



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

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

# **Quality Review Report**

## **2015-2016**

**Academy of Innovative Technology**

**High School K618**

**999 Jamaica Avenue  
Brooklyn  
NY 11208**

**Principal: Cynthia Fowlkes**

**Date of review: April 8, 2016  
Lead Reviewer: Claudette Essor**

## The School Context

Academy of Innovative Technology is a high school with 410 students from grade 9 through grade 12. In 2015-2016, the school population comprises 5% Asian, 47% Black, 44% Hispanic, and 1% White students. The student body includes 8% English Language Learners and 24% students with disabilities. Boys account for 82% of the students enrolled and girls account for 18%. The average attendance rate for the school year 2014-2015 was 82.3%.

## 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 <i>Framework for Teaching</i> , aligned to the curricula, engaging, and meets the needs of all learners so that all students produce meaningful work products	Focus	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	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	Additional Findings	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	Celebration	Well Developed

## Area of Celebration

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

Teams of teachers systematically examine their pedagogy and share knowledge and strategies for improving teaching and student learning across the school. Through distributed leadership practices, teachers have input in high-level decision-making with school leaders.

### Impact

The inclusion of all staff in multiple teams empowers all teachers to assume responsibility for collectively improving teacher practice and student performance and provides opportunities for teachers to be deeply involved in decisions that affect student learning across the school.

### Supporting Evidence

- The vast majority of teachers participate in inquiry-based cycles of structured professional learning activities that allow them to meet regularly with other staff on the respective grade or content team as well as with intervention specialists and other service providers. Teams examine student work and data to inform refinements of lesson or unit plans and develop strategies to address specific concerns such as ways to improve student proficiency in elaborating on ideas and creating claims and counterclaims. The principal presented data illustrating how teamwork has contributed to increased student achievement, as demonstrated by 80% of the targeted students in grades 9 through 12 showing improvement in their performance as per scholarship reports for some and January 2016 Regents exam data for others. The principal presented a catalog of all courses offered to students and credited the team for their work in creating the catalog.
- During the Quality Review, a literacy team examined samples of student work to assess the impact of a strategy that they use to teach grade 9 students how to develop paragraphs in response to a writing task. The task required students to write two paragraphs in which they include a claim and counterclaim to establish their position about the guilt or innocence of a character from the text they were reading, who was thought to have committed “crimes against the government”. The team assessed each student’s work, using a tally sheet to note features such as use of topic sentences, correct capitalization and punctuation, evidence of a claim and counterclaim and use of transition words to connect ideas in the paragraphs. They determined that students needed additional instruction to address writing mechanics, accurately connect evidence to claims, refine arguments in counterclaims and construct strong concluding sentences.
- Teachers at the team meetings stated that they provide regular input in school-level decision-making through peers who meet weekly with school leaders and others to devise and implement strategies for improving teaching and learning. Teacher leaders include content team leaders, program coordinators, instructional coaches and Peer Collaborative Teachers (PCTs), all of whom work with all staff on initiatives that target improved student outcomes. These leaders reported that they set the agenda for weekly team meetings, recommend instructional resources and coordinate professional learning events for all staff. Some serve in leadership roles on teams such as the credit accumulation, Pupil Personnel Team (PPT), Youth Empowerment Leadership Program (YELP), special education and attendance teams, where they work with school leaders on activities for enhancing staff and student achievement.

## Area of Focus

Quality Indicator:

1.2 Pedagogy

Rating:

Proficient

### Findings

Across classrooms, teaching practices engage all students in rigorous work and discussions. However, instructional strategies do not illustrate optimal use of task extensions to deepen learning for all students.

### Impact

While cognitively demanding tasks promote student progress toward being college and career ready, there are missed opportunities to further deepen student learning via completion of tasks that allow all students to demonstrate ownership of learning.

### Supporting Evidence

- Across classrooms, lessons offered multiple opportunities for students in flexible groupings to learn and practice new concepts and skills, with peers and individually, through focus questions provided by teachers. For example, teams of students in a robotics class collaborated on refining the design of a robot, through hands-on exploration of how to get the wheels to accelerate faster. Some engaged in programming while others explored coding, researched information on robots or tried to assemble parts of the robot. Similarly, in an English Language Arts (ELA) class, pairs of students worked together to read articles and use their Cornell Note-taking template to create and answer questions about whether adult punishment is ever warranted for juveniles who commit adult crimes. Students reviewed each other's notes and answered each other's questions based on their articles.
- In a grade 12 ELA Integrated Co-Teaching (ICT) class, the teacher facilitated presentations by groups of students who used the *Depth of Knowledge* (DOK) wheel to create questions about *Down These Mean Streets*, the text they were reading, while their peers used a rubric to rate the presentation. The presentations involved all students in peer-to-peer questioning and discussion driven by the student-generated questions linked to the *DOK* wheel. This high-level practice of inviting students to comment on responses by peers or ask their own questions about content being read was not evident in some of the classrooms visited. For example, during a grade 11 lesson, the teacher posed differentiated questions about the United States involvement in World War II for groups of students to answer via a Cornell Note-taking document and readings from an iPad; however, the teacher was speaking for most of the observed period, with only a few students responding to questions while others silently copied notes from an interactive white board.
- In most of the classrooms visited, all students worked on the same task, with minimal variation in approaches. In a chemistry class with students in grades 11 and 12, all students read articles about forms of energy in responding to guiding questions presented by the teacher. Students in each group focused on their question, using their Cornell Note-taking template to record details from their group's articles to describe aspects of the relationship between temperature and thermal energy. Similarly, groups of students in a grade 9 ELA class used the Cornell Note-taking template to engage in a task that required them to read and create questions for peers to respond to, while examining changes in a character in the text that they were reading. The tasks involved students responding to teacher-generated learning activities that did not offer advanced students opportunities to tackle a higher-level task than that of their peers. Additionally, students who finished early did not have the opportunity to independently explore an additional task to extend their learning.

## Additional Findings

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

Curricula strategically aligned to Common Core Learning Standards and instructional shifts offer all students access to highly challenging learning experiences in all disciplines.

### Impact

All students benefit from rigorous curricula that drive coherent instruction across all grades and content areas and promote college and career readiness. High-level tasks provide all students with opportunities to demonstrate their thinking.

### Supporting Evidence

- Based on a school-wide instructional focus on literacy across the curriculum, teacher teams collaboratively refine curriculum maps and units of study to align all units to Common Core Learning Standards and relevant content standards across grades and disciplines. Curricula include content for Advanced Placement (AP) courses in calculus, computer science, Spanish language and culture, English literature and composition, United States History, and biology, which offer students opportunities to complete tasks such as writing evidence-based position papers that involve making a claim, analyzing and supporting the claim, and presenting their work to teachers and peers. A Global Studies task required students to create an argumentative essay with claims, counterclaims and evidence to respond to the question, “Should Christopher Columbus be viewed as a hero or villain in World History?” Additionally, across content areas, there are projects requiring students to delve deeply into academic vocabulary in writing informational essays or describing problem-solving steps.
- Given a school-wide format for curriculum mapping and lesson planning, teachers design curricula that incorporate rigorous tasks grounded in Webb’s *DOK* tool and reflect *Universal Design for Learning (UDL)* strategies to address the needs of all students. Unit maps, lesson plans and student work show academic tasks linked to complex texts and applications of *New Visions* curricula to design intellectually demanding learning activities. For example, a task for grade 9 students involved reading about the design of airplanes, creating a paper airplane, and testing it inside the classroom and in the school yard, as part of project-based learning about the principles of aerodynamics. Further, during the student meeting, students displayed samples of exemplary portfolio products. Some students also described multimedia presentations such as one for a United States History assignment that involved research, essay writing and presentation of slides about “robber barons” and one for a web design class that involved “creating an App for a watch”.
- In addition to curricula for all core disciplines, there are curricula and tasks for the YELP program that include content for Scholastic Aptitude Test (SAT) preparation activities for students in grade 11. Further, *iLearn* resources provide for additional tasks through online classes designed to support students in grades 11 and 12 towards credit acceleration and incorporate tasks for students in grades 9 through 12 to practice for Regents assessments. Curricula also include challenging content for the school’s Career and Technical Education (CTE) program that offers technology-based courses in game design, web design and computer repair, which lead to students being able to graduate with a New York City CTE Certified Diploma. The principal noted that current data showing approximately 80% of eligible students graduating within four years is largely due to the use of rigorous curricula and assessment tasks to push student thinking in all disciplines.

<b>Quality Indicator:</b>	<b>2.2 Assessment</b>	<b>Rating:</b>	<b>Well Developed</b>
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### Findings

All teachers use data from a variety of assessment tools to create clear portraits of student mastery of skills across all classes. Multiple forms of ongoing checks for understanding are evident in all classrooms and all students engage in self-assessment.

### Impact

Comprehensive and varied assessment practices result in adjustments to curricula and instruction that meet students' diverse learning needs and generate actionable and meaningful feedback that makes all students well aware of next steps for improved mastery of their learning targets.

### Supporting Evidence

- All teachers use rubrics, student self-assessment, on-demand assessments, and performance tasks aligned to curricula, to assess student progress towards mastery of unit goals and provide students with individualized feedback via comments with next steps on sticky notes and information circled on the applicable rubric. Further, with use of curricula that includes web-based assessments, teachers receive and share with students timely feedback about their level of mastery of applicable skills and content. During the meeting with students, they all described how teachers use rubrics to provide them with written and verbal feedback to improve their work. One student shared a writing sample showing teacher feedback that he received via his Google Docs portfolio. The feedback from his teacher commended him for “good use of a source”, but advised him to see the teacher to review how “to write the citation correctly”.
- Assessment calendars for all content areas include pre-assessments, interim assessments, mid-term and final assessments. Data folders also show that teachers administer Measures of Student Learning (MOSL) baseline, CTE, Performance Series and Scholastic Reading Inventory (SRI) assessments to generate streams of data that they use to create profiles of student weaknesses and strengths across grades and subjects. Teachers use the data to implement interventions that target needs detected for individual and groups of students. For example, teachers place groups of four to seven students who do not show gains across Beginning-of-Year (BOY) and Middle-of-Year (MOY) assessments, in a Magic Four program that provides targeted intervention services to address their needs. Additionally, based on SRI assessment data showing severe reading comprehension deficits for many students in grade 9, the school leader implemented a Drop Everything and Read (DEAR) program to improve their literacy skills via sustained, silent reading in a designated content area for a minimum of 45 minutes per week.
- Students reported that they self-assess daily by going online to look at their performance data on PupilPath and in responding to teacher messages about assignments and scores, which they access via an App on their phones. One added that teachers follow up on the messages during conferences in class and provide additional feedback that helps students “fix the work”. Visits to classrooms illustrated teacher use of varied forms of checks for understanding such as beginning-, middle- and/or end-of-lesson reviews of *DOK*-aligned essential, pivotal, and focus questions evident in lesson plans, individual and small group conferencing, group and partner share-outs, exit tickets and hand signals. Many teachers followed up immediately on findings. In a grade 11 class, after checking-in on group work, the teacher kept reminding students to watch for key terms posted on an interactive white board and to refer to the key terms in reading online resources about World War II to answer focus questions on their Cornell Note-taking sheets.

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

Staff members systematically communicate to students and families a well-defined and uniform set of high expectations for all students to be college and career ready, with multiple supports and structures that help move all students towards success in meeting the expectations.

### Impact

The school culture for learning creates strong partnerships with students and families, contributing to a deep understanding of school goals and expectations for all students, and resulting in all students mastering expectations for advancement to their next academic level.

### Supporting Evidence

- All staff members use tools such as the school website, assemblies, emails and texts to communicate high expectations to all students and families, fostering partnerships to help all students meet those expectations. Additionally, families receive information about college tours, the progress of their children and ways to support the college preparation process, through meetings with guidance counselors, the parent coordinator, and other school staff. Families stated that through workshops, curriculum nights, scholarship reports, progress notes, phone calls and data on PupilPath, they know what they need to do to help prepare their children for the next level. One parent referenced the DEAR program being used to encourage families to partner with teachers in improving their children’s literacy skills by reading with their children at home. Another parent described family-school partnerships to increase homework, recruit new students and increase student engagement in community service projects.
- All teachers utilize online data tracking tools to monitor and analyze student performance and share the information with students, keeping each one aware of the progress being made in relation to all expectations, including consistent progress in credit accumulation and satisfactory progress towards graduation and college and career expectations. Students track their own progress and articulate next steps for their academic growth through a student-led conference initiative. In collaboration with families, after each marking period teachers pull out low-achieving students for individualized work in the Magic Four intervention program that holds them accountable for working with their teachers to improve their grades. A Math, English, Science, and History (MESH) Center, staffed by teachers and student tutors, provides additional academic guidance and support, helping all students to advance to increasingly higher levels of scholarship.
- Staff members in the Youth Empowerment Leadership Program (YELP) engage students in activities specially designed to prepare them for college and careers. Job readiness workshops expose them to interviewing and resume-writing practice and interactions with members of an Advisory Board connect them to paid internships. A Student Success Center, implemented in partnership with a Community-Based Organization (CBO), provides a College Access counselor for students in grades 11 and 12 and an Early College Awareness counselor for students in grades 9 and 10. The Student Success Center staff members coordinate college fairs, offer college trips, and host workshops on the college application process. Some students in grades 11 and 12 also receive college readiness guidance from a partnership that matches them with mentor students from Princeton University, who come to the school to work with them on college and career explorations and share experiences about life in college.