Marshall Memo 166

A Weekly Round-up of Important Ideas and Research in K-12 Education
January 1, 2007

In This Issue:

Quotes of the Week

"If kids are not learning, they are not being afforded powerful learning opportunities. If teachers are not affording students powerful learning opportunities, principals and district leaders are not doing what they need to do to equip and support teachers with the requisite knowledge and skills."

Stephen Fink, Panasonic Foundation (see item #1)

"The traditional school culture in which teachers close their doors and teach in private represents a significant barrier to continuous improvement of instruction. Teachers need real-time, in-context feedback to make the needed improvement."

Stephen Fink (*ibid.*)

"The trophy case bursting with evidence of athletic championships can share space with exceptional student artwork, outstanding science projects, and superb essays."

Doug Reeves (see item #2)

"Schools can significantly improve student learning by investing in teacher quality and placing effective teachers where they are needed most."

George Nelson and Carolyn Landel (see item #6)

"Invariably, I find myself focusing on problems right in my face, dousing fires that needed to be extinguished yesterday. That's my job, of course. But what's the cost of focusing only on the things that aren't right?"

Thomas Hoerr, a St. Louis principal (see item #10)

"Empathy is the prime inhibitor of human cruelty."

Daniel Goleman in *AARP: The Magazine*, January/February 2007, p. 44-46

1. What It Takes to Get High Achievement for All Students

Here's a compact mission statement for a school or district that says it all: *Our purpose is to educate all the students we serve to high levels through high-quality instruction*. Taken from the December issue of *Strategies*, a publication of the Panasonic Foundation, this statement answers the question, "For what purpose does your school or district exist?" The wording of mission statements may vary from school to school or district to district, says editor Scott Thompson, but they should always contain this basic idea – for the simple reason that "quality instruction is about 15 to 20 times more influential in terms of student learning growth than family background, income, race, gender, or other commonly recognized predictors."

A sidebar by Stephen Fink gives the big ideas of Panasonic's work in the Highline, Washington school district – and for instructional improvement in general:

• Instructional improvement is the engine that will produce better academic outcomes for all students.

• If kids are not learning, they are not being afforded powerful learning opportunities.

• If teachers are not affording students powerful learning opportunities, principals and district leaders are not doing what they need to do to equip and support teachers with the requisite knowledge and skills.

• Teaching is complex, and teachers are capable of making important instructional decisions if they are given effective professional development.

• To facilitate powerful instruction, teaching practice must move from private to public. The traditional school culture in which teachers close their doors and teach in private represents a significant barrier to continuous improvement of instruction. Teachers need real-time, in-context feedback to make the needed improvement.

• Educators should be held accountable for what they have the capacity to accomplish, and it's up to districts to provide the support teachers need to help their students achieve academic goals. (Harvard professor Richard Elmore calls this "reciprocal accountability.")

• You cannot lead what you don't know. All of the above is dependent on effective instructional leadership and instructional coaching. Instructional leaders at the school and system levels need deep knowledge of instructional practice and content. Without that, their efforts to lead instructional improvements are based on little more than guesswork.

Spotted in *PEN Weekly NewsBlast*, December 22, 2006. This issue of *Strategies* (Vol. 12, #1, December 2006) contains two district case studies and can be downloaded at: http://aasa.files.cms-plus.com/PDFs/Publications/Strategies/Strategies1206.pdf

2. Doug Reeves's Suggestions for Improving a School's Culture

To improve student achievement, school leaders almost always have to change the culture of their schools, says author/consultant Doug Reeves in this *Educational Leadership* column – and principals often run into resistance, including statements like these:

"Public displays of data won't work here – the culture won't allow it."

"We can't change the grading policy – it's part of our culture."

Stakeholders often use the word *culture* "as a rhetorical talisman to block leadership initiatives, stifle innovation, and maintain the status quo," says Reeves. He suggests four things for principals to bear in mind as they go about changing a school culture for the better:

• *Define what you will not change*. Principals should identify the values, traditions, and relationships that need to be preserved. "Rather than make every change a battle that exhausts political capital and diminishes trust, " he writes, "effective leaders place change in the context of stability… The trophy case bursting with evidence of athletic championships can share space with exceptional student artwork, outstanding science projects, and superb essays."

• *Recognize the importance of actions*. "The greatest impediment to meaningful cultural change," says Reeves, "is the gap between what leaders say they value and what they actually do." This means avoiding hypocrisy (e.g., touting a collaborative culture and then using staff meetings to lecture teachers and read announcements); allocating time wisely (e.g., turning down some outside meeting invitations to be available in the building); and fostering collegial relationships (e.g., making time to listen to colleagues' personal stories).

• *Use the right change tools for your school and district*. "Leaders who approach reform determined to apply a particular change method," says Reeves, "are making the mistake of the person holding a hammer who therefore sees only nails." The trick is choosing the right tool for the situation by taking into account a number of factors, including the extent to which colleagues agree on what they want and how to get there:

- Culture tools, such as rituals and traditions;
- Power tools, such as threats and coercion;
- Management tools, such as training, procedures, and measurement systems;
- Leadership tools, such as role-modeling and vision.

• *Be willing to do the unglamorous work*. "If you believe that every job has value and there is no such thing as unimportant work in schools," says Reeves, "then demonstrate that belief through your actions." This includes spending time with bus drivers early in the morning, picking up stacks of trays in the cafeteria, and working with teachers to score a pile of student assessments.

"How Do You Change School Culture?" by Douglas Reeves in *Educational Leadership*, December 2006/January 2007 (Vol. 64, #4, p. 92, 94),
http://www.ascd.org/portal/site/ascd/template.MAXIMIZE/menuitem.459dee008f99653fb85516f762108a0c/?javax.portlet.tpst=d5b9c0fa1a493266805516f762108a0c_ws_MX&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_journaltypeheaderimage=%2FASCD%2Fimages%2Fmultifiles%2Fpublications%2Felmast.gif&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_viewID=article_view&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_journalmoid=af862e9be585f010VgnVCM1000003d01a8c0RCRD&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_articlemoid=2de72e9be585f010VgnVCM1000003d01a8c0RCRD&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_journalTypePersonalization=ASCD_EL&javax.portlet.begCacheTok=token&javax.portlet.endCacheTok=token

3. Using the "Learning Cycle" to Teach Difficult Science Concepts

In this helpful *Educational Leadership* article, science writer Bill Robertson says that science teachers don't have to choose between direct instruction and hands-on inquiry. The way out of this false dichotomy, he says, is the *Learning Cycle*. First introduced as part of the Science Curriculum Improvement Study, it is a combination of open-ended discovery and structured explanation attained by guiding students through the "Five Es":

• *Engagement* – Teachers engage students' prior knowledge of the domain they're about to study with some initial questions and activities. Teachers do *not* explain the concept that students are about to learn.

• *Exploration* – Students perform hands-on activities carefully designed to help students discover the concept on their own. For example, in a unit on the law of reflection of light, students use hands-on materials to measure the angle at which light reflects off a mirror and compare it to the angle at which it hits the mirror.

• *Explanation* – The teacher draws on students' hands-on explorations to give an explicit description of the new concept. If all goes well, students will be able to apply the concept and the new vocabulary (e.g., angle of incidence) to what they have been discovering on their own.

• *Elaboration* – The teacher presents a more complicated hands-on task (e.g., predicting the path of a beam of light through an arrangement of mirrors using a protractor) that challenges students to apply the concept to a new situation and allows the teacher to assess how well students are understanding what's been taught so far.

• *Evaluation* – The teacher assesses what students have learned using a paper-and-pencil test or a performance task.

Robertson cites research on the effectiveness of the Learning Cycle and adds three concluding points: (a) The sequence of the Five Es is crucial; for example, if the teacher explains the concept before students have a chance to do an inductive hands-on experiment, they won't learn as well; (b) For this approach to work, the teacher must have a good understanding of the science content; and (c) Because the Learning Cycle is more time-consuming than standard instruction, teachers need to be selective about where they use it. Robertson advises teachers to save it for big-ticket concepts (such as Newton's second law and color addition and subtraction) and use conventional pedagogy for simpler topics like measurement of distances and angles.

"Getting Past 'Inquiry Versus Content'" by Bill Robertson in *Educational Leadership*, December 2006/January 2007 (Vol. 64, #4, p. 67-70), no e-link available

4. A Three-Step Process for Improving Middle-School Science Learning

Many middle-school students have difficulty reading their dense, abstract, technical science textbooks. In this *Educational Leadership* article, a team of researchers reports on an experiment in two Florida middle schools, testing a solution to this perennial problem. The

team reports that the 6th-grade classrooms that implemented their approach did significantly better than the control-group in a post-evaluation. Here's their approach:

• *Explicit instruction in reading strategies* – The researchers gave teachers comprehension lessons incorporating strategies like think-pair-share, two-column note taking, paraphrasing, and questioning. They modeled some of the strategies with students, and although teachers would give them only 15-20 minutes a week for the modeling, teachers agreed to follow up on the strategies during the rest of the week. One of the teachers read aloud from a science passage on temperature and asked each student come up one "thick" question (a big-picture question such as "Why would Anders Celsius make the Celsius scale when he already had Fahrenheit?") and one "thin" question (which can be answered with a simple "yes" or "no"). The questions flowed in during and after the read-aloud, and the teacher then compiled students' questions and used them to guide discussion and instruction.

• *Home reading of high-quality science books* – Teachers purchased 196 award-winning science trade books (mostly non-fiction, but some fiction and poetry) and had students borrow one each week to read at home with their families. Here are some of the books:

- *An American Plague: The True and Terrifying Story of the Yellow Fever Epidemic of 1793* by Jim Murphy
- *Encantado: Pink Dolphin in the Amazon* by Sy Montgomery and Dianne Taylor-Snow
- *Exploding Ants: Amazing Facts About How Animals Adapt* by Joanne Settel
- *Field Trips: Bug Hunting, Animal Tracking, Bird-Watching, Shore Walking* by Jim Arnosky
- *Phineas Gage: A Gruesome but True Story About Brain Science* by John Fleischman
- *Project UltraSwan* (Scientists in the Field series) by Elinor Osborn
- *The Case of the Monkeys That Fell from the Trees and Other Mysteries in Tropical Nature* by Susan Quinlan
- *The Sky's the Limit: Stories of Discovery by Women and Girls* by Catherine Thimmesh and Melissa Sweet
- *Snowflake Bentley* by Jacqueline Briggs Martin and Mary Azarian
- *Temperature* (Understanding Science) by Joy Frisch

When students returned their books, each shared the content with classmates and talked about what he or she had learned from it.

• *Professional development* – Teachers met regularly to discuss professional books about teaching with non-fiction books, to plan and tweak instruction, to share successful ideas, and to attend workshops given by the researchers. Important insights came out of these meetings – for example, one teacher realized how much mileage she could get from read-alouds of science books. "Teachers saw that teaching reading skills is not an 'extra' but an essential part of promoting content-area literacy," conclude the authors.

"Infusing Reading Into Science Learning" by Courtney Zmach, Jennifer Sanders, Jennifer Drake Patrick, Kakan Dedeoglu, Sara Charbonnet, Melissa Henkel, Zhihui Fang, Linda Leonard Lamme, and Rose Pringle in *Educational Leadership*, December 2006/January 2007 (Vol. 64, #4, p. 62-66), no e-link available

5. A Report on Improving High-School Science Labs

In this article in *Educational Leadership*, senior editor Deborah Perkins-Gough summarizes the National Research Council's recent report on science laboratory classes, *America's Lab Report: Investigations in High School Science*. The report said there is much room for improvement in science labs in U.S. classrooms, and Perkins-Gough speculates that the poor quality of typical high-school lab experiences may partly explain why U.S. students' high-school science achievement has stagnated in the last decade.

The report was critical of: (a) weak connections with classroom science lessons; (b) overemphasis of procedures and not enough focus on clear learning goals; (c) inadequate reflection and discussion about the science concepts; (d) teachers who are poorly trained and don't have enough professional development; (e) inadequate supplies and equipment; (f) poor and minority students having less access to lab experiences than more-advantaged students; and (g) overwhelming science curriculum expectations that lead schools to downplay hands-on experiences.

According to the report, students should have science labs at least once a week and, over time, the labs should:

- Be designed with clear learning goals in mind;
- Be thoughtfully sequenced into the flow of classroom instruction
- Be designed to integrate learning of science content with learning about the processes of science;
- Incorporate ongoing student reflection and discussion
- Enhance mastery of subject matter;
- Develop scientific reasoning;
- Help students understand the complexity of empirical work;
- Develop practical skills;
- Help students understand the nature of science;
- Cultivate interest in science and in learning science;
- Develop students' ability to work within a team.

The full report is available at: http://www.nap.edu/catalog/11311.html.

"The Status of the Science Lab" by Deborah Perkins-Gough in *Educational Leadership*, December 2006/January 2007 (Vol. 64, #4, p. 93, 94),
http://www.ascd.org/portal/site/ascd/template.MAXIMIZE/menuitem.459dee008f99653fb85516f762108a0c/?javax.portlet.tpst=d5b9c0fa1a493266805516f762108a0c_ws_MX&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_journaltypeheaderimage=%2FASCD%2Fimages%2Fmultifiles%2Fpublications%2Felmast.gif&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_viewID=article_view&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_journalmoid=af862e9be585f010VgnVCM1000003d01a8c0RCRD&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_articlemoid=4208e5e44685f010VgnVCM1000003d01a8c0RCRD&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_journalTypePersonalization=ASCD_EL&javax.portlet.begCacheTok=token&javax.portlet.endCacheTok=token

6. Should Upper-Elementary Teachers Specialize?

In this thought-provoking *Educational Leadership* article, Washington State professors George Nelson and Carolyn Landel make the case for semi-departmentalized science instruction in grades 4-6, with some teachers handling math and science and others teaching literacy and social studies. There aren't enough highly-trained science and math teachers to go

around, they say. “Every year without effective mathematics and science instruction is another year lost in the short academic lives of children… Schools can significantly improve student learning… by placing effective teachers where they are needed most.” We therefore need to abandon “the idea of the elementary school as a collection of isolated classrooms, each with a set of students and one ‘perfect’ teacher, and substitute the idea of an effective teacher teaching each lesson.”

This model has several other advantages, say the authors: fewer preps for teachers, more focused planning, more effective collaboration around pedagogy and student learning among more expert same-subject colleagues [assuming that they meet regularly], and better preparation of students for the transitions they will experience in middle school.

Nelson and Landel conclude by citing the results of a study in two Washington elementary schools using the traditional and semi-departmentalized models. The school with the science/math and literacy/social studies split had significantly higher student achievement in science, reading, and math – but also had an unexplained drop in achievement in writing.

“A Collaborative Approach for Elementary Science” by George Nelson and Carolyn Landel in *Educational Leadership*, December 2006/January 2007 (Vol. 64, #4, p. 72-75), no e-link available

7. Using Science and Literacy Instruction in Tandem

In this *Educational Leadership* article, education professors Susanna Hapgood and Annemarie Sullivan Palincsar make the case for using inquiry-based science to strengthen reading, writing, listening, and speaking skills in elementary classrooms. “To build literacy,” they write, “young children need more than instruction in such fundamental skills as recognizing letters, decoding words, learning vocabulary words, and reading and discussing stories. They need opportunities to *use* oral and written language to learn about the world and to communicate their ideas and observations.”

Hapgood and Palincsar list the following ways that literacy and inquiry-based science can combine for a powerful one-two punch:

• Most students find science engaging, so science content is “rife with learning opportunities.”

• Good science instruction “encourages students to stretch their capacities to express, digest, and critique ideas in written and oral form.”

• Reading science materials, combined with hands-on investigations and follow-up discussions, can help students sharpen reading strategies even better than direct instruction.

• Discussing, reading, and writing about science ideas helps students build academic vocabulary and use complex sentence structures.

• Inquiry-based science lessons give students a reason to communicate in prose, graphs, diagrams, and tables.

• Content-rich science instruction can also get students writing, particularly if they use science notebooks in a thoughtful way. The authors recommend the Science Writing Heuristic, which has the following components:

- Identify the ideas and questions you bring to this subject.
- Record what you do in your inquiry.
- Record your observations.
- Identify your claims.
- Provide supporting evidence for your claims.
- Read others' entries to compare their thinking.
- Reflect on how your ideas have changed.

This approach can simultaneously improve science content learning and literacy, especially for English language learners.

Hapgood and Palincsar are strong advocates of teachers introducing more non-fiction reading matter into science classrooms (elementary schools frequently over-emphasize fiction). Non-fiction books and articles are useful for: (a) teaching skills such as cause and effect, comparing and contrasting, solving problems, listing, and putting events in chronological order; (b) providing core knowledge that helps level the playing field for students who have not had access to enriching real-world experiences; and (c) giving teachers an opening to model how to read critically and question the ideas presented in a text – not just accepting print material as gospel. Teachers can model asking questions like, "How did the author know that?" and "I find this confusing; how can I find more information to help?"

"Where Literacy and Science Intersect" by Susanna Hapgood and Annemarie Sullivan Palincsar in *Educational Leadership*, December 2006/January 2007 (Vol. 64, #4, p. 56-60), no e-link available

8. Combining Reading Instruction With Social-Emotional Education

This *Education Week* article reports on two elementary literacy programs that teach reading in tandem with social-emotional skills, injecting an ethical and moral component into reading. A kindergarten lesson in the Voices Reading program, for example, uses the story *Rainbow Fish* to teach about friendship, love, and feeling special.

"Children do not develop in particular domains independently of other domains," say Stanford researchers Sarah Miles and Deborah Stipek (quoted from the journal *Child Development)*. "To the contrary, social development and academic development are inextricably connected." Research done at Stanford found that children who made friends easily in first grade were likely to have strong reading skills in third grade, and those who had problems with reading in first and third grade were likely to show aggressive behavior in third and fifth grades. Other research has shown that as young children learn to "regulate" their emotions, their behavior and academic achievement improves.

"Kids are not disembodied brains," says Eric Schaps, an Oakland-based researcher who has been working on social-emotional curriculum for decades and recently developed Making Meaning, another integrated reading program. "They are feeling as well as thinking beings… Learning to read is pretty hard to do, actually. So having that kind of supportive context is important." Making Meaning combines reading skills like retelling, visualizing, making

inferences, and determining important ideas with social skills like taking turns, speaking clearly, and learning to ask clarifying questions.

Some researchers disagree with this approach. "While teaching social skills is very important," says Jerry Silber, a University of Oregon advocate of Direct Instruction, "doing so during a time for reading instruction may be problematic, especially if there are many children who need intensive instruction to just learn basic critical skills."

But schools using programs like Voices Reading speak highly of the double impact on reading and interpersonal skills. "The respect you see in the classroom when the kids are going through these lessons is phenomenal," says Joan Fitton, a Worcester, Massachusetts school official whose district is experimenting with Making Meaning.

"If there's anything that's social, it's language," says Vanderbilt professor David Dickinson, another advocate of the integrated approach. Too often, he says, literacy curriculum is seen as "standing in opposition to social and emotional development." Educators need to "move beyond such thinking to a recognition of the need to address all aspects of development effectively," he says.

"Programs Impart Social Skills Along With Literacy" by Linda Jacobson in *Education Week*, December 20, 2006 (Vol. 26, # 16, p. 9), no e-link available

9. Ten Questions to Assess Parent Involvement

In this column in *Principal* magazine, Virginia-based parent involvement expert John Wherry suggests that principals conduct the following mid-year survey to check up on parent involvement, jotting down a 4-3-2-1-0 score for each item. Don't be satisfied with a "middling" score of 15-25 points, he says. A higher score on parent involvement will translate into higher student achievement.

- Do parents feel welcome and respected when they visit the school?
- Does the school contact parents early before potential problems become serious?
- Does the school give parents a wide range of options for being involved in their children's education?
- Has the school given parents a specific list of things they can do at home to support their children's learning?
- Does the school give parents opportunities to talk with you and with teachers – and genuinely invite their comments?
- Are written materials that the school sends home parent-friendly, brief, clear, and carefully proofread? Wherry believes that sending home frequent, brief messages is more effective than sending occasional, long ones.
- Are you working well with non-English-speaking parents, especially with translation?
- Do you, teachers, and other staff members make a point of telling parents how much their efforts are appreciated?

• Do parents have appropriate input into school decisions that affect them and their children? Parents don't want to run the school, says Wherry, but they do want to be consulted regularly.

• Are you budgeting adequate funds for parent involvement? NCLB requires that one percent of Title I funds be allocated for parent involvement, but Wherry says that good programs require more.

"A Midyear Parent Involvement Checkup" by John Wherry in *Principal*, January/February 2007 (Vol. 86, #3, p. 6), no e-link available

10. Doing Right By "Star" Teachers

In this *Educational Leadership* column, St. Louis principal Thomas Hoerr bemoans the fact that he doesn't spend as much time as he'd like in his best teachers' classrooms. "It pains me to admit that I give far less time to teachers who are at the top of their game than to those who are struggling," he writes. "Invariably, I find myself focusing on problems right in my face, dousing fires that needed to be extinguished yesterday. That's my job, of course. But what's the cost of focusing only on the things that aren't right?"

Crises are one reason for giving short shrift to high-performing teachers, says Hoerr. Another reason is the assumption that the stars are "doing fine." And there's a third more subtle reason: often "star" teachers are opinionated and outspoken and can complicate the job of school leadership, so it's better to leave them alone. Hoerr was reminded of this when he asked his faculty for feedback on what he thought was a finished report-card revision and got an earful of suggestions, which created more work for him.

Nevertheless, he says, principals *should* get into the best teachers' classrooms and follow up with feedback and open-ended questions such as: "What are you doing that's working well? Which students worry you? How can I help?"

In addition, principals should tap the latent talents of great teachers, getting them involved in the school in different ways, including:

- Doing peer observations with follow-up suggestions;
- Chairing curriculum committees;
- Leading a faculty or parent book group;
- Conducting initial screening of teacher applicants;
- Designing a student club or a summer enrichment program.

"Our star teachers are resources," concludes Hoerr; "by tapping into their talents, we help everyone grow."

"Thanking Your Stars" by Thomas Hoerr in *Educational Leadership*, December 2006/January 2007 (Vol. 64, #4, p. 90-91),
http://www.ascd.org/portal/site/ascd/template.MAXIMIZE/menuitem.459dee008f99653fb85516f762108a0c/?javax.portlet.tpst=d5b9c0fa1a493266805516f762108a0c_ws_MX&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_journaltypeheaderimage=%2FASCD%2Fimages%2Fmultifiles%2Fpublications%2Felmast.gif&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_viewID=article_view&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_journalmoid=af862e9be585f010VgnVCM1000003d01a8c0RCRD&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_articlemoid=d8c72e9be585f010VgnVCM1000003d01a8c0RCRD&javax.portlet.prp_d5b9c0fa1a493266805516f762108a0c_journalTypePersonalization=ASCD_EL&javax.portlet.begCacheTok=token&javax.portlet.endCacheTok=token

11. Short Items:

a. Web resources for teachers – This article in *Principal* magazine has several helpful links for teachers:

• Internet4Classrooms gives teachers links to grade-level skills to help students practice on specific content areas: http://www.internet4classrooms.com/grade_level_help.htm

• The National Library of Virtual Manipulatives at Utah State University has interactive, Web-based K-12 math manipulatives: http://nlvm.usu.edu/en/nav/vlibrary.html

• Topmarks Education is a British site that gives teachers easy access to the best educational sites: http://www.topmarks.co.uk

• Marco Polo gives free classroom lessons and materials in seven content areas: http://www.marcopolo-education.org

• Kinetic City is a collection of science experiments, games, and activities: http://www.kineticcity.com

• Quia has a variety of online educational activities, including Web-based versions of workbooks and textbooks: http://www.quia.com (this website has a laborious logging-in process, but appears to be free)

"Mission Possible: Teaching Through Technology" by Patricia Patterson in *Principal*, January/February 2007 (Vol. 86, #3, p. 22-25), no e-link available

b. Science ideas on the Web – The Science IDEAS website has concept maps, writing prompts, discussion boards, lists of trade books appropriate to different topics, and planning checklists to help teachers tailor the model to their district's curriculum and student needs: http://scienceideas.org .

Spotted in "Where Literacy and Science Intersect" by Susanna Hapgood and Annemarie Sullivan Palincsar in *Educational Leadership*, December 2006/January 2007 (Vol. 64, #4, p. 56-60)

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 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 (with occasional breaks; there are about 50 issues a year).

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Publications covered

Those read this week are underlined.

American Educator
American School Board Journal
ASCD SmartBrief
Atlantic Monthly
Catalyst Chicago
CommonWealth Magazine
Ed. Magazine
EDge
Education Digest
Education Gadfly
Education Next
Education Update
Education Week
Educational Leadership
Educational Researcher
Edutopia
Elementary School Journal
Essential Teacher (TESOL)
Harvard Business Review
Harvard Education Letter
Harvard Educational Review
JESPAR
Jimmy Kilpatrick
Journal of Staff Development
Language Learner (NABE)
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, Magazine