



**Department of
Education**
Carmen Fariña, Chancellor

Quality Review
Office of School Quality
Division of Teaching and Learning
2013-2014

Quality Review Report 2013-2014

Academy of Applied Mathematics and Technology

Middle School 343

**345 Brook Avenue
Bronx
NY 10454**

Principal: Vincent Gassetto

Dates of review: February 11-12, 2014

Lead Reviewer: Yolanda Torres

Part 1: The school context

Information about the school

The Academy of Applied Mathematics and Technology is a middle school with 292 students from sixth through grade 8. The school population comprises 25% Black, 71% Hispanic, 1% White, 1% Asian, 1% Native Hawaiian/Other Pacific Islander, 1% Multi Racial students. The student body includes 15% English language learners and 26% special education students. Boys account for 55% of the students enrolled and girls account for 45%. The average attendance rate for the school year 2012 - 2013 was 91.0%.

Overall Evaluation

This school is proficient.

Part 2: Overview

What the school does well

- The school's culture reflects an inclusive learning environment where staff, students and families unify their efforts, in support of the academic and social emotional growth of students and adults. (1.4)
 - As students travel from classroom to classroom, there is a sense of community where all stakeholders are clear on how their roles contribute to the healthy learning environment that permeates throughout the school day. Staff members' pictures with welcoming smiles displayed at entry points of classrooms and offices, portray a message of pride and unity, resulting in a close-knit "village" focused on students' academic performance and personal growth. Students consistently wear the school uniform, adhering to the school's expectations, but, more so because they hold themselves accountable in representing their school well, leading to educational success as evidenced by their participation in assemblies and conferences. School-wide focus on attendance, via incentives such as raffle tickets and perfect attendance awards aligned to a point system, has resulted in a decrease in student absenteeism. In addition, weekly Advisory group sessions have contributed to improved student attendance and positive teacher-student rapport, as teachers know students well. These groups have been strategically formed based on school-wide data on attendance and discipline infractions. Staff members conduct ongoing check-ins with students in their Advisory group, who, for the most part, are students from other classes they do not interact with on a daily basis. Advisory discussions on global awareness topics result in students visiting places such as shelters for pet care and other organizations, so that students can see and live the relevancy of the topics discussed and how these affect their lives. The school-wide tracking of student academic performance, daily attendance and behavior, provides staff, students and parents with a clear picture on each student's progress towards school goals. Email alerts provide assigned staff with data that leads to acknowledgement and celebration of students' efforts, as well as immediate interventions to ensure students succeed in achieving learning goals. Students appreciate the fact that they are able to access this system online and at home to assess their own progress. Updated informational bulletin boards provide students with steps to follow in order to be successful at school and beyond, by posting the names of specific staff members who can help them when they are in need of support, from simply acquiring a Metro Card to speaking out about bullying. Also, other bulletin boards reflect students' voices, with members of the Student Government contributing to school improvement, and as students give "shout outs" via reflective writing about their experiences with Broadway shows, exhibits, contests, sports and arts. These practices reflect the school's core belief that students' academic learning must be bridged with enriching experiences and real world situations that educate the whole child, leading to college and career readiness and beyond. As a result of these practices and supports student attendance has improved, with an average of 92.84% attendance to date and there is a decrease in incidents of misconduct, as evidenced by data from the Online Occurrence Reporting System (OORS).

- School leaders have made strategic organizational decisions in support of school-wide goals that address the instructional needs of all students. (1.3)
 - The use of technology as an instructional tool is evident in every classroom. School leaders have invested in instructional tools such as Smart boards, laptops, iPads, document cameras, and software that address students' learning styles in order to close the technology gap, thus providing students with opportunities to excel at their own pace. Students engage in small group work on laptops, with virtual learning opportunities involving challenging tasks, including solving real world situations. The school-wide schedule is strategically customized to meet the needs of students, with an embedded small group instruction period for daily targeted support in literacy and math. Enrichment students attend Regents classes in math and science in preparation for the specialized tests for high school credits. Built-in common planning time affords teacher teams multiple opportunities to meet regularly in order to assess their lessons and look at student work so as to ascertain next steps in the delivery of instruction that will result in improvement in student academic achievement. As teachers share their findings, they agree on specific strategies that will help struggling students improve and excel. Additional staff and consultants have been hired to continue supporting teachers and students, with targeted instruction for the achievement of school-wide goals. The newly hired instructional staff contributes to smaller class size, hence reducing the ratio between teacher and students in order to maximize learning. The consultant meets with teachers during team meetings as well as one-on-one, providing teachers with differentiated professional development that results in teacher growth, as evidenced by teacher performance data. In addition, school leaders have secured arts grants and partnerships with community based organizations, leading to student involvement in activities that allow them to produce high quality work products.

- The administration and faculty have ensured the alignment of the curricula to the Common Core Learning Standards (CCLS) and other relevant content standards, in order to promote rigorous instruction for all students. (1.1)
 - For many years, the Humanities Department has designed standards-based curriculum. With the implementation of the CCLS, teachers have refined these units with overarching themes and essential questions that are social studies based with embedded literacy strategies. During their weekly meetings, teachers check for evidence of rigor via analysis of performance tasks, incorporation of language objectives as well as infusion of vocabulary acquisition activities, in order to ensure that the needs of struggling students, specifically English language learners, are addressed through scaffolding strategies. To build coherence, teams of teachers discuss individual students' reports and make agreed-upon purposeful decisions on how to proceed in supporting struggling students. They also use the Depth of Knowledge as a guide to assess and ascertain if the questions asked during instruction are rigorous enough to challenge students' thinking. Teacher reflection at each meeting affords all team members the opportunity to think and share ideas about how to continue refining their focus on using student work and data to design tasks aligned to all students' needs. During weekly professional development sessions for the whole faculty, all content area teams share

their work on the priority standards and identify the school-wide trends or skills that students struggle with. These discussions lead to the identification of strategies that can be implemented in instruction across all content areas for coherence and consistency in ensuring that all students' entry points of learning are addressed. Curricula for Advanced Placement classes in math and science supports high performing students with preparation for Regents exams, exposing them to challenging coursework that can lead to high school credits in the eighth grade. As a result, all students benefit from curricula that offer them access to rigorous learning experiences across content areas.

- The use of a variety of assessments provides teachers and school leaders with meaningful feedback on students' academic progress, resulting in targeted instruction customized to students' needs. (2.2)
 - In order to provide the best support to incoming sixth graders, school leaders carefully analyze the test history of these new students and invite them to an instructional "boot camp" to address their writing early on and prepare them for grade level expectations. Results from baseline assessments and other formative assessments such as listening in on student discussions and conferences, as well as the grading of constructive responses, provide a wealth of information that empowers school leaders and teachers in collaboratively identifying standards that students struggle with. As teachers make decisions around change strategies, tasks related to these standards are embedded into the next unit of study and revisited during targeted instruction time. These data-driven decisions lead to school-wide focus on instructional adjustments, such as procedural strategies that elevate student comprehension, as evidenced by improved student work products. The student work products in classrooms and the ones displayed on bulletin boards reflect the results of adjustments made in instructional practices.
 - The instructional rounds conducted by school leaders and teachers indicated that checks for understanding were initially inconsistent due to lack of clarity. With the infusion of professional articles and readings, teachers stated that they now have a better grasp on the process and consistently include this strategy in their lesson plans. Teachers have also become creative by instituting in their classes, specific protocols such as color-coded cups indicating "total understanding", "not sure" or "totally lost" or hand gestures that give a quick assessment of where students are, so that teachers can make immediate decisions on adjustments needed or simply re-teaching the whole concept. Evidence of checks for understanding is also noted in the use of exit slips, end-of-unit tests or quizzes, on-the-spot conferences and students evaluating their own assessments. Thus, students and teachers are constantly engaged in assessment practices which inform instructional adjustments that address students' diverse learning needs.

What the school needs to improve

- Continue to build on teacher pedagogy to incorporate successful teaching practices that ensure high levels of student thinking and participation are consistently evident from classroom to classroom. (1.2)

- The systemic structure of color-coding grade-specific content area topics with goals, essential questions and focused vocabulary in each classroom, contributes to coherent instruction and elevates teacher pedagogy. In addition, according to school staff, this structure holds students accountable, for they face these expectations on a daily basis from class to class, and understand why they are posted. Resource baskets at group tables are accessible to students so that they can refer to them when they struggle with vocabulary words or are in need of strategy-specific checklists or graphic organizers to help them navigate through performance tasks. These resources have been strategically selected to ensure that all learners' instructional needs are supported. As teachers use techniques such as "Think-Pair-Share" and "wait time" to provide students with opportunities to reflect and learn from their peers, students are taking risks in debating and sharing their findings and/or discoveries with peers. However, teacher practices and differentiated tasks are inconsistent from classroom to classroom, thereby, hindering the pace of learning for some students and resulting in uneven levels of student engagement in lessons across content areas.
- Strengthen the analysis of learning outcomes during observations, in order to provide rigorous feedback for teacher growth and reflection that elevates teacher practices. (4.1)
 - School leaders use the Danielson Framework for Teaching as the observational tool to provide teachers with timely feedback and suggestions to build their capacity. As school leaders discuss and calibrate their low inference observations, they make adjustments in their professional development plan to align with the instructional trends and/or struggles teachers present in their lessons. School leaders manage an effective color-coded system on teacher observation results that informs, at-a-glance, the professional development needed for teacher growth. This leads to targeted support that results in recommendations for teacher assignments, retention and/or tenure. Consultants, on-site mentors and coaches serve as additional instructional leaders who conduct inter-visitations to support their colleagues in the Domains of the Danielson Framework that will impact on teacher growth and student performance. Teachers also complete school-designed surveys to ponder their own practice and goals, thus providing administrators with important information on how to proceed with school-wide professional development. The feedback provided via these surveys indicates that the low inference observations accurately capture teachers' strengths and next steps for improvement. However, at times, feedback from observational responses to teachers, show a lack of detailed examples and strategies that would accelerate teacher progress towards increasingly more effective instruction to advance student learning.

Part 3: School Quality Criteria 2013-2014

School name: Academy of Applied Mathematics & Technology	UD	D	P	WD			
Overall QR Score			X				
Instructional Core							
<i>To what extent does the school regularly...</i>	UD	D	P	WD			
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?			X				
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?		X					
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?			X				
School Culture							
<i>To what extent does the school ...</i>	UD	D	P	WD			
1.4 Maintain a culture of mutual trust and positive attitudes that supports the academic and personal growth of students and adults?				X			
3.4 Establish a culture for learning that communicates high expectations to staff, students and families, and provide supports to achieve those expectations?			X				
Systems for Improvement							
<i>To what extent does the school ...</i>	UD	D	P	WD			
1.3 Make strategic organizational decisions to support the school's instructional goals and meet student learning needs, as evidenced by meaningful student work products?			X				
3.1 Establish a coherent vision of school improvement that is reflected in a short list of focused, data-based goals that are tracked for progress and are understood and supported by the entire school community?			X				
4.1 Observe teachers using the Danielson Framework for Teaching along with the analysis of learning outcomes to elevate school-wide instructional practices and implement strategies that promote professional growth and reflection?			X				
4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning?			X				
5.1 Evaluate the quality of school- level decisions, making adjustments as needed to increase the coherence of policies and practices across the school, with particular attention to the CCLS?			X				
Quality Review Scoring Key							
UD	Underdeveloped	D	Developing	P	Proficient	WD	Well Developed