The school provides multiple opportunities for students to explore their next steps. The school offers a Career and Technical Education program in Heating Ventilation and Air Conditioning through the State University of New York, Maritime. Guest engineers are invited to teach a class session and are available to consult with students. Ace mentorship opportunities are available. This program provides work-based learning experiences at various sites as well as career exploration. Through a partnership with Skills USA, students complete capstone projects where students develop solutions to real world problems. Students are largely focused on the development of green technologies. In addition, students have opportunities to earn college credits through College Now in partnership with Bronx Community College, with 45 students presently participating in this program. Students were able to speak to multiple options that they were pursuing on their path to post-secondary life.

Area of Focus

Quality Indicator:

2.2 Assessment

Rating:

Proficient

Findings

Across classrooms, assessments are aligned to curricula and are used to determine student progress toward goals and provide actionable feedback to teachers and students.

Impact

While the school tracks student performance and utilizes data to make instructional and curricula decisions, it is not yet consistently triangulating data to evidence a clear alignment between teaching practices and increased mastery for groups of students.

Supporting Evidence

- A review of Algebra Regents data showed a high percentage of students who are not performing at proficiency levels. The principal and teachers developed a two-term and four-term Algebra course. Students who are on track to complete the course in two terms move into Geometry, and students who are not on track complete the four-term course, which provides additional time focused on algebraic topics and skills. As the first group of students have not yet completed the two term Algebra course, the impact of this decision is not yet quantifiable.
- Teacher teams use common rubrics to assess student work products, and provide students with feedback that has resulted in high quality student work products across content area writing. As a result of looking at student work, teachers implemented writing frameworks for students to support the development of writing pieces that reflect the establishment of claims with relevant evidence. When teachers noticed students had mastered an effective writing structure and were able to support their pieces with relevant information, scaffolds were removed and the focus shifted to analyzing counter claims and developing students' individual style, expression, and writer's voice. While work products demonstrate high levels of student engagement, a clear portrait of student progress and mastery in writing is not easily accessible.
- Regents exam results are analyzed by all content area teachers to inform pacing for the upcoming year, and to make adjustments to units of study. Teachers participate in item analysis and examine questions, errors and possible misconceptions. Teachers make adjustments to time spent on high and low proficiency areas. Teachers also make modifications to language and representation of content, exploring successful practices that support mastery by looking at classrooms with higher success rates on topics. These practices are used across content areas.
- The HSET Habit of Mind Assessment was administered to all students in grades 9 through 11 to monitor student proficiency and understanding of one of four Habits of Mind. Student proficiency on the Habits of Mind is tracked over time and impact curricula writing and student tasks. For example, to address improvement in Habit of Mind #2 (using evidence to support arguments), teachers increased learning tasks in English across all grade levels that required the citing of textual evidence

Additional Findings

Quality Indicator:	1.1 Curriculum	Rating:	Well Developed
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Findings

School leaders and faculty align curricula to Common Core Learning Standards and strategically integrate the instructional shifts across units and tasks. Rigorous habits and higher-order skills are emphasized in curricula and academic tasks, and embedded in a coherent way across grades and content areas.

Impact

Curricula coherence is demonstrated in units plans, lessons and tasks across grades and subject areas that emphasize higher order thinking skills, integrate the instructional shifts, and promote college and career readiness for all learners, including English language learners and students with disabilities.

Supporting Evidence

- Across grades and content areas, curricula reflect a belief that rigor is not only defined by the complexity of a task but the opportunity for students to engage with content, act as researchers, and become experts in areas of study. Planning across grades and content areas reflect consistent opportunities for students to work within Depth of Knowledge levels three and four. For example, in English language arts, student examine causal relationships among characters; in science, students evaluate observational and scientific data to form and test hypotheses; in social studies, students examine multiple perspectives on historical events; and in math, students apply mathematical skills to real world experiences.
- In additional to rigorous tasks that require students to work in the instructional shifts, the school focus on four key habits of mind; writing using a variety of texts, using textual evidence, incorporation of multiple views and perspectives, and refining work and the work of others. Each lesson plan integrates at least one of these habits of mind, creating an academic program that supports college and career readiness for learners.
- The school provides multiple opportunities for co-planning among content area staff, grade level staff and teacher specialists to support a fully inclusive instructional model. Each unit of study contains a menu of modifications to address student learning needs so that all learners have the opportunity to access content and demonstrate thinking in multiple ways. The menu includes multiple means of expression, time extensions, access to leveled or translated text, graphic organizers, and strategic grouping and partner work. In addition, lesson plans demonstrate individualized scaffolds to support student engagement in rigorous instruction. For example, within a grade 11 United States History Unit, students engaged in close reading and analysis of multiple primary and secondary source documents annotating and developing questions. Students engaged in Socratic seminar to discuss historical events and their impact on present day events, writing argumentative essays and then presenting their case in collaborative debates.

Quality Indicator:	1.2 Pedagogy	Rating:	Proficient
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Findings

Across classrooms instruction reflects the belief that students learn best when engaged in collaborative exploration of content. Across classrooms, teaching strategies (including questioning, scaffolds in English and/or native language where appropriate) consistently provide multiple entry points into the curricula. Student work products and discussions reflect high levels of thinking and participation.

Impact

Coherence in teaching practices provides all learners with opportunities to engage in hands-on, rigorous instruction that promotes higher order thinking and participation in work products and discussions.

Supporting Evidence

- The school provides special education services to students through a push-in model, so that teaching specialists work with classroom teachers to provide support in grade level content rather than removing students from class to work on isolated skills. Through co-planning and the use of co-teaching models, teachers ensure all learners can meaningfully engage in rigorous tasks. For example, in a grade 9 English class, students worked in groups of four to examine the causal relationships in Shakespeare's *Romeo and Juliet*. The content area and English as a Second Language teacher worked together to support student facilitation of group work. Students had a set of cards that identified a series of interactions among characters. Students were expected to identify a minor event that led to major story events. Students engaged in conversations about how they made this determination. Translations and organizers supported students in this task. The activity served as a scaffold for student completion of essays on the topic.
- In a grade 9 Algebra class, students worked in pairs to solve multi-step words problems grounded in real world experiences. Problems asked students to evaluate cell phone plans, gym memberships and electronic purchases. Problem tasks were designed with varying complexity in steps and numbers. Students reviewed the process with a peer, gave feedback, and asked questions regarding the process.
- In a grade 11 United States History class, students engaged in a teacher facilitated Socratic seminar where students applied their learning of the Harlem Renaissance, Prohibition and related historical fiction studies to a discussion on present day drug laws, law enforcement and government. Students referred to notes and guiding questions to facilitate their participation and engagement.

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

The majority of teachers engage in inquiry-based professional collaborations aligned to the school's instructional goals. A distributed leadership structure provides teachers with opportunities to build leadership capacity.

Impact

The work of teacher teams has resulted in strengthened teacher capacity as well as teacher ownership in school decisions.

Supporting Evidence

- Teacher teams engage in a five point protocol for looking at student work. Teachers examine the use of the Student Engagement Every Lesson (SEEL) protocol, Common Core Learning Standards, Habits of Mind, rubric design, and feedback to students. Teachers use this process to design and revise tasks and inform the resulting instruction. This has resulted in increased student progress on the Habits of Mind rubric, with average scores shifting from 2.0\4.0 to 2.6\4.0, with students increasingly evaluating and engaging with high level content in meaningful ways.
- Grade teams are teacher led, with team members alternating facilitation responsibilities. Teachers are accountable for presenting their work and giving feedback to their peers. Teachers attend professional development and bring learning back to their peers. Teachers identified professional development on co-planning and co-teaching models as being most impactful on their instruction resulting in increased student and teacher engagement. Tiered math tasks, Socratic seminars and a more strategic use of co-teaching models have been outgrowths of this work.
- During the observed teacher team meeting, teachers from the English department examined student essays on *The Crucible* and how Arthur Miller's use of literary elements gave insights to the historical events of the time period. Teachers looked vertically at the English language arts standards to identify scaffolds and extension for the content area in reading comprehension and writing. For example, in this team, teachers spoke to using the Introduce Cite Explain (ICE) and Role Audience Format Topic (RAFT) strategies to support writing in grades 9 and 10, and removing those scaffolds in grade 11 to have students focus on developing their own style and voice in writing. In addition, the English department focuses on the use of relevant evidence to make substantive claims in grade 9, in grade 10 and 11 they focus on the development and exploration of counter claims.