Marshall Memo 130

A Weekly Round-up of Important Ideas and Research in K-12 Education
April 3, 2006

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Quotes of the Week

"We shouldn't ask students to memorize anything that we don't expect them to remember in three weeks."

Mel Levine (see item #3)

"Schools that enroll many poor children can't be merely effective; to bring their students to proficient reading levels, they need to be super-effective. They need an extraordinary level of help, support, and good ideas to meet the challenges they face."

E. D. Hirsch (see item #1)

"The only useful way to prepare for a reading test is indirectly – by becoming a good reader of a broad range of texts, an ability that requires broad general knowledge."

E. D. Hirsch (*ibid.*)

"Knowledge comes into play mainly because if we want our students to learn how to think critically, they must have something to think about."

Daniel Willingham (see item #2)

"All the new technologies in the world will not have an impact on student achievement if learning objectives are not clearly focused.

Howard Pitler (see item #4)

"If schools add technology without providing adequate professional development, the only thing that will increase is their electric bill."

Anonymous (*ibid.*)

"Out-think, Out-write, Out-compute."

Theme for testing psyche-up Spirit Week at Edinburgh Middle School, Indiana ("Doing Away with Pretest Jitters" by Richard Arkanoff and Crystal Meekins in *Principal*, May/June 2006, p. 50-51)

1. E. D. Hirsch on the Critical Importance of Background Knowledge

In this lengthy and persuasive article in the spring issue of *American Educator*, E.D. Hirsch renews his plea for American schools to systematically teach a rich body of background knowledge to all students. "[W]ithout broad knowledge," he argues, "children's reading comprehension will not improve and their scores on reading comprehension tests will not budge upwards either." What's more, Hirsch argues, the failure to systematically teach background knowledge is a major source of inequality – "at the heart of the achievement gap between America's poor and non-poor."

Hirsch begins with the following example. What background knowledge would an adult from a non-baseball-playing country need to understand this sentence:

> *Jones sacrificed and knocked in a run.*

To make sense of this, a person would need a slew of information that American adults take for granted: Jones was at bat in a game of baseball; the way runs are scored in baseball; the inning and three-outs system; the size and shape of the baseball diamond and field; and what sacrifice flies and bunts are. Hirsch argues that for many beginning readers, the texts they are asked to read in school are almost as alien as this passage is to an adult unfamiliar with baseball. Relevant background knowledge is essential to fluent comprehension – and those who don't have that knowledge read with plodding non-comprehension. He gives another example, this time a second-grade passage about the Civil War:

> *In 1861, the Civil War started. It lasted until 1865. It was American against American, North against South. The Southerners called Northerners "Yankees." Northerners called Southerners "Rebels," or "Rebs" for short. General Robert E. Lee was in charge of the Southern Army. General Ulysses S. Grant was in charge of the Northern Army.*

Hirsch argues that two students with identical decoding and reading strategy skills would perform very differently if one had the relevant background knowledge and the other didn't. To read this passage with good comprehension, a child would need, for starters, to be able to unpack the terms "North" and "South." This involves knowing basic compass directions; knowing simple geography and regions of the United States; knowing that the names of these geographic regions stand for the populations of those regions and that those populations had been organized into some sort of collectivity so they could raise armies. This gives the flavor

of the taken-for-granted knowledge needed to read many passages that students are asked to read in school.

In the remainder of the article, Hirsch makes four basic points:

• *First, our current theory of action for improving reading comprehension is based on faulty assumptions*. Hirsch argues that teaching isolated reading skills will not enable all students to read unfamiliar texts. What's missing in many classrooms is a vital companion to skills: a common core of basic knowledge. Not teaching this core "is socially and economically harmful to our students," says Hirsch, "especially our most disadvantaged students." He is scornful of most reading textbooks: "Hundreds of pages of basal text offer up trivial stories that provide little opportunity for children to build their store of knowledge," he writes. "They persist, unit after unit, in asking students to 'predict,' 'summarize,' 'infer,' etc. – as if endless use of these strategies will increase students' reading comprehension ability." On the contrary, he argues: "When the questions are asked about trivial content, when learning these strategy skills becomes the end – not the means – for engaging content, and when the time devoted to skills training drives needed content out of the classroom, then reading comprehension is not effectively advanced."

• *Second, reading comprehension depends mainly on knowledge and knowledge-related vocabulary*. Hirsch believes that American schools are doing a much better job these days teaching decoding skills. But without a strong knowledge component, decoding takes students only so far. After third grade, the "Matthew effect" kicks in: "Those who already have good language understanding will gain still more language proficiency," writes Hirsch, "while those who lack initial understanding will fall further and further behind." Students need to know 90 percent of the words in a passage to understand it well; students who know only 70 percent of the words will have poor comprehension and lose out. The only way to close this gap, says Hirsch, is teaching relevant, domain-specific vocabulary in every subject area. And this process needs to start early. A sobering statistic is that a child's vocabulary in second grade is a reliable predictor of academic performance in 11th grade.

Hirsch cites three important findings about learning academic vocabulary: first, children learn words best through the printed page, because print uses a greater number of different words than everyday oral speech. Second, children learn new words four times quicker when they already know something about the subject (for example, if a child is reading a story about a team of firefighters putting out a fire and encounters the word *flames* for the first time, he or she can make a good guess about what it means because the situation referred to in the sentence conjures up familiar images). Third, this process is accelerated when classroom read-alouds, independent reading, and discussions stick with one theme for several days, saturating students with new vocabulary in that area. A systematic approach to teaching unfamiliar words can bring students who know only 70 percent of words to the 95 percent level quite quickly, gradually closing the achievement gap.

• *Third, there's a way of identifying the knowledge that is most useful to improving children's reading comprehension*. Hirsch and his colleagues at the Core Knowledge Foundation were able to zero in on the knowledge that all students should acquire by using a

deceptively simple strategy: They showed professional writers and others who must communicate with educated adults lists of curriculum content and vocabulary and asked, "Is this information often taken for granted in talk and writing addressed to a general literate audience?" The initial core knowledge lists were reviewed and edited by educators, parents, and multicultural experts and then piloted in schools. Follow-up research showed that students who were taught core knowledge did better in reading comprehension tests, grades, and other indexes of reading skill. "Students who possess this knowledge," says Hirsch, "are prepared to participate in civic life, move up career ladders, succeed in college, converse confidently with a wide variety of Americans with whom they work or socialize, and generally have the esteem that comes with being regarded as an educated person."

• *Finally, applying these principles will disproportionately help students who are most at-risk.* This is because disadvantaged students come to school with less of the common core and are more dependent on schools to fill their knowledge gaps. "Advantaged students have a chance to learn a lot of academically relevant things from their homes and peer groups," writes Hirsch, "whereas disadvantaged students learn academically relevant things mostly from their schools. Boosting the in-school proportion thus reduces the impact of the unfair distribution of out-of-school learning opportunities."

Can schools take on this job? Hirsch cites evidence that 30 minutes a day is enough to teach decoding skills in first and second grades, although more is required for struggling readers. This leaves time to teach substantive topics in literature, history, the arts, and science, mostly through oral reading and discussion – if the time is used well. Most schools now have 90- to 120-minute literacy blocks, but many minutes are wasted on unproductive activities, says Hirsch. For example, he questions the value of reading the same story three times, versus reading several stories on the same topic, or constantly having students do exercises on "main idea," "prediction," and "inferencing," versus exposing them to rich content material. He argues that the best classroom approach is "topic immersion" – teachers reading several books on the same topic over a period of days or weeks. This, rather than jumping around from topic to topic, is the best way to build knowledge and vocabulary, in his view.

Hirsch concludes with a strong pitch for a common core of knowledge taught to all students, which he thinks would take 40-60 percent of the school day. Right now, he says, we have a *de facto* national curriculum embedded in textbooks containing idiosyncratic bits of knowledge that aren't introduced systematically. Hirsch believes that this approach – as well as individual schools deciding on the common core of knowledge – can't work because a knowledge curriculum that's different from state to state, city to city, school to school, and classroom to classroom slows down the development of proficient reading – especially among poor children.

"Schools that enroll many poor children can't be merely effective," he says; "to bring their students to proficient reading levels, they need to be super-effective. They need an extraordinary level of help, support, and good ideas to meet the challenges they face." Hirsch believes that systematic, early teaching of a common core of knowledge is one of those good ideas.

"Building Knowledge" by E.D. Hirsch, Jr. in *American Educator*, Spring 2006 (Vol. 30, #1, p. 8-21, 28-29, 50); the full article is available at:
http://www.aft.org/pubs-reports/american_educator/issues/spring06/hirsch.htm

2. A Psychologist's Perspective on Core Knowledge

In this companion piece in *American Educator*, University of Virginia psychology professor Daniel Willingham brings a slightly different perspective to E. D. Hirsch's argument for the importance of teaching a rich body of knowledge starting in the earliest grades. Why is knowledge so important? "It's grist for the mill," says Willingham. "Knowledge comes into play mainly because if we want our students to learn how to think critically, they must have something to think about." Willingham says this happens in two ways:

• *The more children know, the easier it is for them to learn new things.* This happens (a) as students read or listen to new information (prior knowledge acts like Velcro, giving new information something to latch onto and reducing the need to re-read and puzzle over new information); (b) as children think about new information (by helping them "chunk" information and hold more words and sentences in working memory without getting bogged down in processing unfamiliar information); and (c) as students try to remember new information (it's easier to commit something to memory when you already know something about it). Willingham says there is a lively (as yet unresolved) debate among psychologists as to whether background knowledge is actually more important than raw cognitive ability.

• *Knowledge improves children's thinking.* This works in two ways: first, prior knowledge frees up space in students' working memory, leaving more brainpower to tackle a problem or learn something new. Second, having a ready supply of factual and procedural memories (for example, that 6 times 7 equals 42) saves time and mental energy for higher-order thinking and new processing. "It's not just facts that reside in memory," says Willingham. "Solutions to problems, complex ideas you've teased apart, and conclusions you've drawn are also part of your store of knowledge."

In a sidebar, Willingham makes these additional points about teaching a knowledge curriculum:

- *Facts should be learned in a meaningful context, not by rote memorization.* "Mindless drilling is not an effective vehicle for building students' store of knowledge," he says.
- *Not all new knowledge needs to be taught explicitly.* "When schools use a content-rich curriculum," says Willingham, "students have many incidental learning opportunities as they are immersed in meaningful, connected facts throughout the day."
- *Sometimes superficial knowledge is all we need.* A nodding acquaintance with a lot of information is fine a lot of the time (for example, that Benedict Arnold was traitor, not his whole life story).
- *Knowledge learning should start early.* "Building a store of knowledge works like compound interest," says Willingham. "It grows exponentially. For that reason, the

earlier that students add to their database of knowledge the better… All teachers should take the job of teaching content to students seriously, but this job is doubly serious for teachers in preschool and early elementary classrooms."

"How Knowledge Helps" by Daniel Willingham in *American Educator*, Spring 2006 (Vol. 30, #1, p. 30-37); the full article is available at:
http://www.aft.org/pubs-reports/american_educator/issues/spring06/willingham.htm

3. Mel Levine's Keynote Speech at ASCD

Last Saturday, April 1st at the ASCD convention in Chicago, pediatrician and author Mel Levine held an audience of more than 10,000 teachers and school administrators spellbound. Some highlights:

• Between the ages of 11 and 20, many of the rods in our brains are coated with myelin, making possible higher-order thinking. Of the millions and millions of rods, not all get this treatment. Which ones do? Levine likens the process to how the Department of Public Works in rural North Carolina (where he lives) decides which dirt roads to pave over: they choose the ones that are most heavily trafficked. In the brain, pathways that aren't heavily used are "pruned" – that is, eliminated. The moral of the story for educators: we have to get students using as many parts of their brains as possible in these crucial years.

• To be successful in math, students need factual memory (8 x 9 = 72), procedural memory (the steps of long division), the ability to hold several things in mind at the same time, sentence memory, the ability to visualize math problems and concepts, pattern recognition (so they can recognize certain types of problems even when the facts are different), and the ability to focus on details as well as the big picture (yes, it matters if it's a + or a X sign).

• Tests should not be timed. Students should have as long as they need (within reason). But we might impose space limits: take your time, but no more than two pages.

• A central goal of schools should be teaching students how to do projects that involve detailed, step-by-step planning. Rote memorization (for example, knowing all the rivers of Africa) is a waste of time. Levine's rule of thumb: "We shouldn't ask students to memorize anything that we don't expect them to remember in three weeks." Too much rote learning and not enough higher-order thinking in high school contributes to a common problem: seemingly well-educated students arrive in college and say, "I don't get this stuff." Regurgitation is not a life skill, especially in a world where your hard drive is on your desk. Many valedictorians don't do especially well in life, perhaps because the succeeded in high school by out-memorizing everyone else.

• Grades 2 to 6 are crucial in children's language development, and a simple but powerful way that teachers and parents can help is to insist that kids speak in full sentences, including the use of logical connector words like "although" and "because." One New York City mother asked Levine, "Why didn't anyone tell me this before?" She said that from then on, if her kids didn't speak in complete sentences, they wouldn't get dinner.

• Levine worked with a sixth-grade girl named Fantasy who was doing poorly in reading. Asked what the problem was, Fantasy said, "Every time I read a sentence, my brain

erases the one I just read." This child had been telling her mother she was the stupidest girl in the world, but the problem she had was common among struggling readers: keeping thoughts in active working memory. Levine was able to give Fantasy specific strategies for working around her disability, including using a small tape recorder to record a quick summary of what she had just read.

• Levine is against using labels to describe students' disabilities. Labels are intrinsically pessimistic and fatalistic, he says. There's a huge amount of variation in human beings, and what gets you in trouble in fourth grade might make you a successful CEO at forty-five.

• The brain stores words in networks, with links to different definitions, related words, connotations, and concepts. To be successful in college and life, it's not how many words you know, but how well connected they are to each other.

• A common problem among high-school students is saliency determination – being able to see what's important amidst the mass of details. This is especially true in science, where it's very difficult for some students to focus on the most significant material and there's often a feeling of overload and confusion. Levine recommends that teachers name the problem – "You're having a problem with saliency determination" – teach students the term, and then give them strategies to improve – and plenty of practice (for example, a homework assignment to read an editorial and write down the two most important points). Students should be able to learn about learning while they're learning.

• Students won't learn if they're not actively processing and making connections to things they already know. Levine told the story of a 16-year-old North Carolina boy he counseled on this problem, seemingly without success. Two years later, the boy wrote Levine a letter saying that on the way home after their initial talk, he thought about being a "passive processor" and decided to do something about it. Five minutes into every class in school, he asked himself if his brain was turned on. Usually it wasn't, so he kicked it into gear by asking himself, What does what the teacher is talking about remind me of? What does it make me think of? His grades improved dramatically, to As and Bs. He closed his letter to Levine with this observation: "Some kids' brains have a switch that turns them on to active processing automatically. My switch is manual. It only goes on when I turn it on." Levine says that we have to help students name their strengths and deficiencies and teach them how to work their switches.

• Every child should become an expert at something. Almost all kids have a passion for something; we just need to discover and nurture it. Kids learn how to read best when they read or hear about something they already know a lot about. Focusing on one topic and becoming an expert in it (spiders? wrestling? hairstyles?) helps develop the mind in a number of ways – not to mention self-confidence. Levine says that students shouldn't be rigorously evaluated on how they do at someone else's specialty (this is an argument for pass-fail grades on certain subjects). But he thinks students should be challenged and "brutally" evaluated in their own specialty area so they develop it to the highest level possible.

• There' no such thing as a "lazy" student. But some kids have "output problems" – there's a blockage in their ability to express what's inside. Schools should get better at spotting

students' hidden strengths and giving them multiple means of expression. Levine told the story of Michael, a second grader in Brooklyn, who was doing terribly in school, was mercilessly teased by other students because of his immature handwriting, came home every day and took out his anger by beating up his younger sister, and cried himself to sleep every night dreading going to school the next day. But this same boy could fix anything in the house and built incredibly complex Lego structures. Michael had a syndrome called premature specialization, and needed help channeling his prodigious talents. The issue with children like Michael, says Levine, is "asset management and humiliation protection."

• In that vein, Levine inveighs against keeping students back. "Can't we find an alternative?" he asks plaintively. The research is so clear that retention doesn't work, and some adults still have nightmares about being kept back in fifth grade.

• Levine believes that too many students are over-medicated. The more a doctor knows about a child, he says, the less likely he or she is to prescribe pills. We need to take the time to get down to the basics of what's going on and stop unnecessarily prescribing pills.

• Many students are sleep-deprived, and that really hurts their performance in school. New brain studies suggest that during deep sleep, "filing clerks" in our brains are storing newly-learned vocabulary and other information in long-term memory. We should start with the fact that kids need nine hours of sleep and backwards-plan school hours, activities, and homework with sleep as a non-negotiable.

• Levine says there should be a contract between school and home: "Here's what we do, here's what you do." He believes that parents should be "taskmasters, not recreation coordinators." Parents are in a better position to teach their children how to work hard than schools, he says.

• Levine closed with the observation that teachers are in the best position of anyone to spot students' strengths and deficits – but teachers need training to be expert observers.

Notes from a keynote address by Mel Levine at the Association for Supervision and Curriculum Development's annual convention in Chicago on April 1, 2006

4. Effective Use of Computers in Schools

In this article in the May/June *Principal*, Howard Pitler, director of educational technology at the Mid-continent Research for Education and Learning, reports on a recent McREL study on three aspects of the use of technology in schools:

• *Integration with the curriculum* – "Technology can live up to its potential to improve student leaning," writes Pitler, "only when the goals for student learning are clearly articulated *prior* to the use of technology." Far too many schools are spending money on computers without a clear idea of how they serve the curriculum, he says, and many students go to computer labs to do work that is unrelated to their core curriculum. Computers have maximum impact when they are used to:

- Engage students in thinking about and debating their own and others' work.
- Engage students in analyzing multiple perspectives and thinking independently.

- Involve students in critical thinking and judgment.
- Get students using computers as tools to carry out meaningful projects that involve refining questions, making predictions, designing plans, collecting and analyzing data, drawing conclusions, and communicating their findings.

Computers can also have greater impact if they are part of a broader improvement plan – if principals and teachers identify from the start how technology serves what they are already doing to improve student achievement. The principal's support is also crucial. Pitler says principals should actively participate in training and regularly monitor and comment on the integration of computers in classrooms visits.

• *Professional development* – "If schools add technology without providing adequate professional development," said an anonymous commentator, "the only thing that will increase is their electric bill." Pitler says teachers need much more than basic skills, and need to see a compelling reason to learn them – a need integrated into their daily teaching. It's key that training is on-going (don't cut corners, says Pitler) and differentiated. "Professional development geared to the middle will frustrate the teachers at the entry level and bore those at the top levels."

Training shouldn't put the cart before the horse, says Pitler: "Professional development must have an instructional focus that guides teachers to think first about their curriculum and second about how to integrate technology into what curriculum… Technology should be considered as a means and as an instructional tool, not as a goal in and of itself."

Teacher collaboration and peer coaching are often the most effective ways to boost technology skills. And the more computers are integrated with the curriculum, the more teachers will talk about it in grade-level and subject-area team meetings. But in the end, what will drive integration of computers into the curriculum is results – when teachers see that technology is making a difference to student learning.

• *Student achievement* – Appropriate use of computers can boost student achievement across the board, reports Pitler. This can happen when students use computers as tools (e.g., PowerPoint reports, multimedia projects, data analysis) and learning from computers (e.g., computer-assisted instruction – CAI). In both modes, computers can help transform classrooms from teacher-dominated to student-centered in which students work cooperatively, make more choices, and learn actively. CAI has several advantages:

- It is nonjudgmental and motivational.
- It gives frequent and immediate feedback.
- It can individualize learning to meet each student's needs.
- It gives students more autonomy.
- It can provide multi-sensory learning (images, sounds, and symbols).

"Viewing Technology Through Three Lenses" by Howard Pitler in *Principal*, May/June, 2006 (Vol. 85, #5, p. 38-42), no e-link available. The McREL technology team has information on technology integration at: http://www.mcrel.org/topics/topics.asp?topicsid=5. Pitler can be reached at hpitler@mcrel.org

5. Keys to Good After-School Programs

In this article in the May/June issue of *Principal*, Nancy Protheroe of the Educational Research Service summarizes recent research on after-school programs. She notes that until quite recently, most after-school programs were non-academic, and much of the research was not impressive. There are also significant challenges to running high-quality, academically focused programs. "Planning two or more hours of high-quality, content-rich, and enjoyable learning time is no easy task," says Richard Lauer (2003). Struggling students have little motivation to do more school work, and everyone is tired after a full school day.

Given these challenges, what works? Here are some findings from the North Central Regional Educational Laboratory (2003):

• After-school offerings should be based on individual students' academic needs, drawing on teacher assessments and reports.

• There should be regular, organized two-way communication between after-school staff and during-the-day teachers on what students need and how they are doing. Daily planners and communication logs are two ways to do this.

• After-school staff need content knowledge and effective strategies. They don't necessarily have to be certified teachers, but they have to have the skill-set to teach students, versus just supervise while students finish their homework.

• After-school classes should be small, ideally 15 students per adult for younger children.

• After-school programs should be regularly evaluated using assessments of students' progress on objectives assessments.

Protheroe concludes with a brief description of one effective after-school program's key characteristics:

- It was designed to support and expand the regular day school program.
- Students got help on their homework.
- Literacy and math instruction were based on state and district curriculum goals.
- There were accelerated learning opportunities for specific at-risk students.
- Healthy snacks were provided.
- Fun enrichment activities broadened the curriculum.
- After-school teachers received regular training in classroom management and curriculum.
- After-school teachers met every month with regular school day teachers.
- The program monitored student attendance, grades, and academic growth.

"Successful After-School Programs" by Nancy Protheroe in *Principal*, May/June, 2006 (Vol. 85, #5, p. 34-37), no e-link available. These are links to two studies:
- The Effectiveness of Out-of-School Time Strategies in Assisting Low-Achieving Students in Reading and Mathematics: A Research Synthesis:
http://www.mcrel.org/topics/productDetail.asp?productID=151
- After-school Programs and Educational Success:
http://www.nmefdn.org/uimages/documents/Critical_Hours(4).pdf
- Southwest Educational Development Laboratory Afterschool Training Toolkit:

http://www.sedl.org/afterschool/toolkits

6. Parent Mini-Surveys

In his column in the new *Principal*, John Wherry, president of the Virginia- based Parent Institute, lists three things he's learned over the years:

- If you think you already know what people think, you're probably wrong.
- If you ask people what they think, they will tell you.
- If you pay attention to what they say, you will succeed.

Wherry believes that early spring is an ideal time for principals to conduct an anonymous mini-survey of parent views. He suggests a standard three-question survey, customized each time it is given:

- What did you like best about X program?
- How could we have improved it?
- Other comments?

He also suggests questions like these from time to time:

- What are your greatest concerns/worries about helping your child do well in school?
- What is the single most important thing the school and teachers could do to help you help your child do well in school?
- If you had a magic wand and could change anything about our school's parent involvement program, what changes would you make?
- Please rate the importance of each of the following things we could do to help you help your child do well in school: ---
- Please rate the importance of each of the following parts of our parent involvement program ---
- Please rate how much each of the following parenting topics would help you to help your child succeed in school: ----

Wherry closes with some tips for principals as they put together parent surveys:

- Test your questions on people who haven't been involved in creating the survey.
- Keep surveys short (one sheet of paper)! Brief surveys get more responses.
- Use both open-ended and multiple-choice items.
- Keep survey results in perspective: they are advisory!

"Parents and Schools: Success for the Asking" by John Wherry in *Principal*, May/June 2006 (Vol. 85, #5, p. 6), no e-link available

7. Short Items:

a. Hooking reluctant readers with iPods – In this short article in *Principal,* California seventh-grade English teacher Linda Bomar describes how her principal bought a set of iPod Shuffles so that teachers could download recorded books. Listening to books on the iPods quickly caught on (students could go to the library to

check out the iPods), and the school purchased more iPods and made them available to teachers. Bomar began recording literature anthology stories from a CD into her iTunes and from there downloaded them onto the iPods. This was time-consuming at first, but Bomar discovered that her eighth-grade teaching assistant could do the downloading in half the time, so she took over the task. Bomar used the recorded passages to give below-level students the big picture and main ideas of each story. Listening didn't replace actual reading and teaching, but Bomar found that students' comprehension improved when they experienced a story through listening and reading. Bomar also experimented with using iTalk to download passages from social studies and science textbooks, and found that this helped improve students' confidence and comprehension of difficult homework assignments.

"iPods as Reading Tools" by Linda Bomar in *Principal*, May/June 2006 (Vol. 85, #5, p. 52-53), no e-link available

b. A way of responding to anger – When an angry father told Florida principal Sharon Neuman that her handling of a tricky conference was "the worst principaling I've ever seen," she responded: "Help me understand why you feel that way." What followed was a low-key exchange of perspectives that totally defused the parent's anger. "You're absolutely right," he said. "I'm so sorry." Since then, Neuman has used this line with upset parents, teachers, and students and found that it helps get at underlying issues (an impending divorce, in one case) defuse anger, and talk through the issue.

"Asking the Right Question" by Sharon Neuman in *Principal*, May/June 2006 (Vol. 85, #5, p. 58-59), no e-link available

c. Online museum exhibits – This American Educator feature gives a number of links for museums that have exhibits that students can visit online:

• American Museum of Natural History: "Petra: Lost City of Stone" (a lost city in Jordan): http://www.amnh.org/exhibitions/petra.
The museum's main page is http://www.amnh.org/education/resources.

• National Portrait Gallery: "Picturing Hemingway: A Writer in His Time" http://www.npg.si.edu/exh/hemingway/index.htm.

• National Gallery of Art: "Memorial to Robert Gould Shaw and the Massachusetts Fifth-fourth Regiment" and "The Lackawanna Valley:" http://www.nga.gov/education/classroom/19th_century_america/index.shtm.

• National Air and Space Museum: The Wright Brothers and the Invention of the Aerial Age: http://www.nasm.si.edu/wrightbrothers.

• National Museum of American History: "A More Perfect Union: Japanese Americans and the U.S. Constitution:" http://www.americanhistory.si.edu/perfectunion/experience/index.html.

• National Museum of American History: "Edison Invents: All About Thomas Edison and His Inventions:" http://www.invention.smithsonian.org/centerpieces/edison.

• National Museum of Natural History: "Lewis and Clark: Mapping the West:" http://www.mnh.si.edu/education/lc/lcmapping.

• Exploratorium: "Microscope Imaging Station:" http://www.exploratorium.edu/imaging_station/index.html.
and "Cow's Eye Dissection:" http://www.exploratorium.edu/learning_studio/cow_eye/index.html.

• American Museum of Natural History: "Ology:" http://www.ology.amnh.org.

• Metropolitan Museum of Art: "Timeline of Art History:" http://www.metmuseum.org/toah/splash.htm.

"Virtual Exhibits, Genuine Learning" by the editors of *American Educator*, Spring 2006 (Vol. 30, #1, p. 38-46); the full article is available at http://www.aft.org

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 effective practices in K-12 education. Kim Marshall, drawing on 36 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 44 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, provides e-links to full articles when available, and e-mails the memo to subscribers every Monday (with occasional breaks; there were 50 issues in 2004-05).

Subscriptions:

Individual subscriptions are $50 for the school year. Rates decline steeply for multiple readers within the same organization. See the website for these rates and information on paying by check or credit card.

Website:

If you go to http://www.marshallmemo.com you will find detailed information on:

- How to subscribe or renew
- Why the Marshall Memo?
- Focus topics
- Headlines for all issues
- What readers say
- About Kim Marshall (including links to articles)
- A free sample issue

Marshall Memo subscribers have access to the Members' Area of the website, which has:

- The current issue (in PDF or Word format)
- All back issues (also in PDF or Word)
- A database of all articles to date, searchable by topic, title, author, source, level, etc.
- How to change access e-mail or password

Publications covered

Those read this week are underlined.

American Educator
American School Board Journal
ASCD SmartBrief
Atlantic Monthly
Boston Globe
CommonWealth Magazine
District Administration
Ed. Magazine
EDge
Education Digest
Education Gadfly
Education Next
Education Update
Education Week
Educational Leadership
Educational Researcher
Edutopia
Elementary School Journal
Harvard Business Review
Harvard Education Letter
Harvard Educational Review
JESPAR
Jimmy Kilpatrick
Journal of Staff Development
Language Learner
Middle Ground
Middle School Journal
NASSP Bulletin
New York Times
New Yorker
Newsweek
PEN Weekly NewsBlast
Phi Delta Kappan
Principal
Principal Leadership
Principal's Research Review
Reading Research Quarterly
Reading Today
Rethinking Schools
Review of Educational Research
Teacher Magazine
Teachers College Record
Theory Into Practice