Quality Review Report

2011-2012

Science and Medicine Middle School

K366

965 East 107th Street
Brooklyn
NY 11236

Principal: Ingrid Thomas-Clark

Dates of review: December 13 - 14, 2011
Lead Reviewer: Beverly A. Wilkins

Part 1: The school context

Information about the school

Science and Medicine Middle School is a middle school with 255 students from grade 6 through grade 8. The school population comprises 92% Black, 7% Hispanic, and 1% Asian students. The student body includes 3% English language learners and 18% special education students. Boys account for 44% of the students enrolled and girls account for 56%. The average attendance rate for the school year 2010 - 2011 was 96.5%.

Overall Evaluation

This school is developing.

Part 2: Overview

What the school does well

- Thoughtful and innovative organizational decisions lead to encouraging developments in the delivery of instruction thereby improving student outcomes in several areas. (1.3)

    - Insightful teacher and student programming leads to pedagogical and instructional initiatives that foster improved performance. For example, the piloting of same gender classes for eighth grade students, weekly teacher collaborations, monthly half-day professional development sessions, and data driven extended time for students performing below grade level engender consistent academic and professional support. As such, the school is experiencing stronger classroom instruction and better student outcomes in English language arts and math evidenced by growth in Study Island and Achieve 3000 levels.

    - The school-wide theme of science and medicine serves as a catalyst for continuous alignment between supplemental resources and the school's instructional goals. Thus, STEMinds for the Future (Science, Technology, Engineering and Math) partners train teachers on how to modify math and science curricula with an emphasis on students with disabilities and English language learners. This professional support enhances teachers' access to a variety of instructional experiences in order to address the learning styles of diverse groups of students. Consequently, prominent displays of high-level student work reflect students' understanding of in-depth scientific and math explorations.

- The school leader strategically uses observations and informal feedback to develop coherent school-wide expectations that improve opportunities for professional growth. (4.1)

    - The principal uses a research-based competency system for ensuring every teacher receives timely detailed feedback toward whole-school performance and expectations. This work results in faculty across the school receiving ongoing evaluations of pedagogical progress toward attainment of school and self-identified professional goals. Hence, formal and informal observations support teachers at varying levels of professional expertise. The principal works with all teachers to develop their time-bound professional development plans. Teachers, including those new to the school, stated they are "very supported by administrators and coaches". In turn, professional development designed to enhance teacher effectiveness leads to direct instructional and pedagogical growth.

- The school leaders collect, analyze, and use a wide range of data to gain a good understanding of the academic and personal needs of each student leading to supports and extensions to address the school's areas of need. (2.1)

    - Administrators and teachers effectively disaggregate summative and formative data such as State exams, Acuity, ARIS performance

indicators, State accountability data, Achieve 3000, Study Island, and class-level performance data. This analysis of comparative data provides significant information individual and groups of students. Because the school is keenly aware of which students make progress or need additional support, students receive specific services such as academic intervention, Regents advisory class, and Saturday Academy, which increase proficiency for students at varying levels evidenced by student performance on class and unit assessments.

- The school leader's analysis of last year's math periodic assessments led to teachers' adjusting the pacing calendar to align lessons to prerequisite skills in order to support student mastery of ratios and proportional relationships. This decision to prioritize the sequence of lessons based on detected challenges is leading to students experiencing greater success with units of study involving linear relationships and angles.

- The dedicated principal has established a relevant set of goals that align with student needs and fuel better understanding across the community around academic expectations. (3.1)

  - The principal works with a complementary group of stakeholders that includes teachers, parents, community-based partners and the network support team in order to develop strategic goals that parallel critical data around student need. A concerted effort to improve the number of students who are proficient or who exceed proficiency in English language arts and math performance drives school-level goal setting. Therefore, this intentional work links comprehensive interim goals to the principal's long-term goals for school-wide improvement.

  - The school leader utilizes the School Leadership Team, Parent Association, faculty meetings, and students responses to the Learning Environment Survey to engage constituents in goal setting initiatives that impact forward movement within this "small family-oriented" school environment. Students expressed desire for additional program offerings leading to choice of electives such as theatre, media, gamestar mechanics, newspaper, robotics, medical science, issues in sports, and social and oppressive issues. Parents also reported that select families participate in an end of year retreat that focuses on school-wide planning for the upcoming year. As a result, inclusive practices present opportunities for students and families to participate in setting the direction of the school.

- An established culture of collaboration promotes shared leadership among staff, willingness to learn from each other, and a commitment to implementation of citywide expectations for improved learning. (4.2)

  - Across the school, groups of teachers meet weekly to engage in collaborative inquiry resulting in adjustments to curricula and instruction based on analysis of student work. For example, teachers use a low inference protocol to examine the work of students at varying levels of ability. Consequently, this work fosters changes to instructional methods and the use of a variety of technological resources in order to stimulate student progress and mastery of content and skills.

- Teacher empowerment enhances professional learning because teachers assume the responsibility of aligning practices with assessment results and citywide expectations. According to one teacher, all teachers create and decide curricula in collaboration with colleagues. Consequently, collaborative structures evidenced by teacher-facilitated team meetings and weekly curriculum planning sessions promote teacher leadership and further their contributions in key decisions that affect student learning.

What the school needs to improve

- Ensure the implementation of curriculum consistently includes rigorous learning tasks and engaging activities so that all students have opportunities to increase academic performance. (1.1)

  - The school has demonstrated concentrated effort in aligning humanities and math units of study and rubrics to the Common Core Learning Standards. While the literacy curriculum specifies key standards that address citywide instructional expectations, they do not reflect clearly defined writing standards that emphasize the school's areas for growth in citation of contextual information and the development of persuasive arguments limiting the development of postsecondary readiness literacy skills.

  - The emphasis on higher order thinking skills and the development of habits of mind that support high levels of learning is uneven across classrooms observed during visits. For example, in a seventh grade science class, students demonstrated and explained their understanding of the convection process in a lesson on heat energy via small and large group discussions generated by experimentation. However, in a different seventh grade math class, students completed tasks on the Pythagorean formula quickly with limited checks for understanding. All students were not cognitively engaged and only students seated in the front of the room participated in the end of lesson summary. Such practices fail to engage all students in rigorous and challenging activities and impede individual and whole school achievement.

- Expand teachers' use of a wider variety of differentiated instructional strategies, including questioning, thereby allowing all students full access to learning through multiple entry points and extensions. (1.2)

  - In many classrooms, teachers plan different content-based assignments well matched to the school's belief that mixed ability groupings maximize learning. Therefore, groups of students with high, medium, and low levels of understanding often rotate as a team through tasks Consequently, this practice results in all students engaging in the same tasks and producing the same work products. Thus, accommodations for different learning styles and varied points of entry are not consistent across classrooms resulting in a lack of appropriate supports for struggling students and extensions for high performing students within these diverse groups.
  - In several math and science classes, hands on activities, student choice, and higher order teacher and student questioning lead to strong levels of student participation and cognitive thinking. However, in other classrooms, the level of questioning is developing and the activities did

not always provide students with interesting or appropriate entry points into the curriculum limiting student engagement.

- Create class-based assessment protocols that foster ongoing checks for understanding in order to make timely adjustments to instructional decisions in support of adequate progress. (2.2)

    - Teachers analyze baseline assessments, pretests, periodic assessments, unit tests, and running records in order to determine students' academic strengths and needs. However, there is no evidence that on-going checks for understanding occur during instruction, excluding an eighth grade math class, or in teacher planning of lessons as determined by a review of teacher planning records. In some classes, students complete a "Rounds Slip" designed to provide feedback on new ideas learned and why the lesson is important to their lives. Yet, there is little evidence to support that teachers provide feedback or adjust instruction based on student responses. The lack of a system that employs check for understanding throughout the course of the daily or weekly lesson(s) prevents timely shifts in classroom instruction that increase acceleration toward learning targets.

- Continue to develop the school-wide advisory program to include a uniformed curriculum with a range of conflict resolution strategies in order to nurture a positive school culture that meets the needs of both students and teachers. (4.4)

    - A new school with enduring prestigious partnerships such as universities, hospitals, and community-based partners embraces its college and career readiness mission through programs that provide academic and social-emotional mentorship to students who are deeply interested in science, math, and the medical profession. Therefore, students and parents enthusiastically speak about real life learning experiences that strengthen conceptual learning and promote positive self-esteem. Nevertheless, students report that they do not feel comfortable sharing problems with adults and the school's advisory program currently does not adequately address issues faced by students that affect school climate. Although the school has an action plan to address professional development in order to assist teachers in the goal of “educating the whole child”, there is a need to advance positive social-emotional development for all students in order to foster a culture conducive to academic success.

- Sharpen systems and structures in place for organizing and sharing data in order to advance efforts toward improved instructional and organizational coherence. (5.2)

    - Although the school utilizes a uniformed grading system to assess students’ performance and is also in the process of aligning rubrics to the CCLS, the school does not have a comprehensive system for compiling aggregated data. Therefore, relevant information that informs next steps is not accessible to every teacher team and to all parents. As such, prompt adjustments to teaching practices and improvements to systems that influence school performance are thwarted.

Part 3: School Quality Criteria 2011-2012

School name: Science and Medicine Middle 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.				
To what extent does the school regularly…	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 as evidenced by meaningful student work products?			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.				
To what extent does the school …	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, use on-going assessment practices and analyze information on student learning outcomes to adjust instructional decisions at the team and classroom level?		X		
2.3 Use grading policies and tools to enable school leaders and teachers to organize, aggregate, and analyze student performance trends to inform instruction and curriculum?			X	
2.4 Engage families in school decision-making, activities and an open exchange of information regarding students progress toward school and class expectations?			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.				
To what extent does the school …	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 staff, students and families, and support students and families to achieve them?			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.				
To what extent does the school…	**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, guidance/advisement 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.				
To what extent does the school…	**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, with particular attention to the CCLS?		**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**