



High Schools That Work Profile

Queens Vocational and Technical High School and High Schools That Work — Improving SLCs in NYC

SREB

Bringing small learning communities (SLCs) to culturally rich New York City schools was a bold move in 2004-2005; but in the case of Queens Vocational and Technical High School (QVTHS), it has led to remarkable improvements. QVTHS is a city-wide school that serves 1,200 students from across the five boroughs. This school's diverse student population is 70 percent Hispanic, 11 percent white, 10 percent black and 9 percent Asian. Approximately 7 percent of students are English-language learners, and more than three-fourths of students are eligible for free or reduced-price lunches.

QVTHS is a part of a cohort of New York City schools that were awarded a United States Department of Education Smaller Learning Communities grant in 2004-2005. The school selected *High Schools That Work (HSTW)* as the service provider to assist in implementing SLCs, using its research-proven framework of Key Practices and Goals. *HSTW's* emphasis on and strategies for ensuring each student completes an academic or career focus provided an important fit for this school's improvement needs.

HSTW Key Practices for School Improvement

- **High expectations** — Motivate more students to meet high expectations by integrating high expectations into classroom practices and giving students frequent feedback.
- **Program of study** — Require each student to complete an upgraded academic core and an academic or career concentration.
- **Academic studies** — Teach more students the essential concepts of the college-preparatory curriculum by encouraging them to apply academic content and skills to real-world problems and projects.
- **Career/technical studies** — Provide more students with access to intellectually challenging career/technical (CT) studies in high-demand fields that emphasize the higher-level mathematics, science, literacy and problem-solving skills needed in the workplace and in further education.
- **Work-based learning** — Enable students and their parents to choose from programs that integrate challenging high school studies and work-based learning and are planned by educators, employers and students.
- **Teachers working together** — Provide cross-disciplinary teams of teachers with time and support to work together to help students succeed in challenging academic and CT studies. Integrate reading, writing and speaking as strategies for learning into all parts of the curriculum and integrate mathematics into science and CT classrooms.
- **Students actively engaged** — Engage students in academic and CT classrooms in rigorous and challenging proficient-level assignments, using research-based instructional strategies and technology.
- **Guidance** — Involve students and their parents in a guidance and advisement system that develops positive relationships and ensures completion of an accelerated program of study with an academic or a CT concentration. Provide each student with the same mentor throughout high school to assist with understanding postsecondary options, setting goals, selecting courses, reviewing the student's progress and suggesting appropriate interventions as necessary.
- **Extra help** — Provide a structured system of extra help to assist students in completing accelerated programs of study with high-level academic and technical content.
- **Culture of continuous improvement** — Use student assessment and program evaluation data to continuously improve school culture, organization, management, curriculum and instruction to advance student learning.

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Implementing the *HSTW* Framework Schoolwide

In 2005, QVTHS participated in an *HSTW* Technical Assistance Visit¹ to determine the school's strengths, challenges and needed actions. Later that year, a team from the school attended the Annual *HSTW* Staff Development Conference to learn about best practices and improvement strategies from other schools across the *HSTW* network. The principal described this conference as "an 'a-ha' experience," as the team understood how much it could learn from others in this network of more than 1,200 high schools. Those who participated in the conference have taken leadership roles in the school, and they continue to serve on a professional development team as they work with the *HSTW* consultant to implement changes.

As team members returned to campus, they rallied the rest of the faculty in adopting the Key Practices. New York City workshops for all SLC schools deepened faculty acceptance of and enthusiasm for the *HSTW* design. Through the next four years of *HSTW* coaching and professional development, the school tackled a variety of improvement efforts.

Small Learning Communities

QVTHS elected to implement the *HSTW* design as it reorganized into SLCs. The school created one ninth-grade academy, three career-themed academies and one credit-recovery academy for at-risk students. In each of the five academies, there is a strategic link between academic studies and a career focus. The academy names are: School of Exploration and Discovery, School of Computer and Electronic Engineering Technologies, School of Entrepreneurial Studies, School of Skilled Building Trades, and Advance Program for Credit Recovery.

Initially, scheduling within the new framework of the academies was a challenge. The school eventually adopted a hybrid schedule, enabling students to take 10 classes per week in a nine-period day. This schedule also provided common planning time for teacher teams within each academy.

Recently, the school added teacher coordinators to each academy's leadership team. The teacher coordinators lead the SLC teams in implementing key initiatives such as improving attendance, conducting data analysis, hosting awards ceremonies and special events, arranging for professional development and student field trips, and organizing case conferences with students. They also serve as liaisons between students and teachers and with the academy directors.

The SLC leadership teams have taken ownership of challenges and solutions in each academy. Teams have united to address challenges in several ways:

- In response to the need to improve scores on the state assessment for U.S. history, the ninth-grade English and social studies teachers developed curriculum maps for the U.S. history course.
- Seeking to improve attendance rates for their students, ninth-grade teachers developed a plan to target students who are frequently absent or tardy. Using the daily absence reports, teachers have reached out to students and parents, using appropriate interventions. The freshman attendance rate has increased in each marking period.
- Teams of teachers in each SLC have determined ways to reward achievement. Team celebrations have been designed to motivate and engage students and parents. One team rewards improvement while another rewards achievement.
- Because many students in the credit-recovery SLC have tardy and attendance issues, the teachers on this team designed a system for wake-up calls. Attendance has steadily improved since this system was established.

QVTHS Improvement Highlights

- "A" rating on New York City Progress Report, with an 18 point gain — the highest in SLC network
- Highest four-year graduation rate in SLC network
- Freshman success rate (earning ten or more credits) of 86.6 percent
- Impressive increase of emphasis on literacy, numeracy, science and integration of academics and CT studies, based on *HSTW* Assessment results

¹ The Technical Assistance Visit (TAV) is a three-day review of school and classroom practices, led by an SREB school improvement consultant and a team that includes members of the community and educators from other schools. The TAV team reviews school data, conducts interviews with multiple groups from the school community and observes classroom instruction using a protocol that has been refined through more than two decades of experience. At the end of the TAV, the team provides the school with a debriefing of its findings, which include promising practices taking place at the school, challenges remaining and recommendations for addressing challenges.

The leadership team and the *HSTW* coach regularly use the *HSTW* SLC rubric and the New York City Department of Education’s *Framework for SLCs in NYC* to ensure that each SLC implements reforms in student learning experiences in keeping with research and best practices. As they institute changes, they monitor the school’s progress, analyze data to identify gaps and determine next steps.

Staff members believe that the redesign has led to greater personalization of instruction and improved student achievement. Being in SLCs has resulted in the development of a more qualified teaching staff, as well. SLC directors and teacher coordinators interview prospective teachers specifically for roles within the academies. As new teachers are hired, they move directly into SLCs. This year the school has employed four master teachers in the core academic areas to work within classrooms to improve delivery of instruction.

The *HSTW* goals and key practices have driven the transformation of the school into SLCs. Through coaching and professional development, teachers have developed better methods for raising expectations, increasing the complexity of lessons, using project-based and research-based assignments, increasing the amount and quality of literacy experiences, and making instruction more engaging. These teacher practices have resulted in student practices that have led to substantial gains in achievement.

Ninth-Grade Transition

When QVTHS first joined the *HSTW* network, the ninth-grade team was the first group to attend a professional development workshop. This team participated in SREB’s Transitions Institute to jump-start the design and development of the ninth-grade academy, the School of Exploration and Discovery. **The academy has been key in improving transitions and increasing the ninth-grade promotion rate from 66.4 percent in 2007 to 86.6 percent in 2010.** Ninth-grade teachers meet daily to identify struggling students, plan support strategies, coordinate curriculum and participate in professional development. The SLC uses the Ramp Up curriculum in a double-blocked course for English I. Ninth-grade teachers are leading efforts to incorporate standards-based projects across the curriculum, as well. Plans are underway to expand implementation of transition components so that students can make the most of this critical year of high school.

High Expectations

Students are required to complete the *HSTW*-recommended curriculum (see the sidebar) and also have access to Advanced Placement (AP) courses, dual credit courses and college courses on campus. More students are taking higher-level courses and earning college credit while in high school. **From 2008 to 2010, student responses on the *HSTW* Assessment showed impressive increases in the percentages of students taking four years of college-preparatory science (from 45 percent to 87 percent).**

The school has placed a major focus on standards-based grading practices that require students to redo work that does not meet standards. Most teachers indicate that they encourage and/or require students to redo work that does not meet standards. Several teachers have experienced success with these practices, and they are sharing results with colleagues in their SLCs. The *HSTW* coach has followed up on this effort, providing additional resources and professional development.

To raise expectations across the curriculum in the areas of literacy and numeracy, *HSTW* consultants have provided content-based services to QVTHS on a regular and ongoing basis — one day per month each for literacy and numeracy.

Teachers are responding positively to this emphasis on raised expectations. On the 2010 *HSTW* Assessment teacher survey, the majority of teachers strongly agreed that goals and priorities for the school are clear and that the principal stresses at least monthly that they should teach all students to the same high standards. The school also experienced improvements in the percentages of teachers who reported that teachers in the school are continually learning and seeking new ideas on how to improve student achievement and that teachers maintain a demanding yet supportive environment.

***HSTW*-Recommended ‘Ready’ Academic Core**

- Four or more college-preparatory **English** courses
- Four or more **mathematics** courses, including Algebra I, geometry, Algebra II and a higher-level mathematics course
- At least three lab-based **science** courses, including at least two credits in college-preparatory biology, chemistry, anatomy/ physiology or physics/applied physics

Engaging Instruction

In 2008-2009, the *HSTW* coach and faculty placed a major emphasis on student engagement. The leadership team developed an engagement observation rubric used to assess student behaviors that measure the level of engaging instruction in the classroom. Data from these observations are used to identify problems and to provide teachers with strategies for developing more engaging lessons. The principal said that this rubric has changed the conversations about instruction, shifting teachers' assessments of their instruction from comments from, for example, "But I taught them this" to "Eight of my students didn't understand this." During post-conference meetings, teachers began to ask specific questions about how to improve their instruction and how to get more students engaged and participating in class.

Several teachers and administrators participated in *HSTW* workshops on engaging instruction and brought the concepts and strategies back to their academies. The *HSTW* coach regularly followed up with teachers, encouraging sustained implementation of engaging strategies. This year, the school has been formalizing a plan for embedding literacy across the curriculum. The literacy focus is increasing the amounts and types of reading students do throughout the year. Each SLC identified trade journals related to their career fields and ordered copies for student use. Both *HSTW* and the Children's First Network provide ongoing weekly or monthly professional development on literacy, which has resulted in the development of reading surveys and inventories, as well as plans to develop a schoolwide writing rubric. Each month, the SLCs focus on specific reading and writing strategies.

Within each academy, teachers analyze and display student work and portfolios. Throughout the school, boards fill the hallways, displaying teacher assignments, the associated rubrics and exemplary student work. Some boards reflect the process of having students redo assignments to improve learning and meet standards. These displays of rigorous work are both impressive and inspiring, as they document the shift toward higher expectations and higher student achievement.

Capitalizing on the fact that students enjoy completing hands-on, team-based projects, teachers are assigning authentic interdisciplinary projects in individual courses and in academies. The School of Entrepreneurial Studies has implemented two major academy-wide projects. These projects not only hook students' attention and promote increased effort, but also facilitate depth of learning and critical thinking.

Quality Career/Technical Studies

Prior to enrolling at QVTHS, each student chooses a career major in one of eight career/technical (CT) fields: accounting, Web design, cosmetology and salon management, graphic arts, electrical installation, plumbing, computer technology, or digital electronics/robotics. Seven of these eight CT programs are state-approved, and the remaining program has been submitted for approval. In the freshman academy, students participate in an exploratory class taught by CT teachers, giving them a taste of each of three CT career fields before they select one of the upper academies. During the annual CT Night for ninth-grade students and parents, upperclassmen lead workshops describing classes and experiences in each of the career academies. After rotating through the three CT fields, ninth-graders have a chance to change majors, if they choose, before selecting an upper academy in the spring of their freshman year. Students may not change academies after the 10th grade.

Within each of the upper academies, each student is required to complete a career portfolio, a 60-hour work-based learning experience and a technical assessment in order to receive a CT-endorsed diploma. Technical assessments are available in each field of study and include exams from the National Occupational Competency Testing Institute, the National Center for Construction Education and Research, the Computing Technology Industry Association (CompTIA), Adobe, Microsoft Office Systems, Cisco and the state cosmetology board. **The passage rates for technical assessments have improved from approximately 50 percent in 2007-2008 to 80 percent in 2009-2010.** This year, 100 percent of students who took the CompTIA A+ assessment passed the exam. Last year, the robotics team from QVTHS won the New York City regional contest and participated in the national competition.

The academic curriculum is connected to the CT majors. In the School of Skilled Building Trades and the School of Computer and Electronic Technologies, for example, students take physics in their third year of science to master the science foundations of the CT major. Academic and CT teachers also work together to align curricula and plan integrated projects. The electrical teacher regularly consults with his mathematics colleague to resolve problems that arise in class. Students in the entrepreneurial academy have completed projects based on water and the cosmetology of faces.

Extra Help

The Advance Academy program serves students who were unable to complete the necessary credits to move into tenth grade. The program is designed to enable students to catch up with their peers and graduate on time. In addition to the credit-recovery academy, QVTHS has many supports in place for students who need extra help:

- Evening school classes in multiple academic and CT areas
- Office hours during student lunch and common prep periods once a week
- After-school training for CT certifications
- Review classes for the New York Regents Examinations two weeks before the exams
- Family advisory groups and tutoring
- Extra help or make-up work sessions once a week (depending on immediate student need)
- Wake-up text messages targeted to students with chronic attendance issues
- Double-period classes for struggling students
- SAT prep with postsecondary partners
- Super lab/super gym on Saturdays
- Community college gateway courses for English and mathematics

Each week, approximately 150 students participate in afternoon school for credit recovery. During the school day, all ninth-grade students have double-period English classes, which focus on improving writing skills. These efforts have resulted in significant increases in English Regents test scores of 65 or better. Double-period mathematics classes, combined with intensive focus on literacy, have brought about gains in mathematics scores, as well.

Strong Leadership

A key factor in the improvement at QVTHS is the dedicated administrative team members who are committed to improving instruction. The principal is a dynamic instructional leader. She has joined teachers and other administrators from QVTHS at local and national *HSTW* workshops and has redelivered professional development to the entire faculty.

The leadership team meets with the *HSTW* coach twice each month with the goal of increasing leadership capacity for improving instruction. QVTHS has used the *HSTW* design and the academy structures as opportunities for teachers to work together to analyze and improve classroom practices. The leadership challenge now is to sustain the momentum without overwhelming administrators and teachers.

Continuous Improvement

The school is focused on using data to improve instruction, and each SLC has a data inquiry team. This year, coinciding with the schoolwide emphasis on literacy across the curriculum, each SLC is using one day of common planning time each week to analyze data and focus on literacy across the curriculum. The entire staff participated in a full day of *HSTW* staff development on using data to improve school and classroom practices and will continue this work within each SLC.

Leaders have established a school culture in which teachers believe in students and act in ways that reflect an intensive emphasis on continuous improvement. Teachers' responses on the 2010 *HSTW* Assessment teacher survey substantiate this positive shift. The school dramatically increased the percentages of teachers experiencing an emphasis on key improvement indicators, including the percentage of teachers who reported that teachers and administrators work as a team to improve student achievement and the percentage who reported that teachers use data continuously to evaluate the school's academic and technical programs and activities.

Evidence of Improvement

QVTHS has improved substantially over the past four years, increasing both achievement and graduation rates. (See Table 1.) The school's graduation rate has increased by 15 percentage points — from 58 percent in 2007 to 73 percent in 2010. In the same time period, the state graduation rates increased by five points, from 67 percent to 72 percent. QVTHS had the highest four-year graduation rate of schools in the New York City SLC network. **The school received an “A” rating on the New York City Progress Report for 2009-2010 and gained the most points of any of the high schools in the SLC network on the 2008-2009 Progress Report — an 18-point gain.**

**Table 1:
QVTHS New York City Progress Report Results: 2007 to 2010**

	2006-2007	2007-2008	2008-2009	2009-2010
School Grade	C	B	B	A
Quality Review	---	Proficient	Proficient	Well Developed
Four-Year Graduation Rate	58%	51%	73%	73%
Attendance	82%	84%	84%	<i>Not available</i>

Note: Percentages have been rounded to the nearest whole number.

Source: New York City Department of Education Progress Report, 2007-2010

Student progress accounts for 60 percent of a school's grade on the New York City progress report. Student progress is measured using credit accumulation in ninth and tenth grade, along with the weighted Regents Examination pass rates. English/language arts, mathematics, social studies and science Regents Examination scores are improving at a rate of approximately 2 to 3 percentage points each year, and overall credit accumulation also has increased. In 2009-2010, more than 85 percent of students earned at least 10 credits in the ninth grade, and more than 80 percent earned 10 or more credits in the 10th grade. (See Table 2.) Students are considered on track for graduation if they earn at least 10 credits each year.

**Table 2:
Percentages of Students Who Earned 10 or More Credits in Grades Nine and 10: 2007 to 2010**

	2006-2007	2007-2008	2008-2009	2009-2010
Earned 10+ credits in grade nine	66%	77%	75%	87%
Earned 10+ credits in grade 10	58%	71%	83%	82%

Note: Students who earn at least 10 credits per year are considered on track for graduation. Percentages have been rounded to the nearest whole number.

Source: New York City Department of Education Progress Report, 2007-2010

QVTHS also has shown steady progress on the Regents Examinations. (See Table 3.) New York City reports a weighted Regents pass rate, which is based on students' entering proficiency — as measured by their performance on State Grade 8 subject tests — and is predictive of their likelihood of passing the high school Regents Examinations. These measures evaluate the extent to which high school students meet or exceed expectations. Because the weight that each student contributes is inversely proportional to his or her expectation of passing the exam, schools have a statistical expectation of about 1.00 on these measures.

**Table 3:
Weighted New York Regents Examination Pass Rates by Content Area: 2007 to 2010**

	2006-2007	2007-2008	2008-2009	2009-2010
English	.65	1.01	.95	1.20
Mathematics	.75	1.00	1.09	1.57
Science	.84	.94	1.16	1.17
Global History	.45	.66	.68	1.11

Source: New York City Department of Education Progress Report, 2007-2010

The number of students earning Regents diplomas (passing five Regents Examinations with a score of 65 and above), advanced Regents diplomas (passing eight Regents Examinations with a score of 65 and above), and CTE-endorsed diplomas (passing five Regents Examinations with a score of 65 and above and passing a technical assessment) has increased in the last three years. (Due to changes in the types of Regents diplomas, direct comparisons cannot be made.)

HSTW Assessment data confirm that QVTHS is making progress in improving not only student achievement but also school and classroom practices. Between 2008 and 2010, the school substantially increased the percentage of students reporting that they experienced an emphasis on literacy cross the curriculum, numeracy across the curriculum, academics integrated into CT instruction and quality CT studies. More teachers also reported an intensive emphasis on continuous improvement — an increase from 28 percent in 2008 to 46 percent in 2010.

In 2010, 80 percent of students met the *HSTW* college- and career-readiness goal on the reading test of the *HSTW* Assessment — up from 61 percent in 2008. The school also increased the percentage of students meeting the science goal from 47 percent in 2008 to 60 percent in 2010. Students who meet these goals are likely prepared to pass entry-level employer certification exams or to succeed in postsecondary studies without needing remediation.

Looking Toward the Future

School leaders have set bold goals for the next three years:

- Raise the graduation rate to 80 percent.
- Increase Regents Examination achievement rates by at least two percent each year.
- Have at least 85 percent of students earn certifications or pass technical assessments.
- Increase attendance to 90 percent.

They plan to provide additional resources to implement the existing plan for improvement, following the *HSTW* design and SLC framework. Now that the structural changes to SLCs are in place, the school will continue to focus on improving literacy and rigor of instruction as the primary objectives for improvement.

Stakeholders have continued to use data to define problems and implement actions to address them. Each SLC chooses 30 students to target for intervention. They decide the criteria for choosing the students, such as students in the bottom third of achievement scores, students with disabilities, students who failed a subject on the Regents Examinations, or students who failed more than three classes. The teachers collaborate to plan and implement interventions, assessing effectiveness on an ongoing basis.

According to the principal, the *HSTW* coach has helped the school stay focused on key bold goals. “She has met with the leadership team to jump-start initiatives and provide resources for implementing strategies. Her time is dedicated to us when she is here.”

“Our remarkable gains,” the principal said, “can be attributed to the culture of continuous improvement and collaboration that we have established. Focusing on rigor, literacy, and continued leadership development for administrators and teachers will help us move even further.”

