Quality Review Report

2016-2017

Leon M. Goldstein High School for the Sciences

High school 22K535
1830 Shore Blvd.
Brooklyn
NY 11235

Principal: Scott Hughes

Dates of Review:
November 9, 2016 - November 10, 2016

Lead Reviewer: Debra Tasioudis
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

Leon M. Goldstein High School for the Sciences serves students in grade 9 through grade 12. You will find information about this school, including enrollment, attendance, student demographics, and data regarding academic performance, at http://schools.nyc.gov/Accountability/tools/report/default.htm.

School Quality Ratings

<table>
<thead>
<tr>
<th>Instructional Core</th>
<th>Area</th>
<th>Rating</th>
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<tbody>
<tr>
<td><strong>To what extent does the school...</strong></td>
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<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>
<td>Additional Finding</td>
<td>Proficient</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>
<td>Additional Finding</td>
<td>Proficient</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>
<td>Area of Focus</td>
<td>Developing</td>
</tr>
</tbody>
</table>
### School Culture

**To what extent does the school...**

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

### Systems for Improvement

**To what extent does the school...**

<table>
<thead>
<tr>
<th>Area</th>
<th>Rating</th>
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<tbody>
<tr>
<td>1.3</td>
<td>Make strategic organizational decisions to support the school’s instructional goals and meet student learning needs, as evidenced by meaningful student work products</td>
</tr>
<tr>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>3.1</td>
<td>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>
</tr>
<tr>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>4.1</td>
<td>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>
</tr>
<tr>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>4.2</td>
<td>Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning</td>
</tr>
<tr>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>5.1</td>
<td>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>
</tr>
<tr>
<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>
</tr>
</thead>
</table>

Findings

School leaders, advisors, students and parents work collaboratively to create an inclusive culture that guides the academic and personal growth of students.

Impact

Guidance and advisement structures are in place that have a positive impact on student academic and personal behaviors and put them on a path to success. Culture building, discipline, and social-emotional support are guided by student voice and interests and results in an inclusive, and respectful environment.

Supporting Evidence

- Structures are in place so that each student is known well and receives personalized support. Three guidance counselors each take a grade and split the junior class, and meet one-on-one with each student at the beginning of every semester, ensuring that students are known well. Students articulated that they feel well known and that “everyone is here and available to help and guide us.” Also, weekly teacher teams focus on attendance and at-risk students, with daily meetings of the social worker, substance abuse prevention and intervention services (SAPIS) worker and counselors, resulting in a high attendance rate for the school.

- The school engages in discipline and socio-emotional support that ensures that students feel safe at school. The school's dean reported, and students echoed, that the school works preemptively counseling students in open discussion about controversial issues as they arise through small student meetings, clubs or impromptu town halls during club time. Students readily share text messages and Facebook posts with an adult about students in crisis or issues between students. During Principal's Choice, there was an impromptu town hall meeting where students and teachers alike openly discuss their reaction to and interactions about the presidential election. Students voiced concerns about their safety as immigrants or transgender students. Teachers also expressed their feelings about interactions with students. Respecting each other’s opinions, students also felt safe and confident to share their ideas and ask for guidance in how to express their opinions about the outcome of the presidential election. This provided students and teachers alike a safe and inclusive space to express themselves. The effectiveness of preemptively dealing with controversial issues at school supports a two percent suspension rate as reported in Online Occurrence Reporting System (OORS).

- Teachers and students spoke of the respect that students and teachers have for one another that is pervasive in the building. This culture of respect is built upon the theory that if the school meaningfully involves students as decision makers in academics and the school environment, then the school will make progress toward its goals. To this end, the school has an elected student government who meet monthly to determine the clubs that offered and create school culture events. The weekly clubs are student-led with a teacher advisor. The clubs range from academic to cultural. Some examples are Russian heritage, Irish-American, Hispanos Unidos, cyber security, oncology awareness clubs. During Principal’s Choice visit to the Black student union, a senior who was leading the club’s efforts to fundraise and set the direction for the Fall Kick Back event described the impact that the club has had on her: “I was in all White classes in elementary and middle school. This club has helped me to learn more about my culture, learn to better deal with cultural differences and the culture shock of being with other Black students for the first time.” Several teachers also reported that a few student-led clubs had also created electives for students, such as robotics and social justice workshops for incoming freshman, demonstrating student voice in decision-making that guides school improvement efforts.
Findings

Across classrooms, assessments, grading policies and rubrics are loosely aligned with the school’s curricula. The use of common assessments to measure student progress is inconsistent across grades and subject areas.

Impact

Inconsistent assessment practices and limited actionable feedback given to students limit student and teacher understanding of student progress toward goals and are not effectively used to adjust curricula and instruction.

Supporting Evidence

- Across classrooms, rubrics are used; however, there are inconsistencies regarding their alignment to curricula or providing actionable feedback to students. In one Earth Science class and one English class, rubrics attached to completed student work included meaningful feedback and actionable next steps; this was not observed in other classrooms. In other classes, students are awarded points on assignments with no guidance about how to get to the next level, grades are given as percentages only, letter grades only, or correct answers are circled for the student with no direction to help clarify student misconceptions or next steps. In other classes, students receive feedback such as, “Good Job,” “OK” or “Excl.” limiting students’ ability to situate their growth in the curriculum. This is also evident in the school’s 2015-2016 Learning Environment Survey in which only forty-eight percent of students reported positively that, “I learn a lot from feedback on my work.”

- Similarly, parents and students report that while some teachers use Jupiter grades frequently to communicate progress, others use it infrequently and some not at all. The school’s Jupiter Grades log in report reported the same, in that twenty-seven percent of teachers do not utilize the grading system to communicate student progress toward goals. This lack of consistency in communicating student progress toward goals limits student and teacher understanding of student achievement.

- While common assessment practices are evident across the grades in some subjects, such as English, this is not a common practice across all subject areas. Students and parents report that while the school’s grading policy is consistent across classrooms, courses across subjects are not equivalent in the quality and level of difficulty of assignments and exams. Students and parents alike articulate a desire for grading practices and assessments to be aligned to the curricula, rather than to teacher practice. Teachers also articulate that while they are working toward developing their use of common assessments to measure student progress toward goals, “across all departments, we are not at the same place.”
Quality Indicator: 1.1 Curriculum  
Rating: Proficient

Findings
School leaders and faculty ensure that the curricula, across grades, purposefully aligns to key Common Core Learning Standards, with particular attention to students’ ability to synthesize understanding from text and the ideas of their peers, and consistently emphasizes higher-order thinking skills and habits for all learners.

Impact
Lesson plans and academic tasks across the school consistently offer all learners, including students with disabilities and English Language Learners (ELLs), the opportunity to practice higher-order thinking skills and habits on Common Core-aligned curricula.

Supporting Evidence

- Curriculum teams ensure that curricula are engaging, rigorous, and coherent across the grades and subjects. Curriculum teams share common templates that are maintained in Google Drive, and develop units with a focus on essential questions, major understandings, alignment to the Common Core and anticipated duration of units. The English team decided to adopt Houghton Mifflin Harcourt Collections (HMH) while keeping their existing themes. In science, curricular adjustments were made to ensure success for specific groups of students such as students with disabilities, ELLs, and the school’s lowest third. This was done by adding course offerings such as Earth Science, Living Environment for students with disabilities as alternatives to other science courses and adding an Advanced Placement (AP) Integrated Co-Teaching (ICT) class as course offerings, to ensure successful experiences and appropriate rigor for all learners.

- Lesson plans across subject areas, including US History, Global History, Government, Algebra, English, Earth Science, and Chemistry are aligned to instructional shifts with a coherent focus on academic vocabulary, students’ knowledge of the disciplines, text-based responses in discussions and in writing, and the ability to write from sources. English lesson plans, across grades, ask students to cite evidence from text to take a stand or defend a position in discussions and in writing. Similarly, in a Global History lesson plan on ancient belief systems in the modern world, students are asked to cite evidence to support analysis of primary and secondary sources. In Earth Science, Chemistry, robotics and English classes, students are asked to use academic vocabulary to present information or evidence in classroom discussions. In an eleventh grade English lesson, students work with peers to promote democratic discussions, set clear goals and assign individual roles to bring The Crucible to life in the classroom.

- Rigorous tasks and higher order thinking skills and habits are consistent in lesson plans across grades and subject areas. Lesson plans focus on essential questions and big ideas with opportunities for students to analyze and synthesize information from fiction and non-fiction texts, discuss, and debate ideas with peers and in writing tasks. In a Chemistry lesson, students analyze a model and use strategic thinking to explain revisions and phenomena in the periodic table. In an English classroom, students synthesize ideas about family and culture in Chinua Achebe’s Things Fall Apart, consistent with levels of rigor observed across classrooms.
Additional Finding

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<tr>
<th>Quality Indicator:</th>
<th>1.2 Pedagogy</th>
<th>Rating:</th>
<th>Proficient</th>
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Findings

Teaching practices, across classrooms, reflect a shared set of beliefs about how students learn best that are aligned to the Danielson Framework for Teaching and the instructional shifts, including protocols that promote high levels of student thinking and discussion such as Socratic seminar, Philosophical Chairs and the use of small-group instruction.

Impact

Classroom environments across the school are alive with student-to-student discussion that demonstrates high levels of thinking and participation.

Supporting Evidence

- Across classrooms, it is clear that teachers and school leaders believe that students learn best when they are active participants in the learning process, understand both the goal of an activity and why it has value, have an opportunity to take ownership of their learning, and can learn from each other. Classrooms had clear agendas, aims, organizers and utilized Promethean boards to guide students through the lesson. Essential questions and aligned graphic organizers were utilized to guide student thinking in many classrooms. In an English classroom, students completed an anticipation guide independently with questions connected to the themes in Pat Frank’s *Alas, Babylon* before participating in a whole class discussion protocol called Philosophical Chairs where students debated and explored their beliefs before diving into the text. In two other classes, students used organizers connected to the essential question to help facilitate their thinking for classroom discussions or writing tasks. This clarity around lesson goals and aligned activities enabled teachers to step aside and create more time for student-to-student discussion to flourish.

- Similarly, classroom strategies and learning activities presented a coherent focus on academic vocabulary and students’ ability to articulate different approaches to problem solving. In a pre-calculus classroom, students were asked to share different strategies for graphing polynomial functions that elicited deep understanding and conversation. In other disciplines, students were asked to provide text-based responses and write from sources, demonstrating teaching techniques aligned to the instructional shifts.

- In seven of the nine classrooms visited, student-to-student discussion and high levels of participation and thinking dominated the lesson. In many classrooms, student questioning of one another drove instruction. In a robotics class, students worked together in small groups to develop software and create code, relying on clear modeling and one another’s expertise to guide their learning. Similarly, in Chemistry, students questioned one another’s understanding of the periodic table to determine patterns and trends, with the limited teacher intrusion. In another classroom, during a Socratic seminar, students on the outside of the circle took careful notes on their partner’s participation and several opportunities were given for partners to coach into the circle and thus were active participants with a stake in the conversation.
Additional Finding

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<th>Quality Indicator:</th>
<th>3.4 High Expectations</th>
<th>Rating:</th>
<th>Proficient</th>
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Findings
School leaders and teachers consistently communicate high expectations to faculty and students and offer appropriate training, guidance and support to achieve those expectations.

Impact
High expectations for faculty and students create a culture for learning marked by professionalism and accountability so that students are prepared for college, often well before they leave the high school.

Supporting Evidence
- School leaders establish and maintain a culture for learning that communicates high expectations to faculty and staff through ongoing communication and collaboration with teachers and staff in the development of those expectations. Collaborative decision-making is used to develop school goals and expectations aligned to Danielson’s Framework for Teaching beginning at the initial planning conferences where teachers set their own goals and school leaders make professional and instructional expectations clear and follow through at faculty conferences and during teamwork time. School leaders work with the staff to develop non-negotiables in instruction, such as clear learning objectives and a focus on student engagement and hold teachers accountable for those expectations in informal classroom walkthroughs, observations, both formal and informal, and one-on-one dialogue with teachers before and after observations. An instructional cabinet with representatives from across the school also meets monthly to assess how expectations are being carried out throughout the school.

- Differentiated training opportunities are available to staff to ensure that schoolwide expectations for adult work and student achievement are met. Teachers and school leaders alike reported that professional learning for teachers is essential for ensuring that students are prepared for the next level. Teachers specifically pointed to professional learning opportunities around instructional strategies for teaching students with disabilities and content for AP courses as support for meeting the school's expectations for student achievement.

- Students, parents and teachers alike reported that college is on the minds of students from the moment they get to Leon Goldstein. At the beginning of every semester, students meet with their guidance counselor and receive guidance and feedback that prepares them for the next level and ensures that they are on track to graduation and the college of their choice. Students get a course selection sheet and are afforded the opportunity to vet elective courses that help them to identify long term goals and possible careers. Students are also required to take four years of mathematics and science and are offered a choice of fourteen AP classes. Upperclassmen may also dual enroll in College Now through the City University of New York. Juniors and seniors receive financial aid counseling; meet with college guidance counselors and directors of admission at college fairs. Finally, every student has a Naviance account that allows them to research different colleges, articulate clear areas of interest, use data to explore good matches and share this information with families.
**Additional Finding**

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<th>Quality Indicator:</th>
<th>4.2 Teacher Teams and Leadership Development</th>
<th>Rating:</th>
<th>Proficient</th>
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</table>

**Findings**

Teachers engage in structured, professional collaborations that promote distributed leadership and inquiry that focuses on improving student achievement goals and strengthening teacher practice.

**Impact**

Structures are in place so that teachers have authentic leadership roles and a voice in key decisions about how the school implements the Common Core and strengthens the instructional capacity of teachers that affects student learning across the school.

**Supporting Evidence**

- In department team meetings, teachers work collaboratively to ensure that curricula are aligned to the Common Core and the instructional shifts. For example, the teachers on the ninth grade English team are working to improve existing instructional units by ensuring rigor and adding Common Core-aligned HMH curricula to existing units. Teacher teams make decisions about additions to the curricula, and instructional strategies used across classrooms, strengthening teachers’ instructional capacity. For example, the ninth grade Global History team uses the thinking skills taught in the advanced placement curriculum to infuse their curricula with more rigorous tasks. Teachers on various teams work together to create new diagnostic exams after students realized their previous use of previous exam questions. Teams use Google Drive to memorialize their work and ensure that work products can be utilized in subsequent school years. As a ninth grade teacher stated, “We are given an opportunity to work with the scope and sequence within our department and the ability to share in our colleagues’ thinking and planning is very rewarding.”

- The special education department focuses their inquiry work on honing in on students with socio-emotional issues. This year, the team is implementing a mentoring program for ten students to ensure that they are on a path to graduation. Teachers meet with one to two students weekly about progress on their path to graduation, and help students in subjects where they are struggling. They also work with students on building strong study habits and knowing how to ask their teachers for additional help.

- The school has two teams that are in place to build leadership capacity in teachers and ensure that teachers have a voice in key decisions affecting adult and student learning across the school. The instructional cabinet is a teacher-led distributed leadership structure made up of one member from each team. The cabinet focuses on overarching instructional issues; next steps for teams and individual teachers are identified. This team works with the professional development, co-planning committee of teachers who develops professional learning to be turn-keyed across the grades and subject areas. The professional development committee also works with the school leaders to disaggregate Advance data by departments and uses an in-house FileMaker data system to identify school trends in the Danielson Framework for Teaching to create schoolwide and individualized areas of professional learning for the staff that affects student learning across the school.