

Marshall Memo 370

A Weekly Round-up of Important Ideas and Research in K-12 Education
January 24, 2011

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Quotes of the Week

“We need millions of well-prepared, highly savvy teachers who teach in school organizations designed to share their expertise with colleagues down the hall as well as in virtual communities.”

Barnett Berry (see item #5)

“The current momentum to create a more effective teacher-evaluation process is exciting and long overdue.”

Karen Hawley Miles and Karen Baroody (see item #6)

“The message to younger teachers continues to be: Wait your turn; accept the system as it is; and, in time, it will work for you. In other words: Assimilate or leave.”

Celine Coggins and Heather Peske (see item #4)

“Young teachers across the nation have a responsibility to be the change they seek. [T]heir first and most important audience is their union.”

Celine Coggins and Heather Peske (*ibid.*)

“Civility is the natural state for people who know how limited their own individual powers are and know, too, that they need the conversation. They are useless without the conversation.”

David Brooks (see item #1)

1. David Brooks on Civility

“Civility is a tree with deep roots,” says David Brooks in this *New York Times* column, “and without the roots, it can’t last.” He believes civility is rooted in a recognition of failure, weakness, and ignorance.

All sensible people know that their work is “laced with failure,” he says. “There are always arguments you should have made better, implications you should have anticipated, other points of view you should have taken on board... The truth is fragmentary and it’s impossible to capture all of it. There are competing goods that can never be fully reconciled. The world is more complicated than any human intelligence can comprehend.”

The good news is that imperfect work can be redeemed by others. They argue with you, correct you, and introduce elements you never thought of. “Each of these efforts may also be flawed,” says Brooks, “but together, if the system is working well, they move things gradually forward... We all get to live lives better than we deserve because our individual shortcomings are transmuted into communal improvement. We find meaning – and can only find meaning – in the role we play in that larger social enterprise... Civility is the natural state for people who know how limited their own individual powers are and know, too, that they need the conversation. They are useless without the conversation.”

The problem, says Brooks, is that in the last few decades, we’ve lost a sense of modesty and humility. “Children are raised amid a chorus of applause... Joe DiMaggio didn’t ostentatiously admire his own home runs, but now athletes routinely celebrate themselves as part of the self-branding process.” People engage in monologue rather than dialogue, talk mostly with people who agree with them, and don’t feel a need for balance or correction.

Brooks closes with a quote from Reinhold Niebuhr: “Nothing that is worth doing can be achieved in our lifetime; therefore, we must be saved by hope... Nothing we do, however virtuous, can be accomplished alone; therefore, we are saved by love. No virtuous act is quite as virtuous from the standpoint of our friend or foe as it is from our standpoint. Therefore, we must be saved by the final form of love, which is forgiveness.”

“Tree of Failure” by David Brooks in *The New York Times*, Jan. 14, 2011
<http://www.nytimes.com/2011/01/14/opinion/14brooks.html?ref=davidbrooks>

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2. The Best Way to Study and Remember

In this intriguing *New York Times* article, Pam Belluck reports on a Purdue University study just published in *Science* comparing how well college students learned using four different methods to study a non-fiction passage:

- Studying it once – students read the passage for about five minutes;
- Repeatedly studying – students re-read the passage four times in consecutive 5-minute sessions;
- Concept mapping – students referred to the passage to construct bubble diagrams showing connections among the facts and concepts;
- Retrieval practice – students put the passage aside and wrote down everything they could remember, then looked back at the original passage, put it aside again, and wrote as much as they could remember.

A week later, students were given a short-answer test on their recall of the facts in the passage and their ability to draw logical conclusions from those facts. Students who had used retrieval practice did significantly better than the other three groups on the facts and on inferential reasoning. In second place was repeated study, concept mapping was third, and studying once a distant fourth.

In a second experiment in which researchers compared just concept mapping and retrieval practice, students who used retrieval practice outperformed the concept mapping group – even at drawing concept maps.

Why does retrieval practice work so well? Researchers speculate that being challenged to remember information helps us organize it in our brains and creates cues and connections, reinforcing it in memory so that it's easier to access later on. With a computer, when we retrieve information, nothing inside changes – it's simple playback. But with the human brain, when we retrieve information, we strengthen access pathways to that information. "What we recall becomes more recallable in the future," says UCLA psychologist Robert Bjork. "In a sense, you are practicing what you are going to need to do later."

"Learning is about retrieving," says Jeffrey Karpicke, the lead researcher in the Purdue study. "So it is important to make retrieval practice an integral part of the learning process."

Karpicke has been struck by the fact that during his studies, students don't think retrieval practice is going to be the most effective strategy. With a passage right in front of them, students think they know it better than they actually do. "It may be surprising to realize that there is such a disconnect between what students think will afford good learning and what is actually best," says Karpicke. "We, as educators, need to keep this in mind as we create learning tools and evaluate educational practices."

Part of what's going on here is that retrieval practice seems harder and stirs up more self-doubt and frustration as people use it. "The struggle helps you learn, but it makes you feel like you're not learning," says Williams College psychologist Nate Kornell. "I don't know it that well. This is hard and I'm having trouble coming up with this information." Students using repeated studying and concept mapping were overconfident as they studied; they had the illusion that they knew the material better than they actually did.

Kornell believes retrieval practice should be used extensively in classrooms to make important information stick in students' minds. "It's going to last for the rest of their schooling," he says, "and potentially for the rest of their lives."

"Take a Test to Really Learn, Research Suggests" by Pam Belluck in *The New York Times*, Jan. 21, 2011 (p. A12)

http://www.nytimes.com/2011/01/21/science/21memory.html?_r=1&scp=2&sq=Pam%20Belluck&st=cse

The full article, "Retrieval practice produces more learning than elaborative studying with concept mapping" by Purdue University professor Jeffrey Karpicke and Janell Blunt, was published online in *Science*, January 20, 2011, available at

<http://www.sciencedaily.com/releases/2011/01/110121111216.htm>

See also these Marshall Memo summaries on the same topic: 248 #2, 268 #1, and 189 #1.

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3. How Brockton High School in Massachusetts Turned Itself Around

In this interview with Michael Jonas in *CommonWealth Magazine*, Susan Szachowicz, the principal of Brockton High School in Massachusetts, describes the school's dramatic gains over the last ten years, moving from 41 percent failing ELA and 75 percent Math to 71 percent Proficient or Advanced in ELA and 65 percent in Math. These gains have taken place despite the school's humongous size – 4,100 students – the composition of the student body – 71 percent eligible for free-and-reduced-price meals with a high percentage of English language learners, mostly Cape Verdean – and traditional union contracts.

Szachowicz describes how disheartened she and her colleagues were when they got the first Massachusetts high-stakes test scores in 1998. Less than a quarter of the class of 2003 was on track to receive a high-school diploma. This galvanized the staff around the need for change – but not around a specific strategy. Szachowicz, then the history department chair, joined others on a restructuring team. They tried revising the schedule – fewer class periods of greater length – but this didn't improve achievement. "If you have 66 minutes of not a good thing instead of 45," she said, "you're no further ahead than you were before."

Noticing that the first two years of MCAS ELA tests contained Shakespeare sonnets, the English department did a major unit on sonnets – only to open the next year's MCAS test and find no Shakespeare sonnets at all. "We realized the hard way that it wasn't going to work to try to outguess the test," says Szachowicz. "And was that really what we wanted anyway? So we broadened the discussion to: what are the skills that kids needed for the test? And what do our kids need to know and be able to do to be successful graduates?"

These questions led restructuring committee members to focus on the quality and rigor of classroom teaching. They decided to emphasize four core skills – reading, writing, speaking, and reasoning, and started off with writing the first year (2000-2001). They defined precisely what quality teaching and learning of writing looked like, adopted a schoolwide rubric, conducted training in all departments, including physical education and art, and relentlessly pushed implementation in every classroom. Many teachers were skeptical – they'd seen lots of unsuccessful initiatives over the years – but they went along because their own colleagues were leading the effort. Szachowicz defended this single-minded approach, saying, "How does

anyone really learn something? Any musician or coach knows this: practice, practice, practice. And you can't complicate the matter by saying, depending on what classroom you're in the standards are different."

At the end of the first year, Szachowicz, then the associate principal, got a call from David Driscoll, the state's Commissioner of Education. She assumed the school was in some kind of trouble and was shocked when he said, "What did you do down there, anyway? You are the most improved school in the Commonwealth of Massachusetts." Driscoll came to the school and announced the results in an assembly, and skeptical staff members became believers. "We had buy-in when we had results," says Szachowicz.

Despite the gains and the publicity, the school still had a long way to go. The restructuring committee brought in consultants from Research for Better Teaching to train teachers and administrators on the skills of teaching and improve supervision and evaluation. Teacher teams began to look systematically at student work and interim assessments, always asking the simple question, "What do you notice?" Teachers were trained in interim assessment data analysis and teams zeroed in on differences in results from class to class: "Look at the results Ms. Nelson is getting. Geez. How come her kids are getting this and this and others are not?" Effective teachers were paired with those who were less successful, spreading good classroom practices.

The school never downgraded fine arts, music, and physical education. "We never went the route of taking that away because my belief is that's the hook," says Szachowicz. "Our kids would follow the band director off a cliff, or the football coach, or the choral director. There are kids who will bury themselves in fine arts. So we went the route of embedding literacy into those areas they love."

Szachowicz envies principals who have been able to implement outside-the-box initiatives like a longer school day and year. "I find it absurd that I as a principal can't call a teachers' meeting without having a grievance," she says. "But I'm not going to use that as an excuse and do nothing and say, poor me, poor me, and guess what, kids aren't graduating. I just think far too often that's used as an excuse. The literacy initiative costs nothing. It was about changing instruction in a building and changing the focus in a building."

"Grade Expectations" A Conversation with Susan Szachowicz by Michael Jonas in *CommonWealth*, Winter 2011 (Vol. 16, #1, p. 74-83)

<http://www.commonwealthmagazine.org/Voices/Conversation/2011/Winter/Grade-expectations.aspx>

See Marshall Memo 360, #2 for a *Principal Leadership* article by Susan Szachowicz.

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4. Keeping Effective Young Teachers in the Classroom

In this thoughtful *Education Week* article, Celine Coggins and Heather Peske confess that they were teachers who left the classroom after only a few years. They now work at a Boston-based organization called Teach Plus trying to create conditions that support effective young teachers in continuing to teach for longer periods of time.

One problem is that opportunities for teachers to spread their wings often depend on seniority. “The message to younger teachers continues to be: Wait your turn; accept the system as it is; and, in time, it will work for you,” say Coggins and Peske. “In other words: Assimilate or leave. The net effect over the past couple of decades has been the loss of thousands of teachers who took their sense of urgency and impatience for change and left the classroom.”

Most young teachers don’t realize that they are now in the majority. Teachers with less than 11 years of experience are now 52 percent of the teaching force; if they flexed their muscles, they could make a difference. But the current churn of talented teachers might continue, especially in high-poverty schools. “The new majority must become teacher-leaders, not teacher leavers,” say Coggins and Peske.

Teach Plus is targeting teachers with 3-10 years of experience and promoting the following ideas to try to keep them in the classroom:

- *Second-stage career incentives* – Districts can entice young teachers who are getting results to stay in the classroom by giving them enhanced roles within their schools and districts. “There could be no better marketing tool for the profession than a visible cohort of highly effective teacher-leaders who stay,” say Coggins and Peske.

- *Policy input* – Carefully selected groups of effective young teachers get a chance to interact with district and state policymakers, advocating for policies that benefit students and teachers. In Boston, a group of teachers helped craft a new policy that sends a critical mass of innovative teachers to each turnaround school. In Indianapolis, a similar group successfully challenged the traditional last-in/first-out system and got the district to use performance measures in the teacher layoff process.

- *Working inside the union* – “Young teachers across the nation have a responsibility to be the change they seek,” say Coggins and Peske. “[T]heir first and most important audience is their union... They must ensure their voice is heard.” The problem is that many young teachers don’t participate in union activities and retired teachers maintain voting rights, which skews union policies toward the priorities of senior and retired members.

- *A teacher-retention competition* – Teach Plus has proposed a Race to the Top-like contest among the 100 largest urban districts with prizes for those that are most successful in keeping effective teachers through year five and through year ten. This would require a definition of effective teaching, incentives and leadership roles, and districts actively competing for teaching talent and working to keep the best.

“New Teachers Are the New Majority” by Celine Coggins and Heather Peske in *Education Week*, Jan. 19, 2011 (Vol. 30, #17, p. 21, 23), <http://www.edweek.org>

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5. An Ambitious Agenda for Improving Teaching

“It’s time to revamp and revitalize teaching as a profession to reflect a complex, 21st-century world,” says North Carolina author/advocate Barnett Berry in this *Education Week* article. “We need millions of well-prepared, highly savvy teachers who teach in school

organizations designed to share their expertise with colleagues down the hall as well as in virtual communities.”

Berry and a group of teachers from around the country believe that the most effective instructors know how to:

- Teach the Googled learner – today’s students have spent countless hours playing virtual-reality games and take for granted being able to find virtually any piece of information with a few mouse clicks.
- Work with a diverse student body, culturally and linguistically;
- Prepare students with the new global basics – communication, collaboration, critical thinking, and creative problem-solving;
- Use assessments to fine-tune their teaching and help students monitor their own learning;
- Push for health and social services in their schools to meet the needs of families buffeted by social instability.

These attributes are essential to success in the years ahead because of four emerging realities:

- *A transformed learning environment* – Students can learn 24/7 and so can teachers; it’s now possible to use technology to do a much better job informing students, parents, and policymakers who is and isn’t learning and why.

- *Ongoing equity issues* – The potential for learning in cyberspace is tremendous, but teachers will have to reach out to their communities to ensure that all students have access to technology.

- *Changing career lattices* – Berry and his colleagues see teachers with different skills and career trajectories working with colleagues to maximize their respective strengths, brokering learning and support services for students, families, and colleagues.

- *The potential of “teacherpreneurs”* – There’s more of a need than ever for teachers who continue to work in classrooms but also design new ways of teaching, orchestrate community partnerships, and advocate for new policies and practices. Districts can encourage this breed of maxi-teacher by paying them more and opening the way for greater responsibilities, blurring the line between teachers and administrators.

“We are well aware of the uphill climb that’s needed to reverse teaching’s complicated history,” Berry concludes, “– one marked by a lack of clarity and rigor in becoming a teacher, limited prestige and income, and siloed classrooms that isolate teachers’ pedagogical expertise and muffle the policy voices of our best practitioners. But we cannot transform our schools unless we first imagine a more effective future.” This will involve:

- Doing a better job explaining the complexity and power of teaching to the public;
- Investing in teacher development;
- Rethinking school finance to integrate the delivery of services;
- Partnering with universities and health, social-service, and community organizations;
- Transforming teacher education and licensing;
- Using performance assessments to see which teachers should teach in which situations;
- Improving working conditions, especially in challenging schools;

- Reframing accountability by pinpointing which schools are more effective and why;
- Morphing teacher unions into professional guilds that hold their members to high expectations and broker the skills of the most effective teachers locally and globally.

“We Can Create the Profession Students Need” by Barnett Berry in *Education Week*, Jan. 19, 2011 (Vol. 30, #17, p. 20, 22), <http://www.edweek.org>

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6. Rewarding Teachers for Contributions, Not Test Scores

“The current momentum to create a more effective teacher-evaluation process is exciting and long overdue,” say Karen Hawley Miles and Karen Baroody of Education Resource Strategies in this *Education Week* article. But they don’t agree with using student test scores to evaluate teachers. “The threat of dismissal or the promise of a few thousand bonus dollars for meeting narrow quantitative objectives is unlikely to inspire outstanding performance or attract the nation’s best and brightest,” they say.

Instead, they want to tweak the teacher-evaluation process so it measures instructional skill, student results, professional contributions, and the teacher’s reflectiveness. Data from an improved evaluation process would provide teachers with valuable feedback, help shape personnel decisions (including dismissal), and allow district and school leaders to:

- *Create more-effective teaching teams* – Miles and Baroody imagine principals forming teams with a mix of experience and expertise, combining talents to get the best bang for the buck. This might involve putting the strongest teachers with the neediest students. “Deliberate team composition allows principals to be much more focused in filling needs when positions open,” they write. “Instead of hiring a generic math teacher, a principal may wish to recruit one with technology expertise, but who doesn’t need to be experienced in teaching struggling students because he or she will be supported by other expert teachers on the team.”

- *Support teacher teams* – Miles and Baroody say that all too often, schools don’t give teacher teams the time, data, and support to engage in successful professional-learning-community work. It’s essential that same-grade/same-subject teams have common planning time, user-friendly interim assessment data, and expert coaching so they can use student learning results to constantly fine-tune their teaching and help struggling students. Peer leaders and coaches should be compensated accordingly.

- *Build a better pipeline* – Central-office personnel staff can use improved teacher-evaluation data to conduct more-focused outreach for particular positions and increasingly use teacher-training institutions that have the best track record of providing effective teachers.

- *Maximize teacher potential* – Principals can use teacher-evaluation data to put effective teachers in the most crucial teaching assignments (e.g., transition grades) or get them working with new teachers – both for extra pay. “Instead of reimbursing teachers for taking courses of their own choosing,” say Miles and Baroody, “districts can target that investment in areas identified for development.”

- *Reward contribution* – Most district pay scales reward teachers for longevity and academic credits, accounting for more than 80 percent of teacher-compensation spending.

Miles and Baroody believe that teachers should be able to earn more for teaching the neediest students and/or supporting colleagues. “Compensation should increase when teachers bring scarce or additional needed expertise to their classrooms, including certification in hard-to-staff areas such as science, technology, engineering, and math (the STEM subjects) or special education,” they say.

“Moving Beyond Test Scores” by Karen Hawley Miles and Karen Baroody in *Education Week*, Jan. 19, 2011 (Vol. 30, #17, p. 20-22), <http://www.edweek.org>

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7. Math Doodles Go Viral

In this *New York Times* article, Kenneth Chang reports on the adventures of Vi Hart, a recent graduate of Stony Brook University who posted a series of YouTube videos in November showing her mathematical doodling. The videos express disdain for the boring way math is taught in school and Hart’s own exploration of math as art. Here are a couple of them:

<http://www.youtube.com/user/Vihart#p/u/7/e4MSN6IImpl>

http://www.youtube.com/user/Vihart#p/u/2/Yhlv5Aeuo_k

The videos have been viewed more than a million times, making Hart a minor celebrity and opening up some interesting career options. Hart is particularly excited that a lot of teenage girls are watching the videos. “I just think that’s really awesome,” she said, “because you’ve got girls in middle school and high school who are suddenly enjoying mathematics and enjoying being a little nerdy and smart and we need that.”

“Bending and Stretching Classroom Lessons to Make Math Inspire” by Kenneth Chang in *The New York Times*, Jan. 18, 2011 (p. D3)

<http://www.nytimes.com/2011/01/18/science/18prof.html?scp=1&sq=“Bending%20and%20Stretching%20Classroom%20Lessons%20to%20Make%20Math%20Inspire”%20&st=cse>

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8. Websites on:

a. Environmental health activities – This website features Tox Town and allows students to explore health concerns and toxic substances they may encounter where they live, work, or play: <http://toxtown.nlm.nih.gov>. The website is available in Spanish.

“Web Watch” in *The Language Educator*, January 2011 (Vol. 6, #1, p. 60)

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b. Vietnamese New Year – The Threeland Travel website has information on Tet and other Vietnamese festivals:

http://www.threeland.com/vietnam_festivals_events.htm

The More Fun Travel website has additional information, a video, and a song:

<http://www.funinvietnam.com/vietnamese-new-year-2011>

“Web Watch” in *The Language Educator*, January 2011 (Vol. 6, #1, p. 60)

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c. Multi-lingual money quiz – Monetary Mania is a 20-question interactive quiz created by the International Monetary Fund. It can be played in French, Spanish, or English:

<http://www.imf.org/external/np/exr/center/quiz/mm/eng/index.htm>

“Web Watch” in *The Language Educator*, January 2011 (Vol. 6, #1, p. 61)

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d. Alphabet pronunciation in five languages – On this website, you can click on the letters of the English, German, Italian, French, and Spanish alphabets and hear the correct pronunciation: <http://www.alphabetpage.com>

“Web Watch” in *The Language Educator*, January 2011 (Vol. 6, #1, p. 61)

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e. World geography quizzes – On this website, students can take map tests on the continents, countries, states, provinces, territories, and cities:

<http://www.lizardpoint.com/fun/geoquiz/index.html>

“Web Watch” in *The Language Educator*, January 2011 (Vol. 6, #1, p. 61)

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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 41 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).

Subscriptions:

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- About Kim Marshall (including links to articles)
- A free sample issue

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- 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 log-in

Publications covered

Those read this week are underlined.

American Educator
American Journal of Education
American School Board Journal
ASCD, CEC SmartBriefs, Daily EdNews
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
Teachers College Record
The Atlantic Monthly
The Chronicle of Higher Education
The Language Educator
The Learning Principal
The New Yorker
The Reading Teacher
The School Administrator
Theory Into Practice
Tools for Schools