Marshall Memo 276

A Weekly Round-up of Important Ideas and Research in K-12 Education
March 9, 2009

In This Issue:

Quotes of the Week

"We seem to forget that kids can be as tech-savvy as Bill Gates but as gullible as Bambi… Parents need to remind their teens that a dumb moment can last a lifetime in cyberspace."

"Teens, Nude Photos and the Law" by Dahlia Lithwick in *Newsweek*, Feb. 23, 2009

"There's a fine line between not ostracizing a pregnant student, and not making pregnancy look like an acceptable outcome."

Carolyn Sheehan, director of Blackstone Academy, Pawtucket, RI, in "Homework and Diapers" by Andrea Orr, *Edutopia*, Feb./Mar. 2009 (Vol. 5, #1, p. 18-19)
http://www.edutopia.org/teen-pregnancy-social-school-support

"Educators protect creativity by encouraging multiple approaches to an assignment, asking students to explain their apparently flawed responses, and rewarding those who make mistakes but then learn from them."

Howard Gardner (see item #1)

"You can't think outside the box unless you have a box!"

Howard Gardner (*ibid.*)

"Oddly, smart people are more susceptible to foolishness than not-so-smart ones, precisely because they think they are not susceptible."

Robert Sternberg (see item #2)

"In administrative jobs, wisdom is as much about knowing what not to say as it is about knowing what to say."

Robert Sternberg (*ibid.*)

1. Howard Gardner on Developing Intellectual Qualities for the Future

"What kind of minds should we be cultivating for the future?" asks Harvard multiple-intelligences guru Howard Gardner in this article in *The School Administrator*. He suggests five:

• *The disciplined mind* – By this, Gardner means learning what it means to think mathematically, scientifically, historically, and artistically. This must go deeper than memorizing facts and figures, he says. Nowadays, mastering more than one discipline, or at least having multiple perspectives, is at a premium. A level of knowledge and perspective is vital for the other four qualities.

• *The synthesizing mind* – With so much information bombarding us, the most valued quality in the 21st century, says Gardner (drawing on the work of Murray Gell-Mann), is one that "can survey a wide range of sources, decide which is most important and worth paying attention to, and then put this information together in ways that make sense to oneself and, ultimately, to others… Those who can synthesize well for themselves will rise to the top of their pack, and those whose syntheses make sense to others will be invaluable teachers, communicators, and leaders."

• *The creating mind* – Those with this quality are "eager to take chances, to venture into the unknown, to fall flat on his or her face, and then, smiling, pick oneself up and once more jump into the fray," says Gardner. Americans value creativity, but it can be squashed by unwise practices, he says: "Educators protect creativity by encouraging multiple approaches to an assignment, asking students to explain their apparently flawed responses, and rewarding those who make mistakes but then learn from them." Creativity doesn't happen in a vacuum, says Gardner. You need disciplinary knowledge and some ability to synthesize. "You can't think outside the box unless you have a box!" he says.

• *The respectful mind* – In the 21st-century we will all encounter thousands of people from widely differing backgrounds. "A person possessed of a respectful mind welcomes this exposure to diverse persons and groups," says Gardner. "A truly cosmopolitan individual gives others the benefit of the doubt; displays initial trust; tries to form links; and avoids prejudicial judgments." Parents, schools, and leaders in the outside world all shape children's level of respectfulness.

• *The ethical mind* – Adolescents and young adults ask questions like, "What kind of person do I want to be? What kind of worker do I want to be? What kind of citizen do I want to be? What would the world be like if all persons behaved the way that I do…?" Parents and

schools play an important part in guiding this quest. Ideally, an ethical person lives in accordance with the answers, even when they go against self-interest.

The respectful and ethical minds are sometimes in conflict. For example, a person who observes bad behavior within an organization may wonder whether to be respectful of the hierarchy or blow the whistle. Gardner says that he himself was conflicted when Danish newspapers published cartoons poking fun at Islamic fundamentalism. At first he was inclined to support the free-speech right to publish the cartoons, but he later changed his mind out of respect for "the sincere and strongly held religious beliefs of others."

How can schools develop these five qualities in students? Gardner offers a few suggestions:

- Disciplinary knowledge is an essential foundation;
- Synthesizing is an important skill; combined with disciplinary knowledge, it forms the basis for creativity;
- Schools should protect and nurture creativity;
- Exemplars of each quality are important, both within the school (for example, how it handles cheating by students and unethical behavior by staff members) and historically;
- It's important to have a sense of the developmental trajectory of each quality;
- Educational leaders should "outsource" qualities in which they aren't strong – for example, disciplinary knowledge or expertise at synthesizing;
- However, leaders should take ownership for ethical and respectful behavior, which cannot be outsourced;
- No educator is a perfect model of all five qualities, but students should see role models – parents, teachers, and others – who exemplify each quality at a high level;
- Students should be taught that "sometimes these minds will find themselves in tension with one another and that any resolution will be purchased at some cost."

"The Five Minds for the Future" by Howard Gardner in *The School Administrator*, Feb. 2009
http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=11027&snItemNumber=950&tnItemNumber=
These ideas come from Gardner's book, *Five Minds for the Future* (Harvard Business School Press, 2007). Gardner can be reached at hgasst@pz.harvard.edu.

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2. Leaders Who Are Smart and Creative But Lack Wisdom

In this *School Administrator* article, Tufts University psychologist and dean Robert Sternberg describes a superintendent's melt-down and firing and speculates on how such a smart, accomplished person could be so unwise. "Oddly," he says, "smart people are more susceptible to foolishness than not-so-smart ones, precisely because they think they are not susceptible." The superintendent had intelligence and creativity, two key qualities, but lacked a third: wisdom. Sternberg outlines six "cognitive fallacies" that produce self-destructive results for leaders:

• *Unrealistic optimism* – This is the belief that, because one is so smart, one's ideas can't and won't have problems.

• *Egocentrism* – Some leaders start off with the best intentions, truly wanting to do the best job possible, but as they become embattled, they focus more and more on their own needs – and survival.

• *False omniscience* – The trap here is thinking one knows everything – or at least everything that matters – and not seeing and learning from one's mistakes.

• *False omnipotence* – Some leaders believe they are all-powerful and have to assert their authority. They don't work with key constituencies who need to be brought along.

• *False invulnerability* – This is the belief that one's position will protect one from accountability. (Call it the Bill Clinton factor.)

• *Ethical disengagement* – When leaders think they are omnipotent and invulnerable, they sometimes begin to lose their ethical bearings, for example, bad-mouthing opponents behind their backs. "In administrative jobs," says Sternberg, "wisdom is as much about knowing what not to say as it is about knowing what to say."

"Wisdom, Intelligence, and Creativity Synthesized" by Robert Sternberg in *School Administrator*, February 2009
http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=11024&snItemNumber=950&tnItemNumber=
Sternberg can be reached at robert.sternberg@tufts.edu.

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3. Survey Findings on American Teachers

In this *Education Week* article, Anthony Rebora reports on the 25th annual *Metlife Survey of the America Teacher: Past, Present, and Future*. Some highlights:

- 62% of teachers say they are "very satisfied" with their careers (up from 40% in 1984);
- 66% say they feel respected by society (up from 47% in 1984);
- 66% say they earn a "decent salary" (up from 34% in 1984);
- 75% say they would recommend teaching to a young person (up from 45% in 1984);
- Two-thirds believe they are well-prepared for the profession (up from 46% in 1984);
- 44% say their access to materials and supplies is excellent (up from 22% in 1984);
- 43% say their students' achievement levels are so varied that it's difficult to teach effectively (up from 39% in 1984);
- Nearly half say poverty limits the day-to-day capabilities of at least a quarter of their students;
- 48% say that standardized tests are an effective way to monitor student performance (down from 61% in 1984);
- 90% agree that technology improves their instruction;
- About half use software to track data on student progress;
- 62% use the Internet at least once a week to find teaching resources;
- Nearly 40% have taken an online course for professional credit;
- Only 28% have written or read a blog on teaching;
- Only 30% have communicated online with a teacher in another district;

- Only 15% have made use of an online community or social networking site for professional purposes.

The study found that students in high-poverty schools, and at the secondary level, were markedly less positive about the profession and their schools.

"Survey Shows Teacher Satisfaction Climbing Over Quarter Century" by Anthony Rebora in *Education Week*, Mar. 4, 2009 (Vol. 28, #23, p. 12); the full Metlife study is available at http://www.metlife.com/assets/cao/contributions/citizenship/teacher-survey-25th-anniv-2008.pdf

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4. The Role of Socio-Emotional Skills in Developing Proficient Readers

Texas A & M University/College Station educators Erin McTigue, Erin Washburn, and Jeffrey Liew begin this article in *The Reading Teacher* with the story of Donte and Walter, who start second grade at exactly the same reading level and then dramatically diverge. Donte surges ahead and gets assigned to a higher reading group by October, but Walter makes no progress. What happened? Looking back at the notes she took in her individual reading inventories in September, the teacher finds clues:

- Walter mumbled in oral reading to conceal potential miscues, and he resisted the teacher's requests to decode difficult words by himself.
- Donte, on the other hand, approached reading with enthusiasm and confidence, read aloud with expression, and frequently asked the teacher for "harder" books.

Temperament, resilience and risk-taking seemed to be important factors in these two students' trajectories, which got the authors thinking about whether it takes more than letter knowledge and phonological awareness to make a successful reader. Self-efficacy, risk-taking, and persistence are often overlooked, say McTigue, Washburn, and Liew, and these factors can be just as important as language and alphabet skills.

Why are these socio-emotional skills important to classroom success? Because learning to read English "is an inherently challenging and non-intuitive process," say the authors, "particularly due to persistent exceptions to phonics rules (e.g., "ea" in *neat* vs. *sweat* vs. *great* vs. *caveat*). Even with the coaching of skilled teachers, novice readers encounter stumbling blocks on every page and therefore need academic resilience to keep trying in the face of multiple failures."

Some children seem to be naturally persistent and are motivated by their own drive to mastery. Can we instill these self-regulating qualities in students who don't already have them? The authors look first at children's temperament – their innate behavioral style or predisposition. Each school day, students encounter frustrating moments when they have to control their impulses, and they are also called upon to differentiate between times when more or less self-control is needed – for example, reading group versus lunch time. McTigue, Washburn, and Liew believe that these socio-emotional abilities are not just hard-wired – they can be learned: "[E]arly individual differences in temperament do not guarantee future successes or struggles."

Children's beliefs about themselves as learners are just as important, including: (a) self-efficacy – the belief that one's efforts can bring about desired goals; like self-control, it plays an important part in literacy development; (b) self-esteem – children's emotional reactions to their own accomplishments; and (c) academic resilience – not giving up in challenging situations because of the belief that effort is more important to success than ability.

The heart of this article is six principles for building academic resilience and nurturing successful readers:

• *Principle 1: Creating an accepting and warm environment* – This fosters academic achievement by encouraging students' engagement, risk-taking, and self-direction. Morning meetings are an excellent way to foster this kind of environment, possibly including student-to-student greetings, sharing of important experiences, a group activity, and news and announcements, followed by journaling.

• *Principle 2: Including measures of academic resilience in literacy assessments* – It's important to observe engagement and participation levels, self-monitoring, and requests for help. Observation checklists can gather this kind of information.

• *Principle 3: Direct modeling* – The teacher gives concrete explanations and demonstrations to show students how to use a new skill – literacy skills and coping skills. Guided reading groups are an excellent forum for modeling.

• *Principle 4: Feedback* – It's vital that teachers' comments and prompts are specific, accurate, and emphasize effort.

• *Principle 5: Goal-setting* – Goals need to be specific (focused on a particular skill or task), finite (they can be accomplished in the near term), and appropriately challenging (not too hard and not too easy, so that reaching the goal boosts self-efficacy). Writer's workshop is an excellent forum for feedback and goal-setting.

• *Principle 6: Self-evaluation* – A natural extension of goal-setting is getting students involved in assessing and tracking their own progress.

"Academic Resilience and Reading: Building Successful Readers" by Erin McTigue, Erin Washburn, and Jeffrey Liew in *The Reading Teacher*, February 2009 (Vol. 62, #5, p. 422-432), no e-link; the authors can be reached at emctigue@tamu.edu, ewashburn@neo.tamu.edu, and jeffrey.lieu@tamu.edu.

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5. How State Reading Tests Sell Students Short

In this important article in *The Reading Teacher*, Anthony Applegate, Mary DeKonty Applegate, Catherine McGeehan, Catherine Pinto, and Ailing Kong contend that most high-stakes state reading tests do not measure the kind of thoughtful, mature literacy that experts agree is desirable in well-educated students. The National Assessment of Educational Progress (NAEP) does measure higher-level literacy skills, and the gap between students' scores on the NAEP and state tests – it averages 40 percent – tells the tale.

What's ironic, say the authors, is that the literacy standards published by all states agree with the NAEP on the higher-order reading skills students should attain. The problem is that

the tests states are using aren't aligned to their own standards. To get a better picture of what's going on, the authors examined the NAEP and a sample of fourth-grade reading tests from eight states (California, Florida, Wisconsin, Illinois, New York, North Carolina, Pennsylvania, and Texas).

What they found were qualitative differences between the NAEP and state tests. NAEP uses a lot more open-ended items, has far fewer vocabulary and genre items, and challenges students with more thoughtful questions. The state tests ask simple-minded, low-level questions that make it impossible to distinguish among basic, proficient, and advanced readers. NAEP, say the authors, "is far more congruent with the widely accepted definition of mature reading comprehension as a dynamic process of thinking about what we read and how it fits in with our experiences and values." NAEP is also well aligned with state literacy frameworks, which unanimously aver that thoughtfully responding to texts is important. "It is difficult to avoid the conclusion," say the authors, that the state tests are not particularly well aligned with their own testing frameworks."

The result is a dumbing down of the level of literacy instruction in schools because teachers feel that the best way to prepare students for state tests is teaching their students the lower-level reading skills that their state tests measure. In other words, the state tests, not state standards, are driving classroom instruction. When students score well on state tests, say the authors, it does *not* mean they're on the road to mature reading.

Applegate, Applegate, McGeehan, Pinto, and Kong are confident that students who are taught a higher-level literacy curriculum will do well on NAEP *and* on state tests – and will be ready for the literacy challenges of college and life. But so many teachers are anxious about student achievement on low-level state tests that they're unwilling to take the leap of faith. The result is that millions of students are being sold short; they may score high on state tests, but they are not thoughtful, critical readers. This cycle will be broken, the authors conclude, only if state tests become more like the NAEP and truly reflect the literacy standards of every state.

"The Assessment of Thoughtful Literacy in NAEP: Why the States Aren't Measuring Up" by Anthony Applegate, Mary DeKonty Applegate, Catherine McGeehan, Catherine Pinto, and Ailing Kong in *The Reading Teacher*, February 2009 (Vol. 62, #5, p. 372-381), no e-link; the authors can be reached at Tapple1492@aol.com, Mapple1492@aol.com, catherinemcgeehan1@comcast.net, cappin@msn.com, and akong@sju.edu.

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6. Weak Vocabulary Instruction in Ten Pre-K Reading Programs

In this hard-hitting article in *The Reading Teacher*, Susan Neuman and Julie Dwyer of the University of Michigan criticize the lack of systematic, challenging vocabulary instruction in almost all of the ten commercial Early Reading First pre-K reading programs they examined. This is a shame, say Neuman and Dwyer, because vocabulary is key to proficient reading. Why? Because, they say, "vocabulary is more than words. It is knowledge. To know a word's meaning is to know what a word represents and to begin to understand the network of concepts that goes with it. Research studies suggest that it is this rich interconnection of knowledge that

drives children's comprehension. The more words you know, the easier it is to learn more words."

This is the reason the authors were so disappointed to find weak vocabulary components in the curriculum programs they scrutinized:

- Breakthrough to Literacy (Wright Group/McGraw Hill 2004)
- D.L.M. Early Childhood Express; Ready, Set, Leap (Wright Group/McGraw Hill 2004)
- Early Childhood Program (Scholastic 2003)
- Houghton Mifflin Pre-K (Houghton Mifflin 2006)
- Open Court Pre-K Reading Program (SRA/McGraw Hill 2003)
- Opening the World of Learning (Pearson 2005)
- Pebble Soup (Rigby 2002)
- Leap (Leapfrog 2003)
- Rigby's Activate Early Learning (Harcourt Achieve 2005)
- Trophies Storytown (Harcourt 2007)

From their analysis, they draw three conclusions:

• "Little exists right now that is helpful to teachers who want to do a better job of providing explicit instruction in vocabulary to young children," they say. Only two of the programs systematically address vocabulary instruction, while the other eight only "tip their hat" in that direction. Teachers using these programs need to supplement the core program with additional vocabulary instruction.

• There is a mismatch between the explicit goals stated in each program's scope and sequence and the paltry teaching strategies in the materials themselves. Perhaps this stems from the belief that "casual exposure to words might be sufficient for children to make gains in vocabulary," say Neuman and Dwyer. Perhaps the assumption is that teachers will take care of vocabulary instruction on their own. Whatever the reason, there's not enough substance.

• Finally, the authors say that "pedagogical principles for teaching vocabulary to young children are sorely needed." Repeating words, brainstorming words on a topic, and teaching the word *prune* through actions were among the lame strategies suggested.

Acknowledging that their analysis might be incomplete, Neuman and Dwyer nonetheless conclude with a "cautionary note to those who might rely on these programs and a clarion call for those who might wish to develop instructional materials for enhancing children's vocabulary and narrow the persistent gap between low-income and middle-income children."

"Missing in Action: Vocabulary Instruction in Pre-K" by Susan Neuman and Julie Dwyer in *The Reading Teacher*, February 2009 (Vol. 62, #5, p. 384-392), no e-link; the authors can be reached at sbneuman@umich.edu and dwyerj@umich.edu.

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7. Which Are the Best Elementary Math Curriculum Programs?

In this *Education Week* article, Debra Viadero reports on a new study on the effectiveness of four commercial mathematics programs with first graders (the study was

conducted primarily in inner-city schools):

- Investigations in Number, Data, and Space (Pearson Scott Foresman)
- Math Expressions (Houghton Mifflin)
- Saxon Math (Harcourt Achieve)
- Scott Foresman-Addison Wesley Mathematics (Pearson Scott Foresman).

The study found that Math Expressions and Saxon Math produced the best achievement, as measured by one-on-one assessments of students at the end of the year.

The study's results need to be taken with a grain of salt, though. Teachers using Saxon spent an hour more on math each week, and teachers using Investigations had much less coaching support. This raises the possibility that factors other than the quality of the curriculum materials produced the differences in student achievement.

What's striking is that the two "winning" programs are seen as being at opposite extremes of the ideological spectrum – Saxon more at the scripted end, Expressions more at the constructivist. This means the study won't help resolve the long-brewing "math wars" on what works best in the classrooms. "One of the things this says to me is that we're not going to find a unique curriculum that all teachers can use with the same degree of effectiveness," said Hank Kepner of the NCTM.

"Study Gives Edge to 2 Math Programs" by Debra Viadero in *Education Week*, Mar. 4, 2009 (Vol. 28, #23, p. 1, 13), article available to subscribers only

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8. A Revision of Bloom's Taxonomy

In this book chapter, Mary Forehand touts the new and improved Bloom's taxonomy published in 2001 by Lorin Anderson, a former student of Bloom, and a team of researchers. Here are the two versions side by side:

ORIGINAL	***REVISED***
Evaluation	Creating
Synthesis	Evaluating
Analysis	Analyzing
Application	Applying
Comprehension	Understanding
Knowledge	Remembering

Here are details of the revised taxonomy (Anderson and Krathwohl, 2001), with questions applying each level to the story of Goldilocks (from the Omaha Public Schools Teacher's Corner):

- *Remembering*: Retrieving, recognizing, and recalling relevant knowledge from long-term memory – *Describe where Goldilocks lived.*

- *Understanding*: Constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining – *Summarize what the Goldilocks story was about.*
- *Applying*: Carrying out or using a procedure through executing, or implementing – *Construct a theory as to why Goldilocks went into the house.*
- *Analyzing*: Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through differentiating, organizing, and attributing – *Differentiate between how Goldilocks reacted and how you would react in each story event.*
- *Evaluating*: Making judgments based on criteria and standards through checking and critiquing – *Assess whether or not you think this really happened to Goldilocks.*
- *Creating*: Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through generating, planning, or producing – *Compose a song, skit, poem, or rap to convey the Goldilocks story in a new form.*

"Bloom's Taxonomy" by Mary Forehand, from *Emerging Perspectives on Learning, Teaching and Technology*, M. Orey (Ed.) (2005) http://projects.coe.uga.edu/epltt; see Marshall Memo 135, article #6 for more on the revised Bloom's taxonomy.

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9. Short Item:

Using dance steps to teach chemistry – This *Edutopia* article by former science teacher Jane Burke gives a link to how a high-school chemistry teacher used a professional dancer to make chemical principles vivid for students. The article with a video of the dance/chemistry class in action is at http://edutopia.org/dance-science-concepts.

"Chemistry in Motion" by Jane Burke in *Edutopia*, February/March 2009 (Vol. 5, #1, p. 10)

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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 37 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 more than a hundred 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 evening (with occasional breaks; there are about 50 issues a year).

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Publications covered

Those read this week are underlined.

American Educator
American Journal of Education
American School Board Journal
ASCD, CEC SmartBriefs, Daily EdNews
Catalyst Chicago
Changing Schools (McREL)
Ed. Magazine
EDge
Education Digest
Education Gadfly
Education Next
Education Week
Educational Leadership
Educational Researcher
Edutopia
Elementary School Journal
Essential Teacher (TESOL)
Harvard Business Review
Harvard Education Letter
Harvard Educational Review
JESPAR
Journal of Staff Development
Language Learner (NABE)
Middle Ground
Middle School Journal
New York Times
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 (online)
Teachers College Record
The Atlantic Monthly
The Language Educator
The New Yorker
The Reading Teacher
Theory Into Practice
Tools for Schools/The Learning Principal