

# **Quality Review Report**

## **2008-2009**

**Academy for Environmental Science**

**Secondary School**

**Middle School-High School 635**

**410 East 100<sup>th</sup> Street  
New York  
NY 10029**

**Principal: Irma Garceau**

**Dates of review: April 28 - 29, 2009**

**Lead Reviewer: Ronald Feinstein**

## Part 1: The school context

### Information about the school

The Academy for Environmental Science Secondary School is a middle-high school with 604 students from grade 7 through grade 12. The school population comprises 33% Black, 65% Hispanic, and 1% Asian students. The student body includes 7% English language learners and 10% special education students. Boys account for 51% of the students enrolled and girls account for 49%. The average attendance rate for the school year 2007 - 2008 was 85.6%. The school is in receipt of Title 1 funding with 68% eligibility.

### Overall Evaluation

#### **This school is underdeveloped with proficient features.**

The principal of the Academy for Environmental Science Secondary School (AESS) assumed leadership of the school in late August of 2008. Her immediate task was to hire many new teachers, an assistant principal and a new guidance counselor. The school will house its final grade 8 and will transition to high school in fall 2009. The new principal and her energetic cabinet established a college-ready culture and built on the school's established environmental core. The school has two state-of-the-art science labs and a fully functional and operational greenhouse on the roof. Students clearly are enthusiastic about science. This year AESS took the first place award in the City's Envirothon for Manhattan schools, and placed third citywide. The school has re-established strong links to parents and has successfully increased attendance. Now students want to come to school. Improved rates of attendance are an indicator of how students and their families are valuing education more.

A card-swipe system has contributed to the increased attendance rate and an alliance with PACT (Partnering to Assess and Counteract Truancy) works with a targeted group of students. Early on, the principal and her cabinet discovered many students would need to retake the Regents. Analysis of the scholarship report uncovered a large number of students, including seniors, off-track for graduation. Students and families were initially discomfited by the reorganization this precipitated, but by mid-year all stakeholders clearly understood this effort of strategic importance for change and the resulting atmosphere at AESS is college ready and college bound.

The school has acted on several recommendations from the previous Quality Review. In response to student achievement data and credit accumulation, the school made appropriate programming decisions. The school has yet to develop strong systems of action planning with clear monitoring structures for staff to develop their individual work in relation to the school's overall goals. Teachers do not fully understand how to interpret summative and formative data in all core subjects to inform instructional practices and to plan for differentiation to improve student performance. As a result, differentiation of instruction is inconsistent between subjects and this hinders students' progress. Establishing lesson-planning protocols aligns courses to state standards and Regents assessment and at the same time creates a culture of professional expectations and collegiality. Students and staff recognize the improvements the school has made since the beginning of this year. The principal acknowledges the importance of developing closer monitoring strategies as the school continues to challenge itself and improve the learning opportunities for students.

## Part 2: Overview

### What the school does well

- The school works closely with parents and students and includes academic support and individual meetings to encourage good attendance and academic achievement with a focus on future college readiness.
- The staff, students and parents share high expectations for improving student achievement.
- The principal, her cabinet and staff work as a united team to create a calm, respectful and orderly environment for learning to take place.
- The school provides professional development and support for teachers to learn effective teaching methods, and encourages self-evaluation and revision of instructional approaches.
- The cohesive cabinet works to drive the school forward with consistency, sharing the vision with the community to improve student outcomes by refining practice and programs to better meet students' needs as indicated by data.

### What the school needs to improve

- Extend data gathering and analysis practices to all core subjects to provide a complete picture of students' progress across all aspects of the school.
- Refine all goals to include precise measurable outcomes for each interim checkpoint to monitor progress effectively, and share goals more explicitly across the school to reinforce ownership and accountability.
- Promote understanding of and consistency in differentiated instruction based on data so that lesson planning and implementation reflect purposeful groupings where students are challenged, the tasks accommodate different learning styles and questioning extends thinking to maximize student learning.
- Develop, with teachers, goals and plans for their professional growth and the improved achievement of their students that reflect and support attainment of school-wide goals.
- Include measurable outcomes and interim checkpoints in all goals across the school to monitor progress and growth.

## Part 3: Main Findings

### How well the school meets New York City's evaluation criteria

**Quality Statement 1 – Gather Data: School leaders and faculty consistently gather, generate and analyze information on student learning outcomes and use it to understand what each student knows and can do and to monitor the student's progress over time.**

**This area of the school's work is underdeveloped with proficient features.**

This year the principal and her cabinet introduced a course-planning template that assists teachers in knowing and understanding what they will teach. The content for the whole year is described in the template. The school shares this information with parents and students. A detailed analysis of transcripts, pass rate and credit accumulation in the fall uncovered significant inaccuracies and areas of urgent concern that resulted in the immediate reprogramming of most students to be on track for graduation. This necessary rescheduling was initially discomfiting to students and their families, but the ultimate worthiness of the initiative is now understood by all stakeholders and was one of the recurrent themes in discussions with parents, students and staff. Acuity data, teacher made assessments, instructionally targeted periodic assessments and attendance data provide a view of the learning outcomes and needs of groups of students. The use of predictive assessments is a new practice at the high school level, though the school does analyze previously administered Regents questions and writing samples.

The school reviewed Regents exams from prior years and instructors in all disciplines conducted a question-by-question analysis to see which concepts and skills were weakest. The many students scheduled to repeat course-work, especially current seniors, added significance to this practice. The school uses formative data primarily to identify general trends, but this has yet to significantly affect practice, curriculum and achievement. The school put several new systems into place after reviewing mid-year progress, including individual student trackers for grades 9-12 and a customized tracker for students whose grade 8 promotion is in doubt. The school makes good use of a high school data tracking system provided by the school support organization, and teachers have an individual achievement plan (IAP) for each student. The IAP is unique to this school. Since these are subject, not content specific, their usefulness is limited to providing a macro, rather than the micro view necessary for analyzing the learning needs and outcomes of different subgroups identified by the school.

**Quality Statement 2 – Plan and Set Goals: School leaders and faculty consistently use data to understand each student's next learning steps and to set suitably high goals for accelerating each student's learning.**

**This area of the school's work is underdeveloped with proficient features.**

Students and their families articulate a clear change in dynamics and culture regarding high expectations. The attendance rate has significantly improved and students attend classes more regularly now that they understand the impact this has on graduating. There is a vigorous emphasis on graduating with the Regents or Advanced Regents diploma. All students we interviewed stated their desire to go on to college and many

knew where they wanted to attend. Some seniors interviewed were already accepted and enthusiastic about going away to school. Outside the doorways to every classroom, teachers have posted the college pennants from where they graduated. Thus, every staff member has become a college advisor and an advocate for students' future success. The school has instituted a code of conduct and refocused the content of disciplinary conferences to be more holistic, describing specifically what changes students need to make in their behavior as well as the interventions that the school will put in place. The school reinforces the high expectations fundamental to the college-bound message at separate assemblies for the middle school and high school and for parents at evening presentations.

The process by which the school establishes learning goals for each student is a conversation that has just begun. Some teachers are beginning to dialogue on assessments and set priorities, but every teacher visited has a different understanding of interim learning goals and sets these differently, if at all. Goal setting does not yet include precise and measurable outcomes and timelines. Personalized learning through differentiated curriculum is superficial at best. The principal and her cabinet understand the work that must begin to bring a consensus of understanding of this practice school-wide. The administration believes that "Before differentiation can occur, there has to be a viable curriculum that is standards-based and aligned to State assessments." To this end, a curriculum-planning template is now systemic and assists the mapping process leading to accelerated student learning. This administration created all new systems and instituted new processes to develop a Comprehensive Educational Plan, since there was no data to justify the plan inherited. The Comprehensive Educational Plan and the principal's goals are public, displayed on a bulletin board outside the door to the principal's office. Rightfully, the principal began by addressing the quality of daily instruction, jump-starting the minimalism of Regents expectations and instituting the daily lesson-planning template. A weekly professional development meeting has focused this year on collaboratively implementing the lesson planning template. This interdisciplinary initiative has become systemic. Teachers are enthusiastic about the success of this collaborative work and are beginning to do curriculum mapping for next year as well. The principal and her team introduced teachers to personal goal setting. This year the school addressed daily instruction, studied achievement data, planning and developing curriculum, and instruction that is engaging and sought to develop teachers' ownership of their own learning.

**Quality Statement 3 – Develop Coherent Instructional and Organizational Strategies: The school uses rigorous curricula, teaching and organizational decision making to engage students and faculty in meeting all students' learning goals.**

**This area of the school's work is underdeveloped with proficient features.**

The new principal and her cabinet moved swiftly in the fall to introduce systemic initiatives to alter the climate of the school and further support the academic and personal growth of students and staff, including a card-swiped system for official attendance. The school put in place a school-wide code of conduct and explained it to students and their parents in numerous assemblies. In addition, they gave all students a copy of the code and mailed a copy to each home, to be signed and returned. The principal and her team institutionalized staff support with clear expectations for lesson planning, school-wide expectations for college readiness and bell-to-bell instruction. The reviewer noted that all students in hallways carried a pass on a string and students who are late sign in and out of each classroom in a log, which is periodically reviewed by the principal and cabinet. Assemblies also focus on allaying previous misconceptions

regarding credit accumulation and grade requirements, and include strategies for students to help them maintain their focus. Parents receive a newsletter at end of each marking period that is sent by the principal. The middle school award system includes incentives such as bonus cards redeemable towards a grand prize. The guidance counselor reaches out to parents and keeps them informed of student progress. Many students in all grades receive support in the mandatory ninth period extended day focused on credit recovery. Uniquely tailored to each student's needs, the incentive to attend extended day is high since these classes are tailored to each students' needs. Students and teachers are enthusiastic about the transformation of AESS and students commented that they "come to school now because we really want to be here." Despite cuts in the budget, the school expanded extended-day course offerings that have resulted in significant credit gains for students.

The information that teachers gather about students is not systemic or similar across departments. Therefore, techniques and methods that teachers employ to differentiate instruction are superficial. The school undertook a needed mid-year reorganization to introduce systemic strategies to increase student achievement. The principal and her team discovered many under-scheduled classes, which precipitated an immediate review of all scheduling done by the previous administration. Based on the findings, the principal was able to consolidate classrooms, freeing teachers to teach computer-assisted writing classes. Regents preparation classes are formed for students who had passed the class but failed the Regents, and teachers placed into teamed sections. This benefits students, increases the favorable tone of the school and provides needed support for new teachers.

**Quality Statement 4 - Align Capacity Building to Goals: The school aligns its leadership development and structured professional collaboration around meeting the school's goals for accelerating student learning.**

**This area of the school's work is underdeveloped with proficient features.**

The principal and assistant principal visit classrooms formally and informally and complete written evaluations, which are shared with teachers. Solid mentoring support is provided from the school support organization and active feedback is shared with the mentees as well as the principal after conferences and before and after classroom visits. The mentor provides focus on implementing new teaching strategies and developing teachers' skills in questioning strategies along with management and lesson planning which is provided by a mentor. The guidance program is equally attentive to the needs of students and their families. The main thrust of professional development has focused on examining the discrepancy that exists between credit accumulation and Regents pass rate. Professional development provides additional opportunities for teachers to pursue and develop instructional skills and strategies that contribute to teacher effectiveness. The principal understands the need to collaboratively develop goals and plans for professional growth of teachers that will result in improved achievement for students. The examination of classroom lessons and results of summative data drove the focus for these sessions this year. Lesson planning was one of the major initiatives this year and resulted in system-wide utilization of a lesson planner template. Other sessions for staff looked at data analysis and the alignment of instruction to Regents-level work and the state standards. Data gathered from classroom observations was effectively used to assist teachers in creating classroom environments where students developed attitudes and behaviors that are more positive as well as an increase in teaching time. The principal regularly comments that "bell-to-bell instruction is an expectation".

The inquiry team is working effectively with a group of high school students on writing organization. Their collaborative work sets a standard for the school and achievement results for the students are encouraging. Scheduling conflicts made it necessary to change some of the students targeted for this work. The work of the inquiry team is made public as part of their process. This team analyzes school-wide data, communicates their findings and then implements a change strategy with the identified students. School-wide improvement in writing skills was recognized as a priority by the inquiry team. The team developed a writing rubric, which it then shared with all departments.

The school has worked to instill in students the belief system exemplified by College for Every Student. The administration and teachers encourage students to prepare for college by assuming leadership roles in school and the community. Every classroom doorway displays the college pennants where that teacher attended. Thus, every teacher has become a college advisor of sorts. Students have the opportunity to mentor another student or participate in service with New York Cares visiting food pantries and other programs such as Relationship & Youth Prevention (RAPP), which focuses on dating violence and PACT, which focuses on student attendance through outreach, home visits and counseling for students and their families. Students and families are enthusiastic about these opportunities. Since many students have family responsibilities or must work after school, parents hope that the school finds ways to involve students in service opportunities during the school day.

**Quality Statement 5 - Monitor and Revise: The school has structures for monitoring and evaluating each student's progress throughout the year and for flexibly adapting plans and practices to meet its goals for accelerating learning.**

**This area of the school's work is underdeveloped with proficient features.**

The principal and her cabinet assumed leadership shortly before school opened, swiftly reorganized the school and saw an immediate decline in the number of behavior incidents. They articulated a clear instructional mission to ramp up instruction. Students staff and parents have embraced this message. Working together the school community has a clearer understanding of graduation requirements. The scholarship report analysis revealed that course assignments did not benefit students. This resulted in a more equitable reassignment of staff to make better matches with students. Student feedback to this reorganization is very positive. Students were initially perplexed, but they have come to understand benefits to their achievement. In January, parents were surprised to learn that many students would have to retake several Regents. Parents understand the importance of consistent communication regarding students' progress to graduation. They welcome the flow of information and parents interviewed commented that they had not received this kind of information in prior years. The principal has established a culture where teacher-leaders can take ownership of professional development, inter-visitations have become the norm, every teacher view themselves as a college advisor, and every student understands they can be college bound. Teachers have begun training in analyzing class achievement data by marking period, but interim goal setting and timeframes for evaluating success remains a nascent process. While individual teachers maintain logs of completed homework assignments, grades on end-of-unit assessments and teacher-made assessments, none of these practices is school wide and few teachers have a system for setting interim measurable goals or meaningfully differentiating instruction.

## School Quality Criteria 2008-2009

<b>School name: Academy for Environmental Science</b>	Δ	➤	✓	+
<b>Overall QR Score</b>		<b>X</b>		
<b>Quality Statement 1 – Gather Data: School leaders and faculty consistently gather, generate and analyze information on student learning outcomes and use it to understand what each student knows and can do, and to monitor the student’s progress over time.</b>				
<i>To what extent do school leaders and faculty regularly...</i>	Δ	➤	✓	+
1.1 collect and analyze actionable information, including assessment results and attendance data, to provide a complete view of the learning outcomes and needs of individual students and groupings of students?		<b>X</b>		
1.2 focus analysis on the learning outcomes and needs of all sub-groups of students?		<b>X</b>		
1.3 engage in an open exchange of information with students and families about students’ learning needs and outcomes, including assessment results and attendance data?			<b>X</b>	
1.4 design or adapt tools to enable school leaders and teachers to organize and analyze student performance, identify trends and inform instructional and organizational decisions, and to enable students and their families to assess and track each student’s progress?			<b>X</b>	
<b>Overall score for Quality Statement 1</b>		<b>X</b>		
<b>Quality Statement 2 – Plan and Set Goals: School leaders and faculty consistently use data to understand each student’s next learning steps and to set suitably high goals for accelerating each student’s learning.</b>				
<i>To what extent do school leaders and faculty...</i>	Δ	➤	✓	+
2.1 use collaborative and data-informed processes to set measurable, actionable and differentiated learning goals in core subjects for individual students and groupings of students and develop differentiated plans and timeframes for reaching these goals?		<b>X</b>		
2.2 use collaborative and data-informed processes to develop the school’s Comprehensive Educational Plan (CEP)?		<b>X</b>		
2.3 ensure that the achievement of learning goals, and the implementation of plans and timeframes for reaching these goals, is the central focus of school leaders, faculty, students and families?		<b>X</b>		
2.4 communicate high expectations to all students and families, and involve students in developing their learning goals and plans and in taking their next learning steps?		<b>X</b>		
<b>Overall score for Quality Statement 2</b>		<b>X</b>		

### DEFINITIONS

“**Analyze**” or “**analysis**” includes, but is not limited to, comparisons of:

- the current and past outcomes of . . . individual students, administrative groupings and sub-groups of students and the school itself in core subjects;
- the outcomes of different classrooms and sub-groups in the same grades and core subjects; and
- the school’s Progress Report and other outcomes to those of peer/other schools

“**Assessment results**” include student outcomes on summative assessments (e.g., state ELA, math, science and social studies tests, NYSESLAT, Regents Exams, and Performance Based Assessment Tasks) and formative assessments aligned to the school’s curriculum (including Periodic, DY0, and teacher-developed Classroom Assessments).

“**Core subjects**” are ELA, math, science, social studies/history, the arts, foreign language, and physical education/health.

“**Data-informed processes**” include analysis of Progress Report, Quality Review, Learning Environment Survey, Inquiry Team findings, assessment results and attendance data

“**Groupings of students**” include classrooms, grade levels and high school cohorts.

“**Organizational decisions or strategies**” refer to a school’s use of budget and resources, staffing, planning, scheduling, grade structure, departments and teacher teams and other aspects of the school’s structure and organization that can affect student outcomes.

“**Sub-groups of students**” include special education students, English Language Learners, the other NCLB sub-groups, boys, girls, and other groups significant to the school.

<b>Quality Statement 3 – Develop Coherent Instructional and Organizational Strategies: The school uses rigorous curricula, teaching and organizational decision making to engage students and faculty in meeting all students’ learning goals.</b>							
<i>To what extent do ...</i>	△	➤	✓	+			
3.1 school leaders and faculty deliver challenging and engaging curricula in core subjects, including the arts, that are aligned to state standards?		X					
3.2 teachers plan and teach lessons that are differentiated to meet the needs of individual students and student groupings and are designed to enable all students to reach their learning goals?		X					
3.3 school leaders make strategic organizational decisions to support a coherent and rigorous instructional approach that enables students to reach their learning goals?		X					
3.4 school leaders maintain a culture of mutual trust and respect and positive attitudes toward learning that support the academic and personal growth of students and adults?		X					
<b>Overall score for Quality Statement 3</b>		X					
<b>Quality Statement 4 – Align Capacity Building to Goals: The school aligns its leadership development and structured professional collaboration around meeting the school’s goals for accelerating student learning.</b>							
<i>To what extent do school leaders...</i>	△	➤	✓	+			
4.1 use their own observation of classroom teaching and the analysis of student outcomes to implement an explicit, differentiated strategy to improve each teacher’s instruction, with a special focus on new teachers?		X					
4.2 encourage teachers to take part in Inquiry Teams and other structured professional collaborations (informed by the examination of student work, assessment outcomes and their own peer observations) and share in the instructional leadership of the school with the goal of improved student learning?		X					
4.3 provide professional development that encourages teachers to continuously evaluate and revise their classroom practices to improve student outcomes?			X				
4.4 utilize youth development, support services and partnerships with families and outside organizations to accelerate the academic and personal growth of students?			X				
<b>Overall score for Quality Statement 4</b>		X					
<b>Quality Statement 5 – Monitor and Revise: The school has structures for monitoring and evaluating each student’s progress throughout the year and for flexibly adapting plans and practices to meet its goals for accelerating learning.</b>							
<i>To what extent do...</i>	△	➤	✓	+			
5.1 the school’s plans for improving student outcomes and its strategies for improving each teacher’s instructional practices include measurable interim goals and suitable time frames for evaluating success and making adjustments during the year?		X					
5.2 school leaders and faculty use interim checkpoints and data to inform lessons, improve curriculum, differentiate instruction and revise student learning plans throughout the year?		X					
5.3 school leaders use data to regularly evaluate the effectiveness of and modify organizational decisions, structured professional collaborations and teacher improvement strategies?			X				
5.4 school leaders and the school community have a clear vision for the future development of the school and implement procedures and systems to support academic, personal and professional growth?			X				
<b>Overall score for Quality Statement 5</b>		X					
<b>Quality Review Scoring Key</b>							
△	<b>Underdeveloped</b>	➤	<b>Underdeveloped with Proficient Features</b>	✓	<b>Proficient</b>	+	<b>Well Developed</b>