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# horace

22.2 SPRING 2006 CLASSROOM PRACTICE

## Teaching and Learning Essential Literacy Skills: CES Teacher Voices

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Implementing Cross-Curricular Literacy Strategies in a Democratic School

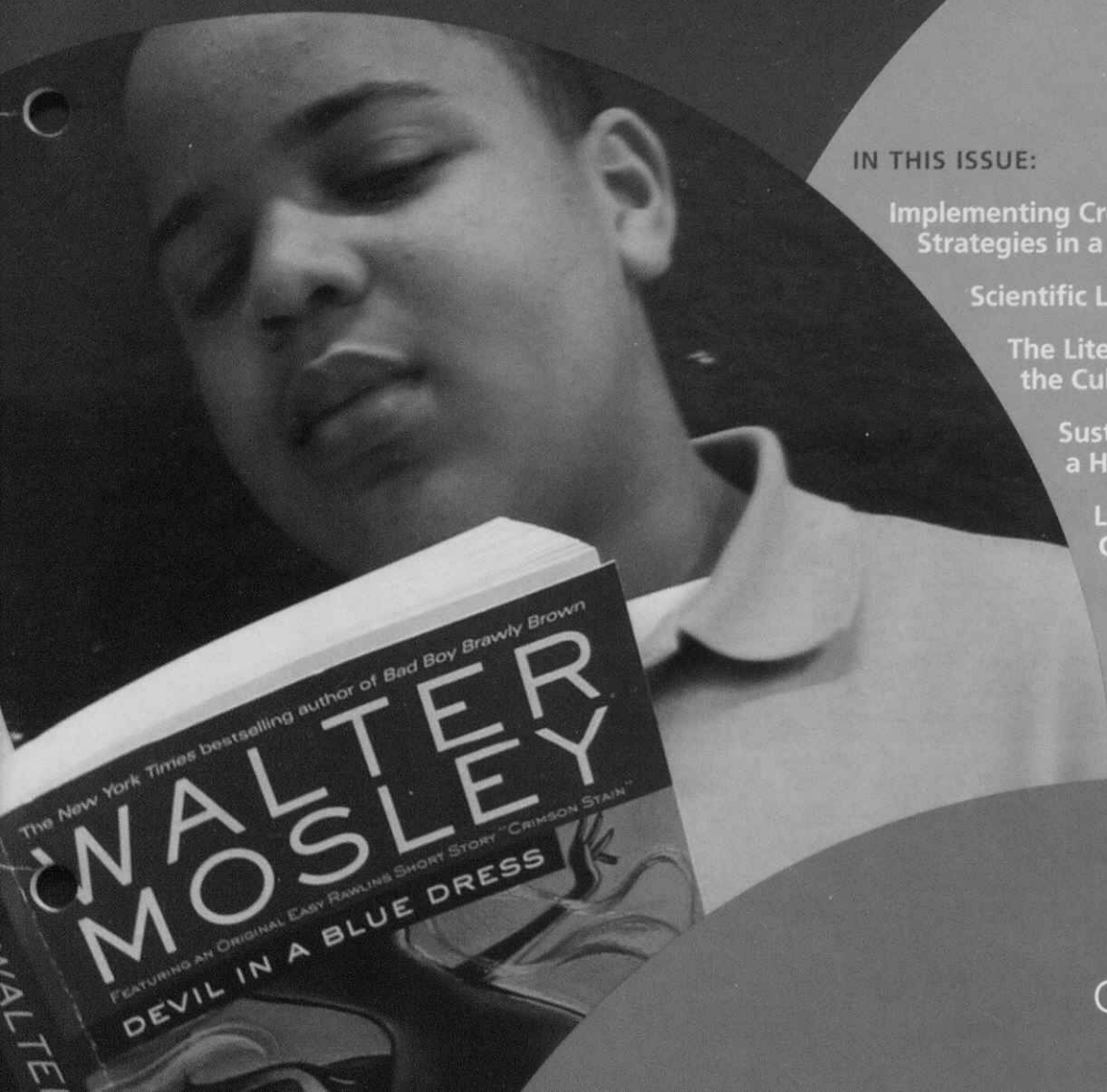
Scientific Literacy through Inquiry

The Literacy You Get Is Equal to the Culture You Create

Sustained Silent Reading As a High School Practice

Literacy and Democracy Go Hand in Hand

Democratically Led Professional Development for Schoolwide Literacy Improvement



CESPublications



An essential component of this project is its ability to cater to a differentiated classroom. We have inclusion classrooms, and our students come to us with a wide range of skills. For example, we have students who are completely independent workers. We have other students that need to be guided each step of the way and who receive extra services and modifications for emotional or academic reasons, and, of course, many are in between. Our students' families run the full range of socio-economic status and we enjoy a strong diversity of ethnicities as well. Fortunately, this project allows all students to engage at their most comfortable level. Most students are willing and excited to get into the darkroom and develop those negatives! The project has opportunities for hands-on work, journal writing, discussion with peers over data analysis, and construction of a camera of one's own. Thus, there is strong student ownership of the process, and with this kind of instant "buy-in," motivation is rarely an issue when teaching this project.

The Pinhole Camera Project contains all the twists and turns of a real science expedition. Students get frustrated because they have proven that their hypothesis is incorrect. Students get excited when, after 20 trials, they finally discover the variable that drives the functionality of their camera. We share their joy as we examine their first clear photo together. Between the writing and conversations, students see that science is not so cut and dried; it's a discipline of subtlety and finesse. The small meetings are critical in helping each other think and refine their experiments. The writing and documents are helpful in referring back to previous errors to drive new ideas. Most importantly, students see a scientific problem as a complex entity that involves multiple variables. In order to solve the problem, they need to conduct experiments and examine data with discipline and criticism.

This project has continued beyond the scope of the class time dedicated to its completion. Some students sign up for photography classes in School of the Future's after-school program. Others take on the work of turning this initial work into an Exhibition, a large project submitted to a committee for evaluation, much like a college thesis. Students must also present orally to the committee should the student earn a satisfactory score on the written part. Students need four of these Exhibitions to graduate from our school and one must be in science. As each year passes, more and more students choose this project for enhancement. They enjoy the work and the satisfaction of manipulating variables to achieve a desired result. Students even have turned their qualitative data into numerical results to examine their work on a different level. The Pinhole Camera Project definitely has turned a small-scale class project into a full-blown research expedition.

#### Acknowledgements

The Pinhole Camera Project was developed and supported in conjunction with the Educational Alliance at the School of the Future, the staff at Adorama, and the School of the Future Parents Association.

This Pinhole Camera Project empowers students with the tools and skills required to make meaning of and critically analyze a variety of information. The project design demands that students write and speak about their experiment, enhancing basic literacy. Science literacy is supported as they investigate and find solutions to a problem by skeptically analyzing the situation. Evidence drives their decisions. Since there are numerous variables, students must think over the many alternative solutions available to them. This project gives students a rare view in doing real science: they are able to experience the cyclical nature of a scientific endeavor. This project teaches them to not expect final answers in science, that finding answers is not always straightforward or easy and that sometimes, errors may lead the way to understanding. It is an excellent experience for students to have early in their high school career and it is one we can refer to over and over as they struggle with investigations in science or other classes.

Our science department works to spiral scientific literacy skills throughout from ninth through twelfth grade. The general and scientific literacy tools students taste in the Pinhole Camera Project are repeated throughout the year and beyond with increasing difficulty in context. Therefore, our students graduate as experienced problem solvers and thinkers. We hope our pride and excitement about the Pinhole Camera Project will prompt you to try it with your students. ●

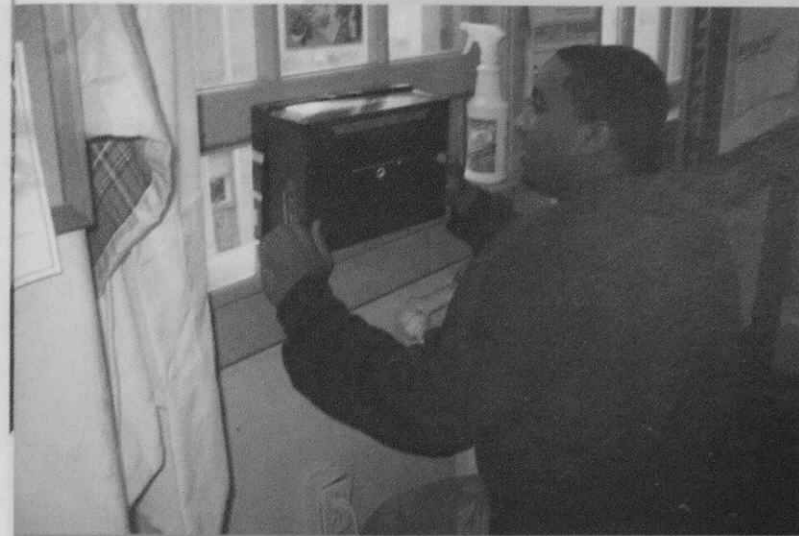
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**Allison Godshall** has been teaching high school science at School of the Future for eleven years. She currently teaches one elective environmental science course using the roof garden she developed with students and is a Math and Science Coach for new staff to the school.

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**Annie Chien** has been a science teacher at School of the Future for seven years. Annie loves science as a hobby and is a life long science student herself. Visit her class website at [www.mschien.com](http://www.mschien.com).

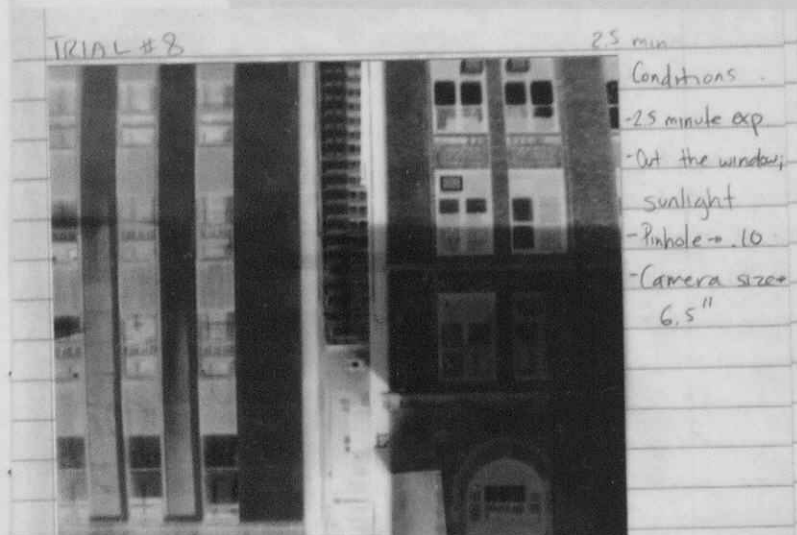
## School of the Future's Pinhole Camera Project



*Brandon takes a photo with his shoebox pinhole camera*



*Students stand in front of the darkroom they constructed using heavy-duty trash bags*



*A page from a student's camera journal*



*A sample layout of how the trays are organized in the darkroom*



# The Literacy You Get Is Equal to the Culture You Create

by Ann Cook and Phyllis Tashlik

Why do you need to read another article on literacy? Haven't we been through all this before—in one corner, the argument to structure students' reading and writing strictly, and in the other, the argument to let students read and write what they want.

So why do we feel compelled to add our voices to this cacophony that is the discussion on literacy? A large part of our compulsion comes from what we are witnessing in schools and school systems as they "manage" literacy issues: the MBAing of the public schools, with a focus on "amping up systems," going "to scale," moving kids into specific slots in that system, and tracking more and more increments of data as students ascend or, possibly, descend on bar graphs.

## The Quantification of Literacy

The most commonly discussed aspect of literacy, reading, falls neatly into this scheme since the proliferation of standardized tests offers a tangible means of producing quantitative measurement and more bar graphs.

This attitude (some say "vision") now influences the way the public discusses literacy and provides policy makers and administrators with the ballast they need to launch many a literacy program. Under such a quantitative approach, reading itself is disaggregated into discrete skills, and this shapes the culture of schools. Teachers, students, parents, and supervisors all acclimate and think of this approach to reading as the way "it's supposed to be." This quantitative approach is pervasive, and it defines the criteria for judging students, teachers and schools. Most disturbingly, it also shapes the scope and content of the curriculum.



No classroom is immune. Teachers begin to choose reading materials based not on literary or historical value but for the opportunity to teach "skills" like *inference* or *main idea* or *critical thinking*. Not that we don't need students who can infer or think critically (though we can't recall a single teenager who didn't know how to criticize), but all too often the skills are attacked in a literary void, as if literature itself doesn't challenge us (both students and teachers) to infer and think critically. Any serious discussion about a book's meaning, relevance, and ambiguities involves questions of inference and requires critical thinking, character analysis, and understanding of theme. Those aren't skills that exist as entities separate and distinct from meaning and content. Instead of aiming to develop a love for literature, a passion for reading, a desire to share a good book with others, the goal becomes enough competence in a discrete skill so that students can answer correctly a multiple choice question on a reading test.

The inclusion of essay writing on the SAT as well as on state exit exams doesn't mean that tests are now broader in their goals, though of course the addition of writing at least means that writing will be part

## Urban Academy Facts

A CES Mentor School, Urban Academy is a New York City urban public school serving 125 students in 9-12th grades. For additional information, visit Urban Academy at CES ChangeLab.

[www.ceschangelab.org](http://www.ceschangelab.org)

of every school's curriculum. The truth is that the writing for these tests is formulaic; there's an accepted pattern and rubric that determine the expectations and grading system. Although student voice is something that everyone says they value, in reality the essays on standardized tests are about following directions, keeping the sentence structure straight, and not making any waves with a shocking opinion. (On a New York State writing test, a student once wrote that his favorite place was a saloon; since he was below age, his essay was judged as fiction, not non-fiction as requested, and he received a zero for his effort. He later won first prize in a national writing contest.)

It's curious that this skill approach to literacy has little to do with speaking and listening, as if reading and writing have nothing to do with voice and speech. This, despite the fact that many states, like New York, include both speaking and listening in their listing of standards. Attempts to include them in a quantitative measurement defy credibility. New York, for example, requires teachers to read aloud a long non-fiction passage on anything from the Suzuki method of teaching violin to vaudeville to an "inspirational" speech by a football coach, and then have students parrot back in an essay what the teacher just read. Speaking, thank goodness, has not yet received the test makers' attention (apparently, students still should be seen and not heard).

So, we're knee deep in a system where data accumulate and are supposed to provide us with an accurate assessment of a student, a cohort, a school, a teacher, a principal, a district, a superintendent.

Really? Is this a safety net that's being devised? Only people who don't work with children in the classroom could come to such a conclusion.

### The Inadequacies of Testing

If testing were the answer to the problem of literacy, our students would be superstars by now. They have, after all, been tested every year since third grade and in many systems even earlier. New York City zealously has decided to start testing in kindergarten and require "interim testing" for all grades K-12 every six to eight weeks.

Is this the best we can offer our students? Is reading thoughtfully the same as scoring high on a standardized test? Don't most teachers know more about their students' reading ability than is revealed by test scores? In other professions like medicine, engineering or architecture, practical clinical experience in the field is highly valued. But in education, the opinion and knowledge of the professional—the teacher—is marginalized.

What we have noticed in the years of working with New York City high school students is that most *can* read. But they *won't*. They've already mastered the basic task of "decoding," but they haven't found a good reason to keep at it. They've stopped reading for pleasure or for school assignments. They lack fluency and confidence and avoid reading whenever possible.

Eight years of testing in elementary and middle school has most certainly not produced a generation of readers. Reading, like learning an instrument or riding a bike or throwing a ball, is a skill that develops from practice. However, because students so often experience "reading" as a steady diet of fractured reading passages and continuous test prep, they come to think they've mastered it and resist more inquiry-based approaches to reading literature or history or science. From their point of view, "Been there, done that."

Thinking that what we need is *more* testing to get students to work or become lifelong readers defies common sense. In New York State, since the institution of the regime of its five high-stakes Regents exams, the graduation rate has actually decreased. Few teachers report that the last eight years of increased test taking have produced more enthusiastic or competent readers. Indeed, as Hazel Haley, a veteran teacher from Florida's Lakeland High School put it on National Public Radio's *Morning Edition*, it's the reverse. The biggest change she's seen in her 69 years of teaching, lamented Ms. Haley, is the distinct lack of interest in learning among today's teenagers. "No longer are they remotely interested in acquiring a body of knowledge. Today's young people say, 'I'll learn it for the test and I'll do well on the test. Then I'll flush it.'"

### Coming Up with a Solution

Clearly, teachers know much more about their students than test results reveal. They learn about them through their daily interactions, through short writing assignments and long ones, through discussion in class and informal conversations outside of classes. Small schools, in particular, afford teachers many opportunities to know kids, to share their insights with others on staff, to devise ways to continuously develop structures and courses to respond to their students' needs. As Ted Chittenden, a former research psychologist at ETS, has often remarked, tests yield *indirect* information about kids; teachers have *direct* information about them.

We must come up with some convincing reasons if we want to persuade students to become fully literate. As Orlando Patterson recently wrote in *The New York Times*, for too many students, school and literacy are far from their top concerns. When we emphasize literacy, in effect, we are asking students to exchange their

values and buy into ours, into *our* way of thinking, *our* priorities. We're asking them to trust us, to believe in us. In our most troubled schools, establishing trust is the foundation for later academic success and is no small achievement, especially for high school kids who like to give the appearance of needing no adults.

In such an environment, the imposition of endless testing or mere exercises in reading, as opposed to discussion and serious reading, compounds the failure of the students' earlier schooling. What we need to do instead is to find ways to convince kids that reading has meaning for them, that it has significance that relates to *their* purposes. Our task should be to find the best way to nurture that approach to reading. How can we help these students make the cultural shift so that texts and what they have to say matter to them?

We must do many things *simultaneously*, from carefully choosing books for class discussions; to providing multiple avenues for written self-expression; to creating a print-rich environment; to finding ways to develop meaningful discussions around books, articles, essays, reports, and historical documents; to saturating all discussions with questions about evidence; to nurturing positive student role models so that new students admire older students and begin to say things like, "I want to sound smart like Gio."

### Designing Challenging Courses

Certainly courses are important. Instead of the predictable English 1, 2, or 3, high schools need to rethink curriculum and course offerings so that they appeal to student interest, use challenging texts, include a range of writing assignments, respect student voice, and encourage stimulating discussions that engage students' curiosity.

In response to what they have observed about their students and their attitudes toward reading, the staff at New York City's Urban Academy has developed a series of classes that immerses students in a print-based culture while supporting reluctant readers and challenging more accomplished readers. In each class, staff members ensure that there will be a mix of students with a broad range of skills and attitudes, so that no student ever feels he or she has been labeled and so that those who may be reluctant readers can work alongside those who are eager readers. All classes aim at a high level so that the more skilled student is challenged and the lesser skilled student can still participate in in-depth discussions while receiving help to negotiate texts.

Discussions often reveal a complexity of thought; contrary to those who believe otherwise, even reluctant readers can discuss big ideas, have opinions, and "infer" and "critique" based on evidence. All classes use this model. The discussion gives students a sense

of purpose—they know that to participate in an intelligent way in a class, they must complete and think about the reading in advance.

There is always a range of literature courses for students to choose from—some new, some repeated from earlier semesters. Here are a few examples of courses created by Urban Academy teachers and the course catalogue descriptions intended to make the course offerings seem appealing:

### Indefatigable Volubility (IV)

Feel like a word weakling? Ready for a weekly IV of new words? Determined to take on the challenge of pumping up your vocabulary? Want to impress others with your burgeoning "abs" (abstruse abstractions)? Eager to spread the polysyllabic word and educate the Urban Academy community? If your answer is yes, then you're ready for this course. The timid need not apply.

### Novels

Would you like to read more? Are you having trouble getting started? Are you stumped when it comes to choosing a book? Maybe you have never enjoyed reading novels or have never read a novel you enjoyed. Perhaps you've never completed a novel. **THIS COURSE IS FOR YOU!**

In this course you will:

- Choose what you read
- Decide whether you like it
- Give and take recommendations about what to read from your mates
- Discuss the ideas and issues that can be found in novels
- Learn what you like to read

### Slave Narratives

The legacy of slavery has shed a long and intense shadow on American society. In literature, many writers have attempted to use fiction as a way of expressing the impact the "peculiar institution" has had on the lives of all Americans. In this class we will take a look at some of the works of these writers, with a particular emphasis being placed on the writings of the slaves themselves. The readings will include slave narratives as well as novels and short stories written by Toni Morrison, Mark Twain, Frederick Douglas and others.

Students will be expected to do quite a bit of reading and writing during regularly scheduled in-class labs. There will be at least three papers throughout the semester. On occasion we will go on field trips or look at movies, which will help shed further light on the issues that arise in discussions and in the readings.



Other literature courses that have been offered appear below with an explanation of their purpose:

**Adaptations:** This course builds on teens' interest in film by requiring students to read books that have become the basis of film treatments before viewing the film itself. Over the course of the term, students read numerous works and write critiques of the film adaptations.

**Looking For an Argument?:** An inquiry-based course designed to support student learning in a range of essential skills: debate, note-taking, reading and highlighting, essay writing, a consideration of multiple perspectives, and critiquing.

**Urban Anthology:** Each student produces a collection of short stories, book excerpts, and/or poetry around themes of their choosing. They research and read extensively before making their selections which are then bound in book form with an introduction explaining the theme and selections chosen.

**Kiddy Lit:** A course in children's literature using a range of picture books, fairy tales, and chapter books as well as critiques by Bruno Bettelheim, Herb Kohl and others. While the course provides a way into books for even the weakest reader, the focus is on the message of the stories and whether the selections are suitable for their intended audience.

### Creating Literacy Awareness

In addition to the semester-long courses, Urban Academy tries to find other venues designed to increase student interest in reading, such as:

**Read-a-Book:** At the beginning of each semester, *Read-a-Book* is included as part of an all-school project. Each Urban Academy student participates daily in a 50-minute period devoted to reading novels of choice in small groups led by a faculty member. Initially, students choose their selection after reviewing a wide range of books on display. Occasionally, specific suggestions will be made to specific students. *Read-a-Book* meets for two to three weeks. There are no required papers and no assignment other than to read. Throughout the school there is silence as teachers and students read their selected books. Students are encouraged to take the book with them to read on the subway or at home. If students finish—and many do finish their first novel ever—they visit the book closets and select another.

**Literacy Period:** Once the regular semester schedule begins, one period a week is often given over to a *literacy period*. During this time, students choose one of many activities offered. The choices offered during one term may include Boggle, Crossword Puzzling,

Enjoying the Science Library, Logic Puzzles, Read-a-Book, Read-a-Newspaper, Read-a-Non-Fiction-Article, Read-a-Short-Story, Scrabble, or Spanish Scrabble. From semester to semester, selections vary depending on teacher and student interest. During this period, students may also visit the "Grammar Doctor," a designated teacher who works with students on writing problems encountered on papers.

### Creating a School-Wide Culture

Beyond the formal courses, school communities need to work creatively to create an environment that engages students and supports a culture of literacy within the school community. Here are a few ways Urban Academy tries to create that culture:

**Conversations:** The school holds weekly town meetings sometimes billed as *conversations*, occasions when guest speakers are invited for an informal Q and A discussion. Students are provided with a short reading—often a brief biography of the speaker—and are encouraged to formulate questions in advance.

**Question of the Week:** Posted weekly on a centrally located bulletin board outside the main office, this 22 x 28-inch handmade poster features a quotation or magazine or newspaper article of current interest. Below the article, remaining space is sectioned off into squares. The idea is for kids to read the accompanying article and write a comment. Students have been asked to comment on newspaper articles on such current topics as: Are Men Smarter Than Women? What Places Do You Hope to Visit Someday? What Effect Do You Think Drug Stories Have on Drug Use? Do You Collect Things: What? Why?

**Quotation of the Day:** Each day, a different quotation is posted on a centrally located blackboard and students are encouraged to comment on the quote. Some recent quotes have been:

*When anger rises, think of the consequences.* —Confucius

*Beware the man of a single book.* —Bertrand Russell

*A classic is something that everybody wants to have read and nobody wants to read.* —Mark Twain

*The first casualty of war is truth* —Rudyard Kipling

Because the same space wishes Happy Birthday to both students and staff, both the quotation and the birthday information are noticed, and students will often add their comments to the board.

**Teachers' Book Collections:** Prominently displayed and readily accessible personal libraries are a sort of subliminal "do as I do," "use books as I do." Having students daily seeing adults use books, refer to texts, enjoy and share ideas in print goes a long way to convince kids that a focus on reading is not just window dressing.

**Photo Documentary Projects:** Students are very receptive to the work of their peers. Consequently, bulletin boards up and down Urban Academy's halls display student photo documentary projects on a wide range of topics. Text is provided for each presentation. Some recent titles included Abandoned Spaces, Growing Older, Reflections, Spanish Harlem, NYC Street Art, What NY Means to Me, and Time.

**Student Publications:** Work from courses such as Urban Anthologies produces student publications that can be reproduced and shared. Additionally, copies of duplicated publications are also placed in the school library. This represents another way the school's culture and values are communicated to the student community.

**Newspapers** and popular magazines are displayed in the student lounge for easy access.

**Word games** such as Boggle and Scrabble are available in the student lounge.

In all of these efforts, the goal is intentionally to blur the lines between reading, obtaining information, playing with language, joining in lively discussions and just plain having fun.

Finally, the school's commitment to literacy is reflected in two graduation requirements: the Library Proficiency and the Literature Proficiency.

**The Library Proficiency** must be completed by the time students complete their first semester at Urban Academy. (Most of Urban Academy students are transfers from other high schools). It requires that students demonstrate their ability to complete a series of tasks requiring them to use the city's public reference libraries.

In 2007, Ann Cook and Phyllis Tashlik will publish a book and dvd on literacy as part of the Teacher to Teacher series distributed by Teachers College Press. Other books and dvds in the series include inquiry teaching in history, science, service learning, discussion, and critical thinking skills.

**The Literature Proficiency** requires Urban Academy students to select and read a work of fiction and prepare for a discussion of the work with an external assessor; this is in addition to demonstrating the ability to write a paper demonstrating their competency in comparative literary analysis. The selected book cannot be one previously studied in classes. The discussion takes place with an individual unknown to the student (usually a college faculty member, a

writer or journalist) who examines the student in a focused conversation about the selected work. It is the student's responsibility to prepare questions and passages for discussion in advance. Each student has a staff member who acts as a mentor during the preparation.

### Final Thoughts

We would all prefer quick fixes to the more arduous task of constructing a culture of literacy for our students. Coming up with a simple number or letter grade to describe a student or teacher or school is certainly a lot less complicated than devising a system that considers all the variables that may affect a student's level of literacy. Using a test to evaluate is both quicker and less complicated than staff going through the complexities of getting to know a student well, poring over reams of a student's work, listening closely to what a student has to say in class as well as out of class, maybe meeting with parents or other caretakers, and learning from other teachers how particular students do in other types of classes.

But there's nothing quick or simple about acquiring or nurturing literacy, particularly for teenagers. Policy makers may want results in six weeks; teachers know it can take two years. Administrators want a simple number to gauge how a kid is doing, but teachers know how much a simple number can miss about both that student's strengths and weaknesses.

As professionals, we must speak out at every opportunity about what we are witnessing in the name of "literacy" that is bound to fail. And we must speak out about what we are doing well and what we know best practices to be. ●

### References Cited

"Florida Community Honors Teacher for 69 Years of Service," reported by Robin Sussingham, *Morning Edition*, National Public Radio, May 22, 2006

"A Poverty of the Mind" by Orlando Patterson, *The New York Times*, March 26, 2006

**Ann Cook**, co-director of Urban Academy and co-director of the New York Performance Standards Consortium, has been actively involved in efforts to bring back flexibility to New York State's graduation requirements. Cook has written and spoken widely about the consequences of a high stakes testing policy on teacher professionalism, curriculum, and students, particularly those in high poverty neighborhoods.

**Phyllis Tashlik** taught at Urban Academy for fifteen years and now directs the Center for Inquiry, which provides professional development support for schools in the New York Performance Standards Consortium. Tashlik has written extensively about literacy issues and is the editor of books of student writing, *Active Voices II* (with James Moffett) and *Hispanic, Female and Young*.



*Paper Clips*, produced by the Johnson Group in association with Ergo Entertainment (2-disc Special Edition, \$24.99; Educational Edition, \$79.99) reviewed by Eva A. Frank



Given the current worldwide political climate, teachers more than ever feel the need to teach tolerance, compassion, and understanding. While there is an abundance of curriculum available for teachers on these topics, educators want to make sure their students "experience" these topics in a positive and substantive way.

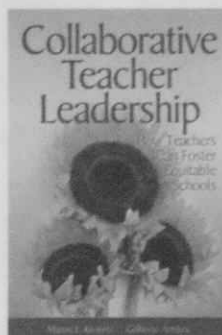
The documentary *Paper Clips*, released in 2004, portrays the attempt of two teachers and a principal to create a substantive unit about diversity and tolerance for a class of middle schoolers in a rural Tennessee town of 1,600. While the town is virtually 100% Protestant, the teachers chose the Holocaust as the catalyst for the unit. Early in the unit, through research, the students discover that the paper clip was worn by Norwegians as a symbol of defiance against Hitler. Unable to comprehend the magnitude of six million Jews killed in the Holocaust—really, unable to comprehend the magnitude of six million at all—but understanding that they learn best by "doing," the students set out to collect six million paper clips. What follows from the first class of middle schoolers in 1998 is appropriately captured by the film's tagline "It began as a lesson about prejudice... what happened next was a miracle."

I watched the film twice. One viewing was through the teacher lens, knowing and understanding the importance of project-based learning, student-as-worker, teacher-as-coach, and real world experiences for children. Secondly, I watched *Paper Clips* as a citizen of a country and a world who wants to believe that our children are being raised and educated to be tolerant, kind, and accepting. This film made me proud to be an educator and part of a profession that on a day-to-day basis tries to do what is best for the social, emotional and intellectual growth of our children. It also made me hopeful about the future of our world. This film is 84 minutes well spent, either for entertainment, inspiration, or a bit of hope. Share the experience with a friend, colleague, or the young people in your life.

*Paper Clips* is widely available for rental or purchase. An educational version with lesson plans and other extra material will be available summer 2006 at [www.paperclipsstore.com](http://www.paperclipsstore.com).

Eva A. Frank is the director of CES National's EssentialVisions DVD project.

*Collaborative Teacher Leadership: How Teachers Can Foster Equitable Schools*, by Martin L. Krovetz and Gilberto Arriaza (Corwin Press, 216 pages, \$29.95) reviewed by Jill Davidson



While *Collaborative Teacher Leadership* would be a benefit to most schools and school systems that seek ways to improve and institutionalize distributed leadership practices, it seems a particularly good fit for schools that are already incorporating the Common Principles. Since co-authors Martin Krovetz and Gilberto Arriaza also co-direct

LEAD, a CES affiliate center located in San Jose, California, they come to the subject of teacher leadership from a very "CES" point of view. So you're likely already acclimated to many of the ideas that the authors suggest; you know the terrain of collaborative professional development and community, critical friends practices, autonomy, mentoring, creating habits of mind that alter educational destinies, cycles of inquiry and collaborative action research, developing practices such as personalization that foster equity amidst diversity, and using data wisely. *Collaborative Teacher Leadership* demonstrates what can happen when all of these practices are applied in the quest for equitable, high performing, and caring schools.

Krovetz and Arriaza also teach at San Jose State University, focusing their attention on the Master's in Collaborative Leadership program, which for nine years has worked with educators seeking to strengthen their skills at teacher leaders. Much of *Collaborative Teacher Leadership* is in these teachers' words; the text features substantial excerpts from the reflective writing of over five dozen teacher leaders that demonstrates not only what practices constitute collaborative leadership in schools, but how it feels to change a school's culture, one's own role, and one's relationships within the school community.

The book is gratifyingly well organized, with focusing prompts, reflective questions throughout the text, and essential questions and resources. This structure provides sturdy support for school-based leadership teams to do the work of building the capacity for collaborative leadership for equity. Krovetz and Arriaza preserve their role as teachers and guides, weaving the experiences told in teachers' voices in a fabric of wisdom, research, and warm inspiration that makes *Collaborative Teacher Leadership* coherent even with its many voices and perspectives. They, and the many contributing educators, will make you feel that you can build the capacity to create the conditions for equitable, personalized, and powerful teaching and learning.

# Fun, Easy, and Effective: Sustained Silent Reading As a High School Practice

by Kevin Perks

Recently I gave a tour of Noble High School (NHS) to a visiting teacher. A large rural high school in southern Maine, NHS is divided into three schools-within-a-school called academies. Each academy consists of multiple grade-level small learning communities called teams. As we began walking through the hallways towards one of the learning communities, my visitor turned to me.

"I haven't seen a student yet," he said. "Where are they all? In fact, this place is silent. Is anyone here?"

"Let me show you," I replied. "Do you have something with you to read?" I asked. He nodded.

We entered a tenth grade team. Throughout the large carpeted room, which was the center of this learning community, thirty students sprawled out in chairs, on the floor, at the computer tables, and in corners. A few teachers were mixed in as well. Even with the large number of individuals the room was silent. Everyone was reading.

As the visitor and I sat down to read, he stared at me with a half-smile of incredulity. "This goes on every day?" he whispered.

I smiled back. "Welcome to SSR," I said.

## What is SSR?

SSR is an acronym for Sustained Silent Reading. First developed over thirty years ago by Lyman Hunt at the University of Vermont, SSR has become a common practice in classrooms. SSR occurs most frequently when a teacher allots a specific amount of time once a week for students to read self

selected texts. Some teachers go further and build SSR into every school day. Less frequently, SSR is implemented as a whole-school practice. SSR occurs often in elementary and middle school settings, though high schools are beginning to embrace this practice.

As Janice Pilgreen writes in *The SSR Handbook: How to Organize and Manage a Sustained Silent Reading Program*, SSR programs, when implemented effectively, can play a significant role in increasing reading engagement and reading achievement, and can therefore address a tremendous challenge. Research shows that the literacy performance of students at all levels across the nation has not improved over the past three decades. In fact, at the high school level, it has declined. Research also documents that by sixth grade most students are not motivated to read for

pleasure. For many students this decrease in motivation continues or worsens during high school. In order to become engaged, students need time and opportunity to develop effective habits of reading for pleasure. SSR provides this.

SSR has a long history of demonstrated success. As Stephen D. Krashen writes in *The Power of Reading*:

## Noble High School Facts

Noble High School is a rural public school serving 1,115 students in 9-12th grades. Noble High School is a regional high school, drawing students from several area towns in southern Maine.



What the research tells me [about SSR] is that when children or less literate adults start reading for pleasure... good things will happen. Their reading comprehension will improve, and they will find difficult, academic-style texts easier to read. Their writing style will improve, and they will be better able to write prose in a style that is acceptable to schools, business, and the scientific community. Their vocabulary will improve, and their spelling and control of grammar will improve.

The reasons these gains occur make sense. In general, the more students read, the more exposure they have to unfamiliar vocabulary and content knowledge. The more students know and understand, the better they do in school. Many studies show that individuals who read more achieve at higher levels. However, it is important to point out that while SSR will not address all literacy issues, a whole-school sustained silent reading program can play an essential role in a high school's literacy program.

### Components of Successful SSR Programs

Successful SSR programs typically have key features in common. In *The SSR Handbook*, Pilgreen identifies eight factors for a "stacked for success program." These factors are:

- Access: ensuring students have access to a wide range of reading materials
- Appeal: tapping into students' reading interests and letting them choose their own materials
- Environment: providing a comfortable atmosphere in which to read
- Encouragement: implementing various strategies to support students in developing effective reading habits
- Non-accountability: making sure not to attach work to reading that takes place in SSR
- Distributed time to read: creating opportunities to read on a regular basis
- Follow-up activities: establishing activities that occur after SSR to allow students to share what they are reading with others
- Staff training: supporting staff in the rationale for SSR as well as best practices for effective implementation

While not all of these factors are required in order to develop a strong SSR program, most need to be in place. Four factors essential for success are 1) allowing students to choose their own reading, 2) ensuring that teachers model by reading with students, 3) not assigning work, and 4) making sure students can find interesting things to read.

### SSR at Noble High School

In 2004, results from a self-study of literacy at Noble High School indicated a school culture of literacy that did not embrace reading. In addition, according to a student survey, many students identified themselves as non-readers, many rarely read outside of the classroom, and only a small percentage of students regularly used the school library. In order to change the school culture of non-reading, NHS followed one of the recommendations from the self-study and created a school-wide sustained silent reading (SSR) program to be implemented at the start of the school year in 2005.

### Noble's Self Study in Literacy

In 2004, Noble High School contracted with the Center for Resource Management, Inc. (CRM) to conduct a literacy audit of the entire high school. This audit analyzed three sources of data to assess how well the school supported the literacy development of students. First, the reading comprehension ability of all students was assessed through the Scholastic Reading Inventory (SRI). Next, all staff took a comprehensive survey designed by CRM to assess teacher knowledge of content-area literacy strategies. Finally, NHS created a literacy team to determine and describe the various supports and resources available to support literacy. CRM analyzed all of this data and provided NHS with a comprehensive report with recommendations for literacy form. Foremost among these was to hire a full-time literacy coach and to develop an SSR program. This audit served as a catalyst that spurred literacy reform at NHS of which the SSR program is an integral part.

A great deal of planning went into designing the SSR program at Noble. This process began with the literacy coach conducting a comprehensive review of literature and research on SSR. After this review, we allotted a year to design the program, pilot it, and train staff in how to implement SSR. Three teams piloted a version of SSR that occurred once a week. These pilots were so successful that teachers requested time be devoted to SSR every day. Based on this request, an SSR block was built into the whole school schedule. Within this revised schedule, students and staff engage in free voluntary reading every day for 25 minutes. Very few restrictions are placed on what students can read during SSR, and work is not assigned to any of the reading. We debated whether or not to grade participation, but eventually the school council decided that assessing participation with a pass/fail grade would send the message that SSR was a valued part of the school day. In addition to receiving a grade, students also earn one quarter of a credit each year for SSR that can be used towards graduation.



# The Coalition of Essential Schools: Common Principles



## The Coalition of Essential Schools

Imagine schools where intellectual excitement animates every student's face, teachers work together to improve their craft, and all students thrive and excel. For over twenty years, the Coalition of Essential Schools (CES) has been at the forefront of making this vision a reality. Guided by a set of Common Principles, CES strives to create and sustain personalize, equitable, and intellectually challenging schools.

The CES network includes hundreds of schools and 22 Affiliate Centers. Diverse in size, population, and programmatic emphasis, Essential schools serve students from kindergarten through high school in urban, suburban, and rural communities.

Essential schools share the Common Principles, a set of beliefs about the purpose and practice of schooling. Reflecting the wisdom of thousands of educators, the ten Common Principles inspire schools to examine their priorities and design effective structures and instructional practices.

CES was founded in 1984 by Theodore R.Sizer and is headquartered in Oakland, California. Please visit our website at [www.essentialschools.org](http://www.essentialschools.org) for more about CES's programs, services, and resources.

## Horace

CES publishes its journal *Horace* quarterly. Combining research with hands-on resources, *Horace* showcases Essential schools that implement the ten Common Principles in their structures, practices, and habits. Within four focus areas—school design, classroom practice, leadership, and community connections—*Horace* explores specific questions and challenges that face all schools in the CES network.

Subscriptions to *Horace* are a benefit of affiliating with CES National as a regional center, school, or network friend. We invite you to visit the CES website at [www.essentialschools.org](http://www.essentialschools.org) for information on affiliation and to read *Horace* issues from 1988 through the present.

Jill Davidson, editor of *Horace*, welcomes your comments, issue theme and story ideas, and other feedback via email at [jdavidson@essentialschools.org](mailto:jdavidson@essentialschools.org).

**Lewis Cohen**  
Executive Director

**Jill Davidson**  
Publications Director

### Measuring Success

A variety of indicators support the interpretation that SSR has been a success at NHS. Since SSR began, book sign-outs in the library have almost doubled. Over one hundred classroom observations have been conducted in the first year of the SSR program, and results indicate that almost ninety percent of the students are reading on a consistent basis. These are very encouraging signs. In addition, where it was once rare to see students reading outside of class, students and staff can now frequently be found in the library, cafeteria, and even in the hallways reading books. Staff members have also shared numerous anecdotes where they have overheard students talking about books they are reading in SSR. For example, after SSR, one teacher saw a student crying in the hallway. This student had two friends nearby consoling her. As the teacher moved forward to talk to the distraught student she overheard her say, "I just can't stop crying. The end of the book was just so sad!"

Another indicator of SSR's success comes from the teachers themselves. Many teachers who were initially reluctant or skeptical about shortening classes to accommodate an SSR block in the schedule have become the most vocal advocates. Many of these teachers have also shared that SSR is one of the most important changes to take place at Noble in years.

Arguably the most important indicator of success is student achievement. While we do not have any data that demonstrate a direct link between SSR and student achievement, student performance on the Scholastic Reading Inventory is showing greater gains this year than in years past. We are very confident SSR has played a key role in this improvement.

### Is SSR Right for All High Schools?

I believe that every high school across the country should devote time for daily, sustained silent reading at the whole-school level. In other words, every high school should ensure that during a portion of every school day all students are engaged in reading for a sustained period of time at the same time. To support this claim, I pose three questions for readers to consider. These questions ask you to use your own experience and understanding to reflect upon the students in your learning community.

#### *Question 1: Are there many students who struggle with reading or who consider themselves non-readers?*

Most high schools have significant numbers of students who struggle with reading. SSR helps these students develop effective habits of readers. Research has demonstrated that as students navigate through school, their motivation for learning and engagement in reading decline. In addition, increasing reading engagement has been shown to increase reading achievement. When you consider how simple SSR

is to implement and how much training is involved compared to a variety of reading programs that currently exist, implementing SSR just makes sense. As Stephen Krashen notes, a wealth of research has shown the SSR at its worst is just as effective as direct instruction in increasing reading achievement.

It is also important to note that SSR not only supports struggling readers—it supports all readers, therefore functioning as a useful tool for differentiated instruction. Of the students who read at or above grade level, many consider themselves non-readers or unmotivated readers. On top of this, the competition for students' time outside of school from television to sports to hanging out with friends is intense. It is no surprise that many capable readers read very little in their free time.

#### *Question 2: How much time do students have available to read for sustained periods during the school day?*

When I ask this question to content-area teachers, many initially respond that they think students spend a lot of time reading in school. However, when these same teachers are asked to count how many minutes students spend reading in their classrooms, many are surprised to realize that the number of minutes is very small, often only a few minutes each day on average. The reason for this is simple. Many teachers at the high school level feel extreme pressure to cover content. As a result, most reading is assigned outside of school to allow for time to cover needed material in the classroom. This is a very understandable and reasonable choice that many teachers make. However, because of this choice students typically do little reading during school. In fact, because they have so many things competing for their time, there is often very little time for students to enjoy free reading.

#### *Question 3: How much reading do students do at home?*

As discussed above, educators typically agree that a significant number of students do very little free reading at home. However, if teachers habitually expect assigned reading to be completed at home, how much reading for school do students actually do outside of school? When I ask this question of teachers, most state that many students either do not appear to read assigned material at home, or they do so in such a way that they remember very little of what they have read. How many times did you cram reading in the night before a test or discussion? As a result, teachers share that they frequently need to go back and re-teach content that was covered in texts assigned for reading.

In my own experience with educators from high schools across the state of Maine, most have affirmed my contentions above. Many students in our high schools are struggling or non-readers. Many are not provided time to read during school. Many do not

read at home. Thus, many rarely read at all. How can we expect students to become better or more avid readers if they do not read on any consistent basis? How can we expect this when research shows that increasing reading engagement is a critical link in increasing reading achievement? We must provide students with time and adult role models to develop the habits of effective readers, and we cannot expect them to learn these habits only at home. Thus, schools must provide time for sustained reading on a daily basis.

### Addressing Some Concerns

When I share the above arguments with educators they offer two objections. The first is a fear that if a high school begins devoting time every day for sustained reading, classes will need to be shortened. This would mean that there would be even less time to cover the required content in each class. This is true. However, by providing students with opportunities to engage in reading every day, they become better readers. This supports reading in every content area. Prior to implementing SSR block at NHS, many content teachers shared a concern about classes being shortened. Once SSR began at the start of the 2005-2006 school year, those same teachers were the most vocal in protest when, on a few occasions, announcements were read mistakenly during SSR. It did not take long for these teachers to see the importance of SSR in supporting their own instruction. In a matter of a month, SSR became one of the most sacred practices of the school.

The second objection comes from educators who have read some research on sustained silent reading. Some of this research provides examples of schools in which sustained silent reading appeared to have little positive impact on students' attitudes and abilities in reading. However, a comprehensive review of the body of research on SSR overwhelmingly demonstrates the potential of sustained reading programs to improve attitudes and performance in reading. Schools where little gains were seen often implemented programs poorly or expected unreasonable improvement in short period of time. For example, it is not reasonable to expect all high school students that consider themselves to be non-readers to love reading after only a few months.

### Conclusion

A few years ago, as a high school English teacher, I had never heard of sustained silent reading. When a colleague described it to me I thought it was something that made sense only in elementary schools. As I read more about it, I became convinced that SSR had potential in high school. Now that I have seen it in action at NHS, I have no doubts about SSR's powerful impact on the literacy learning of students. In

short, I can boil down three reasons all schools should seriously consider implementing SSR. *It's fun. It's easy. It works.* •

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Kevin Perks, Noble High School's Literacy Coordinator, earned his BA at Boston University, a Masters of Teaching at the University of Chicago, and is currently working on his doctorate at the University of New Hampshire.

The CES Small Schools Project welcomes the following schools to our growing network:

#### Mentor and Emerging Mentor Schools

- Life Learning Academy in San Francisco, California was founded in 1997 and is dedicated to serving a high risk urban student population in grades 9 through 12. Life Learning joins CES as a new mentor school.
- International School of the Americas in San Antonio, Texas seeks to challenge all members of the school community to act at one's fullest potential as a learner, leader, and global citizen. International School of the Americas is an emerging mentor school.
- Greenville Technical Charter High School in Greenville, South Carolina provides equitable opportunities for all students to acquire an education focused on linkages among rigorous academics, technology and careers. Greenville Technical is an emerging mentor school.
- Memphis Middle College High School in Memphis, Tennessee motivates its students to improve their academic performance and self-concept. Middle College is an emerging mentor school.

#### New School Design Teams

- The Academy of Creative Professions in New York City will engage students through collaborative creative projects beginning in fall 2007.
- Urban School of Public Affairs and Service in New York City will serve students who are socio-economically underrepresented in institutions of higher education and in decision-making positions in the body politic starting in fall 2007.
- Urban School for Inquiry in New York City is dedicated to providing all students in grades 9-12 with the preparation needed to pursue engineering or other technology-related careers. USI will open as a CES school in fall 2007.

#### New Schools

- Memphis City Schools in Memphis, Tennessee will open a new small CES school in fall 2006 for at-risk youth that increases student commitment and engagement through leadership development and service learning, strong relationships, and innovative academic support.



# Literacy and Democracy Go Hand in Hand: Teaching and Learning Literacy Skills in a Relevant, Meaningful Context

by Kim Carter

At Monadnock Community Connections School (MC2), mid-year Measures of Academic Progress (MAP) scores were in. 44 students, five teachers, two tutors, and two parents had accepted the community-wide invitation to join a discussion about the results. To clusters of six to seven students and an adult facilitator, I displayed the first chart of scores, showing that 23% improved, 40% stayed the same, and 37% lost ground.

"What do these numbers tell us?" I asked. Each group had five minutes to discuss the question and record their thoughts on chart paper before reporting out.

I showed the next chart, which broke the improved and decreased categories into sub-groups based on the size of the change. Groups again analyzed the meaning of the data before seeing the final set of graphs, displaying the delta in each the three tests: Language Usage, Mathematics, and Reading. The groups discussed two new questions: what are some possible explanations for the data? And what are some possible responses to increase overall student achievement?

In one group, a young man shared his story of blowing off the test, purposefully doing as poorly as the computer would allow without kicking him off. Then he heard that his learning goals for the second half of the year would take into account his scores. He retaken the tests, scoring 50 to 70 points higher in each test area.

In another group, students argued about whether the scores indicated that the school needed more tradi-



Measures of Academic Progress (MAP) is a set of norm-referenced standardized tests that are administered via computer, adjusting question difficulty based on the user's responses to previous questions. See [www.nwea.org](http://www.nwea.org) for more information.

tional English classes in which they'd learn to diagram sentences and "get worksheets on punctuation." Yet another group observed the greatest gains school-wide were in Reading, with one student commenting, "Looks like our reading groups are working."

## Monadnock Community Connections School Facts

Located in southern New Hampshire, MC2 is a suburban public school serving 48 students in 9-12th grades. MC2 is a school of choice serving several towns in the Monadnock Regional School District.

## Democracy and Literacy, Together

MC2's mission statement states the aim of our work: "Empowering each student with the knowledge and skills to use his or her voice effectively and with integrity in co-creating our common public world." Our goal is to blend solid research in learning theory, cognitive theory, and developmental psychology with our commitment and belief in democratic practices. As a First Amendment School, we aim to

be a "laboratory of democratic practice" based on rights, respect, and responsibility, engaging all stakeholders and encouraging our students to take civic action.

The discussion of our mid-year standardized test scores was a perfect opportunity to have students be the subjects of their own education, as opposed to objects who have school done to them. They used the dialogue skills they have been developing to look at the data that supposedly represented their accomplishments.

"Are our test scores public information?" asked one girl who was very active in the Public Achievement group working to improve the public's understanding and acceptance of our school.

"The individual scores are not. The school scores—what you see here—are," I answered.

"What difference does that make?" piped up a young man. "These tests don't have any meaning to me."

"I can't believe I'm going to say this, but they do." A tall boy with his hat on backward grimaced at the fact that he was speaking publicly in favor of something the adults were doing. "Since my reading scores are going to be part of setting my learning goals and helping me graduate, they DO make a difference to me. The teachers use these goals to figure out how to help us learn."

"You can bet the School Board will be looking at these numbers, as well as the public," I said. "But much more importantly these test results drive what we do in the school for each student. If you dropped over 20 points, we've got to give you targeted skill development. We're accountable to each of you. If these numbers are a result of a choice-driven, hands-on, integrated curriculum, we damn well better stop and consider other options!"

"I don't think too many of us took the tests too seriously," said a quiet young woman. Several students' heads nodded in agreement, while others shrugged.

"Yeah, but we still need a better way to take them," grouched another student. "I can't stand sitting still that long."

"Why do we take them? If it's to practice tests, you probably better get used to it," said another student.

"But if it's supposed to be to show what I know, then why not let us take the test the way we work the best?"

### First Amendment Schools: Educating for Freedom and Responsibility

First Amendment Schools are a group of K-12 schools that belong to "a national reform initiative designed to transform how schools teach and practice the rights and responsibilities of citizenship that frame civic life in our democracy." Monadnock Community Connections School is one of 17 current First Amendment Project Schools chosen by a selection committee for having "worked to integrate First Amendment rights and civic responsibilities into the daily lives of their communities." For more on First Amendment Schools visit [www.firstamendmentschools.org](http://www.firstamendmentschools.org).

"I need a stretch break."

"I need to take it in the afternoon, instead of first thing in the morning."

"I want to know what difference it's going to make, anyway." And so the discussion went.

After a final report out, each group's chart papers were posted for the remainder of the week. Students were invited to add comments and questions to the papers before they were collected for a meeting where staff would deliberate, considering suggestions and deciding next steps. The most immediate response to students' suggested actions was to offer after-school tutoring Mondays through Thursdays. Students have been slow to take advantage of this option, but they are beginning to incorporate tutoring as a strategy for meeting their learning goals. Other responses based on suggestions include allowing students to sign up for the time of day they prefer to take the MAP test, and to take a five minute stretch break during the test. During reading group time, students may opt to participate in a test prep group, or they may choose to use the school's online subscription to TestGear, a test prep learning center.

### Heterogeneity and Equity

Our students are diverse, hailing from 14 different towns and representing a range of socioeconomic conditions, motivations, skill sets, personal strengths, and confidence. What they have in common is that they want something different than what the large area high schools offer. Our classes are heterogeneous: all students able to sign up for any class based on interest, resulting in classes with students of mixed age, ability, motivation, and experience. As with any school, some students come to us with an excitement for learning, and others view school as a necessary evil. While any class is going to be heterogenous to

For more on TestGEAR's online preparation programs state standardized tests, visit [www.bridges.com/us/prod/serv/testgear\\_state/index.html](http://www.bridges.com/us/prod/serv/testgear_state/index.html).

some extent, MC2's classes are heterogeneous across a wide range of preparation and other factors, offering a challenge to anyone who has taught tracked levels. Our teachers, however, view their first responsibility as creating learning experiences that will engage every student; when that engagement happens, the differences between ability levels recede. "It's almost like engagement trumps ability," says physics teacher Elizabeth Cardine. Motivation provides the persistence that a teacher can leverage to develop skills.

With students with varied backgrounds coming together from different towns and school experiences, we have turned to resources like Robert J. Marzano's *Building Background Knowledge for Academic Achievement: Research on What Works in Schools* to help us develop tools for building equity through competency. Marzano describes how "the research literature supports one compelling fact: what students *already know* about the content is one of the strongest indicators of how well they will learn new information relative to the content." Experiences like visiting a museum, watching the Discover channel, or reading are all examples of opportunities that contribute to a student's background knowledge. Such learning opportunities are not necessarily a part of the fabric of all of our students' lives, for some simply don't have access to those diverse resources.

As in many public schools, our students cover a spectrum of socioeconomic backgrounds. The free and reduced lunch numbers are not particularly high (13%), but many families are in the "just getting by," struggling to make ends meet. With both parents working and some working two jobs, there's little time for museum visits, or even reading. Some students are regularly out of school, helping to provide child care at home or working late at night. Marzano's review of the research literature clearly indicates that "the influence of family income creates huge discrepancies in academic success." In education, equity is about reducing the predictive value of various factors, including socioeconomic status, on academic success. If we truly believe in creating equal opportunity for each student, we need to find ways to enhance students' academic background knowledge, increasing their experiences of success in the academic arena.

For many families, MC2's structures for family participation provide a supportive environment for them to be active partners in their child's learning. The foundational structure for this involvement is the "EOD" or End of Day. The last twenty minutes of every school day is dedicated time for students to write a summary reflection of what they did, what they learned, and what they need to do next. EODs are sent daily to advisors and parents, who respond with prompts, comments, and questions. The EOD structure is a critical literacy component; students are writing regularly, with feedback, for an immediate and specific purpose. EODs form the basis for other requirements, such as documenting work and writing an autobiography. EODs also involve parents in students' literacy as they increase families' connection to MC2 and to their children's progress.

### Pedagogical Changes to Improve Literacy Skills

Reviewing Marzano's work on direct and indirect approaches to enhancing academic background knowledge, MC2 staff members were encouraged to recognize the structures already in place in school that are examples of direct approaches. Marzano cites two direct approaches: increasing "the variety and depth of out-of-classroom experiences" and "help[ing] students establish mentoring relationship with members of the community." Two foundational components of the MC2 educational design are experiential learning, based on real-world problems and "treks" (field based experiences), and internships, where students are in one-to-one mentor relationships with adults outside the school building.

What we lacked was an intentionally consistent application of the indirect approaches, most notably through direct vocabulary instruction and "the generation of virtual experiences in working memory through wide reading, language interaction, and educational visual media." We read and discussed Marzano's third chapter, "Tapping the Power of Wide Reading and Language Experience," and committed three mornings a week to sustained silent reading. At the same time, teachers began to incorporate direct vocabulary instruction into their classes. This is our first year of targeted skill development for reading and vocabulary, so our implementation is a work in progress. MAP scores will be combined with student feedback and teacher observations to help us monitor our progress and make adjustments. With our next round of results, due in June 2006, we will work with students to identify what's working, what's not, and what needs tweaking. Intentional and targeted professional development focused on research-based literacy fundamentals conspires with our students' desire for empowerment to constantly inform and improve our practices and performance.



Physics teacher Elizabeth Cardine has found direct vocabulary instruction provides an additional tool for engaging students in the content, using the complementary structures of individual vocabulary sheets or cards and a class-developed visual vocabulary web.

"The individual sheets help students bring what they know, and their interpretation, to the content, and also help them solidify it in their heads with the visual creation. On the back, the (design your own) problem illustrating the concept often anchors the material in a creative (and interest driven) example.

In another class, the vocabulary was developed by the students. I had the students develop a list of words that they felt the whole class should know, in order to have discussions later on. These vocab lists were turned into cards that were available for public view during the discussions. The cards emphasize note taking and resource citation (two skills I focused on in this class in particular) but also allow students to have a visual hook as well. We did exercises webbing these cards as a class, to make some important conceptual connections, as well."

//What they have in common is that they want something different...//

Reading for purpose and using language in discussion are two powerful strategies for increasing students' reading and vocabulary skills. Cardine relies on the Harkness Discussion format she first observed at Eagle Rock School and adapted for use at MC2. The Harkness Discussion is student-led, with participants directing their comments at one another and referring to their text(s). The leader is responsible for keeping the discussion moving, involving everyone in the activity, requesting clarification of vocabulary used, and focusing the discussion around the theme or issue found in the text. The teacher's role is to diagram the interactions, visually recording who speaks, when, and how often. "The Harkness Discussion itself is democratic," explains Cardine, "in that it allows space for more voices. One of the most important steps in the format I use requires that the students go over the 'etiquette' for a discussion, and then pick a goal to work on. Many students choose to work on 'joining in the conversation' or 'staying on topic' while others always choose 'not to dominate the conversation.' I have found that when the students vocalize these

goals, the goals become shared by the other students. I have seen students stop themselves to let someone who is targeting participation speak up instead. I have also seen students remind each other (quite respectfully) of their goals to not dominate or to stay on topic. At the end, students either self- or peer-assess, and this has always resulted in a positive response or discussion opportunity, even when the goal was not met."

Cardine's most successful Harkness Discussion to date involved students bringing different readings to the discussion. "Some students felt freer to speak up because they knew no one else had read their book. Students were able to value diversity of thoughts and practices through how they approached the discussion."

### The Central Role of Relevance

This brings us full circle back to the "knowledge and skills to use his or her voice effectively and with integrity." As students develop confidence in their abilities, they are engaging in rich language experiences, using the vocabulary of deliberation and debate, dialogue and discussion. They take their voices into our larger community, widening their "out-of-classroom experiences" and encountering compelling reasons to learn more about the world of which they are a part.

Literacy and democracy go hand in hand. For most of these students, high school is an exercise in frustration, valuing knowledge and skill sets quite different from those students encounter outside school. College isn't even a question, let alone a possibility. It's true that college is not the only path to success, but we have a moral responsibility to not eliminate options before our students have the opportunity to consider them. Our students are discovering they have a wider range of choices than they'd anticipated, learning how to negotiate for change and influence others through informed discussion. They are engaging in reading and language interaction naturally, as tools to help them shape their world. ●

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**Kim Carter** is the Director of Monadnock Community Connections School, a public school choice for high school students in southwestern New Hampshire. She was the 1991 New Hampshire Teacher of the Year and the 1996 New Hampshire Media Educator of the Year. She considers herself a master learner and is always eager to share her love of her craft.

# Democratically Led Professional Development for Schoolwide Literacy Improvement

by Heather Manchester

Since its inception in 1999, Poland Regional High School and Bruce M. Whittier Middle School (PRHS/BWMS) has been at the forefront of school reform. Some of our programs and structures that help our students learn and grow: our students are grouped heterogeneously, we use a co-teaching model to include our special education population in the mainstream, our advisory program reinforces personalization and student success, we have integrated our social studies and English curricula, we have interdisciplinary teams that loop at the ninth and tenth grade levels, and we have a Junior/Senior Integrated Team collaborative learning community.

All of these initiatives go a long way to helping our students to be successful. However, we have struggled with the fact that many of our students have difficulty reading. They were daunted to the point of paralysis by challenging texts, and they didn't read for pleasure. In addition, our scores on major assessments did not seem to reflect our students' abilities.

During an allotted time at faculty meetings, many staff members were already working on identifying problems and developing ways to improve students' literacy. These conversations were fascinating and set the stage for later events. When the faculty decided on the schoolwide goals for the 2005-6 school year, literacy was overwhelmingly an issue for teachers across many content areas.

Later in the summer, our Professional Development Task Force, a group made up of teachers and administrators, met to determine the best course for the year. We devised our mission: "In-house professional development

that improves the learning of all students, prepares educators to understand and appreciate all students, supports excellence in teaching and learning, supports school, [district] U29 and individual initiatives, offers opportunities to engage intellect, honors teacher as learner, and values collaboration."

With this in mind, we decided to channel our energy into a few areas that would benefit the students the most. We came up with a plan with literacy at the center. We agreed to devote part of each faculty meeting to literacy, to establish a Literacy Team, and to take advantage of our half-time Literacy Coach, a new position for the upcoming academic year.

PRHS/BWMS's innovations come from the faculty. Teachers initiate programs to support our mission and vision. They constantly reflect on the work that they do, and are skilled in the classroom. There is a real professional learning community here. In order to think about how to work with such a pool of talent, members of the Literacy Team, including the Literacy Coach, a Humanities teacher, the Librarian, a Math teacher, a middle school English teacher, and the principal partici-

## Poland Regional High School and Bruce M. Whittier Middle School Facts

PRHS/BWMS are rural public schools serving 715 students in 7-12th grades. PRHS/BWMS draw students from several area towns in southern Maine.



pated in *Promising Futures Level II: Adolescent Literacy Summer Academy*, a three-day workshop sponsored by Maine's Department of Education. We learned about energizing faculty members, the power of a group of educators working on a common goal, effective options for professional development, and how administrators could support a literacy initiative. We also spent some time with a school coach to develop an action plan for the year. We went back to PRHS/BWMS with a solid plan for how to continue and expand our literacy initiative.

### Professional Development

We decided that we would use the time allotted to literacy professional development in faculty meetings to teach the staff several effective research-based strategies that they could use to improve students' experience in the classroom. Our first faculty meeting of the year felt very important; it would set the tone for the year. We decided to broach this topic with our faculty by opening with an activity that would be both an icebreaker and a literacy activity. We broke into groups to discuss books we had read over the summer. We took pictures, shared our experiences, and eventually made a big display for the opening of school. When the students entered the school on the first day, the display of teacher reading demonstrated that reading was going to be an important focus for the year.

In this meeting, we also introduced our initiative for the year. We celebrated what our faculty was already doing, shared our school wide plan for literacy, and surveyed the staff about their knowledge of literacy strategies. The most important message of our meeting, as Julie Meltzer of the Center for Resource Management has written: "Literacy is not something extra on the plate, it IS the plate."

This literacy strategy survey was the guiding force for our professional development. From it we learned, for example, that many faculty members were already using literacy strategies like think-pair-share, peer editing, the writing process, and reading response journals. Other literacy strategies, such as **RAFT**, **SQ3R**, **Semantic Feature Analysis**, and the **Fray Model**, were not as widely known. We later collected further data on departmental needs so that we could try to make our workshops as effective as possible. As we analyzed the data, it was evident to us that reading strategies were a good place to start. Many faculty members, particularly in the Humanities Learning Area, had solid reading strategies skills but still wanted to know more. We felt that a focus on active reading in particular would present an opportunity to share strategies that work and also learn new ones.

### Literacy Strategies Defined

Some of the literacy strategies the Poland Regional High School professional learning community has studied and implemented include:

**Think-Pair-Share:** Students think about a question or a statement on their own, compare answers with a partner, then share with the group

**Reading Response Journals:** Students use journals to respond to important passages of text, character actions, interesting writing, plot events, etc.

**RAFT (Role, Audience, Format, Topic):** Students develop their understanding of a concept by writing about in a particular role, for a specific audience, and in a set format about a topic. Example: imagine you are a soldier from WWI. Write a letter to your mother explaining the difficulties of trench warfare.

**SQ3R:** A method of active reading in which the students survey, question, read, recite, and review.

**Semantic Feature Analysis:** This strategy helps students to understand a word's meaning by comparing its features to those words that are in the same category. After completing a semantic feature matrix, students have a visual reminder of how terms are similar or different.

**Fray Model:** A graphic organizer that helps students to understand concepts by studying them in a relational manner. Students analyze a word's essential and nonessential attributes and choose examples and non-examples of the words.

**Anticipation Guides:** Students read a series of broad statements about a text they are about to read and decide whether they agree or disagree with the statements. Then they can compare their own answers with the content of the text.

**KWL:** What I Know about the subject, what I Want to know about the topic, what I Learned about the topic.

**Sequential Roundtable Alphabet:** Using an alphabet chart with boxes, students create an A-Z of the topic they are about to study. The completed chart serves as a prompt for remembering vocabulary words, facts, or events.

**Save the Last Word for Me:** Students highlight or underline five passages from the text that they find interesting. In groups, one person shares one of her/his statements. Each person responds to the statement. Finally, the person who shared the statement gets "the last word," a chance to share why the statement was chosen. Repeat the process for each group member.

**Write Around:** Follow the same procedure as Save the Last Word for Me, but in writing. Each student writes his or her statement and passes it to the next person who responds to it. After each person responds, the author reads the comments. Each student gets an opportunity to respond orally to the writing on her/his sheet.



Over the course of the next few months, our faculty worked on literacy at every full faculty meeting and on workshop days. The pattern for each meeting was similar: celebrate accomplishments of faculty who tried strategies, introduce a new strategy, practice the strategy, reflect on the experience of using the strategy, and finally write down some action steps for using the strategy within our classrooms. After six sessions, the faculty learned strategies to support each phase of the reading process. We introduced strategies like **anticipation guides**, **KWL**, and the **Sequential Roundtable Alphabet** for pre-reading. We approached the “during reading” phase with the **SQ3R** method (Survey, Question, Read, Recite, and Review). Finally, we shared strategies for after the students have read a text. We practiced **Save the Last Word for Me**, **Text-based Discussion**, and **Write Around**. Each faculty member received a packet of materials to take away.

The response to the literacy sessions was generally very positive. Mike Carter, a humanities teacher, said, “The sessions were organized in such a way that I not only received handouts of specific literacy strategies, but had the opportunity to see examples of the strategies in different classrooms and to practice using the strategy myself for use in my own classroom. It was especially helpful to hear how teachers in other subject areas use the strategies, especially since it is nearly impossible to get into all these teachers’ classrooms to observe what they do.”

Many faculty members reported that the strategies were immediately applicable in their classrooms. Pam Rawson, a mathematics teacher, said, “Using Anticipations Guides in Math 4 helped my students to focus on the important information and gave them a purpose for reading.” Principal Bill Doughty even used some of the strategies with the School Board. “I’ve been impressed with how helpful literacy strategies are when working with school committee members and administrators. We’ve used several strategies with the school committee this year and always have better, deeper discussions.”

Eventually, we decided that it was time to differentiate the activities for our faculty. Everyone had a bank of strategies and a common language to use regarding literacy. We decided to offer several choices during the last few faculty meetings. The Literacy Team took another look at the survey data. From this data we decided that faculty wanted more information on vocabulary development, study skills, and building discussion. We also needed to offer different learning opportunities for teachers. Therefore, we gave the faculty several choices for the last few meetings. The first choice was to continue in a similar vein as the other workshops. Teachers could come to a session,

learn a new strategy, talk with other teachers, and take away a packet of materials. Other choices included working with content area colleagues, with a buddy, or on an individual plan. We offered the packet of materials to those groups, but gave them the option to work on strategies.

Differentiating for our faculty was a valuable experience. By offering choice, people had the option to work on integrating the strategies they had learned into their classes, they could learn new strategies, or they could focus on an area of literacy specific to their content areas. We asked that the teachers document their work in Learning Logs, which we collected. These logs were not just for accountability; when the Literacy Team reviewed them, we were able to see what people worked on, what they struggled with, and what they planned to try in their classrooms.

The PRHS/BWMS faculty welcomed this approach to professional development; as Mike Carter said, “As the year went on and a common language and knowledge base was built, it was nice to have more choices at each session. Having the opportunity to choose to work with a large group or a small group, or a fellow colleague gave me flexibility but required me to reflect on where I was in using literacy strategies in order to make the best choice for my own professional development. Often, professional development means a ‘one-size-fits-all’ approach. That was not the case here.” The Learning Logs revealed that many faculty members also benefited this approach.

// I’ve been impressed with how helpful literacy strategies are... //

#### The Literacy Team and the Literacy Coach

This work on literacy was successful, in part, due to the fact that PRHS/BWMS has a Literacy Team, a professional learning community that meets once a month, and a half time Literacy Coach. The literacy team is made up of fourteen teachers from math, science, humanities, special education, visual and performing arts, as well as the school librarian. We developed the Literacy Action Plan at the beginning of the year, we reviewed the data collected from the faculty surveys and Learning Logs, we practiced the strategies before they were introduced to the faculty, and we had a day-long retreat to plan the differenti-

ated sessions. Literacy Teams served as table leaders during the large group sessions and also developed the course proposal for the Strategic Reading class that will be offered next year to students who are below grade level in reading. Our last action this year was to create and implement two literacy surveys: one for faculty to gauge the success of our ongoing professional development, and one for students to ascertain if the professional development impacted their experience in the classroom and also to gather data about their reading habits.

In my job as the Literacy Coach at PRHS/BMWMS, I have been responsible for leading the professional development at faculty meetings, facilitating the Literacy Team, doing research for best practices in literacy, becoming a "strategy expert," working with individual faculty members to integrate literacy into their curriculum, and publishing *The Plate*, a monthly literacy newsletter.

### Where Do We Go from Here?

As the year winds down and thoughts turn to summer, we still have many things to do to finish our literacy initiative for the year. We are in the midst of surveying the students and teachers, so that we can use the data both to evaluate the work we have done and to think about what we are going to do next year. We have one final faculty meeting left, in which we plan to have teachers reflect on the work they have done this year.

Our primary focus for the summer work is to establish a plan for next year. Literacy will probably not be the focus for faculty meetings, so our Literacy Team will need to strategize about how to keep the momentum going. We are sending a team to the Promising Futures Summer Academy to plan for next year.

Also, our action plan stipulates that we create a tool, perhaps a web page or a CD/DVD, to remind teachers of the strategies we worked on this year. We will also analyze data from the two surveys.

Upon reflection, the literacy initiative at PRHS/BMWMS has been very successful. This is evidenced by the informal conversations, feedback from literacy sessions, the willingness of faculty members to learn and implement new strategies, and that two math teachers and the Literacy Coach are working on a proposal for a math and literacy session at next year's CES Fall Forum. Dean of Faculty Angela Atkinson-Duina sums up our work this year very appropriately, saying, "Two things about this initiative have been really powerful: professional development was embedded into our regular meeting time and leadership for the initiative rests within our faculty." •

### References Cited

Meltzer, Julie, "Washington County Adolescent Literacy Project." [www.all4ed.org/events/2003HSCConference/Julie%20Meltzer.ppt](http://www.all4ed.org/events/2003HSCConference/Julie%20Meltzer.ppt)

**Heather Manchester** is a Humanities Teacher and Literacy Coach at Poland Regional High School and Bruce M. Whittier Middle School, where she has taught since 1999. Now in her tenth year of teaching, Manchester is a graduate of Wheaton College and the University of London.

### Web Exclusive!

This issue of *Horace* will be posted to the CES website in September 2006. We invite you to revisit these articles and read new web-only features such as:

- Where to Go for More, *Horace's* resource overview geared particularly for Essential schools
- A web-exclusive article by James Frickey, mathematics teacher at Eagle Rock School in Estes Park, Colorado. Frickey writes about planning and teaching heterogeneously grouped math classes organized around an open-ended problem or a large project that allows for multiple entry points and successful completion points. Discussing curriculum, instruction, and assessment, Frickey focuses both on the philosophy of differentiated mathematics teaching and provides specific examples, ideas, and strategies to make it work in your school.

Look for *Horace* online in September! And visit [www.essentialschools.org/horace](http://www.essentialschools.org/horace) for all past *Horace* issues dating back to 1988.

22.2 SPRING 2006 CLASSROOM PRACTICE

## Teaching and Learning Essential Literacy Skills: CES Teacher Voices

02 Implementing Cross-Curricular Literacy Strategies in a Democratic School by Ben Warner and Sue Collins *Federal Hocking High School, Stewart, Ohio*

06 Scientific Literacy through Inquiry: Practicing Scientific Process through Pinhole Photography by Annie Chien and Allison Godshall *School of the Future, New York City*

10 The Literacy You Get Is Equal to the Culture You Create by Phyllis Tashlik and Ann Cook *Urban Academy, New York City*

15 Review: *Paper Clips*, produced by the Johnson Group in association with Ergo Entertainment, reviewed by Eva Frank

15 Review: *Collaborative Teacher Leadership: How Teachers Can Foster Equitable Schools* by Martin L. Krovetz and Gilberto Arriaza, reviewed by Jill Davidson

16 Fun, Easy, and Effective: Sustained Silent Reading As a High School Practice by Kevin Perks *Noble High School, North Berwick, Maine*

20 Literacy and Democracy Go Hand in Hand: Teaching and Learning Literacy Skills in a Relevant, Meaningful Context by Kim Carter *Monadnock Community Connections School, Keene, New Hampshire*

24 Democratically Led Professional Development for Schoolwide Literacy Improvement by Heather Manchester *Poland Regional High School, Poland, Maine*

28 Go to the Source: More about the Schools and Organizations Featured in This Issue

### Notes on This Issue

The subtitle of this issue of *Horace* is "Teacher Voices," and when you look at the authors listed above, you'll see that the content for this issue has been written almost entirely by CES educators currently in the classroom. As *Horace's* editor, I am delighted and deeply grateful for the hard work that all of these teacher-writers devoted to documenting their experiences of teaching literacy skills while keeping the focus on meaningful, relevant, and challenging curriculum.

In order to make room for these teacher voices, we've added four pages to *Horace*. And since this issue's six articles are so dense with resources, we opted to omit "Where to Go for More," *Horace's* usual resources overview. But it's not gone for good! Look for an expanded version of "Where to Go for More" online when this issue appears on the CES National website in September 2006.

On another note, just to make sure that we're doing our part to supply the nation's schools with future students, during the winter and spring of 2006, four babies have joined the CES National family! Look for Ava Helene Flaxman Purser, daughter of Small Schools Project Co-Director Laura Flaxman; Micah Reed Feldman, son of Research Director Jay Feldman; Mona Luz Medina-Safir, daughter of Small Schools Project Program Associate Manny Medina; and my own son, Henry Theodore Davidson Eberman, in your classrooms in the not-so-distant future. And as always, thank you for being there for them and all children.

Jill Davidson  
Editor, *Horace*



# Go To The Source: More about the Schools and Other Organizations Featured in this Issue

## Schools

**Eagle Rock School & Professional Development Center**  
Post Office Box 1770  
2750 Notaiiah Road  
Estes Park, Colorado 80517  
phone: 970/586-0600  
[www.eaglerockschool.org](http://www.eaglerockschool.org)

**Federal Hocking High School**  
8461 State Route 144  
Stewart, Ohio 45778  
phone: 740/662-6691  
[www.federalhocking.k12.oh.us/hs/fhhs\\_website/index.htm](http://www.federalhocking.k12.oh.us/hs/fhhs_website/index.htm)

**Monadnock Community Connections School**  
40 Avon Street  
Keene, New Hampshire 03431  
phone: 603/352-4333  
[www.mc2school.org](http://www.mc2school.org)

**Noble High School**  
338 Somersworth Road  
North Berwick, Maine 03906  
phone: 207/676-2873  
<http://knight.noble-hs.sad60.k12.me.us>

**Poland Regional High School**  
1457 Maine Street  
Poland, Maine 04274  
phone: 207/998-5400  
[www.poland-hs.u29.k12.me.us](http://www.poland-hs.u29.k12.me.us)

**School of the Future**  
127 East 22nd Street  
New York, New York 10010  
phone: 212/475-8086  
[www.sof.edu](http://www.sof.edu)

**Urban Academy Laboratory High School**  
317 East 67th Street  
New York, New York 10021  
phone: 212/570-5284  
[www.urbanacademy.org](http://www.urbanacademy.org)

## Other Organizations

**First Amendment Schools**  
*Association for Supervision and Curriculum Development*  
1703 N. Beauregard Street  
Alexandria, VA 22311-1714  
or  
*First Amendment Center*  
1101 Wilson Boulevard  
Arlington, VA 22209  
[www.firstamendmentschools.org](http://www.firstamendmentschools.org)

**Promising Futures Summer Academies**  
*The Center for Educational Transformation*  
Maine Department of Education  
23 State House Station  
Augusta, ME 04333-0023  
phone: 207/624-6627  
email: [juanita.deschambault@maine.gov](mailto:juanita.deschambault@maine.gov)  
[www.maine.gov/education/cse/SummerAcademies.htm](http://www.maine.gov/education/cse/SummerAcademies.htm)

**Walloon Institute**  
*Walloon Institute partnered with Heinemann*  
*Professional Development*  
361 Hanover Street  
Portsmouth, NH 03801-3912  
phone: 800/541-2086, ext. 1151  
email: [institutes@heinemann.com](mailto:institutes@heinemann.com)  
[www.walloon.com](http://www.walloon.com)

## Affiliate with CES National

If CES stands for what you believe in—personalized, equitable, intellectually vibrant schools—we invite you to affiliate with CES National. Affiliating with the CES network as a school, organization, or individual gives you a number of benefits, including subscriptions to *Horace* and our newsletter *In Common*, discounted fees and waivers to our annual Fall Forum, and eligibility to apply for research and professional development grants, and more. For more information about CES National Affiliation, visit [www.essentialschools.org](http://www.essentialschools.org)

# CES Announcements

## Save the Date! CES Fall Forum 2006 Many Voices, Common Principles: The Power to Transform

November 2-4, 2006

At the Chicago Marriott Downtown Magnificent Mile

Join educators, students, parents, and other leading thinkers in education for the 20th annual Fall Forum in Chicago, Illinois! This year, we recognize the principles that we hold in common and focus on adding voices to a movement that works to transform schools into high-achieving and equitable places of learning that are connected to their communities.

Visit [www.essentialschools.org](http://www.essentialschools.org) for registration and other information. Online registration begins in mid-August.

## CES Congratulates the Newest Theodore R. Sizer Dissertation Scholars

**Alia Tyner-Mullings**

City University of New York

Dissertation Topic: Crafting success: What alternative school students made of their educations

**Maria Hantzopolous**

Teachers College, Columbia University

Dissertation Topic: Small schools and social justice: The role of small schools in the lives of youth in New York City

The goals of the Theodore R. Sizer Dissertation Scholars Program are: (1) to stimulate research on CES schools and practice; (2) to increase our understanding of the effectiveness of the ten Common Principles and CES practice, and (3) to encourage a new generation of scholars and educational researchers examining the CES philosophy. To find out more about more about this program, please visit [www.essentialschools.org/pub/ces\\_docs/about/org/DSP\\_cfp.html](http://www.essentialschools.org/pub/ces_docs/about/org/DSP_cfp.html). The deadline for the next round of applications is December 1, 2006.

CES EssentialVisions

## See How.

The CES EssentialVisions 3-DVD set brings the Common Principles to life with real stories and tools from today's most successful small schools.

Each DVD captures how the Common Principles have been implemented in secondary school classrooms, illustrating how students engage in their education and teachers develop as professionals.

### Disc1: Classroom Practice

Available from the Coalition of Essential Schools at [www.essentialschools.org](http://www.essentialschools.org).



Coalition of Essential Schools  
1814 Franklin Street, Suite 700  
Oakland, CA 94612  
Tel 510 433 1451  
[www.essentialschools.org](http://www.essentialschools.org)

### Photo Information

Cover: Urban Academy student Jelani Swaby poses for his Read-A-Book poster. Posters with student selections are displayed prominently as students choose titles for the school's bi-annual Read-A-Book event.



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## This Year in Horace

### **22.1 School Design: How Essential Schools Create Prepared, Persistent Students and Citizens**

*Horace* focuses on how the Common Principles guide Essential schools to cultivate the structures, guidance, and support for all students to be ready to be admitted to and persist in college and be ready for citizenship and leadership as adults.

### **22.2 Classroom Practice: Teaching and Learning Essential Literacy Skills: CES Teacher Voices**

*Horace* spotlights the work of Essential school educators skilled in teaching heterogeneous groups while deepening meaning, relevance, and academic challenge for all.

### **22.3 Community Connections: The Impact of Real World Learning on Essential Schools**

*Horace* explores the challenges and value of internships, service learning, community collaborations, independent projects and other non-classroom centered learning opportunities in CES schools.

### **22.4 Leadership: Student Leadership for Essential School Development and Improvement**

Produced in collaboration with CES's Small Schools Project, this student-written issue tells stories about and examines the impact of youth leadership in the CES network.

*The national office of the Coalition of Essential Schools gratefully acknowledges support from the following foundations:*

The Bill and Melinda Gates Foundation and the Annenberg Foundation



# Implementing Cross-Curricular Literacy Strategies in a Democratic School

by Ben Warner and Sue Collins

Federal Hocking High School (FHHS) is in Stewart, Ohio, in the southeastern corner of the state. Considered to be part of Appalachia, the area is a wonderful patchwork of rolling hills and mixed hardwood forest with an abundance of wildlife. It is a beautiful place to live and work. Because the region is sparsely populated, we draw students from a wide area. The Federal Hocking school district is one of the largest in Ohio, over 190 square miles. This means that many of our students ride a bus for an hour each way.

For the most part, students at FHHS divide into two categories. The first category is the children of parents associated with Ohio University in Athens, Ohio. These families are financially stable and, for most, education is a high priority. The other representatives of the school population face economic challenges. Often, their parents did not finish high school; many of these families are in a welfare-unemployment cycle with few opportunities and little incentive to get out. Though their circumstances vary, our kids are wonderful, friendly and (mostly) courteous.

As we're sure you can guess, this dynamic offers some interesting challenges. To deal with these, we are fortunate to have an excellent staff for whom kids are the first priority. We also have the leadership of Dr. George Wood, a very supportive and insightful principal concerned with bettering the entire FHHS educational community.


Over the years, the FHHS faculty has made a variety of changes to our overall program in order to achieve the goal of preparing our students to be better citizens. The most significant changes include:

- Switching to a block schedule so that students have fewer classes per day and can learn the subject matter in more depth
- Starting an advisory program so that students have a family-like unit of peers that they interact with every day through the completion of their senior year and a consistent adult advisor to mentor and act as an advocate for them throughout their high school careers
- Establishing a freshman academy program so that incoming ninth graders have an increased level of guidance to help them adjust to the transition from middle school to high school and to help ensure their academic success
- Initiating a senior projects program so that students can develop and implement a concept that would culminate in a product either for the betterment of themselves or as a service to the community
- Instituting a senior portfolio requirement in which students collect "proofs," which are specific artifacts that support students' achievement in the areas of preparing to be active democratic citizens, becoming life-long learners,

## Federal Hocking High School Facts

A CES Mentor School, School of the Future is a rural public school serving 472 students in 9-12th grades from several area towns in southeastern Ohio. For additional information, visit Federal Hocking High School at CES ChangeLab. [www.ceschangelab.org](http://www.ceschangelab.org)





and readying themselves for career or college choices. For example, proof of democratic citizenship might include registering to vote or being an officer on a school or extracurricular club. Proof of college or career preparedness could include applications to or literature from colleges, the military, or specific career pathways. A short reflective paper discussing how the student has grown accompanies each proof

### National and Local Literacy Concerns

Recently, educators and others have been increasingly aware of the need to improve literacy skills in this country. According to the National Institute for Literacy, more than 20% of adults read at or below a fifth grade level and the National Adult Literacy Survey found that over 40 million Americans ages 16 and older have significant literacy needs. These findings obviously demonstrate that educators have been missing the mark in teaching reading skills at an appropriate level to ensure student success in our society.

Three years ago, in addition to our concerns about the overall literacy climate, we acknowledged our own challenges at FHHS; this prompted the faculty and administration to start planning ways that we could improve literacy skills in our classrooms. We felt that Ohio's mandatory standardized tests are, for the most part, tests of reading. Often the answers to the questions are contained within the wording of the questions. If our students could recognize this, then they could be more successful. Secondly, we wanted our students to be more "thoughtfully literate." In other words, we wanted them to be more analytical in how they read and process the information on a deeper level. Lastly, we saw the literacy initiative as a common denominator for our professional development that would help us to become a more unified staff by giving us a shared foundation on which to build when discussing our varied teaching practices.

### Schoolwide Literacy Integration

"What can we do to help our students become better readers, better writers, and better thinkers?" That was the question that started a whole new movement for us. We wanted to find ways to integrate literacy practices that could work in all of our classrooms so that students would have a sense of familiarity with the literacy methods used regardless of the course in which each was implemented. If we could find methods that would help our students to read across the curriculum, then many of the associated reading problems that we encounter with our students would cease to exist.

### Using Etymology to Enhance Literacy Skills in a Science Classroom

As part of my advanced science classes, I incorporate lessons in etymology (literally meaning "the study of true sense"). This study involves the word roots from Greek and Latin that are commonly used in science. For example, the term "biology" is derived from the Greek "bios" meaning "life" and "logia" meaning "study of," thus, biology is "the study of life."

Students are given a set of word parts consisting of roots, prefixes, and suffixes in Greek and Latin and are asked to make flashcards for each of the terms. Each week they receive a new list of fifteen to twenty words. During the first ten minutes of the period each day, students quiz each other with their flashcards. In addition, I will often have the class sit in a circle and participate in a memory game in which each student is asked to define a term of their own and then remember all of the terms and definitions that were asked in the circle before them. This can get pretty fun as the students compete with each other and laugh at their own mistakes. At the end of the week, I give a quiz composed of ten compound terms drawn from all of the terms that the students have studied up to that point.

Originally, I started to do this because I wanted my students to understand the language of science, but I have come to realize that the implications are more far-reaching than I had originally considered. The real impact of having the students study etymology shows up when they start recognizing and defining words that they have never encountered before, or better yet, terms that they encounter every day without realizing their origins.

Recently, a student who had learned the Greek terms "philos" meaning "loving" and "adelphos" meaning "brother" realized that when joined, they form the city name Philadelphia. Now the city's motto ("the city of brotherly love") has a connective meaning to the name for that student. These students will come into the room excited and proud that they were able to apply what they had learned.

—Ben Warner

The first step in making these changes was to get the best professional development possible to help guide our staff in finding strategies that focused on reading in the content areas. This search for reading experts led us to Harvey (Smokey) Daniels and Steve Zemelman, co-authors of *Subjects Matter, Every Teacher's Guide to Content-Area Reading*. During several in-service days, Smokey, Steve, and their

For more on *Subjects Matter, Every Teacher's Guide to Content-Area Reading* by Harvey Daniels and Steve Zemelman, visit <http://books.heinemann.com/products/E00595.aspx>.

literacy associate Marilyn Bizar walked us through a variety of the strategies that were included in their book. The team then came into our classrooms and demonstrated those same literacy strategies with our students.

With teachers of Spanish, art, mathematics, science, social studies, and English armed with reading strategies, the next step was to work these methods into our curriculum. Although reading strategies are a natural fit into an English course, using these strategies was not an easy task for everyone. Mathematics in particular proved quite a challenge. But with a lot of practice and hard work, the program became a success, even in math class. After a great deal of assistance from the professional development leaders and creative teachers, many new ideas arose and "literacy" became the word at Federal Hocking.

We regret that we didn't establish a baseline of numeric data for later comparison when we started the program. The changes that we have noted are more qualitative in nature. Teachers have reported that students do not complain as much when given a reading assignment. In independent reading situations, students are reading for longer periods of time and are displaying a deeper grasp of the information during discussion. In addition, there has been a significant increase in the Ohio Graduation Test (OGT) scores across the curriculum. These improvements may indicate that our students are having greater success in understanding how the questions are stated. Again, without having a quantitative body of data for comparison, it is difficult to make a direct correlation between the literacy program and the improved OGT scores. The scores do indicate, however, that changes that we have made in general to our pedagogical practices are having positive effects.

The next step of our transition occurred during the second year of our program. We sent a group of teachers to the Walloon Summer Institute; they became the "literacy committee" for the school. In a further effort to promote reading, they proposed that we begin a program of SSR (Silent Sustained Reading) during advisory classes for thirty minutes each Friday. The largest challenge for us in doing this is that many of our students simply did not read books on their own. Video games and television have robbed them

of the enjoyment of reading. We want our students to recognize that by being better readers they will have more control of their futures, a better understanding of their world, and can enjoy the enrichment that reading for reading's sake can provide. We felt that having a time set aside specifically for reading would help to show the students how important we think reading is. We also hoped that, given the opportunity to read, students would find something that would spark their interest and turn them into voluntary readers.

The literacy committee developed a plan and worked to generate the enthusiasm to initiate the SSR movement. We questioned our students to find out what they liked to read or if, in fact, they read at all on their own. We surveyed them to discover what reading materials were available for them at home and what their parents liked to read. After several days of discussion, the students were chomping at the bit to start reading!

Once we started the SSR program, the first half hour on Friday mornings became a sacred time. Everyone reads, all of the students and the entire staff. Even if the students only are reading comic books or maga-

For more on the Walloon Institute, which hosts K-12 teachers, school leaders, and parents for summer institutes in partnership with Heinemann Professional Development, visit <http://www.walloon.com>.

zines, they are reading, and that is what we wanted to see in this initial stage. On more than one occasion, Dr. Wood has observed how quiet the building is during the SSR sessions. At this point, almost everyone takes SSR seriously (of course, there are always a few who fight change). Students will defend their reading time when someone disrupts the atmosphere of SSR, and a great many have invested themselves in books that they are not required to read for a class.

When we saw the progress we were making with literacy strategies, we decided to share what had worked for us so far. In April 2005, we sponsored a CES conference on literacy in which educators from around the country came to observe the successful practices that we had adopted and to participate in strategy sessions similar to those which started us on the road to a more literate school. Continual effort has been made each year to fine-tune our existing literacy strategies, and implement new meaningful strategies. For the third consecutive summer we are sending a delegation of teachers from all disciplines to the



//by being better readers  
they will have more  
control of their futures //

Walloon Summer Institute to continue to gather fresh ideas in literacy for our whole school as well as our individual classrooms.

We have worked hard improve our students reading skills over the last three years. While not everything we have tried has worked as well as we would have liked, what has worked well is that our staff is united in the task of continually improving our art. Because of that solidarity, the literacy movement at FHHS is going strong, and it's going in the right direction. ●

#### References Cited

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**Ben Warner** has taught science at Federal Hocking High School for nine years. He is a native of Montana with a Bachelors degree in Environmental Studies and a MA in Teaching and Learning.

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#### Literacy in the Mathematics Class

Reading strategies were difficult to apply in the mathematics class because it was difficult to find quality literature which was relevant to the concepts being taught. I was constantly searching for ways to integrate articles and books in meaningful ways. Since reading was difficult for the students, I decided to focus on vocabulary. I developed strategies such probable passage, vocabulary tree, and list/group/label to increase their knowledge of math vocabulary. I also used KWL, exit and admit slips, anticipation guides, written conversations, sketching the text, and tableaux to improve their reading skills. These strategies all came from *Subjects Matter*.

After using numerous strategies, the fact that most of my students did not read the textbook on a daily basis emerged as my biggest concern. Many of them were unable to consult the text at all. I then developed TAGs (textbook activity guides) from *Tools for Teaching Content Literacy* by Janet Allen. These activities guided the students through the textbook with a partner.

The students, much to their surprise, were able to understand the content through reading and discussing the text. More students were able to do assigned homework problems on their own. A minimum amount of teacher lecturing occurred and the role of the teacher as coach emerged. The students were able to retain the concepts longer because they discovered them on their own. As a teacher, I was able to clarify details and point out common errors, however; most of the time the students discovered these on their own. As a result of practicing this activity, the students were able to apply it, particularly when they were absent from school. They created their own TAGs without my prompts. They learned to read a math textbook.

As a result of the literacy program at FHHS, my work as a teacher became easier because I was able to place more of the responsibility of learning on the students. My students felt more empowered and they liked math better because they became more successful and increased their self-esteem.

—Sue Collins

**Sue Collins' recommended strategies for literacy improvement in mathematics (and other) classes:**

**probable passage:** students categorize 8 to 15 key words from a passage to be read and write a gist statement

**vocabulary tree:** a graphic tool focusing on linking groups of words or ideas

**list/group/label:** a vocabulary strategy used to cluster words based on things that the words have in common

**KWL:** students list what they know (K), what they want to know (W), and what they have learned (L)

**exit and admit slips:** at the beginning or end of a class, students write note cards indicating an important idea they have learned, questions they have, etc.

**anticipation guides:** a brief set of questions prior to reading

**written conversations:** after reading, pairs of students write short notes back and forth to each other concerning the content of the text

**sketching the text:** students draw simple pictures to help them understand their reading

**tableaux:** dramatic role plays in which students prepare a brief description of a reading, then role play the event

**TAG (text activity guide):** students work in pairs to respond to questions about material they are reading

# Scientific Literacy through Inquiry: Practicing Scientific Process through Pinhole Photography

by Annie Chien and Allison Godshall

What is it like to think and work like a scientist? At School of the Future, students learn to engage in the curriculum as scientists and work within the scientific process of examining a situation, developing a testable question, and formulating a reasonable hypothesis. They practice a cycle of testing and reflection where all data and their organization are crucial to the next steps taken. Written records of data and their analysis are invaluable and are the basis for conversations between peers and the instructor.

Developing scientifically literate students who have mastered these skills is a challenging goal. Students come in thinking that “doing science” is tidy: they believe that it starts with a *purpose* and ends with a *conclusion*. But real science is not so cut and dried. After all, science is a rich discipline that involves a whole range of skills and interdisciplinary concepts woven together. We have developed the Pinhole Camera Project to support student engagement in the scientific process while enhancing literacy skills. The Pinhole Camera Project exposes students to hands-on, inquiry-based activities where the outcome is not predetermined. It empowers students with the tools and skills required to make meaning of and critically analyze a variety of information.

The Pinhole Camera Project, which we have done for the last five years in our ninth grade Integrated Science Curriculum, is driven by scientific inquiry. The task: students build a pinhole camera that produces clear images. After students design and construct their pinhole camera, they test its functionality by taking photos, developing them and examining the results. Without any



background information on photography, students' first photos are usually not successful. They analyze possible causes (pinhole size, light leak, etc.), fix the issue and then retake the image. Therefore the process is as follows:

- Hypothesis: students design and construct a camera and examine possible camera flaws
- Design process: students address the problems
- Data collection: students take and develop the photo
- Results and conclusion: students observe the results to address their hypothesis

Students redesign their experiment repeatedly until they achieve a clear image. Each trial and error must be documented in a lab journal in order for the students to receive fresh photo paper for their next try.

## School of the Future Facts

A CES Mentor School, School of the Future is a New York City urban public school serving 617 students in 6-12th grades. For additional information, visit School of the Future at CES ChangeLab. [www.ceschangelab.org](http://www.ceschangelab.org)

This photography project allows us to capture moments of discovery and redirection in this scientific endeavor as students practice and refine scientific and general literacy skills. Students' Camera Journals are meant to capture all the scientific thinking and critical analysis of their data. We structure class to support students as they document their

thoughts through the process from start to finish. A journal entry template helps learners organize, structure, and document their scientific thinking. In addition, we keep a list that students made of all possible variables involved in the experiment on the board as reference. We find these literacy tools especially useful for students who struggle with writing and organization. Students often use the template to help them guide their thinking. Students who are perplexed with their results refer to the list on the board as a brainstorm tool as well as a springboard for their writing.

The School of the Future pinhole photography project was developed in partnership with the Hall Farm Center for Arts and Education. For more, visit [www.hallfarm.org](http://www.hallfarm.org)

Furthermore, our templates include key scientific process ideas, (i.e. control, independent and dependent variable, etc.) to push students to incorporate and apply these concepts in their thinking and writing. We also found it important to schedule at least five to eight minutes of quiet time in class for structured journal writing. This offers an opportunity for students to reflect on the quality of their own work. The rush during an investigation in a classroom environment can be a distraction for those who need time and quiet to organize their thoughts in writing.

Class and small group discussions are also given structure via a Tuning Protocol. This also allows us to monitor students who are making meaning from their experiences and the data. These group discussions occur three times throughout the project: at the pre-planning phase during the design of their experiments, the analysis phase of their data, and the conclusion phase of their experiment. The Tuning Protocol structures the small group conversations as follows:

- 1 minute: student presents question, hypothesis and pinhole design
- 20 seconds: whole group is silent to reflect on student's design
- 3 minutes: each group member gives positive feedback
- 3 minutes: each group member offers constructive ideas
- 30 seconds: student presenter does a "think out loud" and repeats what was said

To make sure that the small group activity runs smoothly, we model a dialogue using student volunteers. Meanwhile the whole class "fishbowls," sitting silently as observers and charged with identifying three characteristics of a good group participant. At the end of the conversation, the whole class documents "ways of being an ideal contributor" on a poster to help them remind of their roles as collaborative scientists.

Throughout all of these mini-conversations, each student is responsible in maintaining a lab accountability worksheet. The worksheet contains the primary issues and questions that need to be addressed in the conversation. In order to make learners accountable for the conversation, each student must document the comments they offer to each team member. The worksheet is also a great tool to reinforce students' understanding of the vocabulary and concepts of an investigation. It is also a useful tool to help students' conversations focused. The worksheet not only drives students' conversations but helps them make each other accountable for rigorous scientific thinking.

We designed the Pinhole Camera Project so that our students have a meaningful context in which to use general literacy as a tool to help them reach the scientific process goals we set out for them. According to the National Science Education Standards, "Scientific literacy means that a person can ask, find, or determine answers to questions derived from curiosity about everyday experiences. It means that a person has the ability to describe, explain, and predict natural phenomena. Scientific literacy entails being able to read with understanding articles about science in the popular press and to engage in social conversation about the validity of the conclusions." We view scientific literacy as a process skill that's identical to problem solving. A scientifically literate individual is able to investigate and find solutions to a problem by seeing the significance of an issue, making consistent connections, demanding evidence, probing for multiple points of view, and considering alternatives. Our shared view on scientific literacy stems from our commitment to the habits of mind that makes a strong problem solver. And in order for science students to be accountable for their work and communicate their research to their peers, they need to apply the general literacy skills of writing, revising, critical thinking, and speaking.

For more on the National Science Education Standards, visit the National Science Teachers Association website at [www.nsta.org/standards](http://www.nsta.org/standards).