



**NYCDOE**

**Quality Review: Final Report**

# **The New York City Department of Education**



# **Quality Review Report**

**The Mathematics, Science and Technology  
Institute**

**Middle School 267  
800 Gates Street  
Brooklyn  
NY 11221**

**Principal: Patricia King**

**Dates of review: April 3 - 4, 2008  
Lead Reviewer: Sandra Tweddell**

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## Part 1: The school context

### Information about the school

The Mathematics, Science and Technology Institute is a middle school with 433 students from grade 6 through grade 8. The school population comprises 82% Black and 14% Hispanic. The student body includes 16% English language learners and 29% special education students. Boys account for 60% of the students enrolled and girls account for 40%. The average attendance rate for the school year 2006-2007 was 86.9%. The school is in receipt of Title 1 funding with 86% eligibility.

Last year, the number of English language learners and special education students increased significantly. The school has a significant number of students who are enrolled after grade 6 and who leave before the end of grade 8. The principal was appointed just over one year ago and three assistant principals joined the school in the six weeks prior to the review.

## Part 2: Overview

### What the school does well

- The principal has set a very clear direction for the school and established good systems and structures to support the drive for improvement.
- The principal has enabled a strong collegiate culture where all feel involved in meeting the school aim of every student achieving as highly as possible.
- Effective induction procedures enabled the recently appointed cabinet to establish itself quickly and to meet their responsibilities very well.
- Teachers are reflective and analytical and have a very good understanding of what data tells them about individual and groups of students.
- The extensive collection of data is analyzed effectively to determine actions for those doing well and those needing support.
- Relationships across the school are very strong and support students' confidence to learn.
- An excellent start has been made in setting goals for students based on quantitative and qualitative data.
- Many students share the high expectations of the principal for their performance and many have high aspirations.
- Effective guidance services enable students to feel safe in school as all have friends and teachers they can confide in and their parents agree.
- Strategies for professional development are clearly based on the analysis of data and are very effective.

### What the school needs to improve

- Ensure consistency in the projections made by teachers for students' progress.
- Increase resources for technology to improve learning opportunities for students.
- Extend the use of data to provide differentiated instruction within each classroom.
- Create a readily accessible overview of the progress made by students and update it as new information is available.
- Refine school planning for improvement by establishing short-term measurable goals.

## Part 3: Main Findings

### Progress made since the last review

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

### Overall Evaluation

#### **This school is proficient.**

In the past fifteen months since her appointment, the principal has successfully established a culture that enables, as one teacher put it, “a close working environment among staff.” The three very recently appointed assistant principals have quickly come to grips with their roles, supported exceptionally effectively by the principal, who has gone out of her way to bring them to a good understanding of her vision for the school and the school’s systems and structures that support the vision. Teams work closely together, driven by the common aim of closing the achievement gap among students. Discussions at team meetings closely focus upon instruction and how best to meet the needs of individual students. The basis of all discussion is what data is saying about individuals and groups of students. The data is used very well to track the progress that each student is making. It identifies groups of students that have not made the gains expected, such as boys in grade 7 who have fallen behind the girls. Work is ongoing to rectify this. The analysis of data is not yet in a form that makes it readily accessible, so gaining an overview of how well groups of students are performing takes time to sort out.

A growing strength in the school is the way in which teachers have started to use the data to predict the level a student is likely to reach and then to use this to monitor student growth towards their goal. The principal is alert to low expectations in goal setting and will challenge teachers if this happens. Teachers are growing in confidence in projecting the goals, but there is more to do to enable the projections to be accurate. The inquiry team works with a group of 12 students who were struggling with math concepts. Records show that these students have made good gains in this area. Teaching generally motivates students so they are engaged in their learning. They say they enjoy lessons as many of them are fun. Relationships throughout the school are very positive so students have confidence to ask questions. The data is used very well to group students into homogeneous classes and some teachers use it to differentiate instruction in their classroom. However, students spoke of sometimes finishing early and marking time and a few others of the teacher going too fast for them to keep up.

The principal deploys resources effectively in response to the analysis of data. However, the school currently has insufficient technology to meet the demands of a curriculum for the twenty first century. Students pointed out that they do not have good access to technology in the school to support their interest and learning. Excellent progress has been made on the areas for improvement since the last review. The school now has a clear record of the progress of individual students and a baseline to determine their growth is now established. Teachers are now firmly accountable for the progress of their classes. Data is used well to group students and in some classes, to differentiate instruction.

## **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.**

Very good training on how to use data has resulted in the majority of teachers having a good understanding of what data tells them about students' learning. Every teacher has an extensive binder recording formative and State test results and they use this well to plot the gains that each student makes. There is good consistency of recording reading levels across the school and students know their reading levels. The principal also has extensive records that plot the progress made by each student. This has enabled her to identify that boys in grade 7 were underperforming greatly in comparison with girls and to note that a group of students were having difficulty with number concepts. Careful records are kept of the school's previous performance and used to monitor improvement by the school. The recent three-fold increase in the school's special education population has made comparison with similar schools difficult and the principal has had to look beyond her immediate neighbors. As a result, this year, the school has not been able to see how well it is doing relative to schools with a similar demography. The progress of special education students and English language learners is monitored carefully and data shows that some, but not all, make good gains. The principal has separated the data about students who have been in the school from grade 6 through 8. This shows that these students make good gains.

**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.**

The Comprehensive Education Plan is developed with the involvement of all teachers through discussion in their various groups. The plan has appropriate goals but time frames are not short term. The priorities are firmly based upon the data. For example, English language arts is a focus for this year. Their involvement with Teachers College is very evident in the good practice found in all English language arts classrooms which results in improved standards of writing and reading. Students are very clear about the high expectations for their success as are the parents who are involved with the school. This culture is led by the principal who models her high expectations throughout the day. The culture of the school, established by the principal, fosters a close working relationship between the staff and this supports their knowledge of the school goals. The mantra, "In order to earn, you've got to learn," is known by parents and students.

Using the data, teachers set projections for each student for English language arts and math. Progress towards these goals is monitored through regular qualitative and quantitative assessments. Students know how well they are doing in these subjects as teachers appropriately discuss this with them. However, not all students are confident about the next steps they need to take to reach their goal. There is a degree of inconsistency in the systems used by teachers to establish these goals and the goals are not always appropriate. However, the projections indicate that school performance

is improving this year as students move from Level 1 in assessments to Levels 2 and 3. Attendance at parents meetings has improved over the year and some of those who work closely with the school are clear about the goals for their child. The school, with the effective support of the parent coordinator, is still working on this aspect as the principal knows that there are many parents who are still hard to reach.

**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 has supported the core curriculum very well with additional materials and developed the English language arts curriculum very well through their involvement with Teachers College. Teachers have enthusiastically seized this change. Classrooms and the library have books grouped by reading level and students know their own level and how to select a book. Reading clubs are promoting an interest in literature and are used as a forum for discussing social issues. Boys are becoming more engaged in reading due to male role models and books chosen to appeal to their interests. The curriculum is being enhanced by the addition of the arts supported by external funding. Currently, not all grades have the opportunity to participate in these classes, but more is planned for next year. Students have many opportunities to engage in academic after-school and early morning clubs. There is a small but interesting range of non-academic clubs. Two that students spoke highly of are the boys’ and girls’ empowerment clubs, created by the school in an attempt to engage the boys who show signs of becoming disaffected by school. The clubs are also used to promote good attendance, as admission is dependent upon regular attendance. Attendance, after a dip last year for no apparent reason, has risen this year because of rigorous procedures.

Classrooms offer good learning environments with high-quality display that is used well by students to consolidate their learning. Data is used very well to group students by their performance level and some teachers use it to differentiate instruction such as setting “do now” activities on three levels. Some teachers focus their questions based on their knowledge of individual students’ needs. However, this is not common and a number of students spoke of teachers going too fast for them to keep up. Others spoke of finishing before the rest. Students who finish will help their peers or read quietly instead of being encouraged to extend and deepen their learning. In math, high-performing students are encouraged to enter high school examinations and this is planned for science next year.

Relationships are good throughout the school which supports students’ desire to learn. Teachers work closely together and acknowledge the support they gain from their team planning. This has been excellently fostered by the practice of “shoutouts”, introduced by the principal. Here, people are praised for their work. During a discussion with teachers, “shoutouts” happened as a matter of course, indicating that this system is now embedded in the school culture.

**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 and assistant principals regularly monitor the quality of teaching, usually with a focus based on the improvement plan. The school rigorously keeps records and uses them to focus professional development for teachers, both individually and as groups. A major success has been the introduction of new approaches to teaching reading and writing. Teachers welcome the frequent informal and formal opportunities to visit each other's classrooms and some spoke of how they had used their observations to improve their practice. The work of the three assistant principals, who at the time of the review had been in the school between four and six weeks, is testimony to the high quality of the school's induction procedures for new staff. All are already comfortable in their roles, understand the school's systems and are taking a lead in their area of responsibility. They gave the reason as the principal's dedication to her role and the way in which she has unstintingly given her time to them.

The culture of a strong team supports the smooth running of the school. Guidance counselors, the deans and the parent coordinator work very well together to ensure that students understand how to behave. Students also write their own rules for each classroom and as a result take responsibility for their own conduct. A small but effective number of partnerships support students' personal and academic growth, such as the Liberty program that guides students into choices at universities.

**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 Comprehensive Education Plan is supported by an improvement plan that has appropriate points for development. Last year, the plan took into account the Quality Review, the progress report and the learning environment survey. Teachers and the principal analyzed the information and used it as a basis for the current plan. As a result the goals are highly appropriate and are measurable, but are not broken into timeframes that allow the school to recognize the quick progress it is making. The goals are reviewed informally but are not always revised. For example, the action points on the improvement plan had all been met by March but new ones were not in place, although the principal could articulate the next phase of action. In contrast, the goals teachers set for individual and groups of students are constantly revised in response to their individual formative assessments. Also, the principal and teachers act swiftly to change practices in response to assessment. There is a very clear vision for the school based on closing the achievement gap and over this year, new systems and structures have been effectively established with the aim of meeting this goal. These include more rigorous analysis of data and improvement planning that starts with a review of reports upon the school's progress.

## Part 4: School Quality Criteria Summary

<b>SCHOOL NAME: Mathematics, Science and Technology Institute</b>	Δ	➤	✓	+	◇
<b>Quality Score</b>			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.**

<b>To what extent do school leaders and faculty provide . . .</b>	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	
<b>Overall score for Quality Statement 1</b>				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.**

<b>To what extent do school leaders and faculty . . .</b>	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		
<b>Overall score for Quality Statement 2</b>			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.**

<b>To what extent does the school . . .</b>	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	
<b>Overall score for Quality Statement 3</b>				X	

<b>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.</b>					
<b>To what extent does the school . . .</b>	<b>Δ</b>	<b>➤</b>	<b>✓</b>	<b>+</b>	<b>◇</b>
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		
<b>Overall score for Quality Statement 4</b>				X	

<b>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.</b>					
<b>To what extent do . . .</b>	<b>Δ</b>	<b>➤</b>	<b>✓</b>	<b>+</b>	<b>◇</b>
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	
<b>Overall score for Quality Statement 5</b>			X		

◇	<b>Outstanding</b>
+	<b>Well Developed</b>
✓	<b>Proficient</b>
➤	<b>Underdeveloped with Proficient Features</b>
Δ	<b>Underdeveloped</b>