

Quality Review Report 2010-2011

Science, Technology & Research Early College School

Middle – High School 543

**911 Flatbush Avenue
Brooklyn
NY 11226**

Principal: Dr. Eric Blake

Dates of review: March 3 – 4, 2011

Lead Reviewer: Catherine M. Powis

Part 1: The school context

Information about the school

Science, Technology and Research Early College School is a high school with 503 students from 6 through grade 12. The school population comprises 85% Black, 8% Hispanic, 1% White, and 3% Asian students. The student body includes 0% English language learners and 3% special education students. Boys account for 52% of the students enrolled and girls account for 48%. The average attendance rate for the school year 2009 - 2010 was 96.5%.

Overall Evaluation

This school is well-developed.

Part 2: Overview

What the school does well

- Explicit feedback by school leaders with clear next steps improves pedagogy and leads to gains in student achievement.
 - The principal prioritizes professional development that not only specifically supports school-wide goals but also differentiates support for teachers based on need. School leaders engage in 'data talk' meetings with individual teachers to analyze classroom level interim assessments and student work deciding how best to support individual students. Pre- and post- conferences and written observation reports provide actionable feedback to new, untenured, and tenured teachers outlining next steps. In turn, individual logs chart targeted support and growth over time resulting in strategic performance evaluations and improved classroom practice.
- Detailed assessment practices consistently provide ongoing identification student performance and progress in order to improve student outcomes.
 - To strengthen vertical assessment alignment, teachers design and administer subject-specific, skill-based interim assessments every six weeks. These tests are vetted by school leaders to determine reliability and validity. In the upper grades, additional performance-based assessments track progress toward college-readiness. Results coupled with Acuity and classroom level data precisely identify ongoing student strengths and challenges. In turn, individualized student action plans list three target areas of need and differentiated teaching strategies that will improve outcomes.
- The principal, in collaboration with all stakeholders, makes informed and effective organizational decisions that are well-aligned to the school's instructional goals and support improvements in learning.
 - Tactical program decisions afford multiple configurations of teacher teams that have an impact on curriculum, instruction, and assessment across grades and subjects. Among them are three cross-graded teams, responsible for developing writing across the curriculum by creating strategies to improve student writing in content areas. An outside consultant is enlisted to facilitate their work at weekly meetings. This has resulted in improved student writing throughout the school.
 - All classrooms are equipped with smart boards that are fully integrated into lesson plans to support all learners. In Advanced Algebra students are proficient in operating a smart board to engage in quantitative problem-solving while discussing the steps with other students. Laptops effectively support the writing initiative, and further reinforce the mission and goal of the school for all students to have the skills and knowledge to succeed.
- The school's vision and commitment create a collaborative culture of action planning, reflection, and improvement that advances student achievement.

- The school embraces an efficacy model presented in their theory of action that all students can achieve at high levels when maximum effort of both staff and students are expended. Thoughtfully designed three-year action plans for both middle and high school leverage changes that are explicitly linked to quantitative targets for student achievement and social-emotional development. Consequently, February Periodic assessment results show that students are on target to meet annual goals. These goals are also strategically aligned with needs identified in the last progress report and in response to their college partner and faculty concerns. For instance, the action plan to improve writing resulted from cohesive collaboration with Brooklyn College to raise levels of college readiness among students.
- High expectations permeate all facets of the school and are consistently conveyed to students and families ensuring very high graduation rates.
 - Parents greatly value opportunities to engage in decision-making leading to high expectations for all students to attend and graduate from college. For example, School Leadership Team members saw a need for the school's "college-ready mindset" to begin in the sixth grade. As a result all sixth graders participate in a six-week workshop at Brooklyn College preparing them for a seamless college-readiness program through graduation and onto college.
 - In response to last year's quality review, plans to increase communication with parents and their involvement in school activities have been very successful. Families appreciate curriculum night in the fall and ongoing flexibly-timed, informative meetings that offer opportunities to discuss their child's progress and ways to meet the school's expectations. In turn, many parents give back by volunteering to support students to make gains.
- An extensive network of academically driven external partnerships is highly effective in sustaining an inclusive culture of support and the school's visit for all students to graduate career and college-ready.
 - A wide variety of well-chosen partnerships ensures that all students engage in rich academic and personal experiences. Brooklyn College offers each student with an opportunity to earn up to 55 college credits. Gateway Institute for Pre-College Education fosters mentorships and experiential learning in student pursuit of health and science-related careers. Additionally, they offer professional development so that all teachers effectively reinforce the college-readiness mindset.
- All stakeholders agree that the school is especially effective in providing a high level of support to students in their personal and academic development.
 - Sharing space with four other schools is managed effectively to create a safe, inclusive culture where students maintain high daily attendance and are proud to wear their school uniforms. In turn, they are decidedly engaged in their learning and value opportunities for their voice to be heard in senior government, as student ambassadors, and on the School Leadership Team, enhancing both academic and personal growth.
 - School leaders and staff are extending advisory strands infused into the curriculum in five grade levels by designing and implementing a research-

based advisory curriculum that supports eighth and tenth graders with a college-readiness theme. This supports students in setting and meeting academic goals resulting in all 2010 graduates achieving college-acceptance.

What the school needs to improve

- Ensure that academically rigorous tasks are embedded across all content areas and are continuously refined to raise students' levels of thinking and outcomes.
 - Both hard copy and web-based curriculum mapping provide the roadmap for the wide array of courses from grade 6 through 12. Curriculum development is an integral part of the school's partnership with Brooklyn College. Writing across the curriculum is developed through a rigorous three-year action plan in response to a school-wide review of student work. Nevertheless, rigorous academic tasks that extend student thinking are not yet embedded across grades and subject areas, and therefore highest and lowest achievers are not fully challenged and engaged. This hampers progress in student outcomes especially in the middle school.
- Develop teaching practices that further enhance differentiated approaches to learning so that all lessons are meaningful, interesting, and sufficiently challenging to improve student progress.
 - Lessons are typically differentiated through student choice and data-informed leveled tasks. However, not all differentiated approaches enable students to learn new content without being hampered by their learning deficits. Consequently, some students do not make sufficient progress in acquiring new knowledge, skills, and understanding. This impedes gains in student achievement.
 - Student work on display and in student notebooks and work folders do not always reflect cognitive rigor due to a lack of student engagement in highly challenging tasks that extend thinking and produce authentic work over time. This hampers progress that ensures all students reach their full potential and be college ready.
- Develop a more precise system to assess the quality and effectiveness of curriculum and academic tasks in order to increase coherence and build alignment of strategies to accelerate student learning.
 - Teachers review and revise the curriculum based on what they learn from various student data sources. However, they have not formalized a system to ensure that curriculum is matched with ongoing, challenging academic tasks across all content areas to develop thinking skills and sustain strong outcomes for all students.
 - Three inter-disciplinary teams of teachers meet once per week to make instructional decisions in building teacher capacity to implement writing strategies and practice in all disciplines. Nevertheless, there is no frequent and formal analysis of student work to ensure alignment of these practices across the school.

Part 3: School Quality Criteria 2010-2011

School name: Science, Technology and Research Early College School	UD	D	P	WD
Overall QR Score				X
Quality Statement 1 – Instructional and Organizational Coherence: The school has a coherent strategy to support student learning that aligns curriculum, instruction and organizational decisions.				
<i>To what extent does the school regularly...</i>	UD	D	P	WD
1.1 Design engaging, rigorous and coherent curricula, including the Arts, for a variety of learners and aligned to key State standards?			X	
1.2 Develop teacher pedagogy from a coherent set of beliefs about how students learn best, and ensure that it is: aligned to the curriculum, engaging, and differentiated to enable all students to produce meaningful work products?			X	
1.3 Make strategic organizational decisions to support the school's instructional goals and meet student learning needs?				X
1.4 Maintain a culture of mutual trust and positive attitudes toward learning that support the academic and personal growth of students and adults?				X
Quality Statement 2 – Gather and Analyze Data: School leaders and faculty consistently gather, analyze and share information on student learning outcomes to understand school and student progress over time.				
<i>To what extent does the school ...</i>	UD	D	P	WD
2.1 Gather and analyze information on student learning outcomes to identify trends, strengths, and areas of need at the school level?				X
2.2 Align assessments to curriculum and analyze information on student learning outcomes to adjust instructional decisions at the team and classroom level?				X
2.3 Use or develop tools to enable school leaders and teachers to organize, aggregate, and analyze student performance trends?				X
2.4 Engage in an open exchange of information with students and families regarding students' learning needs and outcomes?				X

Quality Statement 3 – Plan and Set Goals: School leaders and faculty consistently engage the school community and use data to set and track suitably high goals for accelerating student learning.

<i>To what extent does the school ...</i>	UD	D	P	WD
3.1 Establish a coherent vision of future development that is reflected in a short list of focused, data-based goals that are understood and supported by the entire school community?				X
3.2 Use collaborative and data informed processes to set measurable and differentiated learning goals for student subgroups, and students in need of additional support?				X
3.3 Ensure the achievement of learning goals by tracking progress at the school, teacher team and classroom level?				X
3.4 Communicate high expectations to students and families, engage them in decision-making, and promote active involvement in the school community?				X

Quality Statement 4 – Align Capacity Building: The school aligns its leadership development and structured professional collaboration around meeting the school’s goals and student learning and emotional needs.

<i>To what extent does the school...</i>	UD	D	P	WD
4.1 Use the observation of classroom teaching and the analysis of learning outcomes to elevate school-wide instructional practices and implement strategies that promote professional growth and reflection, with a special focus on new teachers?				X
4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning?				X
4.3 Provide professional development that promotes independent and shared reflection, opportunities for leadership growth, and enables teachers to continuously evaluate and revise their classroom practices to improve learning outcomes?				X
4.4 Integrate child/youth development, support services and partnerships with families and outside organizations with the school-wide goals to accelerate the academic and personal growth of students?				X

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

<i>To what extent does the school...</i>	UD	D	P	WD
5.1 Evaluate the quality of curricular, instructional and organizational decisions, making adjustments as needed to increase the coherence of policies and practices across the school?			X	
5.2 Evaluate systems for assessing students, organizing data, and sharing information with student and families, making adjustments as needed to increase the coherence of policies and practices across the school?				X
5.3 Establish and sustain a transparent, collaborative system for measuring progress towards interim and long term goals and making adjustments during the year and over time?				X
5.4 Use data to regularly evaluate the effectiveness of structured professional collaboration, capacity building and leadership development strategies?				X

Quality Review Scoring Key

UD	Underdeveloped	D	Developing	P	Proficient	WD	Well Developed
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