



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



# **Quality Review Report**

**The School of Mathematics, Science and  
Technology**

**Intermediate School 349**

**35 Starr Street  
Brooklyn  
NY 11221**

**Principal: Rogelis Parris**

**Dates of review: May 16 – 17, 2007**

**Reviewer: Maggie Hollingsworth**

# 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**

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

The School for Mathematics, Science and Technology is an intermediate school for grades 6 through 8 serving the Bushwick area of East Brooklyn. There are 548 students enrolled. Eighty three percent of students are Hispanic, 14% are Black and 3% are from other groups. This is a higher proportion of Hispanic students and a lower proportion of Black and other group students than is the case either in similar schools or in City schools as a whole. Just under 7% of students are designated special education students and almost 25% are English language learners, although a much larger proportion are from Spanish speaking homes. At 90.8%, attendance is about the same as for similar schools and slightly lower than for schools City-wide. All students are Title 1 eligible, well above City schools as a whole.

The school is located on the top two floors of a shared building. It has chosen to divide into two academies, Troutman and Starr, each of which occupies its own floor and has students in grades 6 through 8.

## Part 2: Overview

### What the school does well

- Under the principal's strong leadership the school is steadily improving and test scores are rising.
- The students are proud of their school and want to succeed.
- The school is safe because staff are vigilant and students behave well and take responsibility for their actions.
- Senior managers monitor classroom practice regularly and ensure that the school runs smoothly in each of its two academies.
- Very good teamwork between staff provides students with a tight web of care and support which helps boost their performance and their self esteem.
- The school generates data about student achievement and progress frequently and uses it wisely in its short and long term planning.
- Coaches and lead teachers play a key role in ensuring that data drives work in classrooms.
- Teachers' focused and timely feedback to students about the quality of their work helps build students' understanding of their progress and what they need to do to improve.
- The school is developing strong partnerships with parents and parental involvement is growing.
- The school makes excellent use of praise and tangible rewards to encourage students to aim high and achieve more.

### What the school needs to improve

- Capitalize on students' improved behavior by ensuring that they have the opportunity to play an active part in all their lessons.
- Use the analysis of data on achievement by gender to identify and address differences in performance between boys and girls.
- Seek further ways to accelerate the proficiency of English language learners in English.
- Continue the drive to improve attendance and reduce tardiness.
- Consider further ways to help over-age students towards graduation.

## Part 3: Main findings

### Overall Evaluation

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

Intermediate School 349 has overcome many difficulties over the past two years and is now on its way to becoming a good school. Under the principal's strong leadership it has shown steady improvement, tackling poor student achievement and behavior robustly and improving the school's culture significantly. The data shows that student achievement is rising, albeit from a low base and that the graduation rates are doubling each year.

The school community speaks impressively with the same voice. Managers, teachers, parents and students understand the school's goals and their part in achieving them. They recognize that there are still barriers to overcome but they are pulling together to make sure this happens. The involvement of parents in school life has been a priority and has helped greatly in changing the students' attitudes to school. Teachers are 'data savvy' so instruction is better focused on identifying what students need to do to improve their work and raise their grades. A wide range of extra support provides a safety net for the more needy students. The school's extensive reward system encourages students to attend school more regularly, aim high and do their best.

There is, however, a long journey ahead. Student achievement still lags behind other schools, in part a legacy from the past, and there are too many over-age students, especially in the upper grades. Differences between boys' and girls' achievement have yet to be tackled, and some English language learners are not progressing fast enough in English. Although classrooms are calm, not all students are actively engaged in the learning. But the school is well led and managed and, through its constant review and analysis of data is aware of what needs to be done. With its strong team of managers, coaches and lead teachers, it has good capacity to continue to improve.

### 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 student progress over time.**

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

The school gathers a large amount of data on students' achievement from State tests, practice examinations and teachers' own objective assessments. This information is regularly updated, for example when teachers check students' work and record and comment on the level achieved. The data is used by instructional staff to compare achievement between different classes and to track students' progress over time and between subjects so that everyone knows how well different students, including those in special education classes, are performing. Data is used well to place students on entry in each of the school's two academies and to determine their placement in a group or class and whether this should change during the year. Using item analysis data from tests and their own observations, staff regularly dialogue to determine the most appropriate next steps in learning for individuals and groups. Teachers are particularly concerned to check how English language learners are progressing and provide language support with word

walls, vocabulary charts and simple scaffolding for writing which helps them make progress.

The principal and his key managers have a very good overview of how each cohort in the school has progressed over time, and how the school compares with other schools. They know, for example, that the graduation rate doubled last year and is on track to double this year. The lead teacher for English has identified which students need extra help in specific areas of English language arts in order to graduate and has alerted all staff to make sure these students get the right help during every class. This creates a close web of support for students. As one student reported 'teachers won't let you give up'.

**Quality Statement 2 – Plan and Set Goals: School leaders and faculty consistently use available data to understand each student's next learning step. Through collaborative planning and student and parent engagement, they set high goals for improving teaching practice and accelerating each student's learning.**

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

The school uses data about student achievement and progress wisely in its short and long term planning. All staff meet together annually to review the schools test data and analyze its implications for instructional programs in the longer term. Key managers and faculty work together in grade teams and with subject partners to plan programs of study and adjust instruction to meet the immediate needs of students where data shows this is needed. Teachers know how students are achieving from day to day because they check and grade work assiduously; keep running records and give students detailed feedback. This builds their own and the students' understanding of their progress and what they need to do to improve and feeds into an overarching data bank for coaches and administrators.

Goals are focused, appropriately, on ensuring that all students make as much progress as possible because all staff understand that the students' achievement needs to be improved across the board and that every student counts. Although there are priority groups, no student's progress goes unnoticed. The principal is aware of the power of data for strategic planning, for example, by analyzing the distribution of honors students each marking period and questioning whether curricular planning is responsible for dips and peaks in the numbers. As yet, he has not extended this analysis further to look, for example at differences in honors distribution by gender.

Parents, staff and students support the principal's vision for a community school where local students achieve well. The school makes every effort to involve the community, providing a full translation service to ensure that parents understand how they can best support their children. English language classes and Saturday workshops for families and an annual Pan American Festival help to realize this ambition. The springtime awards ceremony provided an opportunity for the whole school community to celebrate the successes of many students. Classrooms and corridors reflect the school's strong focus on raising expectations and developing a climate conducive to learning. Displays are full of interesting detail about the work that students have done, showing the grade awarded and explaining what the student needs to do to get a higher grade. A recent student newspaper publicized the need to work hard to gain college places, giving good examples of the level of work students would be expected to do.

**Quality Statement 3 – Align Instruction: The school aligns its instructional activity and resources, and student engagement around its focused plans for accelerating learning for each student.**

**This area of the school’s work is proficient.**

The school’s curriculum aligns with mandated requirements. Both bilingual and monolingual groups operate, providing newly arrived students with good opportunities to settle and learn quickly and enabling other students to become proficient in Spanish, the home language for the majority of students. The school prioritizes greater mastery of English as the key to success for many students who struggle for higher grades and seeks, with increasing success, to accelerate this by regrouping students, realigning pacing calendars and spiraling skills-based instruction. In English language arts, for example, higher achieving students are taught together in one group to help to raise their achievement and, in Grade 7, English language learners are assigned to experienced lead teachers who are best able to accelerate their progress. Nevertheless, the school realizes that there is more to be done to ensure that all students make the best progress in English mastery.

Faculty are well aware of the need to capture the students’ interest. In a Spanish class, for example, students were engaged in rapt attention while presenting and discussing their poetry with their peers, and in another example, students’ interest was sparked by a class visit to Ellis Island which cut across subject boundaries and led to some imaginative empathetic writing. Because of its links with a Danish dance group who visit to perform, the school now has its own enthusiastic dance club. Students report that most lessons are interesting and sometimes fun. However, there are still some lessons where the emphasis is on keeping students quiet rather than actively engaged in learning.

The school is very responsive to the students needs. An analysis of attendance at after school instruction indicated that some students attended irregularly because of family commitments. These classes will, next year, be re-scheduled before school, enabling more students to receive much needed extra support with academic subjects.

The students, teachers and parents know each other very well. Students feel safe in the school and know they can call on someone on the staff for help when needed. Mutual respect between teachers and students provides a tight web of care and support which helps boost student performance and their self esteem. Improving attendance is a priority and absences are followed up quickly and efficiently. Rewards are used to encourage and persuade, while telephone calls underline to parents the importance of good attendance. However, the school is aware that its rate of attendance is not yet high enough and is continuing its efforts in this area.

**Quality Statement 4 - Build and Align Capacity: The development of instructional leadership, staff, and capacity are aligned around the school’s collaboratively established goals for accelerating the learning of each student.**

**This area of the school’s work is proficient.**

The staff share the principal’s aspirations for the students and his vision for the school. They work as a cohesive team to raise the performance of the school as a whole, using their good knowledge of students as individuals for example, to plan how to prepare students for tests and realize these goals. Each of the academies is developing its own culture, which leads to some healthy competition; nevertheless there is good collaboration

over instructional matters. The school's professional development, driven by its instructional cabinet, is of high quality. Faculty meetings are well used to share good practice and review outcomes relating to student performance. Teachers understand the need to track each student carefully to raise achievement across the school. Staff use opportunities to visit each others' classrooms to learn instructional techniques from each other and to develop common themes and projects. In recognition of the need to increase expertise in teaching English to students whose language proficiency is limited, the school has trained several key staff in QTEL methods and has appropriate plans to include further staff.

The principal, assistant principals, coaches and lead teachers are highly visible in the school and carry out regular formal and informal observations. Teachers have benefited from these visits, which not only help to recognize strengths and areas for development in instruction but also ensure that the school environment is conducive to learning. The principal is highly respected by the whole school community for his strong leadership. Students find him both approachable and understanding and are grateful for his open door policy and his endless supply of juice and cookies.

The division of the school into academies ensures that student movement between floors is limited and that students get to class on time. Staff vigilance ensures that the school runs smoothly and classrooms and corridors are well ordered. Parents and students appreciate that staff patrol the sidewalk outside school at arrival and dismissal to ensure that the students keep safe. Many of the school's partnerships with outside agencies focus on additional support to raise achievement in tests and examinations. The school also partners with the Brooklyn Centre for Urban Environment to supplement its science program. The most effective partnership is, however, with parents. By mobilizing their support, the school has been able to complete the tight network of support which is beginning to raise expectations and achievement across the school.

**Quality Statement 5 - Monitor and Revise: The school has built-in structures for evaluating each student's progress throughout the year, recognizing weaknesses in its improvement plans and teaching practices, and flexibly adapting plans and practices to meet its goals for accelerated learning.**

**This area of the school's work is proficient.**

Senior leaders have a clear idea of how the school is doing from its frequent analysis of test and examination data. Careful tracking of students' progress as individuals and by class and group informs curricular planning. The Comprehensive Education Plan is full and detailed, sets out what the school needs to do to improve and includes measurable goals and outcomes. The school leadership team reviews progress against the plan and ensures the plan is put into operation, although the principal and cabinets make decisions about which actions to prioritize.

The allocation of responsibilities across both cabinets is well managed and has been a helpful tool in ensuring that both long and short term goals are addressed and that the staff has a voice in the process through their faculty links. Because the school uses data well and is responsive to the students' needs, plans are frequently reviewed and updated to ensure that the curriculum and staffing are aligned to their needs.

## Part 4: School Quality Criteria Summary

<b>SCHOOL NAME: The School of Mathematics, Science and Technology (IS 349)</b>	∅	✓	+
<b>Quality Score</b>		X	
<b>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 student progress over time.</b>	∅	✓	+
1.1 The school uses available data and generates its own data to provide an objective, constantly updated understanding of the performance and progress of: <ul style="list-style-type: none"> <li>• each student, classroom, grade level,</li> </ul>			X
1.2 The school uses available data and generates its own data to provide an objective, constantly updated understanding of the performance and progress of: <ul style="list-style-type: none"> <li>• ethnic groups, English language learners, special education students*</li> </ul>			X
1.3 The school uses available data and generates its own data to provide an objective, constantly updated understanding of the performance and progress of: <ul style="list-style-type: none"> <li>• all other categories of interest to the school*</li> </ul>			X
1.4 Performance and progress are measured based on comparisons with similar schools, with the school's own past performance, and among students, classrooms, grade levels, academic subject areas, ethnic groups, and other groupings of interest within the school.		X	
<b>Overall score for Quality Statement 1</b>			X

\* These criteria are partially aspirational as of now because schools do not have routine access to all of this data. The NYC DOE plans to provide schools with enhanced access to the necessary data in 2007.

<b>Quality Statement 2 – Plan and Set Goals: School leaders and faculty consistently use available data to understand each student's next learning step. Through collaborative planning and student and parent engagement, they set high goals for improving teaching practice and accelerating each student's learning.</b>	∅	✓	+
2.1 Using data, school leaders and faculty engage in a collaborative process to set demanding, objectively measurable goals for immediate and long-range improvement, and to develop plans and timeframes for reaching those goals.		X	
2.2 Goals and plans focus on the school as a whole and 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 Particular attention is given to improving the performance and progress of students in greatest need of improvement.		X	
2.4 High expectations are conveyed to students and parents/caregivers. Students and their parents/caregivers are regularly invited to provide information about each student's performance and how to improve. This information is central to setting challenging goals and developing, evaluating, and revising plans.			X
2.5 Goals and plans for improving student performance and progress drive the activity of all members of the school community: leaders, staff, students, parents, and other partners.			X
<b>Overall score for Quality Statement 2</b>			X

<b>Quality Statement 3 – Align Instruction: The school aligns its instructional activity, resources, and student engagement around its focused plans for accelerating learning for each student.</b>	∅	✓	+
3.1 The school selects the curriculum based on how well it aligns with or implements the mandated curriculum and on the curriculum's capacity to generate meaningful interim data about progress towards goals and to support the school's high expectations and improvement plans.		X	
3.2 Teachers are accountable for improving instruction and student outcomes. They plan and differentiate their instruction based on the needs revealed by student data and by the focused plan the school has developed to improve each student's and group of students' outcomes.		X	
3.3 Budgeting decisions are driven by the needs revealed by student data and by the focused plan the school has developed to improve each student's and group of students' outcomes.		X	
3.4 Staffing decisions are driven by the needs revealed by student data and by the focused plan the school has developed to improve each student's and group of students' outcomes.		X	
3.5 Scheduling decisions about the use of teacher and student time are guided by the needs that emerge from examining student data and by the focused plan the school develops to improve student outcomes.			X
3.6 Instructional programs actively engage students.		X	
3.7 Staff know and respect students and respond to their academic needs, as well as their personal needs that affect academic performance. Each student knows and trusts an adult on the staff who is concerned about him or her.			X
3.8 Student attendance and engagement are high priorities. High rates and patterns of absences trigger immediate intervention.		X	
<b>Overall score for Quality Statement 3</b>		X	
<b>Quality Statement 4 – Build and Align Capacity: The development of instructional leadership, staff, and capacity are aligned around the school's collaboratively established goals for accelerating the learning of each student.</b>	∅	✓	+
4.1 Leaders, faculty, and staff are selected based on their high expectations for student performance and progress and based on their commitment and capacity to use data, compare outcomes within and across classrooms and schools and develop and revise plans and methods to improve performance and progress.		X	
4.2 Professional development decisions are driven by the needs revealed by student data and by the focused plan the school has developed to improve each student's and group of students' outcomes. Professional development is designed to help leaders, faculty, and staff use data, self- and peer-assessments, and collaboration with peers to achieve goals for improved school and student outcomes. Professional development and self- and peer-evaluation are aligned and overlap.		X	
4.3 The principal frequently observes classroom teaching and has a considered strategy for improving the quality of each teacher's instruction. Teachers frequently observe and support each other's classroom instruction with the goal of improving student outcomes.		X	
4.4 Planning, evaluation of results, and revision of plans takes place in teams. Leaders and faculty inform each other of their goals and results, candidly evaluate themselves and each other, and use what is learned to drive improvement.			X
4.5 The principal is respected and has capacity to effect change.			X
4.6 The school runs smoothly. Procedures are clear, communicated to all, and are generally followed.			X
4.7 The school aligns youth development and support services around stated academic goals. Partnerships with outside bodies are routinely used to achieve academic goals.		X	
<b>Overall score for Quality Statement 4</b>		X	
<b>Quality Statement 5 – Monitor and Revise: The school has built-in structures for evaluating each student's progress throughout the year, recognizing weaknesses in its improvement plans and teaching practices, and flexibly adapting plans and practices to meet its goals for accelerating learning.</b>	∅	✓	+
5.1 All school plans and other interventions include frequent interim goals and diagnostic assessments of progress designed to reveal in objectively measurable ways whether the plan is being effectively implemented and reaching stated goals.		X	
5.2 Comparisons of student progress within and across classrooms and schools are used in making interim diagnostic assessments and measuring the progress of plans and interventions.		X	
5.3 Information generated by periodic assessments and diagnostic measures of progress and comparisons is used to revise plans immediately in order to reach stated goals. Interim and final goals are modified when data objectively demonstrate that revision is required.			X
5.4 Each plan's interim and final outcomes drive successive phases of goal setting and improvement planning, and each successive phase is characterized by agile and flexible realignment of practices and resources to improve student academic outcomes.		X	
<b>Overall score for Quality Statement 5</b>		X	