



The New York City Department of Education



Quality Review Report

Collegiate Institute for Math and Science

High School 288

**925 Astor Avenue
Bronx
NY 10469**

Principal: Estelle Hans

Dates of review: November 15-16, 2007

Lead Reviewer: Frank Jones

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

The Collegiate Institute of Math and Science is a high school with 470 students from grade 9 through grade 12. The school population comprises 43.5% Black, 41.2% Hispanic, 7.3% White, and 8.0% Asian students. The student body includes 3.8% English language learners and 11% special education students. Boys account for 59.3% of the students enrolled and girls account for 41.7%. The average attendance rate for the school year 2006-2007 was 89.2%. The school is in receipt of Title 1 funding with 58.7% eligibility.

The school shares the building with three other schools. The intercom system of another school in the building is live in the Collegiate Institute of Math and Science. This leads to extended interruptions which have an adverse impact on teachers' ability to teach and interrupts student learning. The school population is quite volatile, with movement in and out. The school population is also changing as the school is assigned increasing numbers of students with special needs.

Part 2: Overview

What the school does well

- The principal is extremely well liked and respected by the school community for her ability and for her commitment to student's academic and social welfare.
- The quality of data collection, organization and analysis by the administration is excellent for all students.
- Students and teachers speak highly of the support and expertise available from the guidance counselors.
- The school's high expectations of and aspirations for all are reflected in students' attitudes to learning, and failure is not an option in this school.
- The enabling leadership style of the principal and administration empowers teachers to perform at a high level.
- The culture of mutual support and trust between staff and students results in extremely positive relationships which enhance the learning process.
- Parents and students feel proud to be members of the school and recognize the staff's commitment to keeping them well informed and ensuring students' success.
- The large percentage of students who graduate is testimony to the generally high-quality instruction they receive.
- The close links with outside agencies and universities extend and enrich the opportunities available to students.
- The quality of the hiring and induction process for new staff ensures a smooth transition in to the school and subsequent support and development.

What the school needs to improve

- Develop a comprehensive system that utilizes the data to inform planning and to set individual goals for students.
- Continue to monitor closely the impact of a changing school population on the curriculum, and develop the teaching skills necessary to address this.
- The administration to become more proactive in directing and promoting initiatives, including more frequent lesson observations and use of data to monitor the link between student learning and instruction.
- Clearly identify long-term goals that reflect the vision for the school, prioritize them, make them overt and ensure they are time scaled to monitor progress.

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 well developed.

The principal is extremely well liked and respected by the school community for her ability and commitment to students' academic and social welfare. Her inclusive and consultative leadership style empowers both staff and students. There is an extremely high level of expectation in the school that all students will graduate. These aspirations are predominantly fulfilled. Excellent systems, which measure the value the school adds to prior performance, are in place to monitor and improve student progress. This reflects the good progress made since the last review. The school does not, however, set individual student goals. Where data indicates underperformance the school is quick to implement effective strategies to remedy the situation. This is particularly the case with lower-achieving students.

The climate in the school is one of mutual support and trust. Students relate especially well to each other, as do staff. Students are confident in expressing themselves and feel secure that when they do not understand a concept, teachers will do all in their power to help. The high level of commitment by all staff underpins a principle that all students deserve the best possible support for both academic and personal welfare.

Staff feel equally confident in seeking support either from colleagues or administrators knowing it will be available and of high quality. The principal and her senior team observe lessons but not frequently enough to identify day-to-day issues that may cause concern. However, the quality of instruction is high and in most classes work is well matched to student abilities. The hiring process takes into account the student composition and a balance of age, gender and ethnicity among the staff has been achieved deliberately to provide positive role models to those they teach. The impressive induction procedure that follows hiring provides each new teacher with a mentor whose guidance and advice ensures a smooth transition in to the school.

The curriculum is rich and challenging for all students, both during and after the normal school day. The range of additional courses provided, often credit bearing, is designed to extend thinking and prepare students for continuing education. Exceptional links with the University of Vermont afford all students the opportunity to gain some experience of the possibilities open to them. The principal has a clear vision for the school but has not yet clearly prioritized the actions required to achieve it.

The inquiry team has been established and is currently debating the best approach to take to the curriculum to ensure maximum benefit.

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 is extremely rigorous in collecting, organizing and analyzing a comprehensive range of data including New York State tests, ARIS and report cards. This ensures the school has a constantly upgraded, accurate record of what each student knows, can do, and the progress he or she has made. This enables the school to make detailed comparisons between classes, grades and subjects. Areas of underperformance are quickly identified and addressed. The school has introduced an extremely useful value-added assessment system, which is used very effectively to measure the impact and difference each grade and subject makes to student progress. This system enables the school to have detailed and explicit measures of growth for each student in every content area. Transcripts are kept for each student to regularly chart and monitor individual performance, including credit accumulation and progress towards graduation.

The progress of special education students is extremely closely monitored as is the relevance and impact of their individual education plans. This very detailed attention has led to early intervention to support students and the appointment of additional staff to meet identified needs. Careful analysis is undertaken of the progress of all ethnic groups and English language learners. Modifications to instruction and additions to staff to meet identified needs have resulted. A similar scrutiny of data identified Black males underperforming on entry to the school. This was rigorously addressed, resulting in no discernable difference in performance by the time of graduation.

The principal and her team constantly analyze and use the information they gather to compare their performance with other schools and implement strategies to enhance student learning. Staff utilize the information they receive to improve the focus of instruction to target need. There is some variation in how different content areas record information but the school has introduced training to further develop the systems in place.

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 well developed.

The school has extremely high expectations of and aspirations for all students, who reflect this in their attitudes to learning. The school has an overriding goal that each student should graduate. The impact of this has been that 96.7% of students achieved a high school diploma in 2006–07. The identification of student-specific goals, which outline the incremental learning steps necessary to achieve them, is less formalized even though the data is available. Teachers and counsellors meet on a regular basis to discuss and identify individual students who are underperforming. Effective strategies, including additional classes or home contact, are introduced as a result of this close monitoring of performance and targeting of groups. This attention to individual need benefits all students.

Programs such as 'Road to Success' and 'Character County' focus not only on literacy skills but also promote social development. One student illustrated this approach by stating, "Teachers don't just care about education, they care about you as a person." Students benefit greatly from these role models and emulate them in their own behaviors.

Parents are informed on a regular basis of the progress that is being made and have access to their child's data transcript. Annual assessments indicate what courses each student needs to take to graduate. This information is conveyed to parents, enabling them to support and be part of the learning process. Parents and students feel proud to be members of the school and recognize the commitment that staff put in to ensure they are kept well informed and that students succeed.

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.

Students receive a unique four-year program in math and science to obtain a high school diploma, which is above the normally expected requirements. As a result students have an in-depth and detailed understanding of the subjects they study. They are also engaged and motivated by a broad curriculum that includes the performing arts, physical education and a range of enrichment activities which take place during and after school. One student enthused about a medical operation he had watched at a hospital, "it was awesome", while another talked with passion about the instrument she played and the band of which she was a member. Students benefit greatly from this wide range of opportunities that enrich and extend their educational experiences.

Ongoing and annual assessments provide detailed information about each student and subject. In most classes, good use is made of this data to differentiate instruction. Special education teachers, hired to meet the needs of underperforming students, have had a significant impact on these students' progress. High expenditure on the advanced placement program has effectively challenged and extended the more highly achieving students. The enabling leadership style of the principal and administration empowers teachers and the large percentage of students who graduate is testimony to the generally high level of instruction they receive.

Comprehensive data generated each marking period allows the administration to monitor closely the performance of subjects and individual students. Teachers feel confident to initiate discussion with the administration about students they teach, but administrators are less proactive in initiating these discussions on a regular basis. Where underperformance is identified, such as in global studies, the causes are analyzed and immediate actions are taken to correct the situation and prevent a future occurrence. The school has identified a trend in the increase in students with special needs being assigned to them. They are carefully monitoring the impact of this changing student population on the curriculum and the teaching skills required to address this.

The culture of mutual support and trust between staff and students results in extremely positive relationships which enhance the learning process. Similarly the relationships between students are exceptionally good both within and across grades. As one student reported, "There are no cliques and no one separated by race or nationality."

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.

Formal lesson observations are in place but 'walkthroughs' to monitor the link between student learning and instruction are infrequent. As a result, ongoing information about what is happening in the classroom is predominantly reliant on performance data, therefore limiting opportunities to help staff should the need arise. Professional development is focused well on identified school needs, such as developing a corporate strategy for grading and ongoing student assessment. This is supplemented by New Visions and outside providers to meet the needs of individual teachers.

Staff engage in intervisitations, grade and content-area meetings and find these collaborations extremely useful in expanding and developing their own instructional repertoire. The exceptional quality of the hiring and induction process for new staff ensures a smooth transition into the school and subsequent development support. The very good use of the support and expertise available from the guidance counselors ensures that attention to and concern for student welfare is paramount. Students and staff speak highly of this service and the positive help it provides. The close links with outside agencies and universities are exceptionally productive and extend and enrich the opportunities available to students. All students spend time at a university and this not only gives them an understanding of what they could ultimately experience, but also raises their aspirations. The graduation results are high as is the proportion of students who continue their studies at college or university.

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 principal has a clear vision for the school, but has not prioritized or time-scaled the steps needed to ensure the vision is achieved. Staff have contributed to discussions about the future development of the school which reflects the principal's inclusive leadership style and gives ownership to all those involved. The school is extremely effective at continuously monitoring and analyzing its actions. It subsequently uses this information to successfully initiate strategies which provide intervention and, where required, realignment of the curriculum to improve and enhance student outcomes.

Marking periods and analysis of progress toward passing the Regents exams are key moments in evaluating the next steps in development and altering or modifying provision for individual students. The administration regularly monitors the outcomes.

The administration, in collaboration with subject teachers, effectively uses regular meetings to monitor intervention strategies in order to evaluate the impact of support for students who are not reaching the required levels. Similarly, it provides advanced placement courses in three subjects for those students who would benefit from extension activities. As a result the school has been consistently successful in balancing the need to provide for the lower-performing students against its desire for academic excellence.

Part 4: School Quality Criteria Summary

SCHOOL NAME: Collegiate Institute for Math & Science	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 demanding, 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?				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?				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 make 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		