Marshall Memo 984

A Weekly Round-up of Important Ideas and Research in K-12 Education
May 1, 2023

In This Issue:

Quotes of the Week

"The more you have to grade, the less you can assign."
Andrew Boryga (see item #1)

"Reducing the amount of time you commit to answering student questions, while gently guiding them to direct their own inquiry, solutions, and discussion, can reap academic rewards and boost student confidence."
Andrew Boryga (*ibid*.)

"Always encouraging others to be positive can feel invalidating."
Valerie Fridland (see item #8)

"Strongly stated views make things happen; they enliven the debate, stimulate powerful counter-arguments, and produce more-numerous and more-original solutions."
Annie Murphy Paul (see item #6)

"People should fight as if they're right, and listen as if they are wrong."
Robert Sutton (quoted in *ibid*.)

"As children, many of us were schooled with fables on how to prevent problems via *smart planning* – build your house out of bricks not straw; *diligence* – store up for the winter instead of fiddling; and *perseverance* – slow and steady wins the race. Yet because we are humans, we are condemned to imperfect foresight, resigning ourselves to a remorseful, 'If only I had…'"
Ken Mitchell in "Regret Reduction Through Prevention: Leadership Lessons" in *AASA Journal of Scholarship and Practice*, Spring 2023 (Vol. 20, #1, pp. 4-7)

1. Surprising Ways to Engage Students and Increase Learning

In this *Edutopia* article, author/editor Andrew Boryga suggests six unconventional, research-backed strategies for improving teaching and learning:

• *Assess more, grade less*. "The more you have to grade," says Boryga, "the less you can assign." Conscientious educators naturally want to give feedback on every substantive piece of student work, but teachers' workload can quickly become unmanageable, creating a strong incentive to not ask students to do a lot of writing. There's another reason not to grade everything students write, says Boryga: "Too much formal grading often causes students to focus on the grades themselves, rather than thinking about and addressing their actual learning gaps."

But if students are going to become more proficient writers, they need to write every day, so what's a teacher to do? Boryga suggests three ways out of this bind: (a) getting students to edit their early drafts, supported by a rubric and exemplars of good writing; (b) having students edit their classmates' writing; and (c) when students' finished papers are submitted to the teacher, using the 2+1 feedback approach: address two higher-order concerns (e.g., organization and quality of argument) and one lower-order concern (e.g., punctuation and spelling).

• *Have students read above-level texts*. According to literacy guru Timothy Shanahan, regularly exposing students to texts 2-4 grades above their current reading level produces "robust gains in oral reading fluency and comprehension" and builds students' ability to handle difficult texts in higher grades. But it's important that challenging texts are engaging and high-interest, says Boryga. Many students fall out of love with reading in middle school, and they need to find books they really want to read. There also needs to be time for reading below-level books, which builds vocabulary, fluency, background knowledge, confidence, and positive feelings about reading.

• *Orchestrate productive struggle*. Lessons should regularly include concepts and activities just beyond students' reach – on which they'll experience some frustration and make mistakes. With the right kind of interaction and support from peers and the teacher, says Boryga, this can double student learning.

• *Quiz students before a lesson or unit*. Studies have shown that when students take a low-stakes pretest on material they're about to learn, which involves making lots of mistakes, they learn more when the lesson is taught. That's because the pretest sparks curiosity and primes students to be more receptive to concepts and skills when the content is presented.

Student learning "is deeper and more durable," says Boryga, "when students get things wrong and do the work of correcting their misconceptions and mistakes."

• *Minimize "teacher talk" and get students doing more of the heavy lifting*. "Reducing the amount of time you commit to answering student questions," he says, "while gently guiding them to direct their own inquiry, solutions, and discussion, can reap academic rewards and boost student confidence… Asking students questions like 'What makes this hard?' or 'What have we tried?' can get groups of students, or the whole class, thinking through possible solutions before a teacher steps in to provide the clarity they're looking for." Of course students need scaffolding and direct instruction on working independently and having productive discussions with classmates.

• *Make space for informal conversations and mental breaks*. This might be a couple of minutes at the beginning and end of a lesson for students to pair up and chat about something they're really looking forward to, or asking if a student has a story they want to share with the class – or just having students get up, stretch, and take a few deep breaths.

"6 Counterintuitive Strategies to Boost Student Learning" by Andrew Boryga in *Edutopia*, April 21, 2023

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2. Students Generate Math Mistakes and Then Fix Them

In this article in *Edutopia*, Utah teacher/curriculum coordinator Emma Chiappetta suggests a mathematics activity for three-person student groups (randomly assigned) standing up as they work on whiteboards around the classroom:

• Each group writes a problem on their whiteboard related to the current curriculum unit and solves it *incorrectly*, planting a common misconception or error (there's only one marker per group so students need to collaborate).

• Each group rotates to the next whiteboard and looks at the problem incorrectly solved by the previous group. Using a different color marker, the group identifies the error and solves the problem correctly.

• Each group rotates again so students are looking at an incorrectly solved problem with amendments and a correct solution.

• Each group then stands by that problem and groups take turns explaining to the whole class the mistakes that were made and the correct solutions.

This activity can be used at any point in a curriculum unit, says Chiappetta, and has multiple benefits:

- It addresses three Common Core math standards: constructing viable arguments and critiquing the reasoning of others, attending to precision, and evaluating the reasonableness of solutions.
- Students must think metacognitively as they generate examples of a common misconception or error.

- Students are on their feet and that invariably energizes a class. "The buzz in the room is palpable," says Chiappetta, "as students move from one board to the next, brainstorm, debate, and change their thinking…"
- Students must flex their problem-solving skills as they look at errors their classmates have generated.
- The activity is self-differentiating since students at different levels of proficiency can see a variety of errors and solutions and get insights from their group-mates.
- In the final sharing, students are challenged to explain someone else's solution.

"Thinking about the same content from all these perspectives and modalities encourages a much deeper understanding of the material," says Chiappetta. "While I've found success using it in the math classroom, I imagine it could be adapted for any discipline. For example, English teachers might have students generate sentences with subtle but common grammatical errors."

"A Collaborative Approach to Mistake Analysis" by Emma Chiappetta in *Edutopia*, April 14, 2023

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3. What It Takes to Successfully Implement Reform Mathematics

In his book *So Much Reform, So Little Change*, Charles Payne (Rutgers University) describes in vivid detail how decades of well-intentioned efforts to improve teaching and learning in U.S. urban schools have often failed. There are many reasons, but one of them, he says, is trying to implement ambitious curriculum change "by stealing a few hours from teachers after school and trying to provide support by having one coach cover an unreasonable number of schools."

Taking the example of elementary mathematics, Payne asks what it would take for a school district to shift from the traditional emphasis on computation and memorization to engaging students in inquiry, genuine understanding, and the ability to solve real-world problems – resulting in many more students succeeding in advanced math courses in middle and high school. Drawing on the experience of educators who have wrestled with this challenge, Payne suggests that the following steps would be necessary to give the initiative a reasonable chance of success:

- Teachers have at least five full days of pre-implementation professional development, principals at least half that amount.
- Teachers have at least another five full days of professional development during the school year for the first two years of implementation.
- Teachers have at least one common planning period a week with their grade-level colleagues, and at least one such period a month for teachers at contiguous grades.
- Principals have least two hours a week to address individual problems and opportunities in their building and meet with instructional coaches.
- Teachers have contact every other week (at least one class period) with a highly trained instructional coach; teachers in the lowest-achieving schools have weekly contact with a coach.

- Coaches have five years' experience teaching math, or a master's in math, and thorough training in the curriculum being implemented, starting a year before implementation;
- Coaches have two days a month of professional development for planning and problem-solving.
- Principals have at least two full days a year of professional development time to deepen their knowledge of the program, assess progress, and strategize about mid-course adjustments.
- For every five teachers in a building, there is one teacher leader with at least two freed-up periods weekly to help solve problems, find materials, mentor younger and lateral-entry teachers, and coordinate grade-level meetings.
- Training for the lead teachers starts a year before full implementation, with five days of professional development for them the first three summers.
- There is a system for tracking data on whether the program is being effectively implemented at the classroom level, and data on interim student learning results.
- There is a plan for dealing with mobility among students and staff – that is, what happens when a child transfers from a school doing traditional math to one doing reform math? What happens when new teachers are hired after pre-implementation training is finished?

A district implementing ambitious math reform would also need to answer these questions:

- What is the best unit of intervention? "Is it better for coaches to work with individual teachers or with grade-level teams or whole departments or some other clustering of teachers?" asks Payne. "Does the latter approach make possible more-efficient use of resources, or does it simply dilute the process?"
- Should coaching be authoritative or collegial – linked to the teacher-evaluation process or voluntary and purely supportive?
- Should teachers be given time to decide whether to take part in the reform effort or continue with the traditional approach, or should the reform be mandatory for everyone?
- How should the reform effort address the belief among many educators that only a few students can succeed in advanced mathematics?
- How should district leaders deal with possible pushback from some parents of high-achieving students – that admitting average and low-achieving students into advanced classes will undermine their children's success?

So Much Reform, So Little Change by Charles Payne, Harvard Education Press (2008, 2022)

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4. Different Approaches to Admission Criteria for Selective High Schools

In this *Education Gadfly* article, Adam Tyner says the way students are selected for advanced or elite schools and programs continues to be a contentious issue. Should admission be based on one test (as is the case with New York City's specialized high schools), or should a

number of factors be considered? Tyner reports on a study in Mexico City (conducted by researchers at Tulane University and VIA Education) comparing students who were admitted to selective high schools based on a test with a control group of students who narrowly missed the cutoff score and went to other high schools.

What did the study find? First, there was no overall difference in high-school graduation rates for students clustered closely on either side of the admission threshold. But second, for students who got into an elite high school (who had virtually identical test scores), graduation rates varied according to their grades in middle school. Specifically:

- The graduation rate for students with good middle-school grades was 7 percentage points higher.
- The graduation rate for students with lower middle-school grades was 8 percentage points lower.

"This suggests," says Tyner, "that using grades in conjunction with the score on the test provides better predictions of future student performance. An admission system that considers only a single metric may be ignoring valuable information that could be used to create better matches between students and schools. In addition, the students who perform well on tests may not accurately represent the overall population of high achievers, at least when achievement is defined more broadly."

The researchers then conducted a simulation of admissions to selective high schools with middle-school grades as part of the mix, and found that the elite schools would be more economically diverse and have more girls using a combination of test scores and middle-school grades.

"Should Selective High-School Admissions Be Decided by a One-Shot Test?" by Adam Tyner in *Education Gadfly*, April 27, 2023

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5. A Study of High-School Principals Handling Student Protests

In this *Teachers College Record* article, Alexander Kwako and John Rogers (UCLA), Jennifer Earl (University of Arizona), and Joseph Kahne (University of California/Riverside) report on their study of high-school principals dealing with student gun violence protests after the mass shooting at Marjory Stoneman Douglas High School in February 2018. Using a survey and follow-up interviews, the researchers describe school leaders' actions on three dimensions:

• *Deterring* – Cognizant of the U.S. Supreme Court's *Tinker* decision, which held that students do not "shed their constitutional rights to freedom of speech or expression at the schoolhouse gate," very few principals (only 3.3 percent) tried to discourage or prevent student protests. One principal, concerned about community backlash, removed a banner in front of the school advertising the protest and tried to talk students out of taking action.

• *Managing* – Nearly all principals tried to channel protests by setting parameters (as allowed by *Tinker* and subsequent court decisions), balancing students' right to free speech

with the need for order and safety. Principals negotiated with students to limit the time, place, and manner of the protests. School leaders tried to stay neutral, even when they were sympathetic to students' concerns (this was especially difficult for one administrator whose family had been the victim of gun violence). In a number of schools, the protests sparked controversy in the community and principals had to manage vitriol on social media and counterdemonstrations, including one with students chanting, "Don't take our guns."

• *Educating* – A majority of principals (a little under 60 percent) saw the student protests as a teachable moment – an opportunity to encourage civic development and help students learn important lessons about democratic engagement. One principal asked students, "What do you want to see get done? What message do you want to send? How do you want to be heard? What's the best way to go about doing that?" The researchers noted a distinction between principals who tried to *channel* student protests (which tended to take away student agency) and *facilitate* discussions about the issue (helping students exercise voice and learn from their political engagement).

The latter approach, say the researchers, "does not assume that adult authorities know what should be done, nor does it presume that students know the best course of action. Rather, educative facilitation offers a structured way for principals to support young people to examine the efficacy and wisdom of their beliefs and actions. When they enact this approach skillfully, principals provide students with a model for how transparency, inquiry, and dialogic engagement play a vital role in public deliberation and action."

"Principals' Responses to Student Gun Violence Protests: Deter, Manage, or Educate for Democracy?" by Alexander Kwako, John Rogers, Jennifer Earl, and Joseph Kahne in *Teachers College Record*, February 2023 (Vol. 125, #2, pp. 131-177); the authors can be reached at akwako@ucla.edu, rogers@seis.ucla.edu, jenniferearl@email.arizona.edu, and joseph.kahne@ucr.edu.

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6. Five Ways to Have Lively Debates and Still Arrive at Consensus

In this *Science of Creativity* article, Annie Murphy Paul explores the idea of *creative abrasion* – workplace conflict that's handled in a way that boosts creativity and improves results. "A group in which everyone engages in tepid agreement is unlikely to generate much in the way of creative sparks," says Paul. In fact, groups with low levels of conflict tend to produce mediocre and ineffective solutions. She suggests ways that leaders can foster productive conflict:

• *Recognize and play up your own distinctiveness*. "We often forget how deeply *different* people are," says Paul. "Decades of research show that group members tend to talk about the information they share in common – leaving unmentioned the singular knowledge that emerges from individual expertise. To generate creative abrasion, think about what only you know, and say *that*."

• *Stake out a strong and authentic position*. "Strongly stated views make things happen," says Paul; "they enliven the debate, stimulate powerful counter-arguments, and

produce more-numerous and more-original solutions." It's less effective to have someone be the devil's advocate; the views expressed need to be authentic, rooted in genuine differences of opinion.

• *Don't use the typical constraints when brainstorming*. The conventional wisdom is to refrain from criticizing ideas as they're generated, on the theory that this discourages the free flow of solutions. But Paul cites research saying that what actually keeps people from coming up with creative ideas during brainstorming is the pressure of conformity and the desire for consensus. Active critiques and debate during idea-generating sessions, she says, liberate people from those tendencies and result in a greater number of original ideas.

• *Don't get personal*. Relational conflict is when there's interpersonal tension, animosity, and annoyance within a group, and these are always detrimental. Task conflict, on the other hand, is when people disagree about the content of what's being discussed. For non-routine tasks like generating creative solutions, task conflict helps produce better ideas.

• *Be flexible enough to allow for convergence*. Eventually group discussions need to arrive at an agreed-upon solution. "This requires a psychologically nuanced stance," says Paul: "passionately believing in the value of our own ideas, while remaining radically open to changing our minds when better ideas come along… The practice of creative abrasion entails allowing our ideas to get roughed up – changed, enhanced – through contact with other ideas." In the words of Robert Sutton (Stanford University), "People should fight as if they're right, and listen as if they are wrong."

"Use 'Creative Abrasion' As a Source of Energy" by Annie Murphy Paul in *Science of Creativity*, April 15, 2023

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7. Maximizing Student Reading in the Remaining Weeks of the School Year

In this *Read by Example* article, Wisconsin principal Matt Renwick suggests challenging students to read three books before the end of the school year. This is an especially good idea for students who don't see themselves as readers, don't value reading as something to do outside school, and haven't found authors and genres that spark their interest. Renwick recommends these steps:

- Students get to choose the books they will read.
- They choose from three categories: fiction, nonfiction, and a genre they don't typically read (or perhaps different categories identified with student input).
- Give students plenty of time within the school day to read their books, which means cutting down on formal instruction and blocking out reading time.
- Choose interim dates to celebrate progress, with students sharing what they read and making recommendations to classmates. One idea is a reading graffiti board where students write the quotes and episodes they've enjoyed so far.
- Teachers get feedback on titles that are missing from the classroom library and find them in the school or public library.

- Have a culminating ceremony where students share their enthusiasm for what they read and head into summer with momentum and motivation to read – and lots of ideas on appealing books.

"How to Help Students Develop a Reading Habit the Last Month of the School Year" by Matt Renwick in *Read by Example*, April 29, 2023; Renwick can be reached at renwickme@gmail.com.

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8. What Makes a Good Conversation – and What Doesn't

In this *Psychology Today* article, Valerie Fridland (University of Nevada) says that even though very few of us get formal instruction on how to conduct a conversation, we follow several "culturally absorbed conventions" that foster cooperation and increase the chance that a chat will be rewarding:

- Mutuality – taking turns;
- Relevance – what's said relates to what has been said before;
- Quantity – saying enough to be informative, but not too much;
- Quality – being truthful;
- Manner – being direct and clear, unless there's a good reason not to.

Fridland says people "unconsciously adjust loudness, pitch, syntax, and speech rate to match those they talk to," even unconsciously shifting to the other person's accent and idioms. She also lists six conversational habits to avoid:

- Interrupting, which can make it seem we don't care what the other person is saying;
- Story-topping, which shifts the conversation from connection to competition;
- Being right, which makes the conversation about winning an argument;
- Being all-knowing, explaining information without being asked for our expertise;
- Bright-siding; "Always encouraging others to be positive can feel invalidating," says Fridland.
- Advice-giving when our conversational partner just wants empathy.

"The Hidden Heart of Every Conversation" by Valerie Fridland in *Psychology Today*, May/June 2023 (Vol. 56, #3, pp. 40-43); Fridland can be reached at fridland@unr.edu.

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9. Award-Winning Children's Nonfiction and Poetry

In this feature in *Language Arts*, Kathryn Will and six colleagues share their committee's nonfiction and poetry selections for the 2022 Notable Children's Books for grades K-8:

Nonfiction:

- *Ducks Overboard: A True Story of Plastic in Our Oceans* by Markus Motum
- *How to Build an Insect* by Roberta Gibson, illustrated by Anne Lambert

- *Jump at the Sun: The True Life of Unstoppable Storycatcher Zora Neale Hurston* by Alicia Williams, illustrated by Jacqueline Alcántara
- *King of Ragtime: The Story of Scott Joplin* by Stephen Costanza
- *Nina: A Story of Nina Simone* by Traci Todd, illustrated by Christian Robinson
- *This Very Tree: A Story of 9/11, Resilience, and Regrowth* by Sean Rubin
- *Unspeakable: The Tulsa Race Massacre* by Carole Boston Weatherford, illustrated by Floyd Cooper

Poetry:

- *America My Love, America My Heart* by Daria Peoples-Riley
- *Change Sings: A Children's Anthem* by Amanda Gorman, illustrated by Loren Long
- *The 1619 Project: Born on the Water* by Renée Watson and Nikole Hannah-Jones, illustrated by Nikkolas Smith
- *The Museum of Everything* by Lynne Rae Perkins

"The 2022 Notable Children's Books in the English Language Arts" by Kathryn Will, Vera Ahiyya, Patrick Andrus, Dorian Harrison, Laretta Henderson, Janine Schall, and Fran Wilson in *Language Arts*, March 2023 (Vol. 100, #4, pp. 307-316)

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10. Short Item:

What's Happening At Different Altitudes – This interactive graphic shows birds, balloons, planes, rockets, and more as we take an imaginary elevator upward from sea level.

"Space Elevator" by Neal at Neal.fun; more at https://neal.fun.

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If you have feedback or suggestions,
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 other educators very well-informed on current research and effective practices in K-12 education. Kim Marshall, drawing on 48 years' experience as a teacher, principal, central office administrator, writer, and consultant lightens the load of busy educators by serving as their "designated reader."

To produce the Marshall Memo, Kim subscribes to 60 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). Every week there's a podcast and HTMI version as well.

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Core list of publications covered

Those read this week are underlined.

All Things PLC
American Educational Research Journal
American Educator
American Journal of Education
American School Board Journal
AMLE Magazine
ASCA School Counselor
ASCD SmartBrief
Cult of Pedagogy
District Management Journal
Ed. Magazine
Education Digest
Education Gadfly
Education Next
Education Week
Educational Evaluation and Policy Analysis
Educational Horizons
Educational Leadership
Educational Researcher
Edutopia
Elementary School Journal
English Journal
Exceptional Children
Harvard Business Review
Harvard Educational Review
Independent School
Journal of Adolescent and Adult Literacy
Journal of Education for Students Placed At Risk (JESPAR)
Kappa Delta Pi Record
Kappan (Phi Delta Kappan)
Knowledge Quest
Language Arts
Learning for Justice (formerly Teaching Tolerance)
Literacy Today (formerly Reading Today)
Mathematics Teacher: Learning & Teaching PK-12
Middle School Journal
Peabody Journal of Education
Principal
Principal Leadership
Psychology Today
Reading Research Quarterly
Rethinking Schools
Review of Educational Research
School Administrator
School Library Journal
Social Education
Social Studies and the Young Learner
Teachers College Record
Teaching Exceptional Children
The Atlantic
The Chronicle of Higher Education
The Journal of the Learning Sciences
The Language Educator
The Learning Professional (formerly Journal of Staff Development)
The New York Times
The New Yorker
The Reading Teacher
Theory Into Practice
Time
Urban Education