



**Department of  
Education**  
*Carmen Fariña, Chancellor*

Office of School Quality  
Division of Teaching and Learning

# Quality Review Report

## 2014-2015

**Bronx Engineering and Technology Academy**

**High School X213**

**99 Terrace View Avenue  
Bronx  
NY 10463**

**Principal: Karalyne Sperling**

**Date of review: February 4, 2015  
Lead Reviewer: Mimi Fortunato**

## The School Context

Bronx Engineering and Technology Academy is a high school with 396 students from grade 9 through grade 12. The school population comprises 31% Black, 61% Hispanic, 1% White, 5% Asian, and 2% Native Hawaiian/other Pacific Islander students. The student body includes 13% English language learners and 18% special education students. Boys account for 83% of the students enrolled and girls account for 17%. The average attendance rate for the school year 2013-2014 was 80.7%.

## School Quality Criteria

<b>Instructional Core</b>		
<i>To what extent does the school...</i>	<b>Area of:</b>	<b>Rating:</b>
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	<b>Additional Findings</b>	<b>Developing</b>
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	<b>Focus</b>	<b>Developing</b>
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	<b>Additional Findings</b>	<b>Developing</b>
<b>School Culture</b>		
<i>To what extent does the school...</i>	<b>Area of:</b>	<b>Rating:</b>
3.4 Establish a culture for learning that communicates high expectations to staff, students, and families, and provide supports to achieve those expectations	<b>Celebration</b>	<b>Proficient</b>
<b>Systems for Improvement</b>		
<i>To what extent does the school...</i>	<b>Area of:</b>	<b>Rating:</b>
4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning	<b>Additional Findings</b>	<b>Proficient</b>

## Area of Celebration

<b>Quality Indicator:</b>	<b>3.4 High Expectations</b>	<b>Rating:</b>	<b>Proficient</b>
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### Findings

School leaders consistently communicate high expectations regarding professionalism, instruction, communication and other elements of the Danielson Framework for Teaching to the staff, and provide teachers with opportunities for collaboration and professional development. Teachers and staff maintain a culture for learning that communicates high expectations for all students and offer detailed feedback and guidance/advisement supports.

### Impact

Systems of accountability support teachers in progressing towards professional expectations. Guidance and advisement supports encourage students' participation in planning for their future.

### Supporting Evidence

- The principal communicates high expectations to staff through frequent cycles of observation and feedback to teachers, and has aligned professional development to elements of the Danielson Framework for Teaching. For example, workshops were facilitated in October, 2014 on an analysis of domain two of the Danielson Framework for Teaching, (creating an environment of respect, managing student behavior), and domain three (using questioning and discussion techniques, engaging students in learning, and using assessment in instruction). Individual teachers set professional goals aligned to the Danielson Framework for Teaching, and progress towards these goals is reviewed in January and June. For example, a math teacher's January goal check-in indicated that he was progressing towards the goal of incorporating more questioning and discussion techniques in lessons, and noted next steps that include identifying protocols that can be used to generate student discussion and incorporating the use of math prompts to more fully engage students. Teachers shared that the school's commitment to collaborative professional growth and reflection has contributed to development in their practice.
- The majority of teachers are engaged in professional collaborations, including the New Visions Global Studies Pilot, Living Environment Pilot, and the Blended Learning Community Pilot. The school was selected to participate in the NYCDOE Learning Partners Program, which provides school leadership and teachers with opportunities to conduct a series of school inter-visitations as part of a yearlong guided inquiry in best practice. In addition, school leaders and selected staff participate in a number of annual retreats, including those hosted by the Coalition of Educating Young Boys of Color, and the National Academy Foundation Academy of Engineering, an organization that provides career-focused curricular support and professional development.
- The school has implemented guidance and advisement supports for students that include college summit, a credit-bearing course that is designed to guide students in developing a high school and post-secondary success plan with a strong emphasis on the transition to college. The school employs a full-time college advisor who tracks students' progress in the college search and application process. Students have opportunities to enroll in advanced placement courses as well as college courses at Lehman College through the College-Now program.

## Area of Focus

Quality Indicator:

1.2 Pedagogy

Rating:

Developing

### Findings

Across classrooms, teaching strategies inconsistently provide multiple entry points into the curricula, and there is limited student engagement in meaningful discussion.

### Impact

Inconsistent implementation of strategic instructional scaffolds leads to uneven engagement in appropriately challenging tasks for the school's diverse learners, including English language learners and special education students. Varying use of effective questioning techniques hinders student engagement in higher-order thinking in peer to peer and class discussions.

### Supporting Evidence

- Teachers' lesson plans include checked off boxes to indicate the Universal Design for Learning (UDL) strategies to be implemented during the lesson. However, lessons observed did not consistently provide evidence of the use of these scaffolds. For example, in a global history lesson, targeted students were provided with a sheet of definitions for key vocabulary, and the teacher had modified the text, *The Mongols in World History*, using bold font to highlight key concepts and terms. However, in an algebra lesson for students who were repeating the course, all students were expected to complete a worksheet that included solving a number of quadratic equations. Although the teacher had noted six UDL strategies in this lesson plan, including offering alternatives for visual information, the vast majority of the noted strategies were not observed. In this class, a student called out, "I don't understand, and I can't even see the board", and the teacher was not observed responding to the student who requested support, but continued to call on a few students who were seated in the front of the room.
- The school has identified promoting accountable talk as an instructional focus, and most teachers' lesson plans noted Depth of Knowledge questions that would be posed by the teacher to the class. However, teachers' use of questioning and discussion techniques varied across classrooms. For example, in an English class the teacher posed numerous low-level questions to the class, including, "We just said what?". In this class, although the teacher directed students to use the accountable talk stems that were taped to the desks, students shared that this was the first time that they had seen and used the accountable talk stems. In an introduction to engineering class, the teacher asked and answered his own questions.
- Across classrooms observed, student engagement in high level discussion was uneven. For example, students in an advanced placement biology class were observed participating in a Socratic seminar. However, the discussion veered far off the assigned question of whether intelligence is influenced more by genetics or environment, with a number of students sharing generalizations regarding ethnic stereotypes. Across classrooms, the pattern of interaction in full class discussions was teacher - student-teacher, with limited student involvement in the discourse.

## Additional Findings

<b>Quality Indicator:</b>	<b>1.1 Curriculum</b>	<b>Rating:</b>	<b>Developing</b>
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### Findings

School leaders and teachers are in the process of aligning curricula to Common Core Learning Standards and integrating the instructional shifts. However, planning for the integration of the instructional shifts is inconsistent across grade levels and content areas. Curricula refinements are not consistently based on strategic planning and refinement using student work and data to provide individual students with access to the curricula and tasks, and to cognitively engage a diversity of learners.

### Impact

Limited integration of the instructional shifts hinders the promotion of college and career readiness for all students. Inconsistent strategic refinement of curricula and academic tasks impacts student access to the curricula, and impedes students' cognitive engagement.

### Supporting Evidence

- Curricula maps in core content areas include essential questions, big ideas, enduring understandings and priority standards. Teachers use a common lesson plan template that indicates the alignment to Common Core Learning Standards. However, lesson plans demonstrated inconsistent integration of the instructional shifts. For example, a social studies lesson plan included an activity where students would collaboratively analyze text and present their findings to the class using textual evidence in their presentation. However, an earth science lesson plan included an activity in which student groups were to copy the definition of the layers of the earth's atmosphere from a handout onto a piece of chart paper.
- The school has identified an instructional goal of data-based instructional grouping. Lesson plans include a section where teachers are expected to note how student pairings and groupings are determined. In classrooms visited, most teachers posted lists of student groupings or pairings. However, across classrooms visited, students were paired or grouped heterogeneously, limiting opportunities for targeted intervention and support for individual students. Most students could not articulate the rationale for pairing or grouping, and in most cases where students were observed working in pairs or groups, the task was identical and group roles were not based on student need. The principal stated that most student groupings were heterogeneous so that higher achieving students could help students who were struggling.
- The principal shared that teachers collaboratively plan to provide students with access to the curricula and tasks. However, teachers shared that curricula maps are not revised based on identified student need as the plans will be used again the following year with a new group of students. In addition, lesson plans do not consistently reflect planning for targeted interventions based on analysis of individual student work and data. For most lesson plans reviewed, the flow of the activities and the activities themselves remained the same for all students in the class, and planning did not reflect alternative tasks or strategically designed scaffolds for the diverse learners in the school. In addition, students shared that they do not often have a choice in assignments or tasks.

**Findings**

There are common assessments in place, but results are inconsistently used to adjust curricula and instruction. Across classrooms, teachers' assessment practices inconsistently reflect the use of ongoing checks for understanding and students self-assessment. Teachers inconsistently make effective adjustments to meet learning needs, and formative assessments do not always provide a clear portrait of student mastery.

**Impact**

As teachers do not yet effectively use common assessments to determine individual student progress towards goals and adjust curricula and instruction, student progress towards goals is impacted. Varied use of checks for understanding hinders the implementation of targeted instructional adjustments to meet all students' learning needs.

**Supporting Evidence**

- Teachers develop common assessments and task specific rubrics, and are expected to use the results to drive instructional adjustments. The school administers the Gates-MacGinitie reading assessment, mock Regents exams, and baseline assessments in math, science, and social studies. Documents presented for review included item skills analysis for groups of students. However, it is not clear how these results are used to modify texts or tasks across grades and content areas for individual students. For example, in visits to seven classrooms across grade levels and content areas, students in four classes were provided with identical texts and/or tasks.
- Teachers have developed a common grading policy that incorporates formative and summative elements such as class participation (50%), exam/quizzes (40%), and homework (10%). However, as the formula contains redundant or subjective elements, the information provided to teachers and students does not always provide a clear assessment of mastery of learning standards. Based on this grading policy, teachers are expected to determine grades for class participation. However, only three out of seven teachers were observed noting formative assessment data or participation grades for students during class. Students across classrooms were not able to articulate how the class participation grade, (which constitutes 50% of their course grade), was calculated. As a result, this formative assessment element provides limited information regarding actionable feedback to teachers and students regarding student mastery of learning objectives.
- The school has identified a goal of increasing teachers' use of checks for understanding in the classroom, and teachers are expected to utilize strategies such as fist to five, thumbs up, thumbs down, clickers, and a four-three-two-one scoring scale to gauge student understanding. However, checks for understanding are not consistently incorporated into lesson plans, and where noted, do not include planning for adjustment to instruction. For example, while an English teacher was observed conferencing with a small group of students and addressing misconceptions, a science lesson plan indicated that the teacher wait until the sharing out phase of the lesson to go over the activity and clear up any misconceptions. This lesson plan did not proactively anticipate possible misconceptions, or plan for adjustments to the lesson to address them.

<b>Quality Indicator:</b>	<b>4.2 Teacher teams and leadership development</b>	<b>Rating:</b>	<b>Proficient</b>
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### **Findings**

The principal ensures that the majority of teachers engage in ongoing grade level and content area professional collaborations that are designed to promote the implementation of Common Core Learning Standards and the integration of the instructional shifts. Distributed leadership structures provide opportunities for teachers to assume leadership roles facilitating team meetings and professional development activities for colleagues.

### **Impact**

Structured professional collaborations contribute to progress toward goals for teacher practice and strengthened pedagogy. A distributive leadership structure builds leadership capacity, and provides teachers with a voice in key decisions that affect student learning across the school.

### **Supporting Evidence**

- Teachers meet regularly in grade and content specific teams using established protocols to analyze student work and identify student needs. The majority of teachers are engaged in these ongoing professional reflection and collaborations and teachers have developed a process to look at the outcomes of assessments and identify areas of academic need for groups of students. Teachers are engaged in a number of team collaborations including an attendance team, student intervention team, senior team, professional development team as well as grade level and department teams.
- Distributed leadership is embedded as part of the school culture. Teacher leaders facilitate department and grade level meetings, and teachers assume a leadership role in supporting colleagues through peer visitation and in instructional decisions that impact student learning. For example, teachers shared that they collaboratively developed the school's lesson plan template that is now used by all teachers. In addition, teachers initiated the development of the list of school community members' rights and responsibilities that has become an integral part of improving school culture.
- Teachers stated that they that they have voice in key decisions and shared that their perceptions and findings are taken into consideration. As an example, teachers noted that they have developed the school's common grading policy. Teachers have also identified protocols for teacher team meetings, such as the *Looking at Student Work* protocol that was used during a cross content ninth grade teacher team meeting.