Department of Education
Carmen Fariña, Chancellor

Office of School Quality
Division of Teaching and Learning

Quality Review Report

2015-2016

The Urban Assembly School for Applied Math and Science

Middle - High School X241

1595 Bathgate Avenue
Bronx
NY 10457

Principal: David Krulwich

Date of review: January 14, 2015
Lead Reviewer: Heidi Pierovich

The School Context

The Urban Assembly School for Applied Math and Science is a middle - high school with 620 students from grade 6 through grade 12. In 2015-2016, the school population comprises 1% Asian, 34% Black, 65% Hispanic, and 1% White students. The student body includes 11% English Language Learners and 24% students with disabilities. Boys account for 52% of the students enrolled and girls account for 48%. The average attendance rate for the school year 2014-2015 was 92.4%.

School Quality Criteria

Instructional Core		
To what extent does the school…	**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	**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		
To what extent does the school…	**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		
To what extent does the school…	**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

Quality Indicator:	4.2 Teacher teams and leadership development	Rating:	Well Developed

Findings
All teachers are engaged in collaborative inquiry based teacher teams. Distributive leadership structures afford teacher teams the opportunity to make key decisions about teaching and learning through the analysis of student work products leading to the revision of curriculum.

Impact
The work, frequency of meetings, and variation of teacher teams, provide all teachers with opportunities to engage in shared leadership and professional collaborations, resulting in improved teacher capacity and student outcomes across the school community.

Supporting Evidence

- Teachers and administrators stated, “We strongly believe the best support for teachers comes from daily collaboration and mentoring with a team leader in planning curricula, analysis of assessment, and inter-visitations.” To this end, this small school is intentionally designed so that more than one teacher teaches the same grade level or subject, so that teachers can collaboratively plan curricula, create assessments, and analyze results. The school strategically uses teacher teams as a vehicle for professional development and mentoring. Administration states, “Teacher teams are at the heart of the school.”

- Each type of teacher team, including grade and subject, meets multiple times weekly, to plan instruction, to analyze student work and data, to determine next steps for students to succeed, and to share best practices. In a teacher team meeting, teachers used a protocol to analyze the current Degrees of Reading Power (DRP) results for the second administration of this common assessment, which demonstrated the increase in student achievement as well as areas of growth for some students. Teachers determined next steps in instruction for identified students, moving them toward achieving their reading goals. They also created a list of students ‘at-risk’ and referred them to after school intervention services. Further, teachers agree that their mutual respect and collegiality supports their professional growth as they learn best practices from each other. Teachers also refined lesson plans based on the results of essays written. After an analysis of student work, teachers determined that students needed to revise their essays. Then teachers created three levels of areas of growth for revisions, which were essays above, meeting, and approaching standards. Further, teachers determined the necessary mini-lessons to re-teach transitions, phrases, analyzing evidence in support of a claim, grammar, mechanics of writing, and usage.

- Distributed leadership is embedded into the teacher teams. Each team has a teacher leader who has one to two periods daily to intervisit with mentees and other team members, culminating in emailing actionable feedback to teachers and including administration to maintain a transparent process. As teacher teams meet multiple times a week, the additional component to their professional development is through weekly intervisitations. One teacher stated and others agreed, “We learn from each other and because we meet so often we are on the same page from visiting each other’s classes, and my team members hold me up to a higher standard and ensure we are all holding students to the same level of rigor.” Teacher leaders also meet with administration during monthly meetings. Additionally, teachers create and implement professional development sessions based on feedback highlighting needs of teachers and aligned to schoolwide goals.

Area of Focus

Quality Indicator:	1.2 Pedagogy	Rating:	Proficient

Findings
Across classrooms, teacher practice is aligned to the curriculum and the Danielson *Framework for Teaching*, and demonstrates a schoolwide belief about how students learn best. Teaching strategies consistently provide varied entry points into the curricula, and students' work products and discussions reflect high levels of student thinking and participation.

Impact
Teacher pedagogy across the majority of classrooms is engaging and meets the needs of learners. However, there are pockets where teachers miss opportunities to provide students with strategic scaffolds or extensions, thus limiting opportunities for all learners to engage in higher-order thinking tasks to accelerate and own their learning.

Supporting Evidence

- The schoolwide belief is that students learn best "when provided with rigorous and engaging curriculum that is relevant and challenges students to solve problems and develop their own understanding through authentic tasks and time for student-student discussion." Each class visited had students involved in their learning, with opportunities to collaborate and discuss their thoughts in groups and whole class discussions, mirroring the schoolwide focus on Danielson's questioning and discussion, leading to most students being engaged in the work. However, extensions to ensure challenge for all, including higher-level students, and strategic scaffolds, were not evident in the vast majority of classes.

- Rigorous, engaging, and scaffolded tasks, provided students with opportunities to develop their own understanding. In a grade 10 algebra class, students plotted answers to problems in a unit project relative to the trajectory of 'Angry Birds.' While students worked individually on tiered assignments while sitting in groups, they supported peers, "I'm not sure where I went wrong here, my graph doesn't look right. What do you think?" Group members offered suggestions that helped him find the error. Yet this opportunity to collaborate was not evident across the vast majority of classes. In a grade 10 global class, students worked alone to complete tiered worksheets from a close read about causes to events in 1917 Russia. Similarly, in a grade 9 English Language Arts (ELA) class, a few students read aloud, while others answered questions on a worksheet after the teacher asked low-level questions to complete her explication of the article.

- Although accountable talk stems are employed, not all students own the discussions. In a grade 10 special education teacher support services (SETSS) class, students met in small groups to practice using probing questions, accountable talk stems, and to discuss evidence for claims regarding questions about *A Raisin in the Sun*. In the next step, students who volunteered to facilitate a fishbowl discussion sat in the inner circle. In the outer circle, students followed and rated an inner-circle person's discussion. In a grade 7 humanities class, students in heterogeneous groups, discussed and individually wrote their answers to tiered questions citing text-based evidence on notes, posted their notes on chart paper, and then engaged in a gallery walk and a final share out to culminate the unit. All students were engaged. Yet, in other classes, while some discussions included a majority of students, some discussions were teacher directed and went from one student to the teacher and back out to another student, precluding students responding directly to each other, in line with the school's belief. Consequently, all students do not yet own their learning.

Additional Findings

Quality Indicator:	1.1 Curriculum	Rating:	Well Developed

Findings
School leaders and faculty ensure that curricula are aligned to the Common Core Learning Standards and/or the content standards and strategically integrate the instructional shifts. Rigorous habits and higher-order skills are emphasized in curricula and academic tasks and embedded in a coherent way across grades and subjects.

Impact
Purposeful planning results in access for all students into rigorous coherent curricula that prepare students for college and career and ensures that all students must demonstrate their thinking.

Supporting Evidence

- The staff implements *CMP3* for middle school math, and creates an interdisciplinary humanities curriculum from the New York State Department of Education and EngageNY. Others have been staff-created over the years. Curricular planning documents are aligned across grades and subjects, using schoolwide formats. Lesson plans follow a workshop model. Teachers tailor lessons to their students' needs based on common assessments and share adjustments. During teacher team meetings, teachers refine tasks and lessons to ensure that groups of students have access to curricula. Teachers also work across curricula as a physics teacher supported a history teacher with a physics lab for students to create a telegraph. All curricula documents and feedback, from teacher leaders and administrators, are archived in Google Docs by course and year for all to use and review.

- Scope and sequence includes content standard(s) as applicable, Common Core Learning Standards, unit title and duration, anchor text, essential questions, formative assessments, and student talk. Unit overviews include unit title, summary, projects or formative assessments, day-by-day aim, activity summary with do now and motivation, discussion opportunities, content objectives and process objectives. Additionally, staff creates multi-step student tasks that occur at the end of units and before a final assessment.

- In a U.S. History lesson, the teacher provided everyone the same text from Thomas Paine's *Common Sense* for the guided practice, which was universal, and then modified this rich text and activities for three separate groups of students. Thus, all students had opportunities to access to the material and meet the standards and skills. Additionally teachers use the *Depth of Knowledge* (DOK) wheel to support questioning development and creation so that questions spiral up in level.

- Lesson plans include the aim, Common Core and content standards, launch, connections to prior knowledge or link to previous lesson, differentiation, predetermined circulation questions, mini lesson, independent practice, homework, and a wrap up. Some lessons included vocabulary, some included extensions or challenges, and some included quizzes.

Quality Indicator:	2.2 Assessment	Rating:	Well Developed

Findings
Across the vast majority of classrooms, teachers use or create assessments, rubrics, and grading policies that are aligned with the school's curricula and offer a clear portrait of student mastery. The school uses common assessments to create a clear picture of student progress toward goals across grades and subjects, track progress, and adjust curricular and instructional decisions.

Impact
As a result of aligned assessments, teachers provide actionable and meaningful feedback to students and teachers receive relevant information regarding student achievement so that all students, including English Language Learners and students with disabilities, are supported to demonstrate increased mastery.

Supporting Evidence

- Teachers use common assessments and share the results schoolwide to inform all teachers and advisors of students' progress. The DRP assessment, given in middle school, is shared schoolwide and discussed in teacher team meetings. Using an assessment protocol, teachers determine best practices, next steps in instruction and reteaching. Students know their DRP scores and year-end goals. The DRP assessment analysis last year revealed the seventh grade showing the greatest growth. After an analysis of their curricula and assessments, the administration, teacher leaders, and staff determined a literacy mission and revised the eighth grade curricula to reflect a focus on literacy. As a result, this year the eighth grade DRP results show a 39% increase from the first assessment in September to the second in January. Furthermore, teachers are empowered to revise exams to add meaningful problems, omitting redundancy. In addition, the staff and administration determined the data showed a need for a freshman reading class and to that end purchased the *Wilson* program, training for the teachers. The initial *Wilson* assessments show an upward trend. Additionally, teachers use "grade cam," a document camera that takes pictures of scantron answer sheets to determine what standards students have mastered and which ones need additional focus by students. This data is used to analyze skills to be retaught in small data-determined groups.

- The school employs *Datacation*, an online grade book with portals for teachers called *Skedula*, and *PupilPath* for students and parents. Each student's attendance, coursework, progress within each course, Regents, credits earned and those still needed, demonstrate a clear portrait of student mastery and progress toward graduation. For example, a student stated that he checks *PupilPath*, and can email his teacher, about homework or feedback, or can text or send a regular email in Gmail to the teacher through the school portal. One student stated, "I needed advice on a final essay and emailed my teacher over the weekend and she answered me." Each student's *PupilPath* page uses color-coding to show task submitted, status of grading including rubric score, or awaiting grade. Students keep track of their tasks and grades. Parents stated they use the parent portal not only to track their children's progress, but often as a conversation to help support their children's work toward graduation.

- Students stated they have rubrics and checklists for tasks and assessments and receive grades and actionable feedback from teachers with next steps. Students spoke about next steps teachers provided and how to improve their work using the feedback to revise current and future work. Grading policies are outlined in teacher syllabi, which students receive the first week of school and are aligned to the school's curricula.

Quality Indicator:	3.4 High Expectations	Rating:	Well Developed

Findings
School leaders consistently communicate high expectations to the entire staff. School leaders and staff consistently communicate expectations to students and parents that are connected to a path to college and career readiness and offer ongoing feedback.

Impact
School leaders provide training and have a system of accountability for expectations. School leaders and staff help families understand student progress toward expectations.

Supporting Evidence

- Parents stated they are highly pleased with the consistent communication with administration and staff, ensuring their children receive what they need to graduate, whether it is about attendance or achievement, or applying to college. Parents stated they receive and communicate with the school through many venues including emails, phone calls, and/or *PupilPath*. Parents agreed the grading program *PupilPath* helps them know where their children are succeeding or need help, the number of credits earned, or additional needs to graduate. Students also use *PupilPath* and the high school students strive to be "green", or on-track for graduation. All students have a teacher-advisor who coordinates support for college and career readiness and acts as a conduit between the student's teachers and parents. Students and parents agreed that this consistency supports their children as they develop their skills and talents to determine college and career steps. Teachers are trained to be advisors and this supports all teachers in being mutually accountable for the school's high expectations.

- Administration conducts a cycle of observations but also short visits that include actionable feedback to a teacher through email, while also including all administrators and teacher leaders so that all are in the loop and know the areas of focus and growth. Teachers set individual goals toward professional growth aligned to the Danielson *Framework for Teaching* in the areas of questioning and discussion and student engagement. These goals are also tied to monthly professional development opportunities displayed in a yearly plan, which are aligned to the schoolwide goals. The main component of professional development occurs in the teacher team meetings and is aligned to the school's belief that teachers learn best "in small-group collaborative planning teams with a team leader to collaboratively plan all curricula materials, share daily lesson plans, provide mentoring, inter-visitations, lesson plan support." Teacher leaders also provide actionable via the school's internal email structure that administration uses to support teacher growth toward high expectations, as evident in teacher observations and noted in *Advance*.

- As a result of coherent high expectations, best practices around college-ready skills are employed schoolwide across all subjects. Teachers explained that the history department uses "says, means, and matters" strategy for annotation, whereas the ELA department found success having students identify and note what something "means" in the left margin, why it "matters" in the right margin, and summarizing why these are important.

- To support students to be college and career ready, the school provides college trips starting in grades 6 and continuing through grade 12. Students and parents spoke of the trips, and a student stated this has helped him to select schools to apply to. Parents also attend workshops on applications and financial aid.