Quality Review Report

2016-2017

Mathematics, Science Research and Technology
Magnet High School

High school 29Q492

207-01 116th Ave.
Queens
NY 11411

Principal: Jose Cruz

Dates of Review:
May 24, 2017 - May 25, 2017

Lead Reviewer: Carlos Perez
The Quality Review Report

The Quality Review is a two-day school visit by an experienced educator. During the review, the reviewer visits classrooms, talks with parents, students, teachers, and school leaders and uses a rubric to evaluate how well the school is organized to support student achievement.

The Quality Review Report provides a rating for all ten indicators of the Quality Review Rubric in three categories: Instructional Core, School Culture, and Systems for Improvement. One indicator is identified as the **Area of Celebration** to highlight an area in which the school does well to support student learning and achievement. One indicator is identified as the **Area of Focus** to highlight an area the school should work on to support student learning and achievement. The remaining indicators are identified as **Additional Finding**. This report presents written findings, impact, and site-specific supporting evidence for six indicators.

Information about the School


School Quality Ratings

<table>
<thead>
<tr>
<th>Instructional Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent does the school...</td>
</tr>
<tr>
<td>1.1 Ensure engaging, rigorous, and coherent curricula in all subjects, accessible for a variety of learners and aligned to Common Core Learning Standards and/or content standards</td>
</tr>
<tr>
<td>1.2 Develop teacher pedagogy from a coherent set of beliefs about how students learn best that is informed by the instructional shifts and Danielson Framework for Teaching, aligned to the curricula, engaging, and meets the needs of all learners so that all students produce meaningful work products</td>
</tr>
<tr>
<td>2.2 Align assessments to curricula, use on-going assessment and grading practices, and analyze information on student learning outcomes to adjust instructional decisions at the team and classroom levels</td>
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</table>
### School Culture

<table>
<thead>
<tr>
<th>To what extent does the school...</th>
<th>Area</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4 Maintain a culture of mutual trust and positive attitudes that supports the academic and personal growth of students and adults</td>
<td>Area of Celebration</td>
<td>Well Developed</td>
</tr>
<tr>
<td>3.4 Establish a culture for learning that communicates high expectations to staff, students and families, and provide supports to achieve those expectations</td>
<td>Additional Finding</td>
<td>Well Developed</td>
</tr>
</tbody>
</table>

### Systems for Improvement

<table>
<thead>
<tr>
<th>To what extent does the school...</th>
<th>Area</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>3.1 Establish a coherent vision of school improvement that is reflected in a short list of focused, data-based goals that are tracked for progress and are understood and supported by the entire school community</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>4.1 Observe teachers using the Danielson Framework for Teaching along with the analysis of learning outcomes to elevate school-wide instructional practices and implement strategies that promote professional growth and reflection</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>5.1 Evaluate the quality of school-level decisions, making adjustments as needed to increase the coherence of policies and practices across the school, with particular attention to the CCLS</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
</tbody>
</table>
**Area of Celebration**

<table>
<thead>
<tr>
<th>Quality Indicator:</th>
<th>1.4 Positive Learning Environment</th>
<th>Rating:</th>
<th>Well Developed</th>
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</table>

**Findings**

Positive school culture is embedded throughout the school, which supports culture building and the socio-emotional support of students and staff.

**Impact**

The school is an extremely safe and positive environment, conducive to student learning that values student voice. There are structures in place that impact and promote the academic and personal behaviors of all students.

**Supporting Evidence**

- All staff in the school strongly believe in creating an atmosphere where they give students a reason to come to school rather than an excuse to stay home. During the student interview, every student questioned expressed that what they like most about the school are their teachers. Students expressed feeling safe in school at all times and how they can go to any adult at any given time if they have any issues. School leaders and guidance counselors all shared that they have an open-door policy and students take full advantage of it. Students revealed that they have the utmost respect for their teachers and appreciate everything that they do for them. Several students noted how they go out of their way to help many of their teachers organize their classrooms, decorate the bulletin boards, and organize school and classroom events. There is a clear inclusive culture that supports students academically and socially. One student stated, “I like how our teachers create a healthy environment; it’s safe to go to them when we have problems.”

- There are numerous services that support student socioemotional and academic growth. All students are offered additional academic support through the school’s Saturday academy. Students shared how impactful the Saturday academy has been, as it affords them opportunities to further ask questions when they don’t understand something that was done in class. In order to prepare for the January Regents exam, the school has what it calls Martin Luther King tutoring during the weekend of Martin Luther King’s holiday where the school offers tutoring and extra help on Friday, Saturday, Sunday, and Monday. The school’s parent teacher association provides breakfast for all the students, and students spend all weekend preparing for the January Regents exams. During the parent meeting, parents were enthusiastic about how impactful and wonderful this event is. They stated that it brings the school community together to help prepare kids for the state assessments. Additionally, the school has a peer leadership program where upperclassmen work with and support ninth grade students throughout their first year of high school.

- The school continuously acknowledges and promotes the diversity that exists in the community. During the year, the school hosts an international food night where students, families, and staff share cuisines from their native countries. During the school’s spirit week, there is Cultural Friday, where students come in dressed in traditional clothing representing their cultures. The school also has a multicultural club and a dance club that perform dances connected to the various cultures in the school. Moreover, the English Language Arts (ELA) department hosted a poetry slam where students presented writing pieces in their native languages. All school announcements go out in a variety of languages to help with school communications.
Findings

Teaching practices across classrooms are aligned to the school beliefs of how students learn best. Some student work products and group discussions reflect high levels of students thinking and rigor.

Impact

Classroom instruction reflects common beliefs about lesson structure and pedagogy and is beginning to show alignment to the Danielson Framework for Teaching. Student engagement, collaboration, and interaction enable higher level thinking and participation.

Supporting Evidence

- The school believes that students learn best by creating a structured classroom environment, and that begins with the use of the school’s “daily rituals.” The daily rituals ensure that every lesson includes a do now, an aim, a motivation, an activity, and a summary. Teachers and school leaders believe that differentiated tasks must be a part of all lessons to offer multiple entry points for all students. Staff also believes that students learn best when involved in activities that include group discussions and partner turn and talks. The principal shared, “The idea is that our students learn best when they are constantly engaged.” An ELA lesson actively involved students in group discussions for students to develop effective language to describe a piece of candy. Student conversations and responses included, “This piece of candy is pink, soft, gooey and chewy.” Students were also heard actively sharing ideas within the group to help each other create effective descriptive sentences. However, other lessons, such as in a ninth grade global history class, had limited opportunities for students to engage in rigorous group or partner discussions.

- High levels of student thinking and work products were evident during a living environment class. Through station work, students worked actively and collaboratively to investigate how the systems of the human body interact. Students were divided into seven groups that included a digestive group, a muscular group, and a skeletal group. Student in each group wore signs on their backs with the name of the group. The teacher actively engaged the students in rich group discussions, asking students to study pictures and then discuss within their groups how their body system is being used in the picture. Students in the muscular group were heard saying, “muscles are helping this person move.” The circulatory group was heard sharing how “blood is actively pumping throughout that person’s body.” This lesson actively engaged students in rich discussions, leading to high student work products. However, opportunities and outcomes such as this were not seen throughout many of the classrooms visited.

- During an algebra two lesson, there were numerous opportunities for students to engage in group work. The lesson also connected the math to real-world situations that students are most likely familiar with, such as riding a rollercoaster. An advanced placement literature course engaged students in active classroom discussion where they looked to identify how the critic Walter Herbert Sokel used reasoning to introduce a new perspective on the transformation of Gregor Samsa in Kafka’s “The Metamorphosis.” The level of student discussions and engagement was high, and students actively shared their thoughts and views on the subject. Although this class gave students opportunities to engage in rich classroom discussions, other lessons failed to engage students at the same high level.
Additional Finding

<table>
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<tr>
<th>Quality Indicator:</th>
<th>1.1 Curriculum</th>
<th>Rating:</th>
<th>Well Developed</th>
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Findings

Across all grade and subject areas, rigor and higher order skills are emphasized throughout the curricula. Academic tasks are planned and refined regularly using student data.

Impact

All students, including English Language Learners (ELLs) and students with disabilities, have access to a curricula that allows students to demonstrate their thinking.

Supporting Evidence

- School leaders shared that this year there has been a significant increase in the number of ELLs and, as such, teachers have made a concerted effort to identify strategies for ELLs and students with disabilities. ELA unit plans exhibited a variety of ways that differentiation will be used through the unit. Modifications included words walls for academic vocabulary support, the use of vocabulary journals and footnoted passages for content vocabulary, graphic organizers to assist literature organization and note taking, and photographs and video clips for visual learners. The science curriculum displayed supports for ELL students that included translations of all reading materials. In a science class, students were engaged in a lesson that required them to participate in group work that represented all of the systems in the human body. Students that required language support were given copies of each body system translated into Spanish.

- Teachers make modifications to curricula through a variety of ways. Teachers use results from classroom assessments, Regents exams, and other common classroom assessments in order to adjust curriculum as needed to support student growth. During the teacher meeting, teachers shared how in the past, teachers were really just giving students accommodations and not modifications. One teacher shared, “We needed to learn what the difference was between modifications and accommodations.” Teachers did this by working closely with school leaders during team meetings, attending professional development (PD), and working closely and collaboratively with each other during team meetings. Over the past school year, teachers evaluated students’ work products and decided that the level of rigor needed to be raised across all disciplines.

- Lesson plans reviewed displayed extensive areas that focused on the modifications that will be offered to all students that require additional support. Math lesson plans exhibited planning that included taking mathematical problems and using real-life applications so that all students can connect math to everyday tasks. In addition, this lesson plan listed specific students along with the modifications that they may need for the lesson. A twelfth grade ELA lesson was designed in a way that allowed ample time for students to engage in group work that included high levels of group discussions. An eleventh grade global history lesson listed modifications for specific students that included iPads for text translation, pairing students with other students who speak the same language, and allowing students to read the primary source documents in their native language.
Additional Finding

<table>
<thead>
<tr>
<th>Quality Indicator:</th>
<th>2.2 Assessment</th>
<th>Rating:</th>
<th>Proficient</th>
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Findings

Teachers use or create rubrics, grading policies, and common assessments that are aligned to the curricula and help to determine student progress.

Impact

Actionable feedback is provided to students that is timely and precise. Teachers use assessment results to adjust curricula as needed.

Supporting Evidence

- There is a uniform grading policy in the school that includes 50 percent for exams and quizzes, 10 percent for homework, 15 percent for semester projects, 10 percent for class participation, and 15 percent for classwork. During the student meeting, students expressed how comfortable it was to know that they are graded the same way for each class. School leaders shared how prior years’ Regents exams are used as semester final exams for all classes. In ELA, teachers use rubrics provided for the Regents exam. Some of the teachers have expressed that they are now sometimes creating rubrics for specific assignments with students in order for students to have voice and completely understand what is expected for the assignment. Rubrics are used to provide feedback to students that is actionable, precise, and timely. Feedback to a student’s second draft argumentative essay included praising the student for using clear claims and stating how he should now develop those claims further in the essay. Feedback on draft three of the same assignment commended the student for the amount of improvement in draft three compared to the first draft. The teacher offered more next steps that included mentioning claims in the introduction and using more than two sentences to further explain evidence.

- School leaders have asked teachers to fill out a “Plan for Student Success” form for each of their at-risk students, which outlines why they felt students did not have success during a specific marking period and what changes will happen in order to address the part of the curriculum that the student struggled with. One student’s plan for success explained that missing homework and classwork assignments were the main reasons that student was not successful. The teacher shared that they have communicated with the parent and the student about this issue. The teacher also explained that teachers are willing to meet with the student early in the morning to help makeup the missing work. In another student’s plan, the teacher noted that the student was struggling with writing and explained that the teacher will incorporate graphic organizers, sentences starters, and word walls to help the student organize ideas.

- Verbal feedback to a student during an ELA lesson urged him to think of other words that may be synonyms for “sticky” and asked the student to list all the words he could think of while the teacher went to conference with another student. Additionally, written feedback to a student’s math assignment commended the student for getting the final answer correct, but reminded the student that on any state assessment, students need to show as much work as possible. During the student meeting, students offered how they felt teacher feedback is very valuable. One student shared how his teachers always shares “tricks” that students can use in future assignments to help them get better grades. All the students found value in feedback and relied on what their teachers shared with them for support on future assignments.
Additional Finding

| Quality Indicator: | 3.4 High Expectations | Rating: | Well Developed |

Findings

School leaders and staff consistently communicate high expectations connected to a path to college and careers while partnering with families to systematically support student progress towards meeting those expectations.

Impact

Students are effectively supported as they work to achieve academic expectations and are provided with clear, focused, and effective feedback to ensure that all students own their academic experiences.

Supporting Evidence

- Effective communication from school leaders and teachers to parents is ongoing and keeps parents informed regarding academic progress and schoolwide activities. Teachers shared that they are in constant communication with parents on a regular basis through phone calls, emails, texts, and letters. The parent coordinator and the school’s guidance counselor also assist teachers in communication and help to facilitate meetings with parents when necessary. Teachers take advantage of the parent engagement time every Tuesday to communicate with parents. This is specific time that is set aside every Tuesday for teachers to do parental outreach. During the parent meeting, all parents praised the school for effective communication. One parent stated, “We are always aware of our kids’ progress; you never have to wait until parent-teacher night to how they are doing.” Students shared how they actively use the app Skedula to monitor their academic progress.

- High expectations associated with college and career readiness are embedded throughout the school. This year, the school is taking part in the College Now program, which is a collaborative program between City University of New York (CUNY) and the New York City Department of Education that helps to prepare students for college. Teachers shared that being a part of this program has been impactful relatively quickly. As a result of taking part in the program, the school has the highest percentage of students applying to CUNY schools that they have had in many years. Additionally, as of the date of this review, the school had 76 percent of its students accepted to a college and two percent going into military service. The school is currently offering three advanced placement courses and is looking expand this for next year. This year, fifteen students took part in the Plaza College program and were able to earn six college credits in courses that taught students medical terminology. In addition, fifteen students participated in the York College program and earned fifteen college credits, which included courses in advanced math and psychology.

- The school has many partnerships and programs that offer a wide range of support to all students. The school has a partnership with the Queens Historical Society and has arranged for them to visit the school ten times per year to enrich the history curriculum. Queensborough Community College has partnered with the school and offers the school two teachers that provide additional academic support to students for a variety of subjects. In addition to partnerships, the school offers a wide range of services that are coordinated and aligned to students’ and family needs. The school has several FAFSA application workshops for students and their families and, as a result, they have tripled the amount of families that have successfully completed the application process compared to the previous year. The school has also made it a point to work with families who may have residency status issues and help them complete the FAFSA form in the school following all the federal guidelines.
Findings
The majority of teachers are engaged in structured, inquiry-based collaboration. Throughout the school, leadership opportunities for teachers are evident.

Impact
Teachers promote the achievement of school goals and implement the Common Core Learning Standards. Distributive leadership structures have built leadership capacity in teachers, and they have a voice throughout the school.

Supporting Evidence

- School leaders believe that there has been a huge impact on teachers’ capacity as a result of teacher teamwork over the last few years, as shown first and foremost through improved instruction. The principal shared, “Teachers are opening up more and are more willing to open their classrooms to colleagues to share ideas.” School leaders firmly believe that teachers are implementing what they learn, and there is much more of a desire for teachers to improve their instructional practice. Teachers are looking more closely at student work and working collaboratively to make adjustments to curricula. During the teacher meeting, one teacher said, “For me, it’s eye-opening, the new ways that we have to look at student work, and more importantly, how to tailor our lessons with what students need.”

- Teacher leadership opportunities have fostered school improvement through a variety of ways. Teachers regularly turnkey learning from PD sessions to their colleagues. One teacher shared how over the past two years, he has turn-keyed technology to all teachers, and now he sees teachers actively using what they have learned. In addition to leaders for each grade/department, teachers take turns leading inquiry-based team meetings that regularly evaluate student data and teachers’ pedagogical practice. School leaders shared how their teachers are all “leaders in their own right.” They feel that teachers are initiating much of what goes on in the school. School leaders also believe that there is more teacher buy-in throughout the school that has led to more cooperation and a sense of shared responsibility in the building.

- Teachers regularly take part in formal, inquiry-based teacher team meetings. The ELA team meeting used the SRI protocol to examine student work, specifically for low achieving students. Teachers looked at student work with the idea of examining what Regents-related skills those students are struggling with. Teachers also want to see which vocabulary terms stand between students and a passing score on the ELA Regents. Teachers examined students’ work, analyzing how well students are performing at specific skills. They also had opportunities to ask one another clarifying questions pertaining to the student work and then proceeded to discuss students’ strengths and weaknesses. Next steps were discussed and teachers spoke about specific instructional adjustments that can be made to support students.