# Marshall Memo 154

A Weekly Round-up of Important Ideas and Research in K-12 Education
October 2, 2006

## In This Issue:



## Quotes of the Week

"Too often… teachers merely teach, then ask in their tests: Did you learn my lesson?"
Grant Wiggins (see item #1)

"Transfer must be every teacher's goal."
Grant Wiggins (*ibid.*)

"[Y]ou can never have a mature discussion with a bully."
Jeffrey Wolfsberg (see item #4)

"We have a new and different understanding of how students learn in science. We need to find stronger themes, around which we can coordinate big ideas."
Richard Duschl (see item #7)

"The commonly held view that young children are concrete and simplistic thinkers is outmoded."
National Research Council report on science education (see item #7)

"Narrowing the achievement gap on letter identification and the number of sighted words read in isolation is of no value on reading comprehension."
Maryann Manning (see item #9)

## 1. Grant Wiggins on Teaching So Students Can Transfer What They Learn

In this thoughtful *Perspectives* article, "backwards-design" guru Grant Wiggins tells the story of a college professor who used the following problem in his physics class: *A ball weighing three kilograms is dropped from a 100-meter tower. How many seconds does it take to reach the ground?* At the end of the semester, the professor used this variation as a final exam question: *There is a one-hundred meter hole in the ground. A ball weighing three kilograms is rolled off the side of the hole. How long does it take to reach the bottom?* A number of students were stumped by this question, and one complained to the professor afterwards, "I think this exam is unfair. We never had a hole problem!"

Difficulty transferring what's been learned to a new situation is "depressingly common," says Wiggins. "Students will typically not cue themselves to use all their prior learning or recognize how the 'new' situation reflects prior learning… Transfer doesn't just happen as a result of a typical regimen of teaching and testing, no matter how rigorous the course of study. Transfer happens only when we aggressively teach and test for understandings that are applied in situations."

Some teachers say they don't have time to teach for transfer because they're under so much pressure to get their students ready for standardized tests. Wrong! says Wiggins. Secure state tests, by their very nature, contain questions that students have never seen before, so every high-stakes test is an exercise in applying learning to a new situation. "Transfer must be every teacher's goal," says Wiggins.

But how are teachers going to pull this off? By systematically training students to use, adapt, extend, and understand the basics of what they have learned in novel, "messy" situations, says Wiggins. And the best way to do that is to build in transfer from the very beginning of the backwards-design process. "What we need to see more clearly," he writes, "is that the common learner failure to transfer is not a student weakness or a teaching deficit but a mistake in planning. You have to design backward from the goal of transfer if you want to achieve it… Too often, though, teachers merely teach, then ask in their tests: Did you learn my lesson?"

To improve students' performance at transferring learning, Wiggins says, teachers need to skillfully orchestrate three essential steps:

• *Giving formative performance tasks or tests that demand transfer.* Students must get used to being thrown "curve balls" that involve more than just regurgitating what they have been taught.

• *Explicitly teaching students how to transfer with plenty of feedback.* Initially, says Wiggins, "we simplify and scaffold the performance, giving cues and techniques… But

gradually, we must remove the scaffolds and cues… [and introduce] a steady increase in the demand on learners to judge for themselves, based on learned 'moves' of how to assess each new situation effectively and act appropriately." Some students need fewer hints and support than others; just asking "Can you think of something you did earlier that might be relevant?" is enough for them. Others may need more explicit prompts. Wiggins suggests using the following rubric in the classroom so students can assess themselves (4 and 3 are an A, 2 is a B) and see that the ultimate goal is to be able to do it on their own:

4 – Could do with no prompting entirely on one's own
3 – Required only one minor hint in which the general problem type was referred to
2 – Required two or more hints about the general problem type
1 – Required a prompt in which the specific knowledge/skill was cited
0 – Could not do the problem even with prompting

• *Designing summative tests so they require transfer* and giving students no prompts, so it's clear that the objective is to be able to transfer independently.

Here is Wiggins's summary of all the steps to needed to prevent "We never had a hole problem" syndrome:

- Establish clear and explicit transfer goals with students, i.e., in terms of assessment and grading.
- Use "essential questions" as part of teaching, review, and assessing to suggest the kinds of connections students will have to make all year.
- Have students practice the ultimate transfer, not just the discrete elements, as part of instruction and homework.
- Change the situation/set-up so students realize that any real challenge or problem involving prior learning comes in many guises, sometimes unfamiliar ones.
- Have students practice autonomous self-cueing and knowledge retrieval on their own, without grade penalty.
- Require students to constantly re-word/re-phrase/re-present what they learn.
- Include in instruction generalizing from specific cases, and connecting discrete lessons via the same idea.
- Simplify the ultimate transfer and require (easier) transfer early and often.
- Make sure that any tool or technique is seen as one of many for meeting a more general transfer goal.
- Provide many examples of think-alouds in transfer situations, and practice such think-alouds as part of instruction.
- Shift perspective so that all key content is viewed from multiple points of view.
- Require self-assessment and self-adjustment related to transfer as part of all major assessments.

"Transfer As the Goal of Education" by Grant Wiggins in *Perspectives*, September 2006 (originally published in Big Ideas – http://www.bigideas.org, the online newsletter of Authentic Education (subscription required)

## 2. A Better Approach to Test Preparation (an oldie but goodie article)

In this article from a ten-year-old issue of *Educational Leadership*, two Washington State educators describe work they did with teachers at a school whose students had performed poorly on a standardized test. What baffled the staff was that the school seemed to have excellent teaching and a well-crafted curriculum, yet the students didn't perform well. What was going on?

Rather than resorting to test prep and bending the curriculum out of shape, the consultants conducted a series of workshops to help teachers see the multiple-choice tests as a particular kind of thinking, problem-solving, and literacy. They asked the question, "Did these children – and children at the other low-scoring schools – understand how to demonstrate what they knew under timed, multiple-choice conditions?" The workshops prepared teachers to work with their students to examine correct answers on simulated tests and hone their problem-solving skills.

One multiple-choice question on a test read as follows: "The freight train carried apples and oranges in its _____." The correct answer was *boxcar*, but some students were stumped. "How did you know the answer was boxcar?" asked one student plaintively. A student who had chosen the correct answer explained that he thought of the *Boxcar Children* books he had read and knew that freight trains had boxcars. It was a revelation to many of his classmates that using information from outside the school was a legitimate test-taking strategy. These children had been working with the misconception that you were only allowed to use information from the test itself, and that doing otherwise was borderline cheating.

The consultants report that insights like this occurred repeatedly as teachers worked with students on sample tests. Discussing problems in depth helped students understand why they chose certain answers – sometimes the right answers for the wrong reasons. For example, one problem listed four months – November, September, April, and December – and asked which month didn't belong. A child said the answer was December (the correct answer) but said it was because December is when Christmas comes. The correct reason was that the other three months had 30 days and December had 31. This led to a lively discussion on why answers are right and wrong and how test-makers think.

The school got older students working as test mentors for younger students and they counseled their mentees to remain calm, avoid getting stuck, and tackle problems strategically. They explained that they didn't need to worry if other kids were rustling the pages of their test booklets and reassured them that it was okay not to know everything. Students' anxiety levels plummeted.

The workshops were incredibly successful. Without any changes in teaching practices or curriculum content, the school's scores rose by 20 to 30 percentile points in one year. More important, students became confident problem-solvers and felt good about having performed well on a challenging task. The consultants had helped teachers to see the tests as one type of literacy and performance experience, allowing them to teach for authentic student performance and give students the tools to navigate the tests successfully.

"We had no new test strategies to offer," conclude the authors. "Rather, what we offered was a process that combined practice in a number of things: attempting unfamiliar formats, receiving immediate feedback, exploring reactions and feelings, and generating and actively discussing different problem-solving approaches. Through this teacher-guided, but student-centered, process, children learned how to show what they knew."

"How Did You Know the Answer Was *Boxcar*?" by Sherry Walton and Kathe Taylor in *Educational Leadership*, December 1996/January 1997, no e-link available

## 3. School Refusal Behavior – What's Behind It and What Can Be Done

About one in four children refuse to go to school at some point, reports Jane Brody in this *New York Times* health column. The general term for this is "school refusal behavior," and symptoms can include refusal to get up or get ready for school, clinging to a parent or other adult, excessive assurance-seeking, having temper tantrums and crying, defiance, aggressive behavior, and running away from school or home. Not dealing effectively with school refusal behavior can have serious consequences for a child, including losing ground academically, becoming alienated from friends, family conflicts, legal problems, and, down the road, delinquent behavior, dropping out of school, anxiety disorder, depression, marital problems, difficulty holding a job, and long-term poverty.

School refusal behavior occurs with some children when they first enter school and at the end of summer vacation, but the problem is most acute between the ages of 10 and 13. This is when most children move from smaller, more nurturing elementary schools to larger middle schools where they are the youngest students again and have to move from teacher to teacher and deal with increased bullying – all while experiencing disturbing hormonal changes. Dr. Christopher Kearney, a Nevada psychologist who has studied this subject, says there are four circumstances that can trigger school refusal in this age group:

• Underlying anxiety and depression combined with distress about teachers, peers, the school bus, the cafeteria, the classrooms, and transitions between classes.

• Distress about competitive academic or athletic situations or having to perform in front of or interact with peers.

• A desire for attention from parents by staying home or going to work with them.

• Enjoying the benefits of staying home: sleeping late, watching television, playing video games, and perhaps engaging in delinquent behavior or substance abuse.

What can schools and parents do to help children who refuse to go to school? Brody lists the following:

- In many cases the problem can be minimized by walking the child through the new school and meeting teachers before the school year begins, also by going on outings with new classmates.
- It sometimes helps if a parent is allowed to stay in class with an anxious child for part of a day or two at the beginning of the year.

- It's helpful for parents to establish routines for getting ready for school and consequences for not attending, all as part of a contract that increases incentives for going to school and disincentives for staying home.
- Schools need to move aggressively on bullying behavior and look for underlying causes when students appear anxious or depressed, skip classes, or miss school.
- If the child has headaches and stomach aches, it's a good idea to have a doctor check to see if there might be an underlying medical cause.
- With the parents' consent, the school might also have a psychologist check to see if an underlying problem like depression or anxiety might need to be treated with therapy and/or medication.
- Cognitive behavioral therapy, which emphasizes patterns of thinking, can be especially effective for treating school refusal behavior.
- For older children, relaxation training and breathing retraining can help reduce anxiety.

"Help for the Child Who Says No to School" by Jane Brody in the *New York Times*, August 29, 2006, http://www.nytimes.com/2006/08/29/health/29brod.html?ex=1159934400&en=677c942d86b1b67a&ei=5070

## 4. Dealing With Cyberbullies and Other Online Hazards

"Kids think that the Internet is this place where they can say what they want with little regard to the impact their words have on other people," says Jeffrey Wolfsberg, a Massachusetts-based anti-bullying consultant, in this *Education Digest* article. "And yet, cyberbullying can go on 24 hours a day and have lasting impact on kids. Once, targets of bullying had to endure it only at school. Now, it can follow them home."

Wolfsberg thinks it's a mistake for schools to leave prevention and troubleshooting to individual teachers. He recommends a schoolwide approach and outreach to parents, and says that the school's "acceptable use" policy should include a provision that students can be disciplined for actions taken off-campus "if they are intended to have an adverse effect on a student or they adversely affect the safety and well-being of a student while in school."

For students who are being cyberbullied, Wolfsberg has the following pointers (this list might be shared with parents):

• *Report bullying to an adult.*

• *Don't engage the person*. If you are being "flamed," don't reply. "It's a natural response to want to defend yourself," ways Wolfsberg, "but you must bear in mind that you can never have a mature discussion with a bully."

• *Think before you send*. If for some reason you must reply, watch what you say! It's a good idea to check with a parent or another adult before sending any message to a bully.

• *Print everything out*. Since an electronic bullying message can be cleaned up later on, get a hard copy of the original message.

• *Change your screen name*. If you are being harassed under a particular name, you might want to create a new one and share it only with family and trusted friends.

• *Don't share personal information in chat rooms or websites*. This includes name, address, e-mail address, or phone number.

• *Try to identify the cyberbully*. Clicking or right-mouse clicking over the sender's e-mail address will sometimes reveal details on his or her identity.

• *Contact your internet service provider*. Bullying is a misuse of subscription services and can be grounds for cutting off the bully's service.

Wolfsberg also has suggestions for students who are using Internet chat rooms and instant messaging:

- Choose a generic nickname that doesn't reveal personal information.
- Always remain anonymous; there are predators out there!
- Never meet in person.
- Use filtering software to block messages from people you don't know.
- Instant message only with people you know.
- Watch what you type!
- Never click on links or open attachments from people you don't know or trust.
- When using a third-party computer, avoid auto log-ins, which can reveal information.
- Watch what you say on computers in job situations; bosses can monitor traffic.
- Don't forget to log off so access ports are closed.
- Watch for signs of viruses and report any strange computer behavior.
- Don't be afraid to report mistakes you've made to an adult.

"Student Safety from Cyberbullies, in Chat Rooms, and in Instant Messaging" by Jeffrey Wolfsberg in *Education Digest*, October 2006 (Vol. 72, #2, p. 33-37), no e-link available

## 5. An Arkansas District Deals With Parent Challenges to Library Books

In this *Education Week* article, reporter Kathleen Kennedy Manzo tells what happened when a Fayetteville, Arkansas mother challenged several books in the high school library. The school district's administrators denied the complaint and the parent went to the school board, stirring up a heated community debate in which the superintendent's own parents pushed him to remove the books from the library and several school staff were victims of nasty attacks on their integrity. A counter-censorship group was formed, and the books ultimately stayed in the library, but on a restricted shelf. Meanwhile the district came up with a new procedure aimed at handling most parent complaints at the building level and defusing emotions. Here are the steps now:

• A parent can challenge only one book at a time.

• The parent must read the entire book.

• The parent then discusses it with the teacher or librarian and outlines concerns in a written "request for reconsideration."

• If the staff and principal cannot resolve the parent's concerns, the complaint works its way through the district administration.

• If the concern is still not resolved, the superintendent appoints a committee to review it.

• Parents can see the titles of new books proposed for purchase in school libraries during a formal review period.

The parent who filed the original complaint was somewhat mollified, but ended up pulling her daughters out of the public schools and enrolling them in a private Christian school. She is thinking about filing a lawsuit against the district, but school districts have generally prevailed in these suits. Most courts have come down on the side of intellectual freedom; in one plurality opinion in 1982, U.S. Supreme Court Justice William Brennan wrote that the school library is a place for a student "to test or expand upon ideas presented to him, in or out of the classroom."

The American Library Association keeps track of books that are challenged nationwide. Here are the top ten for 2005:

*It's Perfectly Normal* by Robie Harris
*Forever* by Judy Blume
*The Catcher in the Rye* by J. D. Salinger
*The Chocolate War* by Robert Cormier
*Whale Talk* by Chris Crutcher
*Detour for Emmy* by Marilyn Reynolds
*What My Mother Doesn't Know* by Sonya Sones
*Captain Underpants* by Dav Pilkey
*Crazy Lady!* by Jane Leslie Conly
*It's So Amazing! A Book About Eggs, Sperm, Birth, Babies, and Families* by Robie Harris

Several other books didn't make the top ten for 2005 but have been on the list in previous years: the *Alice* series by Phyllis Reynolds Naylor; *Of Mice and Men* by John Steinbeck; and *Adventures of Huckleberry Finn* by Mark Twain.

"Challenged" by Kathleen Kennedy Manzo in *Education Week*, September 27, 2006 (Vol. 27, #4, p. 26-28), no e-link available

## 6. Key Characteristics of Effective Dropout Retrieval Programs

This article in *School Board News* reports on a study on dropout retrieval by the American Youth Policy Forum (*Whatever It Takes: How Twelve Communities Are Reconnecting Out-of-School Youth*). While conceding that there isn't one blueprint for getting dropouts back in school, the report says that the most successful programs share these practices:

• *Open entry/open exit* – Students can move through curriculum modules at their own pace and graduate when they have successfully completed state and district requirements.

• *Flexible scheduling and year-round learning* – This is important for students who have family and work responsibilities.

• *Teachers as coaches, facilitators, and crew leaders* – The message to students, the report says, should be, "You are an adult. We respect you. We are here to help you achieve your goals."

• *Real-world, career-oriented curriculum* – School programs should prepare students for post-secondary education, post-graduate employment, and further advancement in the workplace.

• *Employment opportunities* – Many students need income to live and support their families, so after-school and summer jobs are important.

• *Clear codes of conduct with consistent enforcement* – These provide a safe climate in which to learn; schools should also use positive rewards and peer recognition for student achievement.

• *Extensive support services* – Caring adults must be available to counsel, mentor, and guide students.

"Getting High-School Dropouts Back in School" by Carol Chmelynski in *School Board News*, June 6, 2006 (Vol. 26, #4), spotted in *Education Digest*, October 2006 (Vol. 72, #2), no e-links available

## 7. Ideas for Rethinking the K-8 Science Curriculum

A new study by the National Research Council (reported in *Education Week*) says that too many U.S. elementary- and middle-school science classes present students with lists of disconnected facts and ideas, leaving them with little sense of what's most important and a poor understanding of the overall rules of science. The report's authors believe this is why American students fare so poorly in international comparisons – and why we periodically hear about huge gaps in public understanding of key concepts, as was apparent in the recent debate over "intelligent design." The report recommends the following:

• *Teaching students a smaller number of crucial concepts at each grade level* – for example, the study of atoms and molecules and the theory of evolution. "We have a new and different understanding of how students learn in science," said Richard Duschl, a Rutgers professor who chaired the study. "We need to find stronger themes, around which we can coordinate big ideas." But schools have to be careful that narrowing the curriculum isn't a proxy for lowering expectations, says Lawrence Lerner, a California professor who commented on the report. "It's very easy for teachers to fool themselves and their students and say, 'Let's focus on the big picture and not the details.' Depth and breadth go together."

• *Not being afraid to introduce certain concepts earlier*. The study says that science educators have consistently underestimated students' ability to grasp scientific concepts even at 4-6 years old: "The commonly held view that young children are concrete and simplistic thinkers is outmoded," write the authors.

• *Carefully thinking through the sequence in which key concepts are presented*. This needs to be based on what students understand when they enter school and what they need to know to be successful in high school.

• *Gradually expanding on the big ideas through the grades*. "A lot of science concepts are tough," says Heidi Schweingruber, a co-director of the study. "Students need a sustained experience in dealing with them over time."

• *Not assuming that all science must be taught through hands-on classroom experiences*. The report says this is true for some concepts, but a more straightforward presentation of the facts is appropriate in other areas. It depends on the topic, say the authors.

"Panel Points Way to Improving K-8 Science Learning" by Sean Cavanagh in *Education Week*, September 27, 2006 (Vol. 26, #5, p. 14), no free e-link available. The study, "Taking Science to School: Learning and Teaching Science in Grades K-8" is available (for a fee) at: http://www.nap.edu/catalog/11625.html#toc

## 8. Big Ideas for a School Health Curriculum

This brief item in *Newsweek* reports on a recent Harvard School of Public Health study on Americans' longevity. There are great disparities, with people at one end of the spectrum living to 91 (on average) and people at the other end living only to 58 – essentially equal to the life expectancy in a poor third-world country. Income is part of the story, say the authors, location is another part, and race seems to involved, with Asian-Americans living the longest and Native Americans dying the earliest. But the study says that social class is only part of the story and genes play no role; it's all about *health habits*, the key factors being:

- Tobacco use
- Alcohol abuse
- Obesity
- Elevated blood pressure
- High cholesterol
- Low fruit and vegetable intake
- Physical inactivity

How about those as "Big Ideas" for a curriculum unit on health?

"Eat Your Veggies" in *Newsweek*, September 25, 2006, p. 8. For the full study, "Eight Americas: Investigating Mortality Disparities across Races, Counties, and Race-Counties in the United States" by Christopher Murray, Sandeep Kulkarni, Catherine Michaud, Niels Tomijima, Maria Bulzacchelli, Terrell Iandiorio, and Majid Ezzati, go to: http://www.globalhealth.harvard.edu/Murrayetal-EightAmericas-PLoSMedicine2006_000.pdf.pdf

## 9. Is Reading First Working?

There has been a flurry of news related to Reading First in the last two weeks, including a scathing report from the Department of Education's Inspector General on stacking key committees and inappropriately pushing certain textbooks, the resignation of Reading First director Chris Doherty, and a report from the Center on Education Policy showing student achievement gains linked to Reading First (http://www.cep-dc.org/pubs/readingfirst/CEP-ReadingFirst.pdf). In this *Education Week* article, the positive news on student results is reported, along with two cautionary notes:

• Hard data in the form of test score comparisons are not in yet.

• Some educators question whether Reading First is promoting too narrow an approach to reading instruction, emphasizing basic early-reading skills to the detriment of comprehension. Maryann Manning, an education professor at the University of Alabama at Birmingham and a board member of the International Reading Association, is quoted as saying, "Narrowing the achievement gap on letter identification and the number of sighted words read in isolation is of no value on reading comprehension."

"'Reading First' Appears to Prompt Improvement" by Kathleen Kennedy Manzo in *Education Week*, September 27, 2006 (Vol. 26, #5, p. 12-13), no free e-link available



***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:*

Individual subscriptions are $50 for the school year. Rates decline steeply for multiple readers within the same organization. See the website for these rates and information on paying by check or credit card.

### *Website:*

If you go to http://www.marshallmemo.com you will find detailed information on:

- How to subscribe or renew
- Why the Marshall Memo?
- Focus topics
- Headlines for all issues
- What readers say
- About Kim Marshall (including links to articles)
- A free sample issue

Marshall Memo subscribers have access to the Members' Area of the website, which has:

- The current issue (in PDF or Word format)
- All back issues (also in PDF or Word)
- A database of all articles to date, searchable by topic, title, author, source, level, etc.
- 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