Quality Review Report

2014-2015

Staten Island Technical High School
31R605
485 Clawson Street
Staten Island
NY 10306

Principal: Mark Erlenwein

Date of review: January 22, 2015
LeadReviewer: Claudette Essor
The School Context

Staten Island Technical is a high school with 1247 students from grade 9 through grade 12. The school population comprises 1% Black, 5% Hispanic, 53% White, and 41% Asian students. The student body includes 1% English language learners and 1% special education students. Boys account for 58% of the students enrolled and girls account for 42%. The average attendance rate for the school year 2013-2014 was 96%.

School Quality Criteria

<table>
<thead>
<tr>
<th>Instructional Core</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>Focus</td>
<td>Proficient</td>
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<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>Additional Findings</td>
<td>Well Developed</td>
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<tr>
<th>School Culture</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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<tr>
<th>Systems for Improvement</th>
<th>Area of:</th>
<th>Rating:</th>
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<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>Well Developed</td>
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Area of Celebration

<table>
<thead>
<tr>
<th>Quality Indicator:</th>
<th>3.4 High Expectations</th>
<th>Rating:</th>
<th>Well Developed</th>
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Findings
Staff members systematically communicate to students and families, a well-defined and uniform set of high expectations for all students to be college and career ready, with multiple supports and structures that help all students succeed in meeting the expectations.

Impact
The school’s culture for learning creates strong partnerships with students and families, contributing to a deep understanding of school goals and expectations for all students, and resulting in all students mastering expectations for advancement to their next academic level.

Supporting Evidence

- Communication tools such as the school’s website, social media, student assemblies and workshops are used to communicate school news, initiatives, opportunities, goals and expectations to students and families, fostering their understanding of the high expectations for their children. During the parent meeting parents stated that with workshops, conferences, scholarship reports, progress notes, phone calls and data on the online portals, they receive regular feedback about their children’s performance and know what they need to do to help prepare their children for movement to the next level.

- All teachers utilize online data tracking tools, including a Learning Management System (Skedula / Pupil Path), Naviance (Career and College Exploration / Application Process), and Daedalus to monitor and analyze student performance and share information on student progress with the student and parent, keeping each aware of the progress being made in relation to those expectations.

- Every student is programmed to take at least 2 Advanced Placement courses and up to 11 by graduation, along with other dual-enrollment college accredited courses, leading to students completing high school with up to 60 college credits. The principal has indicated that more students will meet these expectations this year, as all 10th, 11th and most 12th grade students will take over 1,950 Advanced Placement exams, compared to 2014 when 90% of the students earned a 3 or higher on the 1600 exams administered.

- All students are immersed in ongoing exploration of opportunities outside of the classroom, connected to career goals that they develop with their teachers, parents, guidance counselor and college advisor. For example, students interviewed stated that a Career Development Center offers all students opportunities to explore careers via a “Backpack to Briefcases” series, which feature daily presentations from outside guests, as well as Job Shadowing, Internships, and other Work-Based Learning opportunities.

- As part of the Career Development Center’s Work Based Learning initiative, there is a Summer Internship Program that matches students who have identified specific career interests, with internships opportunities that help them develop the skills related to their areas of interest. Other students earn paid work experiences in camp sites and other settings. In addition the school is preparing to host “CareerCon”, a borough-wide Career Fair and Career and Technical Education (CTE) Program Showcase that is yet another tool for exposing students to various career readiness expectations.
Area of Focus

| Quality Indicator: | 1.2 Pedagogy | Rating: | Proficient |

Findings
Across classrooms, teaching strategies and academic tasks immerse all students in rigorous work and discussions that foster higher-order thinking and learning. However, instructional strategies do not illustrate optimal use of extensions that enrich discussions and evoke student ownership of learning.

Impact
While cognitively demanding tasks promote rapid student progress towards being college and career ready, there are missed opportunities to further deepen student learning via completion of tasks that allow all students to demonstrate high levels of ownership of learning.

Supporting Evidence

- Within each subject area and across grade levels, lessons offered multiple opportunities for students in flexible groupings to learn and practice new concepts and skills with peers and individually, through focus questions provided by teachers. For example, groups of students in an algebra class moved across the room to various learning stations, collaborating with peers in other groups to write a shared response to a problem on a chart paper, “How can we apply our knowledge of logarithms to real world models?” Similarly, in a chemistry class pairs of students worked together to convert a word equation to a chemical equation and balance the equation and then share out the solution in a presentation to the class.

- Tasks and lessons facilitated student participation, sustained student-to-student dialogue and student generated questions of high cognitive challenge, in most classrooms visited. For example, in a political science class the teacher used effective questioning to drive high level peer to peer questioning and discussion as students worked in groups or with partners, reading articles to take a position on “the ramifications of globalization on differing economies”. However, this practice of routinely inviting students to comment on responses by peers or ask their own questions about content being read or discussed was not evident in a few of the classrooms visited. In one case, after presenting content about mitosis and meiosis in a mini lesson, the teacher posed multiple choice questions on a SMARTboard, waited for students to use Clickers to select the correct response and then led a discussion of correct and incorrect responses, without inviting any student who had the correct answer to explain the rationale for the correct choice to struggling peers.

- In the majority of classrooms visited, all students worked on the same task with some variation in approaches in most instances. However differentiation or extensions of tasks to maximize student ownership of learning was not evident in most classrooms. For example, in one case all students analyzed a cartoon to respond to guiding questions presented by the teacher who checked homework for some during the work period, while others worked on the assigned task. In another case students used an iPad to read an article to determine how to integrate sources effectively to develop a claim and identify examples of “plagiarism” versus “paraphrasing” versus “quoting”. The teacher followed up with a quick assessment and students used their iPad to send responses electronically to the teacher who then led a discussion of correct and incorrect answers. Further, work products viewed during the student meeting did not offer much evidence of research on student-selected topics across content areas.
### Additional Findings

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

Across subject areas and grades, rich curricula aligned to Common Core Learning Standards (CCLS) and instructional shifts offer all students highly rigorous learning experiences that require them to demonstrate high levels of critical thinking.

### Impact

All students benefit from well-developed CCLS aligned curricula that drive coherent instruction in all disciplines and result in all students making steady and sustained progress towards college and career readiness goals.

### Supporting Evidence

- Using Google Apps for Education, teams collaboratively refine curriculum maps and units of study, ensuring coherence of curricula and deep alignment to the Common Core State Standards across grades and content areas. For example, teachers work in teams across grades and departments, aligning curricula to Common Core and other standards required for dual-enrollment in courses that result in credits for both high school and college. Courses such as Advanced Placement Global History and Advanced Placement United States History are aligned to both New York State Advanced Placement requirements and Common Core Learning Standards. Similarly, the 11th grade English and Advanced Placement United States History curriculum strategically align literature reflective of that time period with historical events of the United States.

- Tasks that involve regular use of iPads as part of a Digital Learning Initiative, along with related digital Common Core aligned curricula, illustrate multiple entry points and adaptive learning methodologies, including auditory and visual supports for all learners. For example, Digital Common Core aligned curricula drive instruction in biology, chemistry, algebra, geometry, Advanced Placement and Regents Global History and Advanced Placement and Regents US History, complementing the use of the iPad for effective engagement of all learners. The College Board’s Common Core aligned Springboard curriculum is utilized for English language arts instruction in the 9th and 10th grade.

- Unit maps, lesson plans and student work viewed show academic tasks that are threaded through themes linked to complex texts that immerse students in intellectually demanding learning activities. For example, in all subjects students are required to complete tasks such as evidence-based position papers that involve making a claim, analyzing and supporting the claim, and presenting their work to teachers and peers. Additionally, across content areas there are projects requiring students to delve deeply into academic vocabulary in producing informational essays or describing problem solving steps.

- During the student meeting, students showed samples of exemplary portfolio products, including mathematics projects and in-depth writing samples from other content areas, and some described multimedia presentations that “challenged them to think and problem solve in every class every day to be ready for college”. The principal noted that the school’s 2014 data showing 100% of the students graduating within four years and the 100% college readiness rate are direct results of the use of rigorous curricula and assessment tasks that push all students’ thinking in all areas of instruction.
Quality Indicator: 2.2 Assessment  
Rating: Well Developed

Findings
Assessment practices aligned to curricula across all grades and content areas incorporate extensive use of ongoing real-time assessments to generate clear profiles of data that keep students and teachers well aware of next steps for student mastery of learning goals and inform adjustments to curriculum and instruction that address needs detected in the data.

Impact
Assessment data equips teachers and students with feedback on students’ performance, resulting in teachers accurately pinpointing and addressing immediate needs of individuals or groups of students via interventions that accelerate their learning.

Supporting Evidence

- Lesson plans and classroom visits showed that formative assessment and ongoing assessment practices are strategically embedded in daily lessons via questioning, sharing of ideas from group or partner work and via quizzes administered electronically, providing for immediate feedback on student mastery of content and skills related to learning goals.

- Students stated that they are all well aware of grading practices and expectations for mastery as per rubrics and exam cut scores, as teachers regularly engage them in setting and revising assessment criteria and tools. They also described the many ways in which they constantly receive feedback from teachers about their performance and all stated that they go online to look at their performance data on Skedula and self-assess every day, especially since their “phones are loaded with messages from teachers about assignments and scores”.

- With the school’s ongoing transition from traditional educational materials to Common Core aligned digital curricula, teachers noted that everyone benefits from quick online assessments that provide immediate detailed information about individual and class level mastery of content, common errors, and additional questions for follow up interventions that build mastery of concepts not initially mastered by students. In one classroom visited, this was evident as the teacher administered a quiz, assessed learning within seconds after students used Clickers to select their response to multiple choice items, and made an immediate adjustment by re-teaching content for two items that the data showed most students had not answered correctly.

- All teachers track, monitor and analyze student progress, using a Learning Management System (Skedula/Pupil Path and Daedalus) and Google Docs for Education as well as digital assessment tools such as Nearpod, TurnItIn.com and Clickers. One teacher at the teacher team meeting described how members of the Pupil Personnel and Academic Intervention Services teams tap into the data regularly, providing additional support for any student whose data shows that he or she is not yet meeting academic targets.

- In algebra and geometry courses teachers use digital Common Core aligned curricula which includes embedded assessments linked to Math XL, an interactive online homework module that automatically assigns students additional mathematics problems until they master the targeted skill or concept. This assessment tool provides daily feedback via in-depth reports about which concepts need to be reviewed and which show student mastery, allowing teachers to adjust curricula and/or instruction as needed to improve students’ performance.
Quality Indicator: 4.2 Teacher teams and leadership development
Rating: Well Developed

Findings
Scheduled professional collaborations allow teams of teachers to share content knowledge and instructional strategies for improving teaching and learning across the school. Distributed leadership practices offer staff members varied opportunities to work with peers and administrators in making high level decisions about school improvement goals and initiatives.

Impact
The inclusion of all staff in a multitude of teams empowers all teachers to assume responsibility for collectively improving teacher practice and student mastery of applicable performance standards and provides opportunities for teachers to be deeply involved in school level decision-making.

Supporting Evidence

- Through strategic scheduling made possible by a School Based Options vote, teachers are programmed for common planning sessions and a variety of professional development activities that occur on Mondays and Tuesdays. This includes regular analysis of student work and data to inform refinements of lesson or unit plans. For example, at the teacher team meetings observed, one group of teachers used student work and data to assess the impact of a “Note-taking Initiative” which they used to teach students how to use Venn Diagrams, T-charts and other organizers to improve note-taking skills. Another team assessed student work, using an essay writing rubric and iPad data to identify needs and brainstorm ways to revise lessons to address the needs.

- The principal indicated that team meetings include all teachers of the grade, members of the Academic Intervention Services and Pupil Personnel teams, and other service providers, with assistant principals, lead teachers and coaches providing support with data analysis, instructional resources, and next steps to improve student learning and teacher pedagogy. According to the principal, this has strengthened teacher practice and contributed to the school’s maintenance of a graduation rate and college and career readiness score of 100%.

- Teachers identified for high levels of expertise or recognized as instructional leaders by peers are offered positions as coaches, building teacher capacity in relation to targeted elements of the Danielson Framework. Other teachers serve in leadership roles such as deans and testing coordinators, providing support for ongoing enrichment and assessment activities for all learners. Further, some staff members are lead members of teams such as the School Leadership, Professional Development, Student Organization and Consultative Council and Career and Technical Education Advisory Board.

- Teachers at the team meetings stated that they provide regular input in school level decision-making due to the principal’s commitment to engaging all staff members in decisions that affect learning across the school. For example, teachers reported that they are empowered to set the agenda for the weekly team meetings, with minimal input from administrators who “trust their judgment”. They recommend instructional resources and choose their own professional development activities. In the words of one teacher, “The sky is the limit when we ask the principal for anything or suggest things that need to be done”. 