



**Department of
Education**
Carmen Fariña, Chancellor

**Office of School Quality
Division of Teaching and Learning**

Quality Review Report

2015-2016

**Pathways in Technology Early College High School
(P-Tech)**

High School K122

**150 Albany Avenue
Brooklyn
NY 11213**

Principal: Rashid Davis

**Date of review: May 31, 2016
Lead Reviewer: Tracie Benjamin-Van Lierop**

The School Context

Pathways in Technology Early College High School (P-Tech) is a high school with 516 students from grade 9 through grade 12. In 2015-2016, the school population comprises 3% Asian, 86% Black, 10% Hispanic, and 1% White students. The student body includes 1% English Language Learners and 16% students with disabilities. Boys account for 74% of the students enrolled and girls account for 26%. The average attendance rate for the school year 2014-2015 was 92.2%.

School Quality Criteria

Instructional Core		
<i>To what extent does the school...</i>	Area of:	Rating:
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	Additional Findings	Proficient
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 <i>Framework for Teaching</i> , aligned to the curricula, engaging, and meets the needs of all learners so that all students produce meaningful work products	Focus	Proficient
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	Additional Findings	Proficient
School Culture		
<i>To what extent does the school...</i>	Area of:	Rating:
3.4 Establish a culture for learning that communicates high expectations to staff, students, and families, and provide supports to achieve those expectations	Celebration	Well Developed
Systems for Improvement		
<i>To what extent does the school...</i>	Area of:	Rating:
4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning	Additional Findings	Proficient

Area of Celebration

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

Findings

School leaders and staff effectively communicate expectations connected to a path to college and career readiness. Teacher teams and staff establish a culture for learning that systematically communicates a unified set of high expectations for all students.

Impact

The school faculty partners with families to support student progress. Clear, focused and effective feedback and guidance is provided so that all students own their educational experience and are prepared for the next level.

Supporting Evidence

- School staff engages in communication with families regularly. “The school goes above and beyond for our children. The principal knows each child very well as well as their statistics [grades].” stated a parent. The school psychologist and social worker hosted a meeting with parents and students to discuss post-secondary options and support families in identifying career interests using a vocational assessment tool. Three parents spoke proudly of their children being prepared for college in both high school and college settings. “My daughter is eighteen and will be graduating with an Associates degree in Electrical Mechanical Computer Information Systems. In what other high school is this happening?” commented a parent. The school has also partnered with families on resume, portfolio, and interview prep sessions, a trip for students and parents to the New York Historical Society’s Silicon City where they were able to connect their learning from classes in basic computer coding to the experience at the museum throughout the year.
- Parents have voiced their concern to the school leadership regarding scheduling challenges between the college and high school as they would like to see improved coordination amongst the two organizations to ensure their children’s schedules are seamless which is an issue the students reported as well. The school administration is working to rectify this challenge for the upcoming school year.
- Students are exposed to internships in the fields of marketing, engineering, and computer programming. A student stated, “I will be starting my internship with a marketing and innovation company in Soho this summer and I have already been asked to start thinking about how I can be an asset to the team.” Another student who participated in an internship experience shared, “There was a group of ten us that worked in a programming office and we had different assignments all the time such as working on Arduino projects which connects to our work at the school. We also had our own cubicles and working space which was nice.” Students’ college ready benchmarks in English Language Arts and math have increased across four of the five cohorts. For example, cohort R’s students increased from 69% to 73% meeting the benchmark data and cohort U increased their readiness data from 23% to 60% over the course of the school year.
- Students meet with their teachers and counselors to ensure they are meeting high school graduation requirements and college expectations. Guidance summary sheets include academic goals, social and behavior goals, if applicable, along with next steps. Students also use on-line resources *Teacher Ease* and *CUNY First portal* to review their grades and credit accumulation.

Area of Focus

Quality Indicator:	1.2 Pedagogy	Rating:	Proficient
---------------------------	---------------------	----------------	-------------------

Findings

Across classrooms, teaching practices are aligned to the curricula and reflect an articulated set of beliefs about how students learn best that is informed by the Danielson *Framework for Teaching* and the instructional shifts. High levels of student thinking and discussion are evident across classrooms but pedagogy does not always ensure equitable participation opportunities for all students.

Impact

While belief systems support discourse and critical thinking across classrooms and student work products and discussions reflect high levels of student thinking and participation, unevenness in including all students within classroom discussions limits opportunity for some students to build capacity.

Supporting Evidence

- The school believes that students learn best when they have the opportunity to demonstrate their thinking and own their learning while the teacher becomes the facilitator of the lesson. An algebra class lesson objective tasked students with synthesizing various geometric concepts into a visual concept map. Students worked in groups with assigned group leaders using laptops to research assigned concepts and vocabulary words associated with their maps such as range, square root, axis of symmetry, and absolute value. Students discussed and justified their words as they related to their key ideas and concept maps within their groups and then in a whole class share out as the teacher circulated the room to check-in with students.
- Students in a technology class worked independently on a programming project at computer stations where they accessed their files and resources to reference as they completed their projects. Some of the higher performing students worked with students who needed additional support as the teacher circulated the room to check-in with students. Students had the option of working independently or with a group on their project with the culminating activity being a presentation in front of their peers. While most of the class was on task and being active participants in their learning, some of the students who opted to work independently, and whom the teacher had not met with yet, were not on task.
- During a social studies lesson, the focus included students analyzing the pros and cons of Reagan's presidency while using the assigned texts on taxes, health, and education to inform their answers. Students worked in pairs during a scavenger hunt activity where they were expected to summarize their readings and jot down their findings on a graphic organizer. Preparing for the activity, the teacher read aloud one of the text passages and spent time explaining the expectations of the activity and culminating work product that resulted in students losing interest and not participating in some of the questions asked as their voices were not included in much of the beginning of the lesson.

Additional Findings

Quality Indicator:	1.1 Curriculum	Rating:	Proficient
---------------------------	-----------------------	----------------	-------------------

Findings

School leaders and faculty ensure that curricula are aligned to Common Core Learning Standards and integrate the instructional shifts. Curricula and academic tasks consistently emphasize rigorous habits and higher-order skills.

Impact

The faculty makes purposeful decisions to build coherence and promote college and career readiness for all students across grades and subject areas.

Supporting Evidence

- Lesson and unit plans reviewed include the lesson objectives, standards addressed, essential questions, desired results, and assessment during the lesson. A math lesson on solving quadratic functions also included alignment of students with disabilities' Individualized Education Program (IEP) goals to Common Core Standards relating to quadratic functions such as evaluating functions and interpreting values, solving quadratic functions by factoring, and using zeros of a polynomial to graph function. Additionally, the lesson included differentiated tasks and homework assignments.
- The syllabus for the independent focus projects include presentations on racism in America in which students are to create a power point presentation containing two racial events which took place in America and for each event, the student must explain how America was affected. The events were to come from the 19th, 20th, and 21st centuries with the final project being presented to the class. Additionally, an essay is to accompany the power point with students including their position on the events and whether they agree or disagree with actions taken in connection to the events. Other projects for the course include the presidential race of 2016, Earth Day, and life as an American veteran.
- A genetics unit on Deoxyribonucleic Acid (DNA) encompassed students provided with options in creating a finished product via power point presentation, story board, film or video game related to a DNA topic on structure, function, and discovery of DNA, steps involved in protein synthesis, genetic engineering, and the structure function and role of Ribonucleic Acid (RNA) and coding of protein. Students are also provided with the option of presenting their topic individually or in a group.

Quality Indicator:	2.2 Assessment	Rating:	Proficient
---------------------------	-----------------------	----------------	-------------------

Findings

Across classrooms, teachers use or create assessments, rubrics, and grading policies that are aligned with the school's curricula. The school uses common assessments to determine student progress toward goals across grades and subject areas.

Impact

Actionable feedback is provided to students and teachers regarding student achievement. Assessment results are used to adjust curricula and instruction.

Supporting Evidence

- Teachers provide rubrics to students for class assignments, projects, and debate discussions. For example, an assessment rubric for power point presentations evaluates students on organization, subject knowledge, graphics, research, screen design, and oral presentation elocution/eye contact and students are scored as exemplary, accomplished, developing, or beginning. A student scoring exemplary in subject demonstrates full knowledge by answering all class questions with explanations and elaborations whereas a student scoring "beginning", does not have a grasp of information and cannot answer questions about the subject.
- Students receive teacher feedback electronically via their student folders and written comments on their student work. A student reported, "I get feedback most of the time, especially when it has to do with writing essays." Another student reported, "I received feedback on an essay titled Escape from Alcatraz and the feedback helped me to focus and clarify my thoughts." A review of some student work showed the development of student work from beginning to end with the actionable feedback, however work with meaningful feedback that demonstrated a portrait of student mastery across content areas was limited.
- The school uses Regents exam data, college ready benchmarks, and cohort data to assess student performance and inform teacher's instructional next steps. Faculty also utilize credit accumulation and grade point average data to monitor which students are in good standing and not good standing by cohort. Teachers focused on the students who were not in good standing which ranged from 4% to 24% across cohorts to inform revised grouping structures. For example, in math and ELA, now there is a group leader assignment. Teachers are also incorporating movement into their lessons so students are not stationary for long periods of time. A teacher added, "We look at Regents exam data three times a year as well as Achieve 3000 data to monitor student lexile levels." As a result, twenty-six students are on track to earn college degrees by June 2016.

Quality Indicator:	4.2 Teacher teams and leadership development	Rating:	Proficient
---------------------------	---	----------------	-------------------

Findings

The majority of teachers are engaged in structured, inquiry-based professional collaborations that promote the achievement of school goals. Teacher teams consistently analyze assessment data and student work for students they share or on whom they are focused.

Impact

The instructional capacity of teachers is strengthening resulting in improved teacher practice and progress toward goals for groups of students.

Supporting Evidence

- Teacher teams meet on a weekly basis by content area to review student work that informs their next steps. For example, the social studies team minutes reflects their assessment and analysis of the January 2016 global and US History Regents exams. Teachers discussed student performance based on the number of students who participated in the exam, passed, failed, and were absent. Additionally, the team did an item analysis with a specific focus on the essays and accompanying rubrics. Based on the data, the team revisited the curricula to update their document based questions tasks and improve the readability of the rubric to ensure that it's student-friendly. Students in need of additional support in passing the June 2016 exams were grouped as "Kid Watch" students.
- Teachers on the ELA team met regarding their *Streetcar Named Desire* unit and looked at student work using a poster analysis, which revealed students were having a difficult time analyzing the text however, they were able to use rhetorical devices. Teachers decided to schedule intervisitations amongst the team based on student findings in connection to feedback received from their colleagues regarding points of weakness. As a result of their collaboration, a teacher stated, "Our students are engaging in a healthy competitive spirit in the classroom and we have students who are attempting to do college ready tasks that weren't previously."
- A review of science teacher team minutes which are captured via Google Docs shows teachers sharing resources on Science, Technology, Engineering and Math (STEM) lessons and using performance data to group students for cooperative learning experiences while also reinforcing skills needed to practice which include connecting lab courses with mathematical understanding. A teacher recommended splitting project work into different component and assigning a specific role to each student, for example, an artist to draw and label, writer to communicate the roles of organs, questioner to create questions about the system, and a presenter to share the project with the class. Based on this recommendation, an intervisitation was scheduled for teachers to see the practice in action.