Marshall Memo 457

A Weekly Round-up of Important Ideas and Research in K-12 Education
October 22, 2012

In This Issue:

Quotes of the Week

"What is the best use of face-to-face time with students?"
Jonathan Bergmann and Aaron Sams (see item #3)

"The most exciting classes are those in which students may have some confusion and agree and disagree with one another as they try to understand the big ideas."
Katherine Gavin and Karen Moylan (see item #6)

"I now disagree with myself!"
A primary-grade student in the middle of an all-class math discussion (*ibid.*)

"Principals need to create a culture of trust, teamwork, and candid feedback that is essential to running an excellent school. Leadership is about hiring great people and empowering them, and requires a delicate balance of evaluation and encouragement."
Deborah Kenny (see item #1)

"Are they going to be giving us true feedback, or are they just going to be filling out a form?"
A Colorado educator on new teacher-evaluation procedures (see item #2)

"She was just an ordinary person, like us. Inside all of us, we can be saints. We just have to do the work."
Charlotte Recarte on Mother Marianne Cope, canonized as a saint last Sunday
(Quotation of the Day in *The New York Times*, Oct. 17, 2012, story on p. A24)

1. Push-Back on Using Test Scores to Evaluate Teachers

In this forceful *New York Times* op-ed piece, Deborah Kenny crystallizes the current debate about teacher evaluation by telling why one of her Harlem charter schools didn't renew the contract of a teacher despite the fact that his students were doing exceptionally well on state tests. "We kept hearing directly from students and parents that he was mean and derided the children who needed the most help," says Kenny. "The teacher also regularly complained about problems during faculty meetings without offering solutions. Three of our strongest teachers confided to the principal that they were reluctantly considering leaving because his negativity was making everyone miserable."

What bothers Kenny is that under teacher-evaluation reforms being considered by many states, this teacher would have been highly rated because of his test scores. She's in favor of teachers being accountable for student learning, but two reform ideas strike her as ineffective and demeaning to teachers and principals:

- Unreliable mathematical calculations of the value-add of individual teachers;
- External evaluators popping into classrooms and rating teachers with checklists.

"This type of system shows a profound lack of understanding of leadership," says Kenny. "Principals need to create a culture of trust, teamwork, and candid feedback that is essential to running an excellent school. Leadership is about hiring great people and empowering them, and requires a delicate balance of evaluation and encouragement."

Those who advocate ranking and rating teachers on student test scores point to the business world, but Kenny says that argument is invalid. "Successful companies do not publicly rate thousands of employees from a central office database," she says. "They don't use systems to take the place of human judgment. They trust their managers to nurture and build great teams, then hold the managers accountable for results." In the same way, she believes, principals should answer for results and be able to make all personnel decisions: "There is no formula for quantifying compassion, creativity, intellectual curiosity, or any number of other traits that make a group of teachers motivate one another and inspire greatness in their students. Principals must be empowered to use everything they know about their faculty – including student achievement data – to determine which teachers they will retain, promote, or, when necessary, let go. This is how every successful enterprise functions."

Kenny fears that district and state teacher evaluation based on test scores may make it more difficult for schools to attract smart, talented, passionate teachers and motivate those currently in classrooms. "If we don't change course in the coming years," she concludes,

"these bureaucratic systems that treat teachers like low-level workers will become self-fulfilling."

"Want to Ruin Teaching? Give Ratings" by Deborah Kenny in *The New York Times*, Oct. 15, 2012 (p. A23), http://nyti.ms/T4kVB6

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2. New Teacher-Evaluation Procedures in Colorado

In this *New York Times* article, Motoko Rich reports on the reaction of some Colorado educators as the state rolls out a new teacher-evaluation process. Half of teachers' ratings will be based on test scores, the other half on classroom observations. The centerpiece of the new observation protocol is a 24-page rubric designed to give teachers detailed information on the quality of their lessons. U.S. secretary of education Arne Duncan, in a telephone interview, provided a rationale: "Far, far too few teachers receive honest feedback on what they're doing."

Linda Darling-Hammond, who is skeptical about using test scores to evaluate teachers, believes classroom observation can be helpful. "It can be very powerful and it is more stable and reliable," she says, but then adds a note of caution: "[O]ne of the big challenges we have is to create systems that are manageable, doable, and not overwhelming." This is where some of the Colorado teachers and administrators expressed concern about the state's new system. "If we truly had 52 weeks of school a year," said one teacher, "we still would not have enough time to do everything we have to do. I'm supersaturated." An elementary literacy coach was concerned about the proposed rubric: "Are they going to be giving us true feedback, or are they just going to be filling out a form?"

Although the new teacher-observation system is designed to give detailed, helpful feedback to all teachers, it can also be used to dismiss those who get low rubric scores two years in a row. The introduction of clearly articulated standards on a 4-3-2-1 scale is welcomed by many administrators, but some wonder if it's right – and efficient – to subject effective teachers to onerous observations and bureaucracy to justify firing a few who are not effective. "It is taking a sledgehammer where an ice pick would have been effective," said Joe Mehsling, a veteran principal who nonetheless thinks rubric evaluations will be "more meaningful."

Rich accompanied a principal as she observed a fourth-grade teacher during a math class. "What are the dimensions of that rectangle?" the teacher asked a student. As the boy hesitated, an eager girl who had been participating actively in the class blurted out the answer. "Let's not cheat his thinking," the teacher said gently. The principal was pleased to see that the teacher had spoken to the girl in a respectful way, but also let her know that she shouldn't dominate the conversation. The principal also saw where this fit into the rubric: the teacher "ensures that all students participate with a high level of frequency."

"Seeking Federal Aid, More School Districts Introduce New Ways to Evaluate Teachers" by Motoko Rich in *The New York Times*, Oct. 16, 2012 (p. A18, A20), http://nyti.ms/RxwqLS

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3. Two "Flipped Classroom" Gurus Share Some Pointers

In this helpful *Kappan* article, Colorado high-school science teachers Jonathan Bergmann and Aaron Sams say their journey into "flipping" classes began with a simple question: *What is the best use of face-to-face time with students?* "We concluded that students need us most when they were wrestling to understand a difficult concept or problem," say Bergmann and Sams. "This wrestling match often happened at home when we were unavailable to help students as they constructed their understanding." In 2007, they decided that lecturing was not a good use of classroom time and began recording videos of content presentations, asked students to watch them at home, and then worked with kids on challenging problems and applications in class.

Bergmann and Sams believe flipping can be done well and it can be done badly. Here are five key elements to success:

• *A network* – It's hard to do this work alone. If teachers don't have like-minded colleagues in their school, they might try www.flippedclassroom.org, a site where over 9,000 educators are discussing and collaborating on the concept.

• *Support from administrators* – "We have seen the most remarkable change happen when leadership – whether at the school or district level – embraces a flipped classroom approach and provides professional development, resources, and a willingness to embrace change for the sake of students," say Bergmann and Sams.

• *Support from the IT department* – Skillful technology administrators are essential to showing teachers the best and easiest way to post their videos.

• *Time* – "Our general rule of thumb is to allow 30 minutes to create a 10-minute video," say Bergmann and Sams. And videos don't have to be perfect. Before teachers get started, it's helpful to attend a one- or two-day flipped learning workshop followed by a one-day training on screen-casting.

• *Thoughtful educators* – There isn't one right way to flip a class, and teachers need to tailor the approach to their content and personality.

"Flipped learning is a method developed by teachers for teachers," conclude the authors, "a grassroots movement gaining traction with the ones who have the real power to change education: classroom instructors… We are excited to see where this will go and how teachers will uniquely answer the ONE question."

"Before You Flip, Consider This" by Jonathan Bergmann and Aaron Sams in *Phi Delta Kappan*, October 2012 (Vol. 94, #2, p. 25), http://www.kappanmagazine.org

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4. A High School Finds Numerous Advantages to "Flipping" Math Classes

In this *Kappan* article, Maryland-based consultant Kathleen Fulton shares ten gains that teachers in a southern Minnesota school found with "flipped" math classes:

• *Students can move at their own pace*. "In a traditional classroom," says Fulton, "the teacher lectures and demonstrates how to solve math problems during the constraints of the

class period." This is just right for some students, too slow for high achievers, and too fast for struggling students. In a flipped class, some students can watch the class "lecture" video quickly, others can play it several times.

• *Teachers get better insight into student difficulties and learning styles*. In a flipped classroom, the teacher can look over students' shoulders as they work problems in class, explain and clarify, and nip problems in the bud. "The flexibility and real-time analysis allows for a true and immediate response to student needs," says Fulton.

• *Teachers can customize and update the curriculum 24/7*. There's lots of good video material online, says Fulton, but teacher-created videos have a distinct advantage: "Students like having the voice behind the lesson belong to someone with whom they have a personal relationship. This connection strengthens the teacher-student bond that is so important for learning."

• *Absent students can keep up*. This keeps students from falling behind and saves teacher time creating extra lessons and homework.

• *Students have access to multiple teachers' expertise*. In this Minnesota school, teachers move from one course to another and pool their instructional videos. Students can pick and choose depending on their teacher preferences and learning style.

• *Teachers can use student results to pinpoint the best teaching approaches*. "As they analyze student work, noting whose students are successful in which areas, they review each others' videos to see how their colleagues taught the concepts, offering a window into each others' teaching," says Fulton.

• *Classroom time can be used more effectively and creatively*. There's less lecturing and more explaining. "Students learn by doing, and in the flipped classroom, the doing is happening within a hand-raise of the teacher," says Fulton. "Teachers can use class time to make meaningful contact with students, observing, guiding, and helping."

• *Parents have a window into the coursework*. Parents can watch the videos and get a refresher on math they may have forgotten. But there's less pressure for them to help their children on homework since most of the work is done in class.

• *Flipping improves achievement, interest, and engagement in higher-level math*. Preliminary data indicate that flipped classrooms are producing markedly better results than traditional classes, says Fulton.

• *Learning theory supports the new approach*. Video instruction is chunked into manageable units. Students must constantly assess their understanding of material and build their thinking skills. Students apply new knowledge in class and get immediate feedback. Students often view homework videos with peers, and much classwork is done in teams, which takes advantage of social learning.

• *The use of technology is a good fit for 21st-century students*. Allowing students to bring their own devices to school has saved the school $185,000 a year. For the three percent of students who didn't have access to high-speed Internet at home, the school put lessons on DVDs or flash drives.

• *Students like flipped classrooms*. Before and after surveys revealed very positive reactions to this new homework/classwork dynamic.

"10 Reasons to Flip" by Kathleen Fulton in *Phi Delta Kappan*, October 2012 (Vol. 94, #2, p. 20-24), http://www.kappanmagazine.org; Fulton is at kathleenpfulton@gmail.com.

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5. Differentiating Instruction in Seattle Elementary Classrooms

In this article in *Teaching Children Mathematics*, instructional coach Jacque Ensign describes math differentiation strategies used in two Seattle elementary classrooms. These teachers' approaches have been widely emulated in other Seattle schools, all of which have been using the Everyday Mathematics curriculum since 2007:

• *Upper elementary* – The teacher begins her 75-minute math workshop with a 15-minute mini-lesson introducing the math concept and vocabulary of the day. Students write the objective in their notebooks (for example, "I can measure and draw acute angles") and do a few initial guided-practice problems on their whiteboards. Students then move through three stations, each lasting15-20 minutes. In the first segment, the teacher works with the readiness group (determined by a pre-unit assessment), guiding them through the day's math concept and having them explain it to a partner. Half of the remaining students work in mixed-achievement pairs on an Everyday Mathematics math game practicing the day's concept; the remaining students work on practice pages, consulting with their partner and following a class protocol of asking leading questions rather than giving the answer.

In the next two segments, the teacher works with the at-level group, then the enrichment group, covering the same concept but at a brisker pace and getting into more challenging extension problems, while other students move through the game and practice pages station in their assigned mixed-achievement pairs. When all students have had their group time with the teacher and done the other two activities, students return to stand behind their desks. The teacher calls on a few students to report to the class on their own performance and compliment a partner. Students then sit down and the teacher projects an exit problem on the screen with a document camera. "Do this in your notebook. Show me what you know so I know which students got this and who I need to teach again," she says. When students finish the problem, they write one of the following self-evaluation questions in their notebooks:

- I could teach this!
- I can do this on my own.
- I can do this with help.
- I don't get this at all!

followed by completing the phrase, *because I am able to…* This allows the teacher to see who has mastered the day's lesson and who needs more support the next day.

• *Kindergarten* – This teacher begins her one-hour math block by convening students on the rug, doing several math finger plays and chants, and then introducing the math concept of the day. She moves students through a brief guided practice and demonstrates how students can develop the concept during work time. She then sends students a few at a time to choose

hands-on math activities on cafeteria-size trays. Students work on these individually or with a partner, bringing each tray up when they finish and choosing another. The teacher moves around the room working with individual students and small groups and assessing at least five students a day.

"Teacher-Initiated Differentiation: Two Classrooms Become Models for Their Large, Urban District" by Jacque Ensign in *Teaching Children Mathematics*, October 2012 (Vol. 19, #3, p. 158-163), http://www.nctm.org; Ensign can be reached at jaensign@seattleschools.org.

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6. Advice on Differentiating Math Teaching

In this article in *Teaching Children Mathematics*, Katherine Gavin (a professor at the University of Connecticut) and Karen Moylan (a math consultant based in Connecticut) describe how they asked a group of primary-grade teachers what geometry concepts they taught. The kindergarten teachers said, "The names of shapes, such as *square*, *circle*, *triangle*, and *rectangle*." The first-grade teachers said, "The names of shapes, such as *square*, *circle*, *triangle*, and *rectangle*." And the second-grade teachers had the same goal, with *cubes* and *spheres* added to the list. All the teachers were surprised that students were getting basically the same material three years in a row.

"[S]tudents are capable of so much more," say Gavin and Moylan. "From our research, we have… found that students in kindergarten, first grade, and second grade can think, reason, and justify their thinking at much higher levels than is often expected of them." But the challenge is teaching students with widely differing entering knowledge and skills – hence the need for skillful differentiation. Some suggestions:

• *Select an appropriate task*. "Make sure that *what* you differentiate is indeed worthy," say Gavin and Moylan. "Teachers often take whatever task is at hand and think about how to offer different experiences to students when, in fact, some tasks may not require this effort." Differentiation is most appropriate with material that is truly new to students – for example, moving kindergarten students from saying a triangle is a triangle because it looks like one to understanding that it has certain properties – it's a closed shape with three sides and three vertices.

• *Increase expectations for all students*. "Consider concepts that will require students to reach beyond their comfort level and stretch their minds," say the authors. Classroom curriculum should be challenging for high-achieving students yet accessible to all students with appropriate help and scaffolding.

• *Facilitate class discussions about the concepts*. "The most exciting classes are those in which students may have some confusion and agree and disagree with one another as they try to understand the big ideas," say Gavin and Moylan. "Such discussions not only support children in acting like mathematicians but also allow the teacher to gain insight into students' misconceptions and ways of thinking through a problem." In the middle of one of these all-class discussions, a student said, "I now disagree with myself!"

• *Get all students communicating their thinking in writing, pictures, or diagrams*. "In ways similar to the use of class discussion, evaluating individual student writing is a valuable asset for teachers in differentiating instruction," say the authors. It gives a window into students' thinking, especially their misconceptions.

• *Offer additional support*. This might consist of the teacher dropping *Hint* cards on students' desks when they are stuck, giving their thinking a little nudge by providing a definition, posing a question, or making a connection to prior learning.

• *Provide extended challenges*. Gavin and Moylan suggest *Think Beyond* activity cards for students who enjoy extra challenges. These can be at a learning station or dropped with individual students during class.

• *Use formative assessment to inform instruction*. The authors suggest embedding open-ended *Think Deeply* questions within each lesson, helping students make sense of what's being taught and guiding the teacher's instructional decisions in real time. "These questions are developed as the heart and soul of the lesson," say Gavin and Moylan, "and they focus on the essential mathematical concepts. They are also the springboard for differentiating the lesson."

• *Start small*. "Choose one unit of instruction to concentrate on," advise the authors. "You might work together with grade-level partners and a math curriculum specialist to differentiate a lesson. Try it out, and then reconvene to reflect and revise. Keep in mind that the second time around is always better. Class discussions and student writing will give you a clearer picture of students' misconceptions and which student need more challenge."

"Seven Steps to High-End Learning" by Katherine Gavin and Karen Moylan in *Teaching Children Mathematics*, October 2012 (Vol. 19, #3, p. 184-192), http://www.nctm.org; the authors can be reached at kathy.gavin@uconn.edu and moylankg@mansfieldct.org.

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7. Using the Target Foreign Language 90% or More of Classroom Time

In this article in *The Language Educator*, New Jersey French teacher Douglass Crouse suggests ways that teachers can reach the goal of students using the target language 90 percent or more of each class:

- Start the year by explaining why staying in the target language is so important to fluency and proficiency in the language.
- Praise students individually and collectively when they make the effort.
- When students address you in English, give a quizzical look and say you don't understand.
- Plan lessons to eliminate idle time that allows students to chat in English.
- Use activities like inside-outside circles to allow students to practice common expressions and structures in rapid sequence. This also allows the teacher to listen for places where communication is breaking down.
- Change seating plans often so students can pair up with different classmates.
- Design activities that allow students to use the language to get information they're missing.

- Let students know they may be asked to report their information to the class at any moment.
- Post commonly-used phrases around the classroom so students can use them when they're stuck.
- Try a reward system in which students can earn points for maintaining the target language.
- Encourage students to come up with silly stories as part of a survey.

"Going for 90% Plus: How to Stay in the Target Language" by Douglass Crouse in *The Language Educator*, October 2012 (Vol. 7, #5, p. 22-27), http://www.actfl.org

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8. What Questions Reveal About a Leader's Mindset

In this *Wharton Leadership Digest* article, Marilee Adams (American University) distinguishes between "judger" and "learner" questions and says they make a significant difference to the quality of a meeting. Here are some judger questions:

- Who is to blame? Why can't they perform?
- How can I prove I'm right?
- How can I protect my turf?
- Why aren't we winning?
- What could we lose?
- Why bother?

And here are some learner questions:

- What are my goals? What am I responsible for?
- What are the facts and what am I assuming?
- How can I help?
- What do our stakeholders want?
- What steps can we take to improve the situation?
- What's possible?

"Teams that operate with a Learner mindset are more productive, motivated, and engaged," says Adams. By changing the questions we ask, we focus on achieving goals in specific areas, change the tone of meetings, and produce markedly better results.

"Shifting Mindsets: Questions That Lead to Results" by Marilee Adams in *Wharton Leadership Digest*, October 16, 2012,

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9. A Status Report on U.S. Children

In this troubling report, First Focus and Save the Children give the follow grades to the U.S. on our children's condition:

- Economic security (children living in poverty, with food insecurity, unstable housing): D
- Early-learning availability and enrollment, parental access to child care: C-

- Children's math, reading, and science attainment, school resources, and at-risk youth: C-
- Permanency and stability (child welfare, juvenile justice, and immigration systems): D
- Health insurance coverage, access to health care, preventive services: C+
- General child well-being: C-

"America's Report Card 2012: Children in the U.S." from First Focus and Save the Children, http://www.firstfocus.net/library/reports/americas-report-card-2012-children-in-the-us, October 2012 (spotted in *PEN Weekly NewsBlast*, Oct. 19, 2012)

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10. Short Items:

a. Math apps for Androids – This month's *Teaching Children Mathematics* recommends the following free math apps for Androids:

- Kids Numbers and Math Lite – helps preschoolers get familiar with numbers and develop pre-math skills;
- Math Workout – improves arithmetic skills for all ages;
- Math Training for Kids – practice for basic math operations;
- Mental Maths Preview – improves mental calculation;
- Math Attack – improves understanding of addition, subtraction, multiplication, division, squares, and multi-part questions.

"Top 5 Android Apps" in *Teaching Children Mathematics*, October 2012 (Vol. 19, #3, p. 134)

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b. PARCC and Smarter Balanced test items – This *Hechinger Report* provides links to the kind of assessment items that will appear starting in 2014 in the two national consortia tasked with developing Common Core tests: http://bit.ly/TrIhA9

"Are New Online Tests Revolutionary? Decide for Yourself" in *The Hechinger Report*, October 2012 (spotted in *PEN Weekly NewsBlast*, Oct. 19, 2012)

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c. French holiday activities – The Fete-Enfants website has activities on the seasons, holidays, Halloween, Valentine's Day, Mothers and Fathers Day, April Fools Day, Mardi Gras, and Carnival: http://www.fete-enfants.com/index.html

"Web Watch: French Holiday Activities" in *The Language Educator*, October 2012 (Vol. 7, #5, p. 60), http://www.actfl.org

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d. Classroom videos – In this *Kappan* article, Colorado educators Neal Cross recommends four sources for videotapes of teachers in action – useful for PD and administrators practicing supervisory feedback:

- TIMSS video – www.timssvideo.com
- Teacher Channel – www.teachingchannel.org (free registration)
- TeacherTube – www.teachertube.com
- Educators Virtual Mentor – http://educatorsvirtualmentor.com

"How the Football Coach Can Help Principals and Teachers SCORE" by Neal Cross in *Phi Delta Kappan*, October 2012 (Vol. 94, #2, p. 58-61), http://www.kappanmagazine.org; Cross can be reached at nealcross5@gmail.com.

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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.marshall48@gmail.com

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

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Publications covered

Those read this week are underlined.

American Educational Research Journal
American Educator
American Journal of Education
American School Board Journal
ASCD, CEC SmartBriefs, Daily EdNews
Better Evidence-Based Education
EDge
Education Digest
Education Gadfly
Education Next
Education Week
Educational Leadership
Educational Researcher
Elementary School Journal
Essential Teacher (TESOL)
Harvard Business Review
Harvard Education Letter
Harvard Educational Review
JESPAR
Journal of Staff Development
Kappa Delta Pi Record
Language Learner (NABE)
Middle Ground
Middle School Journal
New York Times
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
Teachers College Record
Teaching Children Mathematics
The Atlantic Monthly
The Chronicle of Higher Education
The Language Educator
The New Yorker
The Reading Teacher
The School Administrator
Theory Into Practice