



NYCDOE

Quality Review: Final Report

The New York City Department of Education



Quality Review Report

Academy of Applied Mathematics and Technology

**Middle School 343
345 Brook Avenue
Bronx
NY 10454**

Principal: Rose-Marie Mills

Dates of review: March 17 - 18, 2008

Lead Reviewer: Bruce Berry

Content of the report

Part 1: The School Context

Information about the school

Part 2: Overview

What the school does well
What the school needs to improve

Part 3: Main Findings

Progress made since the last review
Overall evaluation
How well the school meets New York City's evaluation criteria

Part 4: School Quality Criteria Summary

Part 1: The school context

Information about the school

Academy of Applied Mathematics and Technology is a middle school with 269 students from grade 6 through grade 8. The school population comprises 34% Black, 65% Hispanic, 0.5% White, and 0.5% Asian students. The student body includes 9% English language learners and 27% special education students. Boys account for 55% of the students enrolled and girls account for 45%. The average attendance rate for the school year 2006-2007 was 90.8%. The school is in receipt of Title 1 funding with 91.9% eligibility.

Part 2: Overview

What the school does well

- The principal's high-quality leadership is creating a positive learning culture for students and teachers in this relatively new school.
- The teachers work collaboratively to plan the curriculum, instruction and the support for student learning.
- The staff use data effectively to monitor the progress of student achievement.
- The students in greatest need of improvement make excellent progress as a result of the effective support they receive.
- The curriculum organization is creatively supported by the scheduling and structuring of student groupings.
- The teachers receive excellent professional development in the use of data to support their instructional practices.
- The teachers use data extremely well to identify the differentiated learning needs of individual and groups of students.
- The excellent communications provide a wide range of opportunities for parents to be active partners in their children's education.
- All members of the school community contribute to the caring and respectful culture which exists in the school.

What the school needs to improve

- Further improve whole school, classroom, grade and subject goal setting based on students' present and projected outcomes.
- Improve strategic planning by the use of interim goals to monitor the progress in reaching the school's long-term goals and in improving student and teacher outcomes.
- Further improve student goal setting to ensure that there is a consistency in students' understanding of how and by when a goal can be met.
- Further improve the pace, engagement and interest in some instruction by providing more student-centered learning opportunities.
- Continue to improve the curriculum by expanding the range of arts subjects available for all students.
- Research ways to address the difference in performance of particular subgroups in the school.

Part 3: Main Findings

Progress made since the last review

The school has made some progress in addressing the issues identified in the previous Quality Review report

Overall Evaluation

This school is proficient.

Since the last School Quality Review, good progress has been made in the use of data to plan differentiated instruction and to inform the planning of the curriculum and instruction. Some progress has been made in goal setting, but the goals are not yet aligned to the students' present and projected outcomes. The principal provides high-quality leadership for moving this relatively new school forward and creates a positive learning culture for students and teachers. The school uses data effectively to monitor the progress of the students. It is having a positive impact on raising student achievement, particularly those in greatest need of improvement. The teachers work together well to plan their curriculum and instruction and receive high-quality professional development to support their learning. The excellent communications with parents keeps them fully updated with their children's progress. There is a caring and respectful culture in the school, which provides a supportive environment for student learning. The setting of long-term goals is not yet supported by the use of interim goals in order to monitor student and teacher outcomes on a regular basis. The students do not consistently understand how their learning goals inform their next steps in learning. The instruction does not consistently provide opportunities for the students to be fully involved in their learning. At present, there are limited opportunities for students to study a wide range of arts subjects. The inquiry team has identified a group of students and the research project is focusing on their performance in math.

How well the school meets New York City's evaluation criteria

Quality Statement 1 – Gather Data: School leaders and faculty consistently gather data and use it to understand what each student knows and is able to do and to monitor the student's progress over time.

This area of the school's work is well developed.

The school uses data effectively to monitor progress in student achievement. Teachers continually assess student progress using a range of tests, quizzes, conferencing and rubrics. The principal collects marking period grades on a regular basis to monitor the impact of instruction on the achievement levels of students, classrooms, grades and subjects. Teachers are receiving on-going training in the use of data systems to inform their differentiated instruction and curriculum planning. They are making effective use of Acuity and Scantron to identify specific skills in need of further improvement for individual and groups of students. Academic intervention services provide valuable support for small groups of students in line with their needs as identified from the data. Special education students make excellent progress, as a result of the high-quality

support they receive. The programs of study are well matched to their goals in their individual education plans and the majority of students are achieving passing grades at the end of each marking period. The small number of English language learners receives very good pull-out support, in line with their identified levels. The students make good gains in their levels in external tests, with a number of the students reaching proficiency in the last year.

The school recognizes that differences exist in the performance of girls and boys in math and English language arts and that students from particular ethnic groups are underperforming in certain grades. However, the school is not yet fully addressing these differences in performance. Although the school had its first testing year in 2007, it monitors the progress of the students against grade scores from their previous test results. This demonstrates very good gains when compared to the previous year. The school has made good progress in comparison with their peer group of schools. The principal is developing useful links with two similar schools to share good practice.

Quality Statement 2 – Plan and Set Goals: School leaders and faculty consistently use data to understand each student’s next learning steps and to set suitably high goals for accelerating each student’s learning.

This area of the school’s work is proficient.

Appropriate challenging and measurable goals for improving student achievement are set for English language arts and math for increasing the levels 3 and 4 and improving the proficiency ratings in both subjects in the State tests. However, they do not consistently include goals for all groups of students, as well as classroom, grade and subject goals. The goals, at present, are not based on the students’ present and projected outcomes. Teachers provide each student with valuable learning goals in respect of the improvement areas identified from the data. They provide individual goals on the rubrics the students receive for each assignment. However, the students do not have a consistent understanding of how and by when the goals are to be met. Students in greatest need of improvement receive excellent support and make significant progress in their achievement levels. The at-risk students are identified through teacher referrals, progress reports, attendance and behaviour logs. Academic intervention services provide valuable instruction in line with the students’ identified areas for improvement.

Whole school goals for improving student outcomes are shared collaboratively with the teachers. However, they are not fully involved in generating their students’ goals from the present and projected student outcomes. There is inconsistency in the level of knowledge and understanding of the school goals in the parent community. The parents, however, have great praise for the high expectations for improving student achievement generated by the staff throughout the school. They receive valuable feedback on their children’s levels of achievement through the progress reports and report cards. Parents attend regular parent and teacher conferences, at which they discuss the academic progress of their children. The school website provides excellent information for students and parents in respect of school activities, functions, student assignments and homework. Parents have many opportunities to share information with the school and to attend workshops to increase their own knowledge and understanding of their children’s education. The many workshops the school offers to parents include the curriculum, technology, dealing with teens, money management, child abuse and other relevant topics.

Quality Statement 3 – Align Instructional Strategy to Goals: The school aligns its academic work, strategic decisions and resources, and effectively engages students around its plans and goals for accelerating student learning.

This area of the school’s work is well developed.

The school curriculum is effective in delivering the mandated subjects through creative scheduling arrangements. Literacy and social studies are combined into humanities blocks of time to provide an excellent integrated assignment and project-based approach to learning. The math curriculum is delivered in homogeneous groups, which are enabled by block structuring within each grade. The grouping of students is highly flexible and dependent on the analysis of data in respect of the students’ progress and achievement. Further finely tuned differentiation is initiated in each group and is based on teachers’ assessments, Acuity skills data and Scantron reports. All students study visual arts as part of the school’s curriculum. Other arts subjects and interesting enrichments are available for students in the after-school activities. These include music, dance, karate, fashion modeling, chess and sports activities. However, there is only a limited range of the arts subjects for all students to study. The majority of instruction provides good engagement and interest for student learning. However, some instruction lacks pace, engagement and interest because of the absence of student-centred learning opportunities.

The principal uses the budget imaginatively to provide high levels of resources for the curriculum and instruction. The budget is used to hire more teachers in order to reduce class sizes. The after-school and Saturday programs are also a budgetary priority for supporting the students with instruction to improve in areas identified from the data. The school has created a very caring and respectful culture, which provides a safe and supportive environment in which students can learn effectively. The school has excellent procedures and practices for encouraging and rewarding good attendance. It is celebrated on bulletin boards and with certificates and trips. Parents also receive recognition for their part in helping their children to achieve 100% attendance.

Quality Statement 4 - Align Capacity Building to Goals: The development of leadership, teachers and other staff capacity is aligned to the school’s collaboratively established goals for accelerating the learning of each student.

This area of the school’s work is well developed.

The principal undertakes valuable classroom walkthroughs to ensure that instruction is providing challenge and interest for student learning. She provides useful written and verbal feedback on the identified strengths and areas for further improvement. The school coaches work with teachers on identifying areas for improvement and model lessons to share good practice. Helpful teacher surveys and conferences are used to identify their professional development requirements. The school has an excellent program for supporting the teachers’ professional growth. Lunch and learn sessions provide further opportunities for the teachers to improve their knowledge and skills. There is a major focus this year on improving the differentiation of instruction and on the use of data to align instruction to the identified needs of the students. The teachers work effectively together to plan their curriculum and instruction. They meet regularly in subject teams to review student data and to plan their instruction in line with identified areas for improvement. They also undertake walkthroughs and provide a critique of one

another's classrooms in respect of the organization and the learning environment. They have many valuable opportunities to observe each other's instruction in order to share good practice. The new teachers to the school receive excellent support from the mentor, coaches and consultants. They receive specific training in all aspects of instructional practice and classroom management. They attend model lessons and receive excellent support for their own instruction.

The students receive excellent support for their academic and personal development from the guidance counselor, social worker and other advisory staff in the school. The guidance counselor works effectively with grades 6 and 7 students to support their academic and social needs. The social worker provides good support for grade 8 students and their parents when making decisions about high school placements. There are very good procedures in place, which are followed and understood by all the school community. The students demonstrate good levels of self-discipline and respect for others. The school has developed excellent partnerships with a range of organizations to provide instructional and recreational programs of enrichment for the students. These include arts subjects, sports activities, social interventions and student health programs. Some of the partnerships also provide adult education and workshops for families.

Quality Statement 5 - Monitor and Revise: The school has structures for evaluating each student's progress throughout the year and for flexibly adapting plans and practices to meet its goals for accelerating learning.

This area of the school's work is proficient.

The school has appropriate plans and goals in place for improving the achievement of the students. However, the school does not presently set interim goals in order to monitor the progress made in reaching its long-term goals for improving student and teacher outcomes. The principal regularly monitors the progress of all students, classrooms, grades and subjects at the end of each marking period. There is not yet a link between the outcomes of this monitoring and progress made in meeting the school's long-term goals. The teachers use data effectively to monitor student progress and to identify specific areas in need of further improvement. They work collaboratively to make immediate adjustments to their curriculum and instructional plans to meet the changing circumstances identified from the data.

School leaders make excellent use of the data to formulate strategic adjustments to the plans and goals. For example, the instruction in algebra and geometry for grade 8 students was increased in response to the analysis of math data. The school has an effective collaborative planning process in place by which all staff review the impact of the curriculum and instruction and make plans for the coming year. The absence of interim goals is detrimental to the required rigor in this review process. The teachers work together effectively in developing curriculum maps and pacing calendars for each academic year. The school is relatively new, but has established a strong vision, which is shared by the whole school community, for improving student achievement. The school has the capacity to improve year on year and has the structures in place to make the vision a reality.

Part 4: School Quality Criteria Summary

SCHOOL NAME: Academy of Applied Mathematics and Technology	Δ	▷	✓	+	◇
---	---	---	---	---	---

Quality Score			X		
----------------------	--	--	---	--	--

Quality Statement 1 – Gather Data: School leaders and faculty consistently gather and generate data and use it to understand what each student knows and is able to do and to monitor the students progress over time.

To what extent do school leaders and faculty provide . . .	Δ	▷	✓	+	◇
1.1 an objective, constantly updated understanding of the performance and progress of each student, classroom, grade level?				X	
1.2 an objective, constantly updated understanding of the performance and progress of special education students?				X	
1.3 an objective, constantly updated understanding of the performance and progress of English language learners?				X	
1.4 an objective, constantly updated understanding of the performance and progress of ethnic groups, gender groups and all other categories of interest to the school?			X		
1.5 a measurement of performance and progress based on the school's own past performance, and among students, classrooms, grades and subject areas?				X	
1.6 a measurement of performance and progress based on comparisons with similar schools?				X	
1.7 training, management systems and structures that support teachers in the use of school data to inform planning and instruction and to track the progress of students?				X	
Overall score for Quality Statement 1				X	

Quality Statement 2 – Plan and Set Goals: School leaders and faculty consistently use data to understand each student's next learning steps and to set suitably high goals for accelerating each students learning.

To what extent do school leaders and faculty . . .	Δ	▷	✓	+	◇
2.1 engage in collaborative processes to set rigorous, objectively measurable goals for improvement, and to develop plans and timeframes for reaching those goals?			X		
2.2 focus on each student, classroom, grade level, academic subject and group of students whose performance or progress has been identified by the school as a particular focus area?			X		
2.3 identify and improve the performance and progress of those students in greatest need of improvement?				X	
2.4 share whole school goals with all members of the school community to rigorously improve the performance and progress of students?			X		
2.5 convey consistently high expectations to students and their parents/caregivers?				X	
2.6 regularly provide students and their parents/caregivers with information about the goals set for each student, and about each student's progress and performance, and how they can improve?				X	
2.7 invite and enable parents/caregivers to provide useful information to teachers and the school about the learning needs and capacities of their children?				X	
Overall score for Quality Statement 2			X		

Quality Statement 3 – Align Instructional Strategy to Goals: The school aligns its academic work, strategic decisions and resources, and effectively engages students around its plans and goals for accelerating student learning.

To what extent does the school . . .	Δ	▷	✓	+	◇
3.1 select core curricular approaches that facilitate and provide meaningful interim data about progress towards goals and focus on raising the achievement of students?				X	
3.2 provide a broad and engaging curriculum, including the arts, to enhance learning both within and outside the school day?			X		
3.3 hold teachers accountable for the progress and learning of the students in their charge, for making instruction interesting and compelling, and for creating a positive safe and inclusive learning environment?			X		
3.4 ensure that teachers use school, class and student data to plan for and provide differentiated instruction that meets the specific needs of all the students in their charge?				X	
3.5 make budgeting, staffing and scheduling decisions strategically, based on data, to meet the school's academic goals for all students?				X	
3.6 ensure that there is an environment of mutual trust and respect between all staff and students to support personal and academic development?				X	
3.7 ensure that there are effective and consistently applied procedures to encourage and monitor student attendance and tardiness?				X	
Overall score for Quality Statement 3				X	

Quality Statement 4 – Align Capacity Building to Goals: The development of leadership, teachers and other staff capacity is aligned to the school’s collaboratively established goals for accelerating the learning of each student.					
To what extent does the school . . .	Δ	➤	✓	+	◇
4.1 use frequent observations of classroom teaching by the principal and other available information to develop a differentiated strategy for improving the quality of each teacher’s instruction?				X	
4.2 make professional development decisions strategically, based on data, to help meet the improvement goals of students and teachers?				X	
4.3 provide frequent opportunities for teachers to observe each other’s classroom instruction and to meet together in teams to plan, share effective practices, and evaluate one another’s instruction in an open and reflective professional environment?				X	
4.4 develop effective procedures for the induction and support of teachers who are new to the profession or the school?				X	
4.5 align youth development, guidance/advising and other student support services around stated academic and personal development goals?				X	
4.6 consistently implement clear procedures that enable the school to run smoothly and encourage effective student learning, and effectively address discipline related incidents?				X	
4.7 create effective partnerships with outside entities that support the academic and personal growth of the students?				X	
Overall score for Quality Statement 4					X

Quality Statement 5 – Monitor and Revise: The school has structures for evaluating each student’s progress throughout the year and for flexibly adapting plans and practices to meet its goals for accelerating learning.					
To what extent do . . .	Δ	➤	✓	+	◇
5.1 the school’s plans for improving student outcomes include interim goals that are objectively measurable and have suitable time frames for measuring success and making adjustments?			X		
5.2 the school’s plans for improving teacher outcomes include interim goals that are objectively measurable and have suitable time frames for measuring success and making adjustments?			X		
5.3 teachers and faculty use periodic assessments and other diagnostic tools to measure the effectiveness of plans and interventions for individual and groups of students in key areas?				X	
5.4 teachers and faculty use the information generated by periodic assessments and other progress measures and comparisons to revise plans immediately in order to reach stated goals?				X	
5.5 school leaders track the outcomes of periodic assessments and other diagnostic measures and use the results to makes strategic decisions to modify practices to improve student outcomes?				X	
5.6 school leaders and staff use each plan’s interim and final outcomes to drive the next stage of goal setting and improvement planning?			X		
5.7 the principal and school community have a clear vision for the future development of the school and implement procedures and systems to effect change?				X	
Overall score for Quality Statement 5					X

◇	Outstanding
+	Well Developed
✓	Proficient
➤	Underdeveloped with Proficient Features
Δ	Underdeveloped