Marshall Memo 73

A Weekly Round-up of Important Ideas and Research in K-12 Education
February 7, 2005

In This Issue:

Quotes of the Week

"The entire school community appeared to be on the same page with regard to what was being taught, what performance expectations were, and where each teacher's focus fit into the broader curriculum of the school. Teaching was part of a larger collaborative effort, not a solitary activity involving individuals who decided on their own what to teach and when to teach it."

Prichard Report on effective Kentucky elementary schools (see item #1)

"Any school in America can do this. You can't bottle it. It may not be the exact same formula, the exact same ingredients, in each place. You have to find your own way. But it can be done."

Marjorie Stealey, principal of a successful Virginia high school (see item #2)

"Their focus on student achievement and their desire not to use any excuses, but to be absolutely focused on making sure all those students meet with success, has been an inspiration to all of us."

Jo Lynne DeMary, Virginia Public Instruction Supt., on Stealey's school (*ibid*.)

"[C]omplacency is not an option."

David Garvin and Michael Roberto (see item #3)

"A girl really good in math! What a freak!"

Cornelia Dean, former *New York Times* science editor (see item #5)

"I put out my little bits and pieces wherever I can. I don't force things. I don't argue with students about it."

Ron Bier, Ohio biology teacher, on teaching about evolution (see item #6)

"The teacher's job is to cause learning, not merely 'teach' what one knows."

Grant Wiggins, "Leading by Design" draft, January 2005

1. Common Factors in High-Poverty Schools with High Achievement

A new study of eight effective Kentucky elementary schools sheds additional light on the factors associated with high achievement in high-poverty schools. Continuing the research tradition begun by George Weber, Ronald Edmonds, and others more than three decades ago, the Kentucky researchers write, "Nearly all the worst-performing schools in Kentucky and across the nation are high-poverty schools. But there are also striking exceptions to the pattern of low income/low performance. There are enough schools that defy the trend to prove that the background of the student body does not have to determine achievement results."

Comparing the high-performing schools to economically and racially similar schools whose student achievement was much lower, the study found that the effective schools shared a number of characteristics, including:

• *Belief* – "Principals held high expectations for faculty and staff, who held high expectations for themselves and the students," said the study. "There was a strong belief that all students could succeed academically and that faculty and staff were capable of making this happen." Teachers did not make an issue of the fact that many of their students lived in poverty: "Disadvantaged students appeared to be treated in fundamentally similar ways as advantaged students."

• *Relationships* – The caring, nurturing atmosphere in each of the schools related closely to high expectations. Respectful relationships were observed among adults, between adults and students, and among students.

• *Academic focus* – All eight schools aligned their curriculum with state standards and clarified the role of every teacher. "The entire school community appeared to be on the same page with regard to what was being taught, what performance expectations were, and where each teacher's focus fit into the broader curriculum of the school. Teaching was part of a larger collaborative effort, not a

solitary activity involving individuals who decided on their own what to teach and when to teach it."

• *Student assessment* – The successful schools cared a lot about how their kids did on Kentucky tests, but school-based formative assessments really drove improvement. Each school had a system for regularly assessing students' progress during the year and planning or improving instruction to meet each student's needs. Teachers regularly analyzed data on individual students and planned appropriate instruction or interventions. One visitor noted, "The glue that held it all together was assessment, from student assessment to how teachers use assessments to evaluate the effectiveness of instruction in meeting individual student needs, and to identify if curriculum gaps were being filled or if there were overlaps." Another visitor remarked, "They teach, they test, they teach, they test." The study reported, "One principal spoke of looking at test data and then calling students by name – she wanted teachers to tell her by name which students in the class were not doing well in a given subject area. They personalized academic achievement. Once they knew who was not doing well on what, they made plans for improving that student's performance."

• *Leadership and decision-making* – Principals in the study varied in age and experience: four were male, four female; four had been principals only 4-5 years, four had led their schools for more than 15 years. Among other things, leaders made efficient use of resources and instructional time. Leadership styles varied from school to school, but all were collaborative leaders who shared decision-making with staff. "The principals of the eight study schools mostly lacked big egos," said the report, "instead channeling their energies toward the vision of academic success for the students in their schools." Two of the study principals did not fit the standard definition of "instructional leader," but researchers noticed that these principals delegated instructional duties to others and got the job done. Overall, it seemed clear that strong leadership was a necessary but not sufficient condition for high student achievement. To be effective, a set of instructional and social-emotional practices needed to be in place.

• *Faculty work ethic and morale* – Teachers and other staff in the successful schools worked very hard to meet their students' academic needs. They also helped families and students find transportation, clothing, health care, and other services, and a number of teachers worked after school and on weekends to provide tutoring, help with portfolios, assessment preparation, and parent programs. They did this work with enthusiasm and dedication; there were no reports of overload or teacher

burnout.

• *Teacher recruitment, hiring, and assignment* – A contributing factor to high morale and overall success was the careful and intentional way in which each school recruited, hired, and supported teachers. Schools used every possible resource and all their ingenuity to attract qualified applicants for vacant positions. When they interviewed candidates, schools looked for a willingness to work with and believe in all students, and when they hired teachers, they deployed them based on where their instructional styles and strengths best fit the school's needs. Finally, schools had ongoing professional development connected to student achievement data.

The Prichard study contained some surprises. Most of the effective schools were mavericks, finding their own way to high student achievement without a lot of support from their districts or the state. The eight schools actually scored lower than the comparison schools in several areas: (a) principals' adherence to the study's definition of instructional leadership; (b) faithful implementation of Kentucky's recommended Comprehensive School Improvement Plan; and (c) use of computers in classrooms. Since comparison schools with much lower student achievement did better on these three criteria, it appears that they were not crucial to success.

How did these eight schools get to be effective? Correlation is not causation, and the Prichard study looked into the change process within each school. Several common threads emerged:

- *Hitting bottom* – Each school reached a low point, which got people mobilized to begin a change effort. The galvanizing event was usually students receiving abysmally low scores on state tests after passage of the Kentucky Education Reform Act (KERA) in 1990.
- *Leadership* – Having a strong principal to galvanize their efforts was critical; each school already had or added a strong principal before it turned around.
- *Changing belief systems* – Principals led a gradual process of turning around low expectations of students.
- *Alignment* – Teachers got on the same page instructionally.
- *Assessment* – Constantly looking at interim assessment data and putting it to work in the classroom was a key part of changing attitudes and student performance.

"Inside the Black Box of High-Performing Schools" by Patricia Kannapel and Stephen Clements, Prichard Committee for Academic Excellence, Lexington, Kentucky; the full study is available at http://www.prichardcommittee.org/

2. A Virginia High School Using Assessments to Drive Improvement

In this vivid account of the success of Norview High School in Norfolk, Virginia, *Education Week* reporter Catherine Gewertz pinpoints several key factors involved in the school's recent surge of student achievement and narrowing of the achievement gap (there have been similar gains throughout the predominantly low-income, minority Norfolk school district).

The article leads off by describing a meeting of three U.S. history teachers to discuss their students' scores on a unit test on the Industrial Revolution. Only 37 percent of students passed the test, lower than any of the last six years. *What went wrong?* the teachers wanted to know. *Was it the changes we made in last year's test? Was it our pacing?* Teachers analyzed the data and planned ways to make this notoriously difficult unit more engaging. The teacher whose students scored lowest asked for and received teaching tips from a teacher whose students did better. This department has similar meetings after every unit test, constantly using the interim student test data to improve instruction, tweak their tests, and shift their plans for upcoming teaching units.

Norfolk's turnaround began when new Virginia statewide tests given in 1998 showed the district performing very poorly. A newly-hired superintendent led a collaborative effort that aligned the curriculum to state standards, "back mapped" goals through each grade and course, specified where students needed to be academically at the beginning and end of each course, developed a clear philosophy of teaching and learning, instituted strong staff training, reached out to community leaders, and opened the district to new ideas on accountability. The "big idea" was that teachers should work collaboratively across grade levels to make sure students were well prepared for the next level.

The history department at Norview High School had the biggest challenge, since more students failed state history tests than any other subject. "We had to search deep to think what we were going to do about this," said Bruce Brady, the current chairperson of the history department. History teachers started working in content-area teams and vertically aligned the curriculum 9-12. History teachers met after school, on weekends, and over the summer to spell out exactly what should be taught and tested in each unit of each course. They wrote hundreds of test questions and developed a process for analyzing interim test results. They decided to treat the state learning standards as a floor, not a ceiling, often asking more of their students than the state tests did.

Following a common curriculum and pacing guide was a big change for some teachers. The chairperson of the mathematics/science department admitted that without the discipline of a pacing guide, her own math course might have lingered forever on conic sections (which she loves to teach) and shortchanged other topics she's less crazy about. The structure forced teachers to "teach to the standards, rather than to our passions," she said.

Sitting down in team meetings and analyzing unit test results was another big change. The student achievement data reflected directly on teachers' performance, and some were uncomfortable. In the beginning, team leaders blanked out teachers' names on class score reports, but over time, this courtesy measure was dropped.

Discomfort with accountability, along with some teachers' gripes with aligning their curriculum to state standards and following common pacing guides, caused quite a lot of teacher turnover in the early years of Norfolk's reform effort. Not all departments got on board right away. The chairperson of the English department admitted that her colleagues were slow to work as a team and vertically align their curriculum, but finally followed the lead of the surging history department. "I see it makes us much more reflective on the work we're doing," she said. "And working in teams means we're never isolated."

Norview High also began an early identification process, looking at incoming students' eighth-grade test scores to flag students for remediation and higher-level work. As a result, Advanced Placement enrollment has risen and includes more minority representation. Smooth vertical alignment has helped teachers spend more time on higher-level material. "When my kids come into my classes speaking comfortably about literacy criticism and Aristotelian principles," said one AP English teacher, "I don't have to waste time re-teaching. They have it. They can move on. It pays off in students' confidence."

Marjorie Stealey, principal of Norview High for 13 years, believes that content teams have been pivotal to the school's success. But she has also led a strong effort to define a set of beliefs and practices about equity, respect, and high expectations. She scheduled PTA meetings on the same night as major school events and enlisted parents' support for higher academic expectations by showing them the brutal facts about low student achievement. The school has a time every Wednesday when teachers and counselors were available in the cafeteria to chat with parents about their children's progress. The school also holds periodic student-led retreats to discuss how to build a culture of achievement and inclusion, and there is a support group for high-

achieving black male students. Photographs of students who scored 1,000 or more on their SATs adorn the school's main hallway, along with photos of students enrolled in AP classes. There has been a steady increase in the number of photos on display, with some students taking the SAT multiple times to earn a place on the wall.

"Any school in America can do this," says Stealey. "You can't bottle it. It may not be the exact same formula, the exact same ingredients, in each place. You have to find your own way. But it can be done." Jo Lynne DeMary, Superintendent of Norfolk schools, says of Stealey's school, "Their focus on student achievement and their desire not to use any excuses, but to be absolutely focused on making sure all those students meet with success, has been an inspiration to all of us."

"One Subject at a Time" by Catherine Gewertz in *Education Week*, February 2, 2005 (Vol. 24, #21, p. 34-37)
http://www.edweek.org/ew/articles/2005/02/02/21norview.h24.html
Doug Reeves and his colleagues at the Center for Performance Assessment have been major consultants to the Norfolk schools; details of their approach are available in Reeves's 2004 book, *Accountability for Learning* (ASCD)

3. Implementing an Improvement Plan is Like a Political Campaign

In this article, two Harvard Business School professors argue that many turnaround efforts fail because leaders don't make a serious and systematic effort to convince people that change is necessary. For a reform effort to take hold, they argue, leaders must conduct an effective persuasion campaign (quite similar to a political campaign) lasting for weeks or months. The authors recommend a four-part process to create an environment that is truly receptive to change:

- *Phase 1* – Convince staff that radical change is imperative and demonstrate why the new direction is the right one. The leader must convince people that the organization "is truly on its deathbed – or, at the very least, that radical changes are required if the organization is to survive and thrive."
- *Phase 2* – Write a preliminary plan, gather and really listen to feedback from all staff, revise the plan, and distribute a final version to launch the process.
- *Phase 3* – Manage staff members' mood through constant communication. "Leaders must pay close attention to employees' emotions – the ebb and flow of their feelings and moods – and work hard to preserve a receptive climate for change. Often, this requires a delicate balancing act between presenting good and bad news in just the right proportion. Employees need to feel that their sacrifices have not been in vain

and that their accomplishments have been recognized and rewarded. At the same time, they must be reminded that complacency is not an option."

- *Phase 4* – Reinforce behavioral guidelines to avoid backsliding into dysfunctional patterns of negative behavior, including "a culture of 'no'" and the familiar "this too shall pass" attitude. The leader needs to talk about and model key values (e.g., tolerance, honest and open communication, civility, and teamwork), but the message will only take hold if he or she "signals a dislike of disruptive, divisive behaviors by pointedly – and, if necessary, publicly – criticizing them."

"Change Through Persuasion" by David Garvin and Michael Roberto in *Harvard Business Review*, February 2005 (Vol. 83, #2, p. 104-112), no e-link available

4. Our Attitudes Toward Math Are Dragging Us Down

Why do U.S. students look so mediocre in international comparisons of mathematics performance? Two Columbia University math professors offer the following thoughts: "At bottom, most people in this country – including educators and policymakers at the highest levels – believe that math is a subject in which only a small subset of naturally gifted people can do well… Thus, children get the message from adults that math is something to be feared – to rush through and to memorize rather than to savor, appreciate, and enjoy. They overhear conversations among parents, teachers, school administrators, and other adults about 'mathematical genes' and 'natural ability.'

"One result of this is that we don't expect very much of our students. We allow them to say, 'I can't do math,' when we would be chagrined if they said, 'I can't read.' Where we might expect A's from our children in other subjects, we are often content when they achieve merely passing grades in math… Perhaps worst of all, we don't demand that math be interesting and challenging to students at all levels, instead of mind-numbingly boring, as it so often is."

The key, say the Columbia professors, is going beyond teaching students how to match the right procedure to the right problem and making kids do real problem-solving. Students need to get practice at wrestling with problems that apply their knowledge to new, non-routine situations. This will take extensive teacher training but it must be done, they aver.

"It's Not Just About the Numbers" by Erica Walker and Alexander Karp in *Education Week*, February 2, 2005 (Vol. 24, #21, p. 39)
http://www.edweek.org/ew/articles/2005/02/02/21walker.h24.html

5. Why Are There Fewer Women in Math and Science Positions?

Provoked by Harvard president Larry Summers's comment that women may not have the hard-wiring for high achievement in science and math, Cornelia Dean, science editor for the *New York Times* from 1997-2003, wrote an essay about what it's like growing up as a female who *is* good at math and science and coming face to face with negative stereotyping and sexism. "I first encountered this thinking as a seventh grader who was scarred for life when my class in an experimental state school for brainiacs was given a mathematics aptitude test," writes Dean. "The results were posted and everyone found out I had scored several years ahead of the next brightest kid. A girl really good in math! What a freak! I resolved then and there on a career in journalism."

Shortly after she was appointed science editor for the *Times*, Dean was introduced to one of the nation's leading neuroscientists at a dinner. "Oh yes," he said, ignoring her and scanning the room. "Who is the new science editor at the *New York Times*, that twerpy little girl in short skirts?" Dumbfounded, she replied "That would be me."

Dean goes on to tell several other depressing stories about the blatant sexism encountered by female scientists and mathematicians. "[W]omen continue to suffer little slights and little disadvantages," she says, "everything from ridicule in high school to problems with child care, to a much greater degree than their male cohorts. After 10 or 15 years, these little things can add up to real roadblocks… [T]hey are enough, by themselves, to tell us why there are relatively few women in the upper ranks of science and mathematics today."

"For Some Girls, the Problem With Math Is That They're Good at It" by Cornelia Dean, *New York Times*, Feb. 2, 1005
http://www.nytimes.com/2005/02/01/science/01math.html

6. Teachers Pulling Their Punches Teaching Evolution

A *New York Times* article last Tuesday reported a troubling phenomenon: even in districts where evolution is included in the required curriculum and the adopted textbooks, some teachers are slighting the topic (e.g., assigning the chapter but not discussing it in class) or skipping over it completely. This stems from teachers' own misgivings about the theory of evolution and from fear that fundamentalist parents or principals will give them a hard time if they teach it.

Solid information on classroom-level avoidance of evolution is hard to come by. "You're not going to hear about it," said John Frandsen, an Alabama zoologist. "And for political reasons nobody will do a survey among randomly selected public school children and parents to ask just what is being taught in science classes." But some of the attitudes causing teachers to be gun-shy about evolution were revealed in a 2001 survey; it showed that only 53 percent of Americans accept the idea that "human beings, as we know them, developed from earlier species of animals." The comparable figure in other industrialized nations is 80 percent, and in Japan it's 96 percent. Other surveys show that two-thirds of Americans think that creationism should be taught along with evolution in schools, and as many as a third of U.S. biology teachers do not accept the theory of evolution.

Even teachers who believe that evolution is a central concept in biology and know how crucial it is for students to understand it sometimes pull their punches. Ron Bier, a biology teacher in Oberlin, Ohio, says he avoids controversy by not teaching evolution as a unit. He introduces the concept here and there throughout the year. "I put out my little bits and pieces wherever I can," he said. "I don't force things. I don't argue with students about it."

"Evolution Takes a Back Seat in U.S. Classes" by Cornelia Dean, *New York Times*, February 1, 2005
http://www.nytimes.com/2005/02/01/science/01evo.html?oref=login

7. Short Items:

a. Woeful ignorance of the First Amendment – The *Seattle Times* carried an AP story last week on a Knight Foundation survey of U.S. high school students' knowledge of the First Amendment. Students said they supported free speech, but when they were shown the actual details of the First Amendment, more than a third said it goes "too far" in the rights it guarantees. Half of students said newspapers should not be allowed to publish freely unless the government approved of stories. Seventeen percent said that people should not be allowed to express unpopular views. Students also showed their ignorance about basic rights: three quarters said flag burning is illegal and half said the government has the right to restrict any indecent material on the Internet. "These results are not only disturbing," said Hodding Carter III of the Knight Foundation, "They are dangerous. Ignorance about the basics of this free society is a danger to our nation's future."

"First Amendment Goes "Too Far," Say Students in Survey" by the Associated Press, *Seattle Times*, February 5, 2005, http://seattletimes.nwsource.com/html/education/2002166500_students01.html (spotted in *PEN Weekly NewsBlast*, February 3, 2005)

b. Black history all year long? – A feature article in the *Christian Science Monitor* raises once again the question of why African-American history is segregated to the month of February, rather than being integrated into lessons all year long. Interesting reading.

"Black History: Best Taught in February or All Year Long?" by Jeanne Harnois, *Christian Science Monitor*, February 1, 2005, http://www.csmonitor.com/2005/0201/p12s01-legn.html (spotted in *PEN Weekly NewsBlast*, February 3, 2005)

c. Nine creativity killers – Art teacher Marvin Bartel shares nine teaching errors he says he's made, all of which undermine creativity among students:

- Praising neatness and conformity more than expressive original work;
- Giving freedom without focus;
- Encouraging students to borrow ideas from others instead of coming up with their own;
- Showing an example instead of defining a problem;
- Teacher demonstrations versus having students practice;
- Making suggestions instead of asking open questions;
- Allowing cliché symbols (e.g., Snoopy dogs, hearts, smiley faces, stick figures, etc.) to substitute for original or observed representations of experience;
- Giving an answer instead of teaching problem-solving methods;
- Assigning grades without providing informative feedback.

http://www.goshen.edu/art/ed/creativitykillers.html (spotted in *PEN Weekly NewsBlast*, February 3, 2005)

d. Some new words with interesting definitions – The *Washington Post's* Style Invitational section invited readers to take part in a contest: (a) take any word from the dictionary; (b) alter it by adding, subtracting, or changing one letter; and (c) supply a new definition. Here are some of this year's winners:

- Karmageddon (n.): It's like, when everybody is sending off all these really bad vibes right? And then, like, the Earth explodes and it's, like, a serious bummer.

- Inoculatte (v.): To take coffee intravenously when you are running late.
- Decafalon (n.): The grueling event of getting through the day consuming only things that are good for you.
- Glibido (v.): All talk and no action.
- Sarchasm (n.): The gulf between the author of sarcastic wit and the person who doesn't get it.
- Hipatitis (n.): Terminal coolness.
- Osteopornosis (n.): A degenerate disease. (This one got extra credit.)
- Dopeler effect (n.): The tendency of stupid ideas to seem smarter when they come very quickly.
- Arachnoleptic fit (n.): The frantic dance performed just after you've accidentally walked through a spider web.
- Beelzebug (n.): Satan in the form of a mosquito that gets into your bedroom at three in the morning and cannot be cast out.
- Caterpallor (n): the color you turn after finding half a grub in the fruit you're eating.

Do you have feedback? Is anything missing?

If you have comments or suggestions, if you saw an article or web item in the last week that you think should have been summarized, or if you would like to suggest additional publications that should be covered by the Marshall Memo, please e-mail: kim.marshall8@verizon.net

About the Marshall Memo

Mission and focus:

This weekly memo is designed to keep principals, teachers, superintendents, and others very well-informed on current research and best practices in K-12 education. Kim Marshall, drawing on 35 years' experience as a teacher, principal, central office administrator, and writer, lightens the load of busy educators by serving as their "designated reader."

To produce the Marshall Memo, Kim subscribes to 39 carefully-chosen publications (see list to the right), sifts through scores of articles each week, and selects 5-10 that have the greatest potential to improve teaching, leadership, and learning. He then writes a brief summary of each article, pulls out several striking quotes, provide e-links to full articles when available, and e-mails the memo to subscribers every Monday (with occasional breaks; there were 50 issues in 2003-04).

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Publications covered:

(those read this week are underlined)

American Educational Research Journal
American Educator
American School Board Journal
ASCD SmartBrief
Atlantic Monthly
Bay State Banner
Boston Globe
CommonWealth Magazine
District Administration
Ed. Magazine (Harvard School of Education)
Education Digest
Education Gadfly
Education Next
Education Update (ASCD)
Education Week
Educational Leadership
Educational Researcher
Elementary School Journal
Harper's
Harvard Business Review
Harvard Education Letter
Harvard Educational Review
Journal of Staff Development
Middle School Journal
NASSP Bulletin
New York Times
New Yorker
Newsweek
PEN Weekly NewsBlast
Phi Delta Kappan
Principal Magazine
Principal Leadership
Psychology Today
Reading Research Quarterly
Reading Today
Rethinking Schools
Review of Educational Research
Teachers College Record
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E-links will be provided whenever possible.