Marshall Memo 135

A Weekly Round-up of Important Ideas and Research in K-12 Education
May 8, 2006

In This Issue:

Quotes of the Week

"Every child, every day, college bound."
Carol Johnson, Memphis superintendent (see item #4)

"The pathology of American schools is that they know how to change. They know how to change promiscuously and at the drop of a hat. What schools do not know how to do is to improve, to engage in sustained and continuous progress toward a performance goal over time."
Richard Elmore, quoted in item #3

"If you want to know why so many organizations sink into chaos, look no further than their leaders' mouths."
John Hamm (see item #2)

"Leaders simply assume that the exact meaning of their words is obvious. They're surprised to learn not only that their message has been unclear but that their teams crave definitions so they aren't forced to guess what the boss has in mind."
John Hamm (*ibid.*)

"Most people naturally don't like to do things they aren't 'good' at. So they often give up, telling themselves they simply don't possess the talent for math or skiing or the violin. But what they really lack is the desire to be good and to undertake the deliberate practice that would make them better."
Stephen Dubner and Steven Levitt (see item #1.)

"The trait we commonly call talent is highly overrated."
Stephen Dubner and Steven Levitt (*ibid.*)

1. "Deliberate Practice" Makes Perfect

In this intriguing article in yesterday's *New York Times* magazine, *Freakonomics* authors Stephen Dubner and Steven Levitt pose this question: why are the top European teenage soccer players disproportionately born in January, February, and March? Half of England's elite players were born in those three months; in Germany, 52 players were born in January, February, and March while only four were born in October, November, and December. Here are some possible explanations for this phenomenon:

a. Certain astrological signs confer superior soccer skills.

b. Babies born in the winter tend to have higher oxygen capacity, increasing stamina.

c. Soccer-mad parents are more likely to conceive in the spring, peak soccer season.

The answer is "none of the above," say Dubner and Levitt, and their reasoning goes to the heart of how people become highly proficient at something.

Most soccer players have January, February, and March birthdays because in Europe, youth sports are organized by age brackets, and the cut-off date for each year's players is December 31st. When coaches are assessing two players in the same age bracket, those born the preceding January are usually bigger, stronger, and more mature than those born in the later months, so coaches more often pick the January kids. Coaches may be mistaking maturity for ability, but those are the choices they make. "And once chosen," write Dubner and Levitt, "those January-born players are the ones who, year after year, receive the training, the deliberate practice, and the feedback, to say nothing of the accompanying self-esteem, that will turn them into elites." The same is true, to a slightly lesser extent, for players born in February and March. Overall, this explains the disproportionate number of elite players born in the early months of the year.

What does this have to do with schools? When it comes to becoming proficient at anything, including reading and math, the importance of innate ability (and there certainly are differences from child to child) is far outweighed by "deliberate practice" and feedback, say Dubner and Levitt. "The trait we commonly call talent," they write, "is highly overrated." Expert performers are nearly always made, not born – and practice makes perfect.

But not just any practice. *Deliberate* practice, which, they say, involves "more than simply repeating a task – playing a C-minor scale 100 times, for instance, or hitting tennis serves until your shoulder pops out of its socket. Rather, it involves setting specific goals, obtaining immediate feedback, and concentrating as much on technique as on outcome."

But why would a student work this hard if he or she didn't like the subject or feel very competent at it? Not "liking" a subject is a complex interaction of (a) not having an immediate affinity for it and (b) believing that ability in reading or writing or math is innate – either you

have it or you don't. "Most people naturally don't like to do things they aren't 'good' at," say Dubner and Levitt. "So they often give up, telling themselves they simply don't possess the talent for math or skiing or the violin. But what they really lack is the desire to be good and to undertake the deliberate practice that would make them better."

So educators face two challenges: overcoming the innate ability myth (in their own heads, in children's, and in parents') and getting students interested and motivated enough to engage in the kind of deliberate practice necessary to become proficient. Motivation, belief, and effective effort – they're all bound together, and are the magic formula that effective teachers and schools have always used.

"A Star Is Made: Where Does Talent Really Come From?" by Stephen Dubner and Steven Levitt in *New York Times*, May 7, 2006
http://www.nytimes.com/2006/05/07/magazine/07wwln_freak.html?_r=1&oref=slogin
See also *The Cambridge Handbook of Expertise and Expert Performance* by Anders Ericsson et al., due out next month

2. Five Key Messages That Leaders Must Convey to the Troops

"If you want to know why so many organizations sink into chaos," writes San Francisco executive coach John Hamm in the May *Harvard Business Review*, "look no further than their leaders' mouths." Too many executives spout general platitudes and goals, he says, thinking their subordinates know what's being talked about when in fact there is no clarity or direction. [In education, generalities like "All children can learn," "Professional learning communities," and "Data-driven instruction" fall into this category.]

"By contrast," writes Hamm, "think of the way a high-reliability team – say, an emergency room staff or a SWAT team – works. Every member has a precise understanding of what things mean. Surgeons and nurses speak the same medical language. SWAT teams know exactly what weapons to use, and when and how and under what conditions to use them. In these professions, there is absolutely no room for sloppy communication. If team members don't speak to each other with precision, people die."

The leader's job, says Hamm, is to inspire the organization to take responsibility for fulfilling its mission. "I believe communication is a leader's single most critical management tool for making this happen," he says. "When leaders take the time to explain what they mean, both explicitly (by carefully defining their visions, intentions, and directions) and implicitly (through their behavior), they assert much-needed influence over the vague but powerful notions that otherwise run away with employees' imaginations."

The problem is that many leaders assume that their subordinates know what they're talking about and don't want to appear to be talking down to people by giving what may seem like unnecessary detail. "Leaders simply assume that the exact meaning of their words is obvious," writes Hamm. "They're surprised to learn not only that their message has been unclear but that their teams crave definitions so they aren't forced to guess what the boss has in mind." Hamm likens leaders to locomotive drivers and says they need to skillfully use five levers to move their organization and its passengers along the tracks to success:

• *Organizational structure* – Leaders need to communicate a vision and rationale for who reports to whom, and do so with confidence so people don't pick up on uncertainty and nervousness from the boss. The key is optimizing human resources.

• *Results* – Leaders who relentlessly push their subordinates to meet arbitrary goals [for example, test score gains] can give the unintended message that people should do whatever it takes to meet those expectations. This approach can produce unethical behavior and has been shown to be an ineffective management strategy. Effective leaders constantly use "dipstick" assessments to diagnose problems, find the root causes of mediocre or poor results, and fine-tune and improve performance.

• *The leader's sense of his or her job* – Many leaders fall into the trap of believing that they always need to have the answers and must be the final arbiter of all conflicts, decisions, and dilemmas. This puts the leader "in a very lonely, isolated position where information becomes unreliable and useful input is stifled," says Hamm. "Effective leaders, by contrast, understand that their role is to bring out the answers in others. They do this by very clearly and explicitly seeking contributions, challenges, and collaboration from the people who report to them, using their positional power not to dominate but rather to drive the decision-making process." Often, this means not giving their opinion in a meeting until everyone else has been heard from because the boss's "answer" can stifle the group's creativity and do more harm than good.

• *Time management* – Overtaxed and highly stressed, some leaders can get caught up in their to-do lists and lose sight of the bigger purposes of the organization. "A leader who harps on time constraints and breathes down managers' necks, trying to get them to do too much in the allotted period, can make the organization frantic and, ultimately, ineffective," says Hamm. "A leader who communicates that when time is tight, it's better to do fewer things – but do them very well – gives managers the confidence to make the best use of this precious resource." The key insight is that time is fixed, so choose wisely and flexibly within constraints.

• *Culture* – Some leaders get caught up in promoting "morale" through gimmicks aimed at making employees happy, regardless of how things are going. These organizations have lost sight of the core metrics of success. Effective leaders clearly define what success looks like and how it's measured. Successful organizations are places "where people want to come to work – not to be coddled but to make a difference," writes Hamm. In addition, employees aren't kept in the dark; "rather, they are supported in the belief that they are part of an exciting future. They come to work with a fire inside them, a result of clearly stated leadership… that everyone explicitly understands."

In short, leaders must understand that the risks of miscommunication are very high, and ask themselves the following questions on the way to work:

- What needs to happen today so that we can get where we want to go?
- Where is there confusion in the organization?
- What vague belief or notion can I clarify or debunk today?
- What have I not communicated completely or clearly?

- What kinds of things are people taking for granted?

"The Five Messages Leaders Must Manage" by John Hamm in *Harvard Business Review*, May 2006 (Vol. 84, #5, p. 114-123), no e-link available

3. Keys to Improving Struggling Schools

In this *Middle School Journal* article, University of Tennessee professors Vincent Anfara and Pamela Angelle examine the research on what's necessary to turn around underperforming schools. Richard Elmore sums up the problem: "The pathology of American schools is that they know how to change. They know how to change promiscuously and at the drop of a hat. What schools do not know how to do is to improve, to engage in sustained and continuous progress toward a performance goal over time."

Anfara and Angelle make three recommendations:

• *Don't rely on mechanistic, one-size-fits-all reform programs.* Each school is so different that it's best to work from the facts on the ground rather than trying to impose pre-packaged programs. "In the final analysis," say Anfara and Angelle, "sustainable school improvement is a process that is inside-out, bottom-up, and school-by-school." Unfortunately, they note, the neediest schools are most likely to jump on every bandwagon that comes along promising improved student achievement, and the results are usually disappointing. Each school should thoroughly analyze the "brutal facts" and develop a plan unique to that context. The plan should include: (a) common features that work in other similar schools; (b) specific, measurable goals; and (c) ideas for counteracting a negative school climate and "disturbed interpersonal relations" that are common to such settings.

• *Focus on student achievement.* Some schools have elaborate school improvement plans full of minutiae and try to implement too many programs, and the results are not good. Principals need to be focused and strategic, keep the plan simple, and continuously stress the ultimate goal of improved student learning results. To counteract the human tendency to resist chance and cling to the status quo, leaders need to build a culture of shared goals, a sense of responsibility for results, collegiality, risk-taking, mutual respect and support, and an openness to continuous learning.

• *Build capacity.* Collaborative leadership is more likely to accomplish this than an autocratic approach. Teacher leadership and participation in the change effort are vital, including coaching, mentoring, and action research. "And none of this can happen," say Anfara and Angelle, "without leaders who understand what it means to be courageous and collaborative."

"Courageous, Collaborative Leaders Confront the Challenges and Complexities of School Improvement" by Pamela Angelle and Vincent Anfara, Jr. in *Middle School Journal*, May 2006 (Vol. 37, #5, p. 48-54), no e-link available

4. Memphis Middle Schools Embrace *Good to Great*

In this comprehensive article in the May issue of *Middle School Journal*, Memphis middle school superintendent Brenda Cassellius describes how her schools have embraced the ideas of *Good to Great* author Jim Collins and made significant progress in student achievement and school culture over the last three years. "Educators have a long history of jumping from quick fix to quick fix," notes Cassellius, and she describes the district's long-term process of gradually accelerating the "flywheel."

The district decided that the grade 6-8 middle school configuration was not broken and eschewed various high-tech and high-price-tag panaceas, focusing instead on the quality of teaching, leadership, and college-ready standards. "Relationships, responsibility, results, and respect – Every child, every day, college bound" are the mantras of Carol Johnson, the Memphis superintendent, who banned corporal punishment in the schools shortly after arriving. *Good to Great*, *This We Believe*, and *The Quality School* (William Glasser) became must reading for principals. Among the key drivers of change, according to Cassellius:

• *Confronting the brutal facts* – Looking at the statistics for student achievement, discipline problems, and attendance, there was no escaping the fact that middle schools were in crisis. This realization created a sense of urgency among principals.

• *Improving leadership* – The district promoted "Level 5" traits among principal – humility, collaboration, and tenacity. This included changing the leadership of 18 schools.

• *Focusing (the "hedgehog" concept)* – The district decided on one goal: acceleration of learning toward graduation and college-ready standards.

• *Communication among principals* – Cassellius coordinates a weekly electronic "check-in" to share ideas and best practices. It is largely authored by principals.

• *Quarterly assessments* – Starting this year, schools give interim assessments and immediately score them in-house and analyze results to improve teaching and learning.

• *Incremental, local change* – Cassellius concludes by saying that "small, powerful adjustments" that emerge from school-based teams are providing much of the "flywheel" momentum that is driving better results, including impressive gains in AYP and the number of students at the proficient and advanced levels on Tennessee assessments.

"Using Relationships, Responsibility, and Respect to Get From 'Good to Great' in Memphis Middle Schools" by Brenda Cassellius in *Middle School Journal*, May 2006 (Vol. 37, #5, p. 4-15), no e-link available

5. Educators Need to Be Better Mediators

In this article in *Education Week*, mediation specialist Mark Gerzon bemoans the fact that most educators are "illiterate" when it comes to mediating conflicts. All too many, he says, see conflict as inevitable and believe the only way to deal with it is to grow a thick skin.

Nonsense, says Gerzon. There are tools for handling conflict effectively, and educators need to learn how to use them. "To learn math or science or history, study is required. Conflict requires study, too. Otherwise, school communities become battlefields, casualties mount, and children become pawns in endless ideological conflicts about education."

Gerzon gives an example – a community meeting that came to a standstill because of a conflict over the teaching of evolution. "I will never allow the teaching of religion in my biology class because…." declared a high-school science teacher. "And I will not allow young people to attend a school that denigrates our faith," shouted a local minister.

To prevent or manage this kind of conflict, Gerzon believes that school leaders need to be able to apply eight strategies:

• *Integral vision* – The ability to hold all sides of the conflict, in all their complexity, in your mind and heart. The opposite: having tunnel vision, being narrow minded.

• *Systemic thinking* – Identifying all (or as many as possible) of the significant elements related to the conflict, and understanding the relationships between and among them and how a conflict might prevent these parts from working smoothly together. The opposite: being distracted or ego centered.

• *Presence* – Focusing all one's mental, emotional, and spiritual resources on assessing and transforming the conflict. The opposite: being distracted or half-hearted.

• *Inquiry* – A way of asking questions that elicits essential information about the conflict and how to solve it. The opposite: being a know-it-all or arrogant.

• *Conscious conversation* – Being adaptable and nimble when interacting with others. The opposite: being scripted or mechanical.

• *Dialogue* – Communicating in an inquiry-based, trust-building way that maximizes people's ability to bridge and innovate. The opposite: being top-down or one-way.

• *Bridging* – Building partnerships and alliances crossing the divisions in an organization. The opposite: scapegoating and polarizing.

• *Innovation* – Being open to creative breakthroughs that provide new options. The opposite: being uncreative, stuck.

"Why Educators Must Become Mediators" by Mark Gerzon in *Education Week*, May 3, 2006 (Vol. 25, #34, p. 34, 36), no free e-link available

6. A Revised Bloom's Taxonomy. Who Knew?!

At one time or another, many of us have had Bloom's Taxonomy of Educational Objectives drummed into our heads:

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

How many of us knew that this venerable structure was revised a few years ago? I certainly didn't. In an informative workshop at the Chicago ASCD conference last month, Pat Mohr and Andrea Keim, two South Carolina consultants (both used to work in the SC state department of education) explained the 2001 revisions. Eight writers, including Lorin Anderson, a Bloom

protégé, and David Krathwohl spent five years on the revision, which they deemed necessary because:

- Cognitive research showed that learning is not linear: "People learn like butterflies."
- Over the years, too many verbs were used and misused to describe Bloom's levels.
- The original taxonomy was not designed for K-12.

The new taxonomy is a matrix combining six cognitive processes and four types of knowledge:

	1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
A. Factual						
B. Conceptual						
C. Procedural						
D. Metacognitive						

Here is a brief description of each of the areas:

<u>The four types of knowledge:</u>

A. *Factual* – What students need to know and solve problems in a discipline.

Sub-types: knowledge of terminology; knowledge of specific details and elements.

Examples: 1812, William Shakespeare, 4 x 3 = 12

B. *Conceptual* – Interrelationships between the basic elements in a larger structure.

Sub-types: Classifications and categories; principles and generalizations; theories, models, and structures.

Examples: Justice, love, equal parts, inherited versus acquired traits

C. *Procedural* – How to do something using skills, algorithms, techniques, etc.

Sub-types: Subject-specific skills and algorithms; subject-specific techniques and methods; criteria for determining when to use procedures.

Examples: the algorithm for long division; designing an experiment; dribbling a basketball

D. *Metacognitive* – Thinking about your own thinking.

Sub-types: Strategic knowledge; knowledge about cognitive tasks; self-knowledge.

Examples: knowing when to use mnemonic strategies, paraphrasing, summarizing, questioning, note-taking, or outlining; recognizing when to study in a library, not at home.

The six cognitive processes:

1. *Remember* – Retrieving relevant knowledge verbatim from long-term memory.
   Processes: recognizing (identifying); recalling (retrieving)
   Examples: Recalling when World War II began; recalling the five steps of the scientific method in order; recognizing the name of the author of *Romeo and Juliet*.
2. *Understand* – Constructing meaning from oral, written, or graphic communication.
   Processes: Interpreting (clarifying, paraphrasing, representing, translating);
   Exemplifying (illustrating, instantiating);
   Classifying (categorizing, subsuming);
   Summarizing (abstracting, generalizing);
   Inferring (concluding, extrapolating, interpolating, predicting);
   Comparing (contrasting, mapping, matching);
   Explaining (constructing causative models).
   Examples: Classify these organisms as vertebrates or non-vertebrates; explain the causes of the American Revolution; represent number sentences expressed in words as algebraic equations expressed in symbols.
3. *Apply* – Carry out or use a procedure in a given situation
   Processes: Executing (carrying out); using a procedure on familiar tasks;
   Implementing: using a procedure on unfamiliar tasks
   Examples: Add 3-digit numbers; use the most effective, efficient, and affordable method of conducting a research study to address a specific question.
4. *Analyze* – Break into parts and see how parts relate to each other and to an overall structure.
   Processes: Differentiating; organizing; attributing (the underlying purpose or perspective)
   Examples: Did the author of a description of the battle of Camden take the perspective of the Americans or the British? What are the major points in this research report?
5. *Evaluate* – Make judgments based on criteria and standards.
   Processes: Checking for internal consistencies or fallacies; critiquing (judging a product or operation based on external criteria or standards).
   Examples: Judge a choral performance using the International Examination Board criteria; determine whether a scientist's conclusion follows from the observed data.
6. *Create* – Put elements together in a new way; reorganize elements into a new pattern.
   Phases: Generating (hypothesizing); planning (designing); producing (constructing).
   Examples: Identify as many ways as possible to use a brick; develop a design for a product that meets designated criteria.

Note that there was a deliberate effort to eliminate words that did not lend themselves to precise measurement of student outcomes: *describe, list, discuss, skill, problem-solving, explore, develop, learn, accept, appreciate, enjoy, and reflect*.

South Carolina now requires that all curriculum standards use the new taxonomy, which has produced clearer, more economical standards. The most heavily populated cells on the matrix are:

A-1: Remembering factual knowledge

Social studies example: Recognize characteristics of the local region, including its geographic features and natural resources.

B-2: Understanding conceptual knowledge

Math example: Use models and appropriate vocabulary to classify quadrilaterals, polyhedra, cones, and cylinders according to their attributes.

C-3: Applying procedural knowledge

Science example: Carry out simple investigations to answer questions about familiar objects and events.

"Designing Clear Academic Standards Using the Revised Bloom's Taxonomy" by Pat Mohr and Andrea Keim, April 3, 2006 workshop at ASCD conference in Chicago, Illinois. Reference: *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives* by Lorin Anderson and David Krathwohl, Allyn and Bacon, 2001

7. Short Item:

Different strokes for different folks – Visiting an elementary school in New York City last week, I noticed a bulletin board display from a second-grade class. Students had listened to Beethoven's Quartet in A Major and Brahms Quartet #2, Opus 51 and written a short sentence on how the music made them feel, accompanied by a drawing. Here's a selection of what students wrote:

- This music made me feel good.
- The music makes me feel happy.
- This music makes me feel rockin'.
- I feel happy, that I want to swim and play the piano.
- This music makes me feel relaxed.
- The music makes me feel like an angry mob is chasing me!!!

Do you have feedback? Is anything missing?

If you have comments or suggestions, if you saw an article or web item in the last week that you think should have been summarized, or if you would like to suggest additional publications that should be covered by the Marshall Memo, please e-mail: kim.marshall8@verizon.net

About the Marshall Memo

Mission and focus:

This weekly memo is designed to keep principals, teachers, superintendents, and others very well-informed on current research and effective practices in K-12 education. Kim Marshall, drawing on 36 years' experience as a teacher, principal, central office administrator, and writer, lightens the load of busy educators by serving as their "designated reader."

To produce the Marshall Memo, Kim subscribes to 44 carefully-chosen publications (see list to the right), sifts through scores of articles each week, and selects 5-10 that have the greatest potential to improve teaching, leadership, and learning. He then writes a brief summary of each article, pulls out several striking quotes, provides e-links to full articles when available, and e-mails the memo to subscribers every Monday (with occasional breaks; there were 50 issues in 2004-05).

Subscriptions:

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- How to change access e-mail or password

Publications covered

Those read this week are underlined.

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