

Quality Review Report

2009-2010

Aviation Career and Technical Education High School

**High School 610
45-30 36th Street
Queens
NY 11010**

Principal: Deno Charalambous

Dates of review: March 8 – 10, 2010

Lead Reviewer: Jeffrey Soloff

Part 1: The school context

Information about the school

Aviation Career and Technical Education High School is a high school with 2106 students from grade 9 through grade 12. The school population comprises 8% Black, 59% Hispanic, 10% White, and 23% Asian students. The student body includes 3% English language learners and 3% special education students. Boys account for 87% of the students enrolled and girls account for 13%. The average attendance rate for the school year 2008 - 2009 was 94.6%.

Overall Evaluation

This school is well developed.

The passionate, energetic, highly visible principal drives this already very successful school towards an even higher level of student and teacher performance. Aviation High School combines a rigorous academic curriculum with a Federal Aviation Administration certificate in airplane mechanics while preparing students for college or a career in aviation maintenance. A high number of students graduate with a Regents diploma as well as the technical certification. The culture of the school is unique. Fifty teachers, representing almost half of the current staff, graduated from the school and now work there because "it is the only place that I ever considered teaching," a teacher remarked. Students feel that teachers', "down to earth, caring relationship," makes a positive difference in their education.

The school collects and uses a wide range of data for individual students and subgroups in order to have a clear view of the performance and progress of every student. While teachers use data to plan and adjust instruction, the school has not developed a system to evaluate the success and progress of collaborative teacher teams. School leaders make informed judgments about curriculum, instructional practices and programs to drive teaching and accelerate student learning. A recent decision to link math teachers with selected aviation course teachers is aimed at integrating academics with mechanics so that students can see subject relationships in a new light and improve their learning. While differentiating instruction is a priority of the principal and a focus of professional development, it is not yet an embedded practice in the school.

The school's partnerships, with different airline companies, provide students with a myriad of practical field experiences in airplane maintenance, Federal Aviation Administration documentation, and aviation law so that students are better able to decide which career path to follow. Students work at airline companies documenting maintenance procedures as required by federal law. School leaders use an observation process and teachers' surveys to structure meaningful and differentiated professional development activities that are conducted by key teachers. Often, these teachers receive external training and then act as turnkey trainers so that colleagues can improve their practice and provide better learning experiences for students.

The school's communication systems are good and include a website, weekly emails, letters and phone calls from teachers that alert most parents to the progress of their child as well as current information on school activities.

Part 2: Overview

What the school does well

- A rigorous curriculum aligned with State guidelines and Federal Aviation Administration Mechanics Certification requirements prepares students thoroughly for college and/or a career in aviation maintenance.
 - The comprehensive curriculum necessitates an extended day for juniors in order to meet the school's requirements. A fifth year program, that captures students' interest and commitment, combines power plant maintenance with an airport internship to provide a "hands on" experience for students in aircraft maintenance.
 - The broad and differentiated curriculum includes advanced placement courses, college courses, academic intervention services and extensive tutoring and peer tutoring opportunities that meet the needs of all learners. A recent, far-sighted decision to use common language in English and shop classes enables student to improve English skills while engaging in activities to do with mechanics.
- Extensive internal and external partnerships provide a challenging variety of experiences for students that prepare them extremely well for a career in airline maintenance or careers that require a college degree.
 - Partnerships with airlines provide a wide variety of experiences that enhance academic and social development. Airlines have donated a Boeing 727 and jet engines that serve as teaching tools. Mentorships and internships with airline supervisors, law firms and the Federal Aviation Administration allow students to make informed career decisions.
 - Teachers receive on-going training in aircraft maintenance and current career opportunities so that they can counsel students in their college and career choices. Certified students become viable candidates for high paying aircraft maintenance jobs after graduation.
- Administrators and teachers use a wide range of data effectively to monitor student progress, plan rigorous instruction, make timely adjustments and provide valuable feedback on instructional decisions to elevate student achievement.
 - An in-house database and ARIS allow staff to closely analyze student progress on teacher and departmental assessments in order to make adjustments in instructional programs. This has resulted in a marked decrease in failures from period one to period three. Inquiry teams meet to analyze subgroup data and make purposeful modifications that have resulted in improved student outcomes.
 - Assistant principals meet with teachers during and after each marking period to discuss student progress in depth, especially the lowest third, leading to beneficial instructional adjustments. Underachieving students receive customized academic intervention services and results indicate improved achievement levels.

- A well thought out differentiated approach to professional development, self-assessment and teacher goal setting has strengthened teachers' practices and improved student learning.
 - The new principal's targeted and productive use of teacher surveys, classroom observations and individual conferences has led to useful professional development opportunities that align well with teachers' and students' needs and school goals. Teachers are skilled in providing turnkey training to increase the number of teachers and students benefitting from this knowledge. Teachers examine student work and perform inter-visitations to inform planning. The network provides small group sessions that inform teacher practice and improve instruction. A teacher summed up the benefits by saying, "This is the first time in my career that I look forward to professional development sessions because they are meaningful and improve my practice."
- A safe and nurturing environment in which the caring staff provides a high level of academic and personal support for all students exemplifies the school's positive academic culture.
 - Parents, students and teachers endorse the school's unique focus, along tradition that combines academics and aviation maintenance in a setting that cares about the total child. Students are highly motivated and engaged in both phases of the school's curriculum as indicated by a significant increase in attendance from 90.0% to 94.6% and an increase in graduation rate from 70% to 86% over the previous three years.
 - The school's climate is further enhanced because many of the teachers (as well as the principal) are former graduates of the school. Teachers exude pride when speaking about the school. One teacher said, "The only school I ever wanted to work in was Aviation because the staff cares so much about its students." Teachers know their students as individuals and provide social, emotional and academic support well beyond their contractual day as evidenced by early morning, afternoon and lunch tutoring sessions.
- The school is extremely successful in communicating high expectations to parents and students for academics, attendance and behavior and involves parents in decision thereby raising the school community's awareness.
 - The school's website, emails, mailings and parent meetings clearly communicate expectations to students and parents. Most teachers post lessons and homework so that students and parents know what is taught. School activities, programs and student goals are emailed to parents and recorded in the students' notebooks. Teachers use *Daedelus* and *eChalk* to post grades and attendance for parents and students to view online. The school constantly revisits communication protocols in an effort to keep parents informed.
 - Parents are actively involved in decision-making through the parents' association, school leadership team and informal conversations with the accessible, visible principal. As a result, the school is truly a collaborative institution. A parent attested, "The principal's door is always open for parents to come in, without an appointment, and share their concerns."

- School leaders collaborate with teachers to make informed and effective data based organizational decisions that closely align with the school's instructional goals and have been shown to accelerate student learning.
 - Using data and observations, teachers and school leaders identify measurable goals to improve student achievement. This year's goals include increasing the passing rate by 2% on the Federal Aviation Administration exam and increasing the number of students sitting for the Earth Science Regents. Progress toward goals is monitored accurately and consistently through frequent meetings between teachers and assistant principals at which time interim data is assessed and decisions made about where adjustments are needed.
 - Despite budget cuts, the principal creatively schedules opportunities for teachers to meet, analyze student progress, and share effective teaching strategies in order to improve instruction and raise student-learning outcomes. Additionally, the principal has eliminated self-contained classes and increased collaborate team teachers numbers in an effort to provide better learning opportunities for this subgroup of students.

What the school needs to improve

- Promote greater consistency in differentiated instruction that challenges all students and accommodates different learning styles to maximize student learning.
 - The use of differentiated instruction is not an embedded practice across the school. Teachers often give the same assignment to the entire class, which results in missed opportunities for some students to make as much progress as they could. Although students are actively engaged in instruction, the lessons do not reflect multiple entry points, support or extend successful learning for all students.
- Increase the use of data analysis to evaluate the effectiveness of collaborative teams in order to make adjustments that can lead to higher quality teamwork.
 - The school has departmental teams as well as a core inquiry team but it has not yet devised a system to evaluate the effectiveness of the teams. The data specialist serves as the facilitator on many of the teacher teams. As of now, the school has not trained other teachers to take over these leadership roles, thereby limiting the school's capacity to broaden and deepen inquiry work.
- Expand the use of measurable and differentiated learning goals for all subgroups and other identified groups of students so further adjustments can be made.
 - Although teachers use data to set interim goals and make instructional adjustments for groups of students, the goals are not sufficiently differentiated to accelerate the learning path for all students.

Part 3: School Quality Criteria 2009-2010

School name: Aviation Career and Technical Education High School	△	➤	✓	+
Overall QR Score				X
Quality Statement 1 – Instructional and Organizational Coherence: The school has a coherent strategy to support student learning that aligns curriculum, instruction and organizational decisions.				
<i>To what extent does the school regularly...</i>	△	➤	✓	+
1.1 Design engaging, rigorous and coherent curricula, including the Arts, for a variety of learners and aligned to key State standards?				X
1.2 Develop teacher pedagogy from a coherent set of beliefs about how students learn best, and ensure that it is: aligned to the curriculum, engaging, and differentiated to enable all students to produce meaningful work products?			X	
1.3 Make strategic organizational decisions to support the school's instructional goals and meet student learning needs?				X
1.4 Maintain a culture of mutual trust and positive attitudes toward learning that support the academic and personal growth of students and adults?				X
Overall score for Quality Statement 1				X
Quality Statement 2 – Gather and Analyze Data: School leaders and faculty consistently gather, analyze and share information on student learning outcomes to understand school and student progress over time.				
<i>To what extent does the school ...</i>	△	➤	✓	+
2.1 Gather and analyze information on student learning outcomes to identify trends, strengths, and areas of need at the school level?			X	
2.2 Gather and analyze information on student learning outcomes to identify trends, strengths, and areas of need at the team and classroom level?				X
2.3 Use or develop tools to enable school leaders and teachers to organize and analyze student performance trends?				X
2.4 Engage in an open exchange of information with students and families regarding students' learning needs and outcomes?				X
Overall score for Quality Statement 2				X

Quality Statement 3 – Plan and Set Goals: School leaders and faculty consistently engage the school community and use data to set and track suitably high goals for accelerating student learning.							
<i>To what extent does the school ...</i>	△	▶	✓	+			
3.1 Establish a coherent vision of future development that is reflected in a short list of focused, data-based goals that are understood and supported by the entire school community?				X			
3.2 Use collaborative and data informed processes to set measurable and differentiated learning goals for student subgroups, and students in need of additional support?			X				
3.3 Ensure the achievement of learning goals by tracking progress at the school, teacher team and classroom level?				X			
3.4 Communicate high expectations to students and families, engage them in decision-making, and promote active involvement in the school community?				X			
Overall score for Quality Statement 3				X			
Quality Statement 4 – Align Capacity Building: The school aligns its leadership development and structured professional collaboration around meeting the school’s goals and student learning and emotional needs.							
<i>To what extent does the school...</i>	△	▶	✓	+			
4.1 Use the observation of classroom teaching and the analysis of learning outcomes to elevate school-wide instructional practices and implement strategies that promote professional growth and reflection, with a special focus on new teachers?				X			
4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning?			X				
4.3 Provide professional development that promotes independent and shared reflection, opportunities for leadership growth, and enables teachers to continuously evaluate and revise their classroom practices to improve learning outcomes?				X			
4.4 Integrate child/youth development, support services and partnerships with families and outside organizations with the school-wide goals to accelerate the academic and personal growth of students?				X			
Overall score for Quality Statement 4				X			
Quality Statement 5 – Monitor and Revise: The school has structures for monitoring and evaluating progress throughout the year and for flexibly adapting plans and practices to meet its goals for accelerating learning.							
<i>To what extent does the school...</i>	△	▶	✓	+			
5.1 Evaluate the quality of curricular, instructional and organizational decisions, making adjustments as needed to increase the coherence of policies and practices across the school?				X			
5.2 Evaluate systems for assessing students, organizing data, and sharing information with student and families, making adjustments as needed to increase the coherence of policies and practices across the school?			X				
5.3 Establish and sustain a transparent, collaborative system for measuring progress towards interim and long term goals and making adjustments during the year and over time?			X				
5.4 Use data to regularly evaluate the effectiveness of structured professional collaboration, capacity building and leadership development strategies?			X				
Overall score for Quality Statement 5				X			
Quality Review Scoring Key							
△	Underdeveloped	▶	Underdeveloped with Proficient Features	✓	Proficient	+	Well Developed