Quality Review Report

2015-2016

Rachel Carson High School for Coastal Studies
High School K344
521 West Avenue
Brooklyn
NY 11224

Principal: Edward Wilensky
Date of review: May 26, 2016
Lead Reviewer: Claudette Essor
Rachel Carson High School for Coastal Studies is a high school with 561 students from grade 9 through grade 12. In 2015-2016, the school population comprises 12% Asian, 22% Black, 23% Hispanic, and 41% White students. The student body includes 11% English Language Learners and 20% students with disabilities. Boys account for 54% of the students enrolled and girls account for 46%. The average attendance rate for the school year 2014-2015 was 86.1%.

## School Quality Criteria

### Instructional Core

<table>
<thead>
<tr>
<th>To what extent does the school…</th>
<th>Area of:</th>
<th>Rating:</th>
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<tbody>
<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 Findings</td>
<td>Well Developed</td>
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<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 Findings</td>
<td>Proficient</td>
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<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>Focus</td>
<td>Developing</td>
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### School Culture

<table>
<thead>
<tr>
<th>To what extent does the school…</th>
<th>Area of:</th>
<th>Rating:</th>
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<tbody>
<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>Celebration</td>
<td>Well Developed</td>
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### Systems for Improvement

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<th>To what extent does the school…</th>
<th>Area of:</th>
<th>Rating:</th>
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<tbody>
<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 Findings</td>
<td>Proficient</td>
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## Area of Celebration

<table>
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<tr>
<th>Quality Indicator:</th>
<th>Rating:</th>
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<tr>
<td>3.4 High Expectations</td>
<td>Well Developed</td>
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### Findings

School leaders consistently communicate high expectations for teaching and learning to all staff and provide multiple supports for their success in meeting the expectations. All staff members engage families in learning partnerships to maximize student achievement.

### Impact

Collaborations between students’ families and school staff members create a culture of shared accountability for high expectations that result in ongoing improvement in teacher pedagogy and student achievement.

### Supporting Evidence

- School leaders provide staff members with an electronic handbook and newsletters which convey high expectations for teaching and learning, including instructional moves aligned to the Danielson Framework for Teaching. School leaders also underscore instructional expectations via a lesson planning checklist, “Learning Pyramid” handout and a uniform lesson planning template, all of which remind teachers of essential components that they are expected to incorporate into their plans. The school leaders hold all staff accountable for the expectations through check-ins at staff meetings, bulletins, emails, individual and team discussions, and handouts with reminders about instructional strategies and practices. Teachers stated that high expectations result in collaborations among all staff during and after school, and improved teacher practice as noted on observation reports.

- In collaboration with Generation Ready consultants and instructional support specialists from the Borough Field Support Center, school leaders provide all staff with weekly professional development support related to topics such as designing questions to elicit higher-order thinking, using assessment in instruction, differentiating tasks, and modifying instruction, especially for English Language Learners (ELLs) and students with disabilities. In addition, school leaders encourage all teachers to plan student-centered lessons that maximize student engagement in discussions across grades and content areas. A professional learning calendar and artifacts from professional learning sessions indicate that teachers participate in peer-to-peer intervisitations and receive additional support from school leaders who facilitate professional learning sessions. Through entries on a Google Network, all staff members share practices and resources from the intervisitations and other professional learning events.

- During the meeting with families, they reported that staff members confer with them about their children’s progress towards graduation requirements, career options, and the college admission and application process. Transcripts, course syllabi, progress reports, telephone calls, emails, texts, and the PupilPath online data system keep all families informed about their children’s progress. Events such as college fairs, financial aid presentations, trips to colleges, and college advisement for both parents and students provide families with an understanding of college and career readiness expectations for their children and connect families to resources for helping their children meet all requirements. Families also have ready access to guidance counselors, the school website, a Facebook page, and newsletters, which keep them informed about events and expectations for their children.
Findings
Although assessment practices reflect ongoing checks for understanding in some classrooms, data-driven data adjustments to curriculum and instruction and use of common assessments to measure student progress are not consistently evident across classrooms.

Impact
While teachers have some information about student performance, assessment practices do not consistently result in adjustments that effectively address student needs across grades and disciplines.

Supporting Evidence
- Teacher teams reported that all teachers administer class-level assessments aligned to Regents and Common Core Learning Standards and instructional shifts. Further, in January 2016 some teachers administered New York State Regents exams to many students. Some teachers examine item analysis data from these assessments to measure student progress and determine next steps for improving student performance. Next steps include adjustments such as grouping and re-grouping of students for skills practice, as applicable to learning needs detected. However, while school leaders review scholarship reports and discuss next steps with teachers after each marking period, the use of common assessments to further determine areas of proficiency, as well as gaps in student learning across grades and disciplines, is not an established practice at this school.

- School leaders presented spreadsheets that illustrate reviews of data to evaluate the progress of individual and subgroups of students, towards goals such as credit accumulation, Regents pass rates and progress towards graduation. Further, minutes of team meetings and conversations with some staff members indicate that teachers examine results of some assessments and identify areas for intervention. For example, based on math Regents assessment data that identified student weaknesses, math staff developed a scope and sequence of tasks for additional instruction and tutoring in calculus. However, there are missed opportunities to accurately measure student growth towards mastery of specific skills, as use of comparative data to formally assess student progress from one assessment to the next is not evident across grades and subjects.

- Some samples of student work demonstrated student use of rubrics for peer-and self-assessment. For example, in reflecting on his performance on an essay about how much power parents should have over their children, a student noted, “I used several quotes and made connections to my own life but I lost points for not having transitions in some parts of my writing.” Some student portfolios with goals for each quarter and reflections on progress towards the goals further indicate that some students monitor their own academic growth. During instruction, teachers were also observed using whole class questioning, exit slips, and/or conferencing with students in small groups to check for understanding. In some cases, teachers followed up on their findings immediately, as was seen in an algebra class about linear versus exponential functions. After checking in on groups of students at work in this class, the teacher paused the lesson to point out that student work needed to include “equations that illustrate both linear and exponential functions”. Similar real time follow-up on findings from checks for understanding was not the norm in other classrooms visited.
Additional Findings

<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
Curricula strategically aligned to Common Core Learning Standards and instructional shifts offer all students access to highly challenging learning experiences in all disciplines.

Impact
All students benefit from rigorous curricula that drive coherent instruction across all grades and content areas and promote college and career readiness. High-level tasks enable all students, including students with disabilities, to demonstrate their thinking.

Supporting Evidence
- Given a school-wide format for curriculum mapping and lesson planning, teachers design curricula that incorporate rigorous tasks grounded in Webb’s Depth of Knowledge (DOK) tool and Universal Design for Learning (UDL) strategies to address the needs of all students. Unit maps and lesson plans reflect the integration of Regents and College Board Standards into the design of demanding academic tasks. For example, one task for an English class required students to view a Cable News Network (CNN) video clip with commentary and pictures about the shooting of teenager, Michael Brown, by a police officer in Missouri, read an article about racial bias and media coverage, and then write an argumentative essay in response to the question, “How does the media impact society’s view of race?”

- A school-wide focus on literacy-based activities across the curriculum drives the design of tasks that expose students to college and career readiness skills. Curricula include content for advanced placement courses that include English Language and Composition, English Literature and Composition, Calculus, Biology, and US Government. There are also content and tasks for research classes for freshmen, sophomores and juniors, offering students opportunities to engage in problem-based learning and in writing evidence-based position papers. A task for a science research course required students to apply all steps of the scientific method, including generating and testing hypotheses, in investigating and reporting on “the effects of temperature on cellular respiration.” In addition, during the meeting with students, including students with disabilities, some described projects that involved multimedia presentations as part of informational reports across content areas.

- In addition to curricula for all core disciplines, there are curricula and tasks for advanced work in areas such as astronomy, criminology, and film and theatre studies. A task for a forensic science class involved students in using chemical indicators to test and identify unknown powders, and apply their findings to a report on how toxicology tests can be used to identify poisonous substances used in crimes. Content related to College Now initiatives provides for student learning via courses at partner institutions such as Kingsborough Community College and Molloy College. Curricula related to the school’s current participation in robotics competitions further provide all students with access to rigorous tasks designed to strengthen their readiness for college and careers. The school leaders credit curricula offerings for the school’s recognition by U.S. News and World Report as one of “America’s Best High Schools, 2016” and for the school’s inclusion in a “STEAM Collaborative Engineering Pipeline” being launched to add curricula for engineering courses.
Findings
Across classrooms instructional strategies incorporate use of multiple entry points into the curricula and engagement of learners in high-level discussions and rigorous tasks.

Impact
Consistent incorporation of multiple entry points and scaffolding strategies foster student participation in discussions and completion of high quality work products across disciplines.

Supporting Evidence
- In most classrooms, teachers provide multiple entry points and visual supports for students to be highly engaged in learning. In a grade 10 Global History class the teacher used an interactive white board to present a mini-lesson about Nelson Mandela’s contributions to history. The lesson involved students watching a video, reading and annotating an excerpt of text from Mandela’s autobiography, *A Long Walk to Freedom*, and listening to an audio clip of another excerpt from that same document. Students received support from focus questions that guided their discussions with peers and from an annotation guide given to them for annotating portions of the text. Similar supports were noted in a grade 9 Integrated Co-Teaching (ICT) Living Environment class where, after viewing images of the Keystone Pipeline, listening to a video of President Obama’s speech about the Keystone Pipeline, and reading excerpts of texts about various fuel choices, students worked in groups to create a poster about a specific fuel choice and the implications for quality of life.

- In a grade 9 Global History class, students participated in a Socratic seminar to examine the concept of a “flawed hero” as part of a review of information about Christopher Columbus. Using an interactive white board, the teacher displayed quotes from several texts about Columbus and invited students to discuss their views as to whether or not Columbus was a flawed hero and why. After reading portions of their group’s texts, students conferred with peers to respond to questions such as, “What flaws did Christopher Columbus have and how are they offensive in today’s world?” and “What was the impact of Christopher Columbus’ interaction with people in the New World?” Students could be heard expressing their points of view and challenging their peers’ thinking. The high level of peer-to-peer discussion heard in this class was not noted in a few other classrooms, including a grade 11 English class where some students sat quietly listening to the teacher, or working independently on annotating excerpts of articles to develop an argument in favor of or against the death penalty.

- Student engagement in challenging work was evident in most classrooms. In a grade 9 algebra class, groups of students worked to identify and create an equation for and graph exponential functions, based on a mini-lesson about the differences between exponential and linear regression. The teacher used an interactive white board to illustrate examples of linear functions and a chart and graph to clarify the concept of an exponential function. Then the teacher challenged students to use graphing calculators to derive equations and create a chart to support a presentation of their findings about exponential functions and regression equations. In a chemistry class with grade 10 and 11 students, similar practices resulted in students being challenged to engage in and report on findings from a hands-on investigation of how quickly a radioactive isotope decays or changes into a completely new element. Using pieces of candy as “atoms” and a stop watch to time experimental trials of shaking the candy in a plastic bag for varied intervals of time, students recorded and shared their observations of how much of the candy “decayed” in a given time period.
Findings
Teams of teachers collaborate regularly to engage in inquiry-based activities linked to school goals. Distributive leadership structures facilitate teacher collaboration with school leaders to make decisions about school-wide priorities.

Impact
Through teamwork and distributive leadership structures, teachers and other staff have a voice in decisions that contribute to improved teacher pedagogy and student achievement.

Supporting Evidence
- Teacher teams meet weekly as grade or department teams, engaging in activities such as creating and refining curricula and units, collaboratively planning lessons, and discussing overall student performance in relation to Common Core and Regents Standards. Using a Google template and protocols for team meetings, team members share curriculum units and lesson plans with peers across the school and with school leaders. Meeting documents show that they help to develop grade, department and school-level goals and engage in discussions of progress towards the goals. Teacher reflections on their instruction and notes seen on observation reports indicate that teamwork contributes to ongoing improvement in the instructional practice of most teachers, as measured by targeted components of the Danielson Framework for Teaching.

- During the Quality Review, members of the English department team examined samples of work for students who scored at a high, medium, or low-level on a unit task that required students to formulate a thesis statement, use three details to provide evidence and write a summary sentence that connects the evidence. Participants took turns sharing noticings, asking questions about the work and generating ideas for re-teaching. However, although participants discussed differences between each work sample, the protocol used to guide the discussion did not identify the learning target(s) or criteria for successful completion of the task so it was not clear what specific skills were at issue for each student. There was also no discussion of how interventions would be differentiated for students in each of the three performance categories.

- Teachers at the team meetings stated that they provide regular input in school-level decision-making through a teacher leader team which represents teacher voice in weekly meetings with school leaders and others. In collaboration with school leaders, members of the teacher leader team devise and implement strategies for improving teaching and learning, including coordinating or facilitating intervisitations focused on specific instructional strategies to be modeled for peers. Teacher leaders also provide input in decisions about the selection of curriculum materials, topics for weekly team meetings and the design of year-round professional learning events for all staff. The school leader credits teamwork for the development of Common Core-and Regents-aligned inquiry based units of curricula and instructional practices that are contributing to improvement in student achievement, as evidenced by scholarship reports showing a majority of students improving in their levels of achievement across marking periods.