



The New York City Department of Education



Quality Review Report

**Queens High School for the Sciences
at York College**

**High School 687
94 - 50 159 Street
Queens
NY 11451**

Principal: Jie Zhang

**Dates of review: December 4 - 5, 2006
Reviewer: Helen Donnellan**

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Part 1: The school context

Information about the school

The Queens High School for the Sciences at York College, PS 687, is one of nine specialist high schools in the City. The school was established in 2002 and has 384 students from grades 9 through 12. It serves students from all regions of the City. Students gain entry to the school through their English and mathematics scores on the City Specialized High Schools Admission Test. The ethnic mix of the students is 58% Asian, 19% Black, 12% White and 11% Hispanic. This is one of the highest non-White populations in any of the City's specialist high schools. There are very few special education students or English language learners, accounting for less than 1% of the student population. The school is not Title 1 eligible.

Attendance is 98% which is above the average of similar schools and significantly higher than City-wide schools.

The school occupies one floor of the York College building and shares athletic, library and cafeteria facilities with the college students.

The current principal was appointed in September 2006. She leads an administration team including two assistant principals. The principal carries responsibility for developing staff in mathematics and science and one of the assistant principals does the same for English language arts and humanities.

Part 2: Overview

What the school does well

- The principal models high expectations for both students and teachers, making clear her commitment to excellence.
- She has quickly gained an understanding of the school's strengths and challenges.
- Data on individual students, groups and classes is analyzed and updated regularly, giving teachers up-to-date information on performance.
- Formal and informal data are used well to highlight where individual students need to improve.
- The school provides a broad curriculum and specialized instruction in the sciences.
- Instruction engages students, who show interest in lessons and are active learners.
- The school has established an effective relationship with York College to enhance its curriculum.
- Computer technology is used to support teaching and learning in many areas.

What the school needs to improve

- Ensure that the data analysis on student performance is used consistently by all teachers to differentiate instruction.
- Include preparation for students' possible college entry in parent communication at a much earlier stage of their time at the school.
- Fully implement the system to record student lateness by all teachers.
- Continue to provide developmental feedback to teachers following lesson observations in order to enhance teaching performance across the school.
- Ensure that decisions made at meetings are documented in order to track actions and outcomes.

Part 3: Main findings

Overall Evaluation

This is a proficient school.

The Queens High School for the Sciences at York College is an effective school with high expectations of all its students. The principal and assistant principals provide strong leadership for both students and teachers, making clear the school's commitment to excellence. The faculty is well informed and provides instruction in engaging ways, so students behave well in classes and around the school. The science curriculum is balanced by other subjects and an enrichment program.

Data is now being used to give information on student achievement and student progress is monitored regularly, so that the school is aware of potential difficulties. Monitoring against goals and plans is an ongoing activity, and there is flexibility to adapt where necessary. The school does not yet ensure that data is used consistently as part of teachers' planning and for the school to overcome recent challenges.

Parents and students are satisfied with the school and the results achieved by students.

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 proficient.

The school has effective systems for collecting data from State and City-wide tests and assessments carried out at the end of each marking period. The principal uses her extensive experience of analyzing student performance data to highlight patterns and trends for individual students and groups. Following her analyses, staff and administration probe the data further to explore reasons for patterns or trends. For example, analysis of students failing an end of marking period assessment reveal whether this is related to teaching input or student learning issues.

The principal analyzes data with rigor, making comparisons between different groups of students, gender groups, different teachers and different subjects. In grade 9, pieces of students' diagnostic writing are used to determine the instruction that each student needs. Teachers have regularly updated information about how each of their students is progressing, and use this to ensure that momentum towards learning goals is maintained.

Currently, individual student performance is compared by some use of ranking. The principal is a member of a working group exploring methods by which performance data from the City's specialized high schools can be compared. However, data use is not a consistent feature of every teacher's work across all subject areas to plan the next steps for students.

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 proficient.

Teachers are committed to raising the achievement of every student. In common planning time, some teachers share performance data to make sure that the instruction planned matches the needs of the students. This is not yet done as a matter of course by all staff. Inter-disciplinary planning meetings enable teachers to relate content in meaningful ways, enhancing both subject areas. As an example, English and social studies staff both drew beneficially on the *Grapes of Wrath* text to illustrate the impact of the depression.

The goals for each student, class and grade are connected with the goals and priorities in the school’s Comprehensive Education Plan, reflecting a unified and cohesive approach to improvement.

The school is organized so that class sizes are small, which enables all students to receive focused input. Every student is considered as an individual and where any student is seen to be experiencing difficulties, intervention is implemented promptly. At the end of each marking period, test scores are analyzed and after-school tutoring is provided for under-performing students.

Parent/teacher conferences where student progress and future goals are discussed are held twice each year. Attendance by parents at these conferences has increased to 60% this term, as a result of the principal’s letter to relevant parents before the conference pointing out their child’s disappointing test results. The guidance counselor maintains contact with parents between the conferences, keeping them up-to-date with matters concerning their child’s work, progress and concerns. Short-term goals are shared with students, most of whom have college enrollment as their long-term goal. Information about college entry, the process and implications for families is only provided in the students’ latter years at the school, which does not meet the needs of all families.

The new principal is taking time to observe and review current practice at the school and is committed to ‘cleaning up the house’. She has identified the need to improve the quality of teaching so that lesson content aligns more closely with lesson objectives. Plans for improvement involve staff, students and parents. Through the elected school government and consultative council, students can formally express their views on school life.

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 curriculum is focused on high expectations of students in the sciences, but not at the expense of learning in other curriculum areas. English language arts, mathematics, humanities, physical education and educational visits outside the school all contribute to a balanced curriculum.

There is an enrichment program for science, which reflects the school focus. At the start of each year students choose from programs in art, chorus, genetics, leadership, sociology

and music. There is no advanced instruction for English, so teachers extend the curriculum with additional activities. Curriculum areas that warrant improvement have been highlighted through analysis of data. The school is also aware that the science of computers is not taught explicitly, although computer skills are being applied successfully across subjects to engage students and extend learning. The school also intends to re-introduce physics, as this is a specialized science school.

Changes in financial management have been put in place to ensure secure financial accountability. The new principal and school treasurer now apply the City finance procedures with rigor and consistency and all spending is aligned with student needs.

Teachers work in their specialist subjects and are allocated to their preferred class groups in line with City guidance. This results in teachers with in-depth knowledge, eager to share with students in their subject areas. Differentiation of instruction is variable, however, dependent on the extent to which teachers make use of performance data to inform their planning. The schedule is currently being reviewed so that teachers spread the dates when completed work is required from students, to prevent them from being overburdened at times. Allocation of teaching time to meet the City's requirements is ensured through the monitoring by the program chair.

Students participate actively in lessons and continue academic dialogue with each other and teachers as they move around the school. They value the way that staff converse with them and explain lesson content clearly. Students have positive relationships with teachers. Teachers value the quality of these relationships, as expressed by one teacher who said, 'We're not seen as the enemy – it's a dream'. Students readily approach teachers and guidance counselors when they have academic or pastoral concerns.

Daily attendance is very high and an improvement on earlier years. Teachers model good attendance and promptness. Students recognize that missing lessons has a significant impact on their learning. The school's procedures for teachers to record students arriving in classes late are not being applied by all staff, and this is being addressed.

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 principal has not yet made staffing appointments as no vacancies have arisen during the term. The process for sifting applications for any new teaching appointments involves a committee of staff and administration team representatives, which ensures that applicants have strong subject knowledge.

Newly appointed teachers are supported by an experienced teacher who acts as mentor, so that they become familiar with the school's routines and its expectations of staff. The principal's lesson observations and feedback to teachers identify areas for professional development, but feedback does not always result in improvements in classroom practice. Teachers observe each other teaching as a way of sharing strengths in teaching strategies. When staff attend conferences they share their learning with colleagues, which maximizes the value and impact of the training. Analyzing, interpreting and applying data is a current focus for professional development during monthly staff conferences, with the principal sharing her expertise and relating it to specific issues raised by the school's data.

The new principal has quickly gained the respect of staff, parents and students; she is a visible presence around the school. She has shown that she can ensure that the school runs smoothly on a daily basis, while able to balance emergency measures such as a closure due to a threat of civil disturbance. Students are now clearer about what is expected of them and consider that the new principal has made the school a better place to learn. Faculty meetings are held regularly, but currently no record is made of these meetings, which means there is no record of decisions or follow-up actions.

The school has established effective partnerships that link school programs to college courses. For example, students with an interest in medical careers can access the 'Bridge to Medicine' program and those with an interest in space research can access programs sponsored by NASA. The City University of New York programs offer psychology, sociology and political science as part of the optional curriculum.

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.

The principal and staff have set ambitious targets for the school and all its students. Work at a whole-school, grade, class and individual student level is under constant review, usually but not consistently relating data on outcomes to plans in progress.

Data is used well to make comparisons of performance of all groups of students and to monitor individual students' progress towards their goals. These comparisons draw attention to learning and teaching issues, including both content and the instructional approach used in individual classes.

The principal uses computer software to track progress against the performance indicators that are stated explicitly in the Comprehensive Education Plan. Where progress against interim goals is not sufficient, actions are reconsidered and amendments made. For example, the review of students' results in the Mathematics B test showed that only 28.13% of students achieved proficiency. Exploration of instruction showed that the content in this test had not been adequately taught in the preceding Mathematics A course and therefore provided an insecure foundation for higher level learning. This has resulted in a revision of teaching approaches to address the issue.

Part 4: School Quality Criteria Summary

SCHOOL NAME: Queens High School for the Sciences at York College (HS 687)	∅	✓	+
Quality Score		X	
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.	∅	✓	+
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"> each student, classroom, grade level, 		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"> ethnic groups, English language learners, special education students* 		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"> all other categories of interest to the school* 		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	
Overall score for Quality Statement 1		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.

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.	∅	✓	+
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	
Overall score for Quality Statement 2		X	

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.	∅	✓	+
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	
Overall score for Quality Statement 3		X	
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.	∅	✓	+
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	
Overall score for Quality Statement 4		X	
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.	∅	✓	+
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
Overall score for Quality Statement 5		X	