Marshall Memo 36

A Weekly Round-up of Important Ideas and Research in K-12 Education
May 3, 2004

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Quotes of the Week

"I'm skeptical of the superman-person coming in with guns blazing and bringing about the changes that we need. I don't think that kind of change is going to bring about sustained improvement."

Vincent Ferrandino commenting on a new Virginia program to train "turnaround" principals (*Education Week*, April 28, 2004, p. 19)

"Never bring me a problem without a solution. If you've got a problem, give it to me straight, and I want to hear all the bad news first. But don't just drop it on me. You tell me what you would do in that case. And then I'll tell you what we're *going* to do."

Wayne Lukas, Thoroughbred Horse Trainer (*Harvard Business Review*, May 04)

"Their attitude may be compassionate, but it is misguided."

Ruth Mitchell commenting on teachers giving sixth-grade work to below-level high-school students (see item #7a)

"Many Americans, including many educators, doubt that all young people are capable of learning subjects like algebra. All Japanese kids, maybe. Even all Russian kids. But for some reason, not our students. These views are dead wrong. *All* students benefit from taking high-level courses, regardless of their academic record prior to enrollment."

Patte Barth and Kati Kaycock, *Harvard Education Letter* (see item #4)

"Being able to distinguish recreational negativity from constructive dissent is an important skill for managers in a culture of complaint."

John Weeks in Harvard Business Review (see item 7)

"What we're seeing is that good teachers can be pretty good neuroscientists – with the right instruction, they can not only improve reading skills, but also help develop the neural pathways."

Reid Lyon, *Biological Psychiatry* (see item #3)

1. What Can Toyota Teach School Leaders?

Steven Spear, a Harvard Business School professor who has spent years studying the Toyota Motor Company, has new insights on the culture that makes the Japanese car manufacturer one of the world's most successful enterprises. Might these management principles apply to schools?

- *There's no substitute for direct observation*. Toyota trains employees at all levels to observe failures as they occur. [In a school, this would mean observing students in the act of making learning mistakes rather than correcting their papers later on.]
- *Proposed changes should always be structured as experiments*. Toyota employees embed explicit and testable assumptions in their work, which allows them to look at the gaps between what they predicted and what actually occurred. [In a school, this would mean trying a new teaching approach, assessing student performance, and seeing if the hypothesis proved to be true.]
- *Workers and managers should experiment as frequently as possible*. Toyota teaches employees that continuous improvement comes through quick, simple experiments rather than through lengthy, complex ones. [In a school, this would mean trying a new approach on a unit no longer than several weeks rather than a full-year curriculum.]
- *Managers should coach, not fix*. "What we saw at Toyota… was workers and low-level managers constantly solving problems. Indeed, the more senior the manager, the less likely he was to be solving problems himself." Toyota managers act as enablers, directing employees but not telling them where to find opportunities for improvements. [In a school, this might mean a principal dropping into teacher team meetings and making suggestions, but not micromanaging the team's work.]

"Learning to Lead at Toyota" by Steven Spear in *Harvard Business Review*, May 2004 (vol. 82, #5, p. 78-86)

2. Taming the Alpha Male Boss

Two California business consultants who specialize in coaching CEO's offer their wisdom on working with highly intelligent, confident, and successful "alpha

males" in leadership positions. Such individuals bring distinct advantages and disadvantages to their organizations:

Alpha Attribute	Value to Organization	Risk to Organization
Self-confident and opinionated	Acts decisively; has good intuition	Is closed-minded, domineering, and intimidating
Highly intelligent	Sees beyond the obvious; takes creative leaps	Dismisses or demeans colleagues who disagree with him
Action oriented	Produces results	Is impatient; resists process changes that might improve results
High performance expectations for himself and others	Sets and achieves high goals	Is constantly dissatisfied; fails to appreciate and motivate others
Direct communication style	Moves people to action	Generates fear and a gossip-filled, CYA culture of compliance
Highly disciplined	Is extraordinarily productive; finds time and energy for a high level of work and fitness	Has unreasonable expectations of self and others; misses signs of burnout
Unemotional	Is laser focused and objective	Is difficult to connect with; doesn't inspire teams

From their coaching experience, the authors offer five steps that alpha males need to take in order to grow as professionals and reduce the downside that their personalities often bring to their organizations:

• *Admit vulnerability* – "In our experience, when an alpha admits he is afraid and asks for help, the impact on his team is profoundly positive."

• *Accept accountability* – Alphas needs to accept responsibility for their impact on the performance of others (rather than blaming).

• *Connect with underlying emotions* – Alphas need to learn more about their strong but hidden emotions so they can distinguish intuition (which may be brilliant) from anxiety (which may be irrational).

• *Balance positive with critical feedback* – "Alphas feel uncomfortable both giving and receiving praise, and they are adamant about not appearing soft." As a result, about 80 percent of the feedback an alpha leader gives is critical. Alphas need to change this percentage around!

• *Become aware of patterns* – Alphas need to trace back the roots of behaviors that are counterproductive with their colleagues; this make it possible to change negative patterns.

If you work with an alpha male and recognize these issues, you'll want to read this article in full. There is also a sidebar entitled "What About Alpha Females?

"Coaching the Alpha Male" by Kate Ludeman and Eddie Erlandson in *Harvard Business Review*, May 2004 (Vol. 82, #5, p. 58-67)

3. Working Smart, Getting Smarter

A groundbreaking study in the journal *Biological Psychiatry* reports that elementary school students with reading disabilities who received an intensive 8-month remedial program showed changes in the areas of their brains associated with skilled reading. Using functional magnetic resonance imaging (fMRI), a team led by Yale researchers Bennett and Sally Shaywitz found that children who were taught to overcome their reading disabilities had increased activity in the areas of the left hemisphere of their brains responsible for word recognition. "What we're seeing is that good teachers can be pretty good neuroscientists," said Reid Lyon, one of the researchers. "[W]ith the right instruction, they can not only improve reading skills, but also help develop the neural pathways [that support critical reading skills]."

The study, which focused on 49 reading-disabled students (ages 6-9) in the Syracuse, New York area, allowed one group to continue in their school's regular reading remediation program, and gave the remaining students an intensive 8-month experimental remediation program with 50 minutes of individual tutoring a day. Each lesson had five parts:

- Review of sound-symbol associations;
- Practice using phonemes;
- Timed reading of learned words to develop fluency;
- Reading stories aloud;
- Dictation of phonetically regular words like "chap" and "spin".

At the end of the school year, the children in the experimental program did better in accuracy, fluency, and comprehension (as measured by the Gray Oral Reading Test). In addition, fMRI scans of their brains showed increased activity in the left occipitotemporal area. The effect was most pronounced in the part of the brain that instantly recognizes words without decoding. A year later, brain scans of the children in the experimental program showed that these changes had persisted. "What we can see in these scans on the left side of the brain is that the motor for skilled reading is activated," said Sally Shaywitz. "The experimental intervention led to development of

the normal pathways that underlie skilled reading. This tells us that the brain is malleable – it can be organized."

"'Right' Instruction Helps Poor Readers' Brains, Study Says" by Darcia Harris Bowman, *Education Week*, April 28, 2004 (Vol. XXIII, #33, p. 9) http://www.edweek.org/ew/ewstory.cfm?slug=33Brain.h23. The article, "Development of Left Occipitotemporal Systems for Skilled Reading in Children After Phonologically-Based Intervention" appears in the May 1, 2004 issue of *Biological Psychiatry* and can be ordered at 888-615-4500.

4. A College-Prep Curriculum for all High-School Students?

Citing the declining "value added" of American secondary schools and the growing racial achievement gap, Patte Barth and Kati Haycock of The Education Trust make the case for a far more rigorous high-school curriculum than most schools offer now. "[T]he single best predictor of college success," they say, "is the quality and intensity of a student's high school curriculum." This is most dramatic in mathematics (completing high-school math above the Algebra II level doubles the chance of graduating from college), but it's true in other subjects as well.

"College preparatory courses do not benefit just students who know they are college bound," assert Barth and Haycock. "A growing body of evidence shows that such a curriculum has benefits for virtually all kids. *All* kids? Many Americans, including many educators, doubt that all young people are capable of learning subjects like algebra. All Japanese kids, maybe. Even all Russian kids. But for some reason, not our students. These views are dead wrong. *All* students benefit from taking high-level courses, regardless of their academic record prior to enrollment."

Many teachers worry that placing marginal students in challenging high-school courses will produce frustration and failure. But recent studies indicate that struggling students are no more likely to fail a challenging course than the watered-down fare they usually take. Will rigorous classes push weaker students to drop out? Not in San Jose, California, where beginning in 1997 all students were required to complete the curriculum required by California's public universities. In 2002 the first cohort under the new policy graduated with impressive results, and African-American and Hispanic students made the greatest gains (from 1998 to 2002, black 11th graders' had score increases seven times as large as their California peers). In addition the San Jose dropout rate did not increase.

A college prep curriculum for all students also prepares students for competitive jobs right out of high school. Many employers are looking for the same

skills for entry-level high-school graduates as colleges are demanding of incoming freshmen: strong reading ability, mathematical reasoning, and problem-solving skills.

College-prep skills and knowledge are also the foundation for future learning, which will be required of all people in the shifting sands of the 21st century labor market.

"A Core Curriculum for All Students" by Patte Barth and Kati Haycock, *Harvard Education Letter*, May/June 2004 (Vol. 20, #3, p. 8, 7), no e-link available.

5. Taking Good Care of Novice Teachers

Rapid teacher turnover is a major problem in many high-poverty schools, and administrators are finding that it's not enough to just to hire terrific teachers: they need to put systems in place to nurture and support them so they *stay*. The following successful retention practices emerged from recent studies at Harvard and the Public Education Network:

- *Mentoring and instructional support* – Having an accomplished mentor, preferably teaching the same grade level or subject, is key to getting the hang of classroom management, curriculum, and district paperwork. It's also important that the mentoring relationship be well managed by the principal, with careful selection of an appropriate and skilled mentor and regularly scheduled meeting times.
- *Schoolwide discipline policies* – Schoolwide "zero tolerance" policies and structured routines are critical to novice teachers succeeding within their classrooms.
- *Differentiated roles and career ladders* – It's helpful if bright, ambitious teachers can see an interesting career path ahead of them. Many of today's beginning teachers have friends earning promotions and recognition in business, technology, or consulting. Teaching should offer a similarly differentiated future with roles for staff development, coaching of colleagues, curriculum coordination, doing action research, writing, etc.

"Taking Care of Novice Teachers" by Reino Makkonen in *Harvard Education Letter*, May/June 2004 (Vol. 20, #3, p. 1-4), no e-link available. The Public Education Network study, "The Voice of the New Teacher", is available online at http://www.publiceducation.org/pdf/PEN_Pubs/Voice_of_the_New_Teacher.pdf

6. Using stories powerfully

Leaders can use a well-chosen story to inspire subordinates in a way that is impossible using even the most logical PowerPoint presentation. "The best way to get

humans to venture into unknown terrain," writes Noel Tichy in *The Leadership Engine*, "is to make that terrain familiar and desirable by taking them there first in their imaginations." Stephen Denning, former knowledge management director at the World Bank, believes that the key is knowing which narrative strategies are right for what circumstances. In general, form should follow function. Longer is not always better; if the aim is to motivate people to act when they might not be inclined to do so, the best approach is lean and direct. These are Denning's categories and suggestions:

If your objective is:	You need a story that:	In telling it, you need to:	Your story will inspire responses such as:
Sparking action	Describes how a successful change was implemented in the past.	Keep it short.	"Just imagine…" "What if…"
Communicating who you are	Provides drama and reveals a strength or vulnerability from your past.	Include detail, but only if the audience has time.	"I didn't know that about him." "How I see what she's driving at."
Transmitting values	Feels familiar to the audience and provokes discussion about the value being discussed.	Use believable characters and situations, and make sure it squares with your own actions.	"That's so right!" "Why don't we do that all the time?"
Fostering collaboration	Recounts a situation that listeners have experienced, moving them to share their own stories.	Leave time for listeners to tell their own stories, and then harness that energy.	"That reminds me of the time that I…" "Hey, I've got a story like that."
Taming the grapevine	Humorously highlights a rumor that was untrue.	Be sure the rumor is indeed false, and don't be mean-spirited.	"No kidding!" "I'd never thought about it like that before."
Sharing knowledge	Shows mistakes made and how the problem was solved.	Solicit an alternative – and possibly better – solution.	"There but for the grace of God…" "Wow! We'd better watch that from now on."
Leading people into the future	Evokes the future you want to create.	Be sure of your storytelling skills!	"When do we start?" "Let's do it."

"Telling Tales" by Stephen Denning, *Harvard Business Review*, May 2004 (Vol. 82, #5, p. 122-129), no e-link available.

7. Can You Tell Kvetching from Thoughtful Dissent?

John Weeks, a professor of organizational behavior in France, discovered an important distinction when he did an in-depth study of a bank: employees constantly complained (the bank was too bureaucratic, too rules-driven, not focused enough on customers, not entrepreneurial enough, too rigid, too prone to navel-gazing, too centralized – and too negative). But all this whining was like talking about the weather: people didn't really expect things to change. When managers actually made some of the changes that had been talked about, employees quickly adapted and found other things to complain about.

In any organization, says Weeks, people learn "what is safe to complain about (nothing too sensitive), to whom its is safe to complain (no one too senior), when it is safe to complain (not too publicly), and what is taboo." Within most cultures, this amounts to "innocuous social complaints" that are not really intended to create change.

But sometimes employees really *do* want things to change. "Being able to distinguish recreational negativity from constructive dissent," writes Weeks, "is an important skill for managers in a culture of complaint." Bosses need to know their institution's culture well enough to tell what is ritualistic and not deeply serious complaining and what is a serious attempts to solve a real problem. "There is nothing people enjoy complaining about more," says Weeks, "than a meddling manager who runs around trying to fix things that no one, really, wants or expects to be fixed."

"Whining Away the Hours" by John Weeks, *Harvard Business Review*, May 2004 (Vol. 82, #5, p. 20-21), no e-link available.

8. Misdiagnosing Language-Minority Students

In a poignant account in the new *Harvard Education Letter*, Tufts University researcher Evangeline Harris Stafanakis tells of observing the pre-school screening of a young Haitian boy about to enter the Boston Public Schools. Having been coaxed away from his mother (and told "Behave!"), he proceeded through a series of screening stations and was totally unresponsive to the professionals assessing him (this despite the fact that there were testers who were good with children and spoke his native language). The boy was scored "untestable" at all the stations and his mother was asked to return in three months to have him tested for special education. At this point, Stefanakis happened to see the boy with his mother in the waiting area, laughing, talking, and playing happily with several other children. Clearly his true

abilities had not been measured in the screening, and he was in danger of being tracked into special education when he probably didn't need it. "Once a language-minority child is referred for testing," writes Stafanakis, "that same child is placed in special education about 85 percent of the time. Once a child is placed in special education, despite a mistaken assessment, it takes them on average six years to get out."

Under what conditions might a more accurate early assessment have occurred? Stefanakis lists some starting points:

- Interviewing the parent to find the child's language preference.
- Using culturally unbiased assessment tools.
- Looking for strengths as well as weaknesses.
- Looking at cultural factors that might influence a child's performance (in this case, his mother's "Behave" was a signal to remain silent).
- Using a portfolio assessment approach combining formal and informal materials and observations

"Assessing Young Immigrant Students: Are We Finding Their Strengths?" by Evangeline Harris Stefanakis, *Harvard Education Letter*, May/June 2004, Vol. 20, #3, p. 4-7), no e-link available.

9. Using Digital Cameras in the Classroom

Some teachers are finding that digital cameras are powerful learning tools. "You'll get kids more interested in what they're learning by getting them involved in a community project using a camera rather than studying a textbook" said Mary Pat Evans, a Pennsylvania middle school science teacher. "People say that a picture is worth a thousand words," said Charles Murphy, a science teacher in St. Louis. "What I try to get [them] to understand is that a [digital] image is worth a thousand pictures. [With a digital image], we can see patterns that are not visible to the naked eye." Other teachers said that students who used digital cameras became more engaged and interested, retained scientific concepts and skills better than their peers, and learned important management and planning skills. "

These are some projects in which digital cameras have been used in science and social studies classes:

- Measuring the size of base pairs in DNA samples;
- Analyzing the surface and composition of natural objects like seashells;
- Photographing people jumping to understand gravity and force;

- Photographing changes in the seasons and sharing them with students in other parts of the U.S. and Europe;
- Photographing Native American tools and artifacts at an archeological dig;
- Calculating the area of a leaf that an insect has eaten
- Studying the growth of mold or bacteria;
- Examining the growth of a turkey from egg to turkey dinner.
- Taking photos of 37 pairs of sneakers slung over power lines and correlating them with police reports of drug busts and other violent activity to see if the sneakers were (as rumored) a signal for gang meeting sites (they weren't).

"Digital Imaging Shows New Visions of Scientific Topics" by Marianne Hurst, *Education Week*, April 28, 2004 (Vol. XXIII, #33, p. 8)
http://www.edweek.org/ew/ewstory.cfm?slug=33Tech.h23

10. Short Items:

a. Below-grade-level work – In an opinion article in last Tuesday's *Washington Post*, Ruth Mitchell draws on her own observations and a DataWorks study to assert that most American students are doing class work well below their grade level. In one California elementary school, DataWorks found that 98 percent of fifth graders were doing work at the fourth, third, second, and even first grade level. In 14 South Carolina high schools, DataWorks found that most seniors were doing work below 10th-grade level.

"Teachers say they have to teach the students where they are," writes Mitchell, "which means at sixth-grade level in high school if they can't read well. Their attitude may be compassionate, but it is misguided. There's ample evidence that accelerating instruction works better than retarding it in the name of remediation." Mitchell advocates challenging students to do grade-level work, spending a minimum of time on drill and practice, and getting extra help for below-level students outside the classroom. She also advocates major teacher retraining.

"Dumbing Down Our Schools" by Ruth Mitchell, *Washington Post*, April 27, 2004
http://www.washingtonpost.com/wp-dyn/articles/A45015-2004Apr26.html (free registration)

b. Certification matters – Students' achievement in mathematics goes up when their teachers are certified, according to three recent studies. "Certification matters, and it matters in elementary school," said Kristie Rowley, a Vanderbilt professor who

headed up one study. One year spent with a kindergarten teacher with emergency or temporary certification made a significant negative difference in children's test scores. This study found that students improved more with teachers who had taken more pre-service courses in elementary education; it mattered more than college courses and the number of years of teaching experience.

A second study by the American Institutes of Research looked at eighth graders and found that the two factors were most closely linked to student achievement were teachers being certified and majoring or minoring in math in college. This study also found that high-poverty schools were less likely to have certified or well-qualified math teachers. "We're taking the students most at risk of educational failure," said Elizabeth Greenberg, the study's lead author, "and they seem to be those least likely to have teachers with the characteristics of qualified teachers."

The third study by the Southwest Educational Development Laboratory in Austin, Texas found that students' scores improved more when their teachers had regular math certification. This was more important than how long teachers had taught.

"Pupils of Licensed Teachers Found to Score Higher in Math" by Debra Viadero, *Education Week*, April 28, 2004 (Vol. XXIII, #33, p. 10)
http://www.edweek.org/ew/ewstory.cfm?slug=33Certify.h23

c. Pushing back against "test prep" – Stephen Kramer, an elementary teacher in Brush Prairie, Washington, feels pressured by his state's high-stakes tests to be less focused on the deeper purposes of education. To counteract the tendency to think "test prep" all the time, Kramer put up a poster by his desk with these injunctions:

- Learning should be rooted in joy.
- The most important thing to learn about reading is to love it.
- We all need help with our writing.
- For some of us, art and music are as important as breathing.
- No lesson on math, reading, or writing is so important it can't be interrupted for a lesson on honesty, generosity, or compassion.

Said Kramer, "I put it there to remind me to do what's best for my students. Learning is the reason that 28 of us gather in room 300 each morning, but *how* we learn and *why* we learn are just as important as *what* we learn."

"Standards for Sarah" by Stephen Kramer, *Education Week*, April 28, 2004 (Vol. XXIII, #33, p. 37, 38) http://www.edweek.org/ew/ewstory.cfm?slug=33kramer.h23

Do you have feedback? Is anything missing?

If you have comments or suggestions, or if you saw an article or web item in the last week that you think should be covered, please e-mail: kim.marshall8@verizon.net

About the Marshall Memo

Mission and focus:

This weekly memo aims to keep busy principals, teachers, and other educators very well-informed on important research, ideas, and developments in K-12 education. Kim Marshall, a former Boston teacher and administrator, is your "designated reader," searching through a wide range of publications the week they come out, zeroing in on the articles that are most relevant and useful to improving teaching and learning at the school level, and summarizing them in a brief e-mail. Target topics include the following:

• *School leadership* – Building a professional learning community; effective teamwork; effective schools practices; supervision and evaluation of teachers; time management.

• *Effective teaching* – Key variables associated with high student achievement; professional development of teachers; teacher leadership and career ladders; multiple intelligences and brain research.

• *Curriculum* – Alignment and planning with the end in sight; teaching for understanding; new ideas in reading, writing, and math.

• *Assessment* – Aligned formative and summative assessments; using data and student work for continuous improvement; graphic display of student achievement data; standardized testing and the debate on standards.

• *Closing the gap* – Effective strategies to close the racial/economic achievement gap; the innate-ability/intelligence/effective effort debate; safety-net programs.

• *Positive school culture* – Student discipline; social-emotional learning; moral development; parent involvement; and community partnerships.

• *And…* – New areas of research; upcoming television and radio programs on education.

Publications covered:

(those read this week are underlined)

American Education Research Journal
American Educator
American School Board Journal
ASCD SmartBrief
Atlantic Monthly
Bay State Banner
Boston Globe
Commonwealth Magazine
Curriculum/Education Update (ASCD)
Ed. Magazine (Harvard School of Education)
Education Digest
Education Gadfly
Education Next
Education Week
Educational Leadership
Educational Researcher
Elementary School Journal
Harpers
Harvard Business Review
Harvard Education Letter
Harvard Education Review
Middle School Journal
New York Times
New Yorker
Newsweek
PEN Weekly NewsBlast
Phi Delta Kappan
Principal Magazine
Psychology Today
Reading Research Quarterly
Reading Today
Review of Educational Research
Teachers College Record
Teacher Magazine

E-links will be provided whenever possible to give access to the full article. If you would like to suggest additional publications, please be in touch.

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