Marshall Memo 367

A Weekly Round-up of Important Ideas and Research in K-12 Education
January 3, 2011

In This Issue:

Quotes of the Week

"Teachers differ dramatically in their performance, with large consequences for students."
Grover "Russ" Whitehurst et al. (see item #1)

"If you want to get something done, decide when and where you're going to do it. Otherwise, take it off your list."
Peter Bregman (see item #2)

"Doing several things at once is a trick we play on ourselves, thinking we're getting more done."
Peter Bregman (*ibid*.)

"I never realized how significantly a short moment of checking my e-mail disengaged me from the people and things right there in front of me."
Peter Bregman (*ibid*.)

"When principals observe classrooms, they see, for example, that students ask very few questions – almost none – and when they do, they are largely procedural. They see teachers answering their own questions, or taking one answer and moving on. They see students who really don't know why they are doing what they are doing."
Thomas Fowler-Finn in "The Virtues of Experience" in *Harvard Education Letter*, January/ February 2011 (Vol. 27, #1, p. 8, 6-7); available for purchase at http://www.edletter.org.

"As soon as you say, 'Here's the answer,' you've blown good instruction."
Gerald Lieberman (see item #4)

"Any time you can get them to think, that's kind of a victory right there."
David James (*ibid*.)

1. Using Value-Added Information with Teachers

"Teachers differ dramatically in their performance, with large consequences for students," says a research team led by Grover "Russ" Whitehurst in this thoughtful Brookings Institution white paper. They explain why there is such intense interest at the federal, state, and local level in improving teacher evaluation:

- Most systems fail to recognize and document differences in teacher effectiveness and almost all teachers receive satisfactory or excellent ratings. As U.S. Education Secretary Arne Duncan put it, "Today in our country, 99 percent of our teachers are above average."
- As a result, key personnel decisions (e.g., hiring, placement, compensation, tenure, promotions, professional development, layoffs, and firing) are made without very precise information on the most important aspect of teachers' job performance (student learning).
- In other words, most districts aren't using one of the strongest levers for lifting the performance of schools and students.

Recently there has been great interest in value-added – calculating each teacher's contribution to student learning, usually by subtracting students' achievement levels at the beginning of the year from those at the end of the year, accounting for other variables.

Critics of value-added point to problems with statistical validity, reliability, and potential misuse. Whitehurst and his colleagues concede that teachers have every reason to be worried about imperfections in value-added information and how it might be used. But they argue that the conversation about teacher effectiveness *must* be about student learning, and they go on to address four areas of concern.

• *How should value-added data be used?* Among those who find value-added information intriguing, there are big disagreements on how it should be used. Some propose using the data to determine teacher pay at the individual, team, or school level. Some favor using value-added data to award career-ladder steps to the most effective teachers. Some favor using the data to make tenure decisions. And some advocate publicly releasing data on the "best" and "worst" teachers, as the *Los Angeles Times* did recently. Whitehurst et al. point out that one can be in favor of gathering value-added information but not of publishing it in a newspaper. "It is routine for working professionals to receive consequential evaluations of their job performance," they write, "but that information is *not* typically broadcast to the public."

The big point, they say, is that value-added information on student learning is far more helpful to teachers and administrators than the typical one-shot, end-of-year test data used by most districts. Annual test scores can hide dramatic surges in student achievement or mislead teachers into thinking they are effective when in fact they are adding little value to students' social-class advantages or previous achievement. "Teachers and their mentors and principals stand to gain vast new insight if they could see the teachers' performance placed in context of other teachers with students just like their own, drawn from a much larger population than a single school," say Whitehurst et al. "This is the promise of value-added analysis. It is not a perfect system of measurement, but it can complement observational measures, parent feedback, and personal reflections on teaching far better than any available alternative. It can be used to help guide resources to where they are needed most, to identify teachers' strengths and weaknesses, and to put a spotlight on the critical role of teachers in learning."

• *What about misclassification of teachers?* A widespread concern about value-added analysis is that effective teachers are sometimes reported to be ineffective and vice-versa. Whitehurst and his colleagues have three responses. First, they say that because of the volatility of student achievement data, it takes multiple years of test information, combined with other measures, to form a valid conclusion about an individual teacher's effectiveness. Second, they say that all decision-making systems make classification errors (see the next bullet).

And third, they say critics worry more about the impact of "false negatives" (a few effective teachers misclassified as ineffective) than they do about the impact of "false positives" (ineffective teachers misclassified as effective, affecting large numbers of students). "[A]n evaluation system that results in tenure and advancement for almost every teacher and thus has a very low rate of false negatives generates a high rate of false positives," they write, "i.e., teachers identified as effective who are not. These teachers drag down the performance of schools and do not serve students as well as more-effective teachers."

• *How does value-added in education compare to evaluation in other professions?* At first blush, value-added data seem volatile and unimpressive. Of teachers ranked in the top quartile of value-added effectiveness one year, only about a third will be in the top quartile the next, and ten percent of teachers in the bottom quartile one year will be in the top quartile the next. The correlation of value-added data from year to year is only .30 – .40. Some of the fluctuations are due to year-to-year ups and downs in teaching quality, and some are due to measurement errors.

However, Whitehurst and his colleagues say that there are quite similar percentages in other arenas:

- The correlation between SAT scores and freshman grade-point averages is only .35, yet nearly all selective colleges use SAT (or ACT) scores as an important component in admissions decisions – guaranteeing a substantial number of false negatives – students who aren't admitted who could have been successful.

- In health care, the year-to-year correlation of patient mortality rates is well below 0.5 for most medical and surgical conditions, and yet this statistic is widely used as a quality measure for hospitals.
- A meta-analysis found that the year-to-year correlations of baseball batting averages and the productivity of real-estate salespeople, sewing-machine operators, and utility company field-service personnel was only .36 – yet managers in each of these fields definitely look at key data when making personnel decisions.

In short, conclude Whitehurst and his colleagues, "The use of imprecise measures to make high-stakes decisions that place societal or institutional interests above those of individuals is widespread and accepted in fields outside of teaching… We should not set unrealistic expectations for the reliability or stability of value-added."

• *What's the alternative?* Whitehurst et al. clinch their argument by comparing value-added information with the data we are currently using to make important decisions about teachers. "Here the research is quite clear," they say. "If student test achievement is the outcome, value-added is superior to other existing methods of classifying teachers." These include:

- Scores on licensing tests;
- Routes into teaching;
- Certification;
- National Board certification;
- Teaching experience;
- Quality of undergraduate institution;
- Relevance of undergraduate coursework;
- Extent and nature of professional development;
- Principal ratings.

None of these, singly or in aggregate, match value-added for predicting future teacher performance, they say. This is particularly consequential when it comes to laying off teachers. Whitehurst and colleagues say that carrying out layoffs based on value-added would save the jobs of far more good teachers than would using seniority or principal evaluations.

"The question, then, is not whether evaluations of teacher effectiveness based on value-added are perfect or close to it," they conclude. "They are not… When teacher evaluation that incorporates value-added data is compared against an abstract idea, it can easily be found wanting in that it provides only a fuzzy signal. But when it is compared to performance assessment in other fields or to evaluations of teachers based on other sources of information, it looks respectable and appears to provide the best signal we've got… We do not advocate using value-added measures alone when making decisions about hiring, firing, tenure, compensation, placement, or developing teachers, but surely value-added information ought to be in the mix given the empirical evidence that it predicts more about what students will learn from the teachers to which they are assigned than any other source of information."

"Evaluating Teachers: The Important Role of Value-Added" by Steven Glazerman, Susanna Loeb, Dan Goldhaber, Douglas Staiger, Stephen Raudenbush, and Grover Whitehurst, November 17, 2010, a Brookings Institution publication available at http://www.brookings.edu/reports/2010/1117_evaluating_teachers.aspx

Back to page one

2. Time Management 101

This *Harvard Business Review* booklet includes a number of articles and blog posts on time management. Some highlights:

• "An 18- Minute Plan for Managing Your Day" – a blog post by CEO Peter Bregman. Bregman recommends a four-step process each day:

- Step 1: Plan for the day (5 minutes). "*Before turning on your computer*," he says, "sit down with a blank piece of paper and decide what will make this day highly successful. What can you realistically accomplish that will further your goals and allow you to leave at the end of the day feeling like you've been productive and successful? Write those things down."
- Step 2: Calendar the day. Take out your calendar and schedule those top priorities into time slots, putting the hardest and most important items earlier in the day. "There is tremendous power in deciding when and where you are going to do something," says Bregman. "If you want to get something done, decide when and where you're going to do it. Otherwise, take it off your list."
- Step 3: Refocus for one minute every hour. "Set your watch, phone, or computer to ring every hour," says Bregman. "When it rings, take a deep breath, look at your list and ask yourself if you spent your last hour productively. Then look at your calendar and deliberately recommit to how you are going to use the next hour… Don't let the hours – or the inevitable interruptions – manage you."
- Step 4: Review (5 minutes). At the end of the day, shut off your computer and look back on the day. What worked? Where did you get distracted? What can you learn from what happened?

• "How – and Why – to Stop Multitasking" by Peter Bregman. Bregman confesses that he used to do a lot of multitasking – for example, while taking part in a conference call, engaging in an e-mail exchange in which he forgot to attach a document and had to re-send. "When I eventually refocused on the call," he says, "I realized I hadn't heard a question the Chair of the Board had asked me."

Studies show that when we are multi-taking, the distraction level is the same as if we lost a night's sleep or smoked marijuana. "Doing several things at once is a trick we play on ourselves," he says, "thinking we're getting more done. In reality, our productivity goes down by as much as 40%. We don't actually multitask. We switch-task, rapidly shifting from one thing to another, interrupting ourselves unproductively, and losing time in the process."

Disgusted with himself after the conference call incident, Bregman forced himself to go for a whole week without multitasking. Here's what he found:

- It was delightful. This was especially true when he was spending time with his children. "I never realized how significantly a short moment of checking my e-mail disengaged me from the people and things right there in front of me."
- He made significant progress on challenging projects. Instead of giving in to distractions, he stuck with the tasks and made a number of breakthroughs.
- He was much less stressed. "It was a relief to do only one thing at a time," says Bregman. "I felt liberated from the strain of keeping so many balls in the air at each moment."
- He had no patience with things that wasted time. Overly long meetings and pointless conversations drove him crazy. Since he was on one thing, unproductive time was much more annoying.
- He had great patience for activities that were productive and enjoyable. He found his attention span increased. "Nothing else was competing for my attention," he says, "so I was able to settle into the one thing I was doing."
- There was no downside. Nobody complained. Work got done. He felt great.

So why is multitasking so hard to resist? "I think it's because our minds move considerably faster than the outside world," says Bregman. "You can hear far more words a minute than someone else can speak. We have so much to do, why waste any time?"

But in fact, brainpower *isn't* being wasted. "What we fail to realize," he continues, "is that we're already using that brain power to pick up nuance, think about what we're hearing, access our creativity, and stay connected to what's happening around us."

So Bregman recommends going cold turkey on multitasking. Avoid interruptions, turn off the e-mail alert, create tight deadlines, and cut meeting times in half. "There's nothing like a deadline to keep things moving," he says. "And when things are moving fast, we can't help but focus on them." Counterintuitively, focusing on one thing with a deadline makes us more productive and less stressed.

• "Manage Your Energy, Not Your Time" by Tony Schwartz and Catherine McCarthy. Schwartz and McCarthy suggest these rituals to renew energy in four key areas:

- Physical energy:
  - Go to bed earlier.
  - Reduce alcohol intake.
  - Engage in cardiovascular activity at least three times a week and strength training at least once a week.
  - Eat small meals and light snacks every three hours.
  - Tune in to signs that energy is flagging – restlessness, yawning, hunger, and difficulty concentrating.
  - Take brief breaks at 90-120-minute intervals throughout the day.
- Emotional energy:
  - Use deep abdominal breathing to defuse anxiety, insecurity, and impatience.
  - Fuel positive emotions by regularly giving positive (genuine) feedback to colleagues.

- Deal with upsetting situations by looking through a reverse lens (*What would the other person say?*), a long lens (*How will this look in six months?*), and a wide lens (*What can I learn from this situation?*).

- Mental energy:
  - Cut down on interruptions by doing serious tasks away from the phone and e-mail.
  - Respond to voicemails and e-mails at specific, widely-spaced times of the day.
  - Every night, identify the most important challenge for the next day and make it your top priority first thing the next morning.
- Spiritual energy:
  - Identify your "sweet spot" activities – those that really fulfill you – and find ways to maximize them.
  - Allocate time and energy for the most important things – family, friends, hobbies, etc.
  - Live your core values – for example, if you value consideration but tend to be late for meetings, make a point of being early or on time.

[For a longer version of this article, see Marshall Memo 203, #2.]

Harvard Business Review Guide to Getting the Right Work Done, 2009; can be purchased at: http://hbr.org/product/baynote/an/10299-PDF-ENG?referral=00508&cm_sp=baynote-_-top_products-_-10299-PDF-ENG

Back to page one

3. What Happens After Interim Assessments?

In this blog entry on the AllThingsPLC website, California district leader Richard Smith says that one of his middle schools (1,700 students, low SES) used to fail one third of its students. In this part of the Central Valley, says Smith, people reacted to a 33% level of failure "by placing blame squarely on the shoulders of the students and communities being served."

But when the district's elementary schools implemented Professional Learning Communities and started graduating students with better academic skills, the middle school began to rethink what "these students" were capable of achieving. The Algebra I team was the first to become a PLC. The three teachers decided on essential learning standards, agreed on a pacing guide that broke the curriculum into 10-day chunks, and drafted common interim assessments. When each unit was finished, students took an interim assessment and the team met to analyze the results and see if they hit their SMART goal (Specific, Measurable, Attainable, Results-oriented, and Time-bound). Based on the results, they divided students into three groups:

- Students who mastered the standards;
- Students who needed reinforcement;
- Students who needed the standards retaught.

For the next two days, students were "redeployed" during their Algebra I time. Students in the third group went to the teacher who had been most successful teaching the standards for a new approach to learning the standards; a second teacher took the middle group to brush up their

skills, and a third teacher took the "already learned it" group for enrichment to deepen and expand their learning.

At the end of the two-day reteaching/enrichment block, below-par students were reassessed, giving them a chance to demonstrate mastery. Students appreciated this second chance and didn't see the deployment as a punishment. Those who were still below mastery on the second assessment were assigned to further instruction during a tutorial period and, in some cases, a mandatory after-school assistance program. "Remediation and support for individual student learning is continuous and ongoing until mastery is achieved," says Smith.

Following the lead of the Algebra I team, the whole school gradually "went PLC." These were the results between 2005 and 2010:

- The student failure rate went from 33 percent to 6 percent.
- The school's California Academic Performance Index (API) went from 668 to 799.
- The school's California state ranking went from decile 4 to decile 7.
- The school went to the top 10 percent of schools with similar demographics.
- Smith reports that "a new pride and belief in the school and its students permeates the staff and community."

"What Do We Do When They Haven't Learned? A Secondary Development Model" by Richard Smith, a blog entry at http://www.AllthingsPLC.com

Back to page one

4. Environmental Education At Its Best

Done right, environmental education gets students more engaged in learning and improves achievement in other subjects, says journalist Lucy Hood in this *Harvard Education Letter* article. Some guidelines:

• *Don't proselytize*. Students should draw their own conclusions from well-chosen data. "As soon as anybody thinks you are trying to tell kids what the conclusion is – for example, global warming is happening – as soon as you do that, you're in trouble," says consultant Gerald Lieberman. "As soon as you say, 'Here's the answer,' you've blown good instruction."

• *Present all sides of hot issues*. For example, studying drilling in the Alaskan National Wildlife Refuge, a teacher had students read published articles from five points of view. "At the end of the day, we want to empower students to be able to make the right decisions," says environmental educator Jim Elder. North Carolina marine science teacher David James adds, "Any time you can get them to think, that's kind of a victory right there."

• *Teach underlying principles*. Controversies notwithstanding, there's common ground – for example, the importance of conserving scarce resources like water and energy. Similarly, in civics we teach the importance of not smoking, and in health, we discourage young people from smoking, using drugs, and engaging in risky sexual activity.

• *Talk about solutions*. Students get discouraged hearing about scary environmental challenges. They should hear about specific things they can do, for example, conserving water in their homes.

• *Avoid doom and gloom*. "No horror in elementary school," says environmental advocate Brian Day. "It's a time to open their eyes to the wonder of nature. And that will in time lead to the kinds of values and the creative decision making that needs to be done later on." Antioch University professor David Sobel agrees: "Focusing on rain forest destruction seems really inappropriate to me," he says. "You don't introduce these large global tragedies that are distant and abstract and that the kids can't have much of an impact on."

• *Relate to other subjects*. For example, link the concept of water density to science and words like *potable* to English.

"The Greening of Environmental Ed" by Lucy Hood in *Harvard Education Letter*, January/February 2011 (Vol. 27, #1, p. 1-3, 6); available for purchase at http://www.edletter.org.

Back to page one

5. Teaching Academic Vocabulary to ELL Students

In this *TESOL Quarterly* article, University of Illinois/Chicago professor Jeannette Mancilla-Martinez describes the implementation of the Word Generation vocabulary program in a fifth-grade ELL classroom over 20 weeks. The program aims to build students' academic vocabulary by:

- Repeated exposure to five carefully chosen words across subject areas each week to build a deep understanding of each word;
- Lots of oral discussion and partner talk about a controversial issue (for example, does rap music undermine achievement) that is introduced at the beginning of each week in a brief journalistic essay;
- Teaching word study strategies and cultivating general word and world knowledge;
- Having students write a persuasive composition each week in which they take a stand on the controversial topic they've been discussing and try to use as many of the target words as possible.

The program takes 15-20 minutes a day, five days a week.

The results were impressive: students who took the program did significantly better than the contrast group in word knowledge, writing (which was not explicitly taught), and at metacognition about their own word knowledge.

The 100 words used in Word Generation were chosen from the Academic Word List (Coxhead, 2000) based on being high-utility, high-functional, and cross-disciplinary, avoiding the most frequently-used 2,000 words in the English language. Here is the program's full word list:

Week 1 – Analyze, factor, function, interpret, structure
Week 2 – Context, indicate, variable, create, benefit
Week 3 – Complexity, culture, element, resourceful, tradition
Week 4 – Design, features, impact, potential, transfer
Week 5 – Considerable, contribute, demonstrate, sufficient, valid
Week 6 – Rely, react, alternative, justify, proportion
Week 7 – Access, civil, despite, integrate, promote

Week 8 – Attribute, cycle, hypothesis, project, statistics
Week 9 – Compounds, conflict, fundamental, substitution, alter
Week 10 – Modified, monitor, adjustment, transition, exposure
Week 11 – Acknowledge, incidence, incorporate, initiatives, transport
Week 12 – Diversity, enhance, migration, presumed, reveal
Week 13 – Advocate, contrary, reverse, release, prohibited
Week 14 – Phenomenon, priority, transmission, intervention, suspended
Week 15 – Abandon, biased, contemporary, dramatic, exploit
Week 16 – Accumulation, contradict, exhibit, inevitable, manipulate
Week 17 – Decades, violation, temporary, unified, incompatible
Week 18 – Bulk, accommodate, unethical, route, confine
Week 19 – Collapse, conceive, incline, intrinsically, nonetheless
Week 20 – Convince, enormous, integrity, persistent, reluctant

"Word Meanings Matter: Cultivating English Vocabulary Knowledge in Fifth-Grade Spanish-Speaking Language Minority Learners" by Jeannette Mancilla-Martinez in *TESOL Quarterly*, December 2010 (Vol. 44, #4, p. 669-699), available for purchase at: http://www.ingentaconnect.com/content/tesol/tq/2010/00000044/00000004/art00003?crawler=true
For more information about Word Generation, including videos of students and Catherine Snow, the program's originator, see http://www.wordgeneration.org/index.html.

Back to page one

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:

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.

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- 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:

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- 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