Marshall Memo 39

A Weekly Round-up of Important Ideas and Research in K-12 Education
May 24, 2004

In This Issue:

Quotes of the Week

"The higher teachers' sense of efficacy, the more likely they are to tenaciously overcome obstacles and persist in the face of failure. Such resiliency, in turn, tends to foster innovative teaching and student learning."

Roger Goddard, Wayne Hoy, and Anita Woolfolk Hoy (see item #1)

"An African-American child does not need to sit next to a white student to become a good reader – any more than a white youngster needs to sit next to an Asian to learn math."

Abigail Thernstrom in *Education Week*, May 19, 2004, p. 52, 42

"In too many ways, when it comes to children of color, we continue to ask the wrong questions. We poke and probe and test those kids as we wrinkle our brows and ask, with requisite concern, 'Why are you such a problem? What special programs do you need?' when we should be asking, 'What have we not given to you that we routinely give to upper-middle-class white kids? What do they have that you don't?'"

Ellis Cose, "A Dream Deferred" in *Newsweek*, May 17, 2004 (p. 52-59)

"Middle-class children do not achieve their academic advantage by writing the letters of the alphabet and counting to ten over and over. Children learn best, and enjoy learning most, when they are actively involved in authentic activities… We don't need to *make* children ready to learn. They are born ready to learn, and most are quite eager learners. We can, however, easily squash that eagerness."

Deborah Stipek, Dean, Stanford School of Education (in a letter to *Education Next*, Summer 2004, p. 7)

"We need another Sputnik."

Gerry Wheeler on the need for a national wake-up call on science education, like the 1957 Soviet satellite that energized U.S. schools (see item #5c)

1. Can Teachers' Sense of "Efficacy" Boost Student Learning?

Over the last 25 years, researchers have explored how a sense of "efficacy" (the feeling that one can mobilize one's talents to get things done) affects how successful people are at quitting smoking, sticking to a diet, persisting with an exercise program, performing well in sports, preventing crime in a neighborhood – and achieving academic success in school. In schools, researchers have identified three kinds of efficacy:

• *Students' belief in their ability to achieve* – For example, one study showed that the math achievement of students at the same skill level differed significantly depending on efficacy beliefs; students with a higher sense of efficacy in math more consistently and effectively applied what they knew to new problems and were more persistent and less likely to reject correct solutions prematurely. Interestingly, students who slightly overestimated their actual math capabilities did the best.

• *Teachers' beliefs about their own instructional efficacy* – If a teacher's sense of efficacy is high ("I have what it takes to get my students to learn!"), he or she is more likely to "tenaciously overcome obstacles and persist in the face of failure. Such resiliency, in turn, fosters innovative teaching and student learning." Teachers with a strong sense of efficacy get better results because they use classroom strategies that are more organized, better planned, more student-centered, and more humanistic. Teachers' sense of efficacy correlates with feelings of trust and openness, which leads high-efficacy teachers to collaborate with their colleagues and improve their practice.

• *Teachers' beliefs about the collective efficacy of their school* – Recent research has found that there is a strong link between teachers' combined beliefs about the efficacy of their school ("We have what it takes to educate students here!") and student achievement. In schools and other group settings, "perceptions of group capability tend to be strongly and positively related to group processes and outcomes… [C]ollective efficacy beliefs are important to group functioning because they explain *how organized capacity for action is tapped to produce results*…. Perceptions of collective efficacy directly affect the diligence and resolve with which groups choose to pursue their goals… [A] robust sense of group capability establishes expectations (cultural norms) for success that encourages organizational members to work resiliently toward desired ends." This set of beliefs might be called the *culture* of the school, and it shapes teachers' beliefs about their own efficacy, which, in turn, powerfully affects the way they teach every day and the beliefs they convey to their students. "That is, where teachers tend to think highly of the collective capability of the faculty, they

sense an expectation for successful teaching and hence are increasingly likely to put forth the effort required to help students learn. Conversely, where perceived collective efficacy is lower, it is less likely that teachers will be pressed by their colleagues to persist in the face of failure or that they will change their teaching when students do not learn."

If a sense of collective efficacy is so important to high student achievement, how can a principal foster it? Researchers have begun to describe an intriguing interaction between four closely-related factors: (a) teachers believing that their school can make a difference; (b) teachers having a strong sense of their own personal efficacy (which can be enhanced by their sense of the whole school's impact, and vice-versa); (c) teachers using best practices in their classrooms (which they are more likely to do if they believe they will produce results and that the whole school is making a difference); and (d) principals giving teachers a say in decisions that affect their classrooms.

This last factor is the one that principals can most readily change. Research has found a strong relationship between a staff sense of efficacy and teachers being given a say over:

- curriculum choices
- instructional materials
- classroom activities
- professional development
- communication with parents
- student placement
- disciplinary policies.

Empowering teachers in these areas seems to lead directly to a sense of collective efficacy, which ripples into individual efficacy and use of best practices in classrooms as described above.

Principals can also affect four other processes within a school that affect the staff's collective sense of efficacy. This process is not yet fully understood, but researchers believe that collective efficacy is created when staff members talk about and think through four different dynamics within their school:

• *Success in the classroom* – When students learn and achieve, teachers' sense of efficacy can soar – provided that students' success is attributed to internal and controllable causes. When teachers believe that their students' success is due to hard work and ability, teachers are more optimistic that students will succeed in the future.

But if teachers attribute students' success to luck or outside help (external and uncontrollable causes), or when the work that students are acing seems too easy, the collective sense of efficacy is not raised. When students do not learn and achieve, teachers' sense of efficacy plummets and they are less optimistic about the impact of their teaching in the future. For teachers to have a strong sense of collective efficacy, in other words, it is important to have a rigorous and challenging curriculum and for teachers and students to feel they have overcome significant difficulties through persistent effort.

• *Observing successful teaching* – When a teacher watches a highly effective teacher or visits another school that is succeeding with a similar population of students, that can be a proxy for experiencing success in their own classroom. "Borrowing from other organizations is a form of vicarious organizational learning, which is sometimes as effective as firsthand learning."

• *Persuasion by colleagues* – This may involve "encouragement or specific performance feedback from a supervisor or a colleague or it may involve discussions in the teachers' lounge, community, or media about the ability of teachers to influence students… Although verbal persuasion alone is not likely to compel profound organizational change, when coupled with models of success and positive direct experience, it can influence the collective efficacy beliefs of a faculty." This is most important for newly-arrived teachers, who can sense the overall sense of efficacy in a school and be swept along by it. "In schools possessed by a high degree of perceived collective efficacy, new teachers learn that extra effort and educational success are the norm. In turn, these high expectations for action create a normative press that encourages all teachers to do what it takes to excel and discourages them from giving up when faced with difficult obstacles."

• *Resilience under stress* – Schools with a strong sense of collective efficacy seem to react better to setbacks (e.g., disappointing test scores) and unexpected challenges (e.g., a nonsensical mandate from the central office), whereas less efficacious organizations tend to react in dysfunctional ways, which increases the chances of failure.

"Collective Efficacy Beliefs: Theoretical Developments, Empirical Evidence, and Future Directions" by Roger Goddard, Wayne Hoy, and Anita Woolfolk Hoy in *Educational Researcher*, April 2004 (Vol. 33, #3, p. 3-13), no e-link available.

2. A Critique of Howard Gardner's Theory of Multiple Intelligences

In this trenchant piece, Daniel Willingham, a University of Virginia psychology professor, challenges Howard Gardner's theory of multiple intelligences and questions its usefulness in the classroom. Willingham argues that brain research does not support Gardner's belief that the human mind is a confederation of eight largely independent, self-sufficient intelligences (linguistic, logico-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalist). He argues that if we use Gardner's criteria for identifying an intelligence, an argument can be made for a humor intelligence, a memory intelligence, an olfactory intelligence, and a spelling intelligence, among others. "Distinguishable abilities do exist," he writes, "but Gardner's description of them is not well supported." Willingham prefers the hierarchical view of the brain held by most psychometricians; according to this theory, two kinds of intelligence, verbal and mathematical, mediate between "general" intelligence and more specific intellectual abilities.

Gardner's ideas have been widely applied in classrooms around the world. How helpful have they been in improving children's education? It's difficult to say, since few schools have hard data and many projects are partial and superficial applications of the original theory. Gardner himself has been critical of some of the ways educators have applied his ideas. He doesn't think schools should try to "teach" children all the intelligences, nor does he think teachers should struggle to use all eight in every lesson. He also calls some applications of his theory "trivial" (for example, trying to remember a list by singing or dancing it) and disapproves of teachers letting students compensate for weakness in one intelligence by performing in another. Gardner believes in high standards and thinks the curriculum should be the ultimate goal, not the eight intelligences.

Willingham believes that the misguided notion that schools should be teaching all the intelligences stems from Gardner's use of the word "intelligences" rather than "talents" or "abilities." Gardner concedes that a different word could have been used, but insists that, whatever word is used, we should use the same one for all eight. He does not, in other words, believe that linguistic and mathematical reasoning should be "honored" above the others. Willingham disagrees, and points out that over the years, the word "intelligence" has taken on a special meaning: people believe that intelligence is the kind of ability that makes a person successful in school. "Readers made the natural assumption that Gardner's new intelligences had roughly the same

meaning and so drew the conclusion that if humans have a type of intelligence, then schools should teach it."

"What is perhaps most surprising," says Willingham of Gardner's theory, "is that it is not more surprising. Many experienced educators probably suspected that different materials (songs, stories) engage different students and that sustained study using different materials engenders deep knowledge… In the end, Gardner's theory is simply not all that helpful. For scientists, the theory of the mind is almost certainly incorrect. For educators, the daring applications forwarded by others in Gardner's name (and of which he apparently disapproves) are unlikely to help students. Gardner's applications are relatively uncontroversial, although hard data on their effects are lacking. The fact that the theory is an inaccurate description of the mind makes it likely that the more closely an application draws on the theory, the less likely the application is to be effective. All in all, educators would likely do well to turn their time and attention elsewhere."

Gardner, naturally, disagrees. He believes that the best application of the theory is when teachers use different intelligences as "entry points" or "hooks" to get students intrigued with the curriculum through a channel in which they are strong, so they can get access to the core material that is being taught. Gardner says that students attain deep understanding only after multiple presentations, and during these, teachers should tap into as many different intelligences as possible.

"Reframing the Mind" by Daniel Willingham in *Education Next*, Summer 2004 (Vol. 3, #3, p. 19-24) http://www.educationnext.org/20043/18.html

3. Why Portfolio Assessments Are Carrying Less Weight

Starting in the 1960's, many progressive educators embraced a form of assessment that went well beyond conventional pencil-and-paper tests: portfolios of student work, accumulated and polished over time, displaying students' in-depth research, creativity, and hard work and using several learning modalities. At the innovative Beacon School in Manhattan, for example, seniors presented portfolios containing three years of essays, lab reports, problem solutions, and research projects (three in science, three in history, four in English, and three in foreign languages). Educators like Deborah Meier said that judging low-income inner-city students on the basis of portfolios (and oral examinations) brought out the best in them and helped them get into college, where they continued to do well. The portfolio idea got stronger in the 1980's when Drew Gitomer, vice president for research at the Educational

Testing Service, worked with Howard Gardner and Dennie Palmer Wolf at Harvard's Project Zero to develop the idea of portfolios in writing, music, and art.

But in this *Education Next* article, education writer Jay Matthews describes two reasons that portfolios have lost their edge in the last decade. First, in a 1994 RAND Corporation study of Vermont's portfolio assessment system, Daniel Koretz found that there were inconsistencies among schools. One school required one kind of project, another school quite a different one, which made it difficult to compare students' work and see whether standards were high and equitable. Koretz reported that teachers were complaining that portfolios used too much instructional time, and math teachers, he wrote, "frequently noted that portfolio activities take time away from basic skills and computation, which still need attention." Koretz concluded that portfolios were not that useful as a large-scale accountability measure of student achievement.

A second reason for the decline in portfolios was the advent of high-stakes state tests in the late 1990's. "With the nationwide effort to raise graduation standards and the increasing use of standardized testing," Matthews writes, "the idea of basing promotion and graduation decisions on portfolios of students' work has fallen out of fashion as swiftly as slide rules gave way to calculators." Some schools have continued to use portfolios, but they have been de-emphasized because of the need to prepare students for the broad curriculum that is assessed by state tests. "[E]ven the most ardent advocates [of portfolios] have acknowledged that samples of student work cannot compete with the ability of standardized testing to quickly and cheaply determine the overall performance of a school or a school district."

Matthews notes that those who favor standardized tests and those who favor portfolios often say they can't trust the results produced by the other form of assessment. Chester Finn says that authentic assessment "is costly indeed, and slow and cumbersome, but I think its biggest flaw as an external assessment is its subjectivity and unreliability." Robert Holland of the Lexington Institute adds another worry: how much help are students getting on the outside? "Scorers have no way to tell if the work samples came from a student or a smart uncle or from an Internet download." To the extent that a portfolio is not the student's own work, it is invalid as an accurate measure of achievement.

"Portfolio Assessment: Carrying less weight in the era of standards-based accountability" by Jay Matthews in *Education Next*, Summer 2004 (Vol. 3, #3, p. 72-76)
http://www.educationnext.org/20043/72.html

4. Are K-8 Schools the Answer to Middle-School Woes?

This front-page article in *Education Week* notes a national trend in urban school districts toward K-8 schools. Baltimore, Milwaukee, New York City, Philadelphia, Cleveland, and Cincinnati are in the process of converting elementary schools to a K-8 grade structure. Among the reasons: providing more continuity across the grades, forging better student-teacher connections, operating at a more human scale, reducing discipline problems, increasing parent involvement, and improving academic performance.

Studies in Philadelphia, which is in the middle of a total conversion to K-8 schools, show that students who attended K-8 schools performed better on the Stanford 9 as eighth graders, got into selective high schools at higher rates than students who attended both elementary and middle schools, got better grades in ninth grade, and scored better on state tests. A study in Cleveland showed more sixth graders scoring proficient and above in reading than students in the traditional grade structure (58 percent versus 43 percent), as well as math (44 percent versus 30 percent), and also documented lower suspension rates (17 percent versus 30 percent). The superintendent in Cleveland believes this was due to grade continuity and familiarity with the school and its teachers, which allowed students to focus more on learning and not have to jockey for social position in a new middle school.

Not everyone thinks K-8 is the best solution to the problems of middle schools. "This is another attempt at a magic bullet," said Joan Lipsitz, a middle school advocate, "which is much easier than getting down to the really hard work of preparing teachers to work with this age group, having strong curricula for this age group, and having personalized schools that hold high expectations for all kids and also meet their developmental needs." Middle school advocates point out that K-8 schools often have fewer students per grade and cannot afford a departmentalized structure, depriving students of more specialized instruction in the middle grades. Others worry that time and energy will go into converting to a new grade configuration and not into what happens in classrooms. "K-8 looks awfully appealing politically," said Sondra Cooney, an Atlanta consultant. "It looks like you're doing something. But the most important thing is having a highly qualified teacher in every classroom, knowing what to teach and how to teach it."

"City Districts Embracing K-8 Schools" by Catherine Gewertz in *Education Week*, May 19, 2004 (Vol. XXIII, #37, p. 1, 20)
http://www.edweek.org/ew/ewstory.cfm?slug=37K-8.h23

5. Short Items:

a. New leaders for new schools? – In this thoughtful article, education writer Alexander Russo frets over the difficulty that New Leaders for New Schools, an innovative non-profit that recruits and trains urban principals, is having getting its graduates placed in principalships, especially in Chicago. [Full disclosure: I work as a leadership coach in New York City for New Leaders for New Schools]. The main issue seems to be that Local School Councils, which hire principals in each Chicago school, are often more drawn to applicants who have years of experience as assistant principals than they are by the training and credentials that New Leaders graduates bring to the table. The result is that a number of graduates of the New Leaders program are now running charter schools, small schools, start-ups, or other educational organizations.

The challenge for New Leaders, says Russo, is convincing decision-makers in New York City, Chicago, Washington D.C., Memphis, and the San Francisco Bay area that (a) the New Leaders selection, training, and internship process compensates for graduates' relative lack of administrative experience, and (b) their graduates can get much better student achievement than more conventional principals. Stay tuned.

"The Waiting Game" by Alexander Russo in *Education Next*, Summer 2004 (Vol. 3, #3, p. 46-51) http://www.educationnext.org/20043/46.html

b. Should all students take the same assessments? Each month, Doug Reeves answers a question from a teacher or administrator in his organization's e-mail newsletter. This month's question was: "If we're differentiating instruction, should all students have the same assessment?"

Yes, says Reeves. Every child needs to participate in the same assessment to give the teacher accurate information about how students are doing in relation to the curriculum standards. Here are his pointers:

- The essential understandings will be the same for all students even though the instructional path may differ.
- Throughout the semester, use a variety of assessments that allow students with different learning styles and special needs to show their mastery.
- For the final assessment, use the same tool and the same scoring rubric, but include several tasks, including one that is below the level of the unit, one that is at the "proficient" level of performance, and one that is a significant

challenge beyond the level of the unit. All students would be expected to meet the proficient level, though not all at the same pace.

"Questions and Answers from the Real World" by Douglas Reeves in the *Center for Performance Assessment Monthly E-Mail Newsletter*, May 2004

c. Are we shortchanging science education? Science is taught less than three times a week to nearly one third of America's elementary-school students, and U.S. students are losing out to competition from students educated abroad for technical positions in industry, according to two recent studies. Fewer U.S. high-school students are planning to pursue natural science and engineering degrees: in 1975, the U.S. ranked third in the world for such degrees; we now rank 17th. "This is a huge wake-up call," said Gerry Wheeler of the National Science Teachers Association, "but no one is picking up the phone. We need another Sputnik." Strong science background in elementary schools is key, he believes.

"Studies Suggest Science Education Neglected" by Michelle Galley in *Education Week*, May 19, 2004 (Vol. XXIII, #37, p. 12) http://www.edweek.org/ew/ewstory.cfm?slug=37Science.h23. The Bayer study is available at http://www.bayerus.com/news/index.cfm and the National Science Foundation study is at http://www.nsf.gov/sbe/srs/seind04/

d. Discipline problems – A recent survey of secondary-school teachers and parents by Public Agenda shows that discipline continues to be a major concern. Eighty-five percent of teachers and 73 percent of parents say that the school experience of most students suffers because of a few chronic troublemakers. Eighty-two percent of teachers and 74 percent of parents cite a lack of parental support as a key contributing factor. Forty-nine percent of teachers say they have been accused of unfairly disciplining a child and 78 percent say students are quick to remind them that they have rights or that their parents can sue.

"Report Notes Impact of Student Behavior" by Darcia Harris Bowman in *Education Week*, May 19, 2004 (Vol. XXIII, #37, p. 3). The full study, "Teaching Interrupted: Do Discipline Policies in Today's Public Schools Foster the Common Good?" is available at http://www.publicagenda.org

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.

Subscriptions:

The Marshall Memo is sent every Monday (with occasional breaks). Subscriptions are $50 a year. Reduced rates for institutional subscriptions can be negotiated. Contact Kim at kim.marshall8@verizon.net or 222 Clark Road, Brookline, MA 02445 (617-566-4353).