Marshall Memo 1056

A Weekly Round-up of Important Ideas and Research in K-12 Education
October 7, 2024

In This Issue:

Quotes of the Week

"When you hit a wrong note, it's the next note that makes it good or bad."
Miles Davis (quoted in item #3)

"We've been saying that high school should be a way to prepare you for career and life, not just college prep. The fact that 60 percent of students don't go to college right away should have been a wake-up call."
Randi Weingarten, quoted in "College for All? Not Anymore" by Eric Kelderman in *The Chronicle of Higher Education*, October 4, 2024 (Vol. 71, #3, pp. 25-27)

"Human beings of every age, and in just about every setting, don't respond well to feeling controlled. It makes us cranky, anxious, distrusting, and less cooperative."
Adam Grant in "What Is the Best Leadership Style?" in *Inc*., September 27, 2024

"Forever elsewhere"
Sherry Turkle, MIT social scientist, on teens' distraction from in-person connections due to the dopamine lure of their screens

"Relationships are important, but we cannot love students into proficiency."
Missy Testerman, 2024 National Teacher of the Year, quoted in a Q&A with Michelle Healy in *American School Board Journal*, October 2024 (Vol. 211, #4, pp. 46-47)

"A significant step toward better understanding and embracing neurodiversity is to shift our mindset from viewing neurodivergent learners as those who 'won't' to those who 'can't.' This simple change in terminology fosters a deeper attitude of understanding and acceptance, and

opens us to observe from a more scientific perspective how an individual learns, to engage in dialogue with an open mind, and to support their journey to reach their full potential."

Gulzar Babool in "Unlocking Literacy: Strategies to Teach Reading to Dyslexic Students" in *Montessori Life*, Fall 2024 (Vol. 36, #3, p. 8)

"I love my brain. It serves me well, and I wouldn't trade it for the world. However, school would have been easier if I or my teachers had understood my brain better. I could have focused my development on things I could do really well instead of 'practicing' my spelling words."

Jana Morgan Herman in "Changing the World for Dyslexic Children" in *Montessori Life*, Fall 2024 (Vol. 36, #3, pp. 54-57)

"If the only way we differentiate is with a range of activities for different 'levels' of learners, we not only create more work for ourselves, but we also further marginalize students by varying access to below-, on-, and above-grade-level activities."

Paul Emerich France in "4 Tools for Doable Differentiation" in *Educational Leadership*, October 2024 (Vol. 82, #2, pp. 14-15)

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1. How Much Impact Can Tutors – Human and GenAI – Really Have?

In this *Education Next* article, Paul von Hippel (University of Texas/Austin) looks back at Benjamin Bloom's 1984 essay on the so-called two-sigma effect of tutoring. In this widely cited article, Bloom claimed that one-on-one instruction could raise student achievement by two full standard deviations – two sigmas – from the 50th to the 98th percentile, potentially turning an average student into a high achiever and closing economic and racial achievement gaps. It's impractical to give every student a tutor, said Bloom, and a great deal of latent talent goes untapped. He proposed mastery learning as a more-practical strategy, which he claimed would bring student achievement somewhere between tutoring and business-as-usual whole-class instruction.

But with recent developments in artificial intelligence, could digital tutors have two-sigma impact on student learning? In a 2023 TedX talk, Sal Khan, founder of the online Khan Academy, said GenAI could get close. In the wake of the pandemic, this and other claims about AI have aroused intense interest. "Could just a little bit of tutoring catch kids up," asks von Hippel, "or even help them get ahead?"

Do Bloom's claims about tutoring stand up? Subsequent research has not replicated his findings, showing tutoring bringing about gains of only 0.33 or 0.37 standard deviations – far from the 2.0 gains that Bloom described. Von Hippel looked closely at Bloom's study and the doctoral dissertations of two of his students, Joanne Anania and Arthur Burke, whom Bloom

cited in his paper. To von Hippel's surprise, he found their research stands the test of time – but the two-sigma tutoring they described was "a potent cocktail" with several characteristics not found in most tutorial instruction:

- The tutors received extra training, coaching, and practice on providing instructional cues, summarizing frequently, asking leading questions, providing examples, getting students actively involved, and making learning a rewarding experience.
- Tutoring replaced regular classroom instruction, rather than supplementing it; students in the study received all instruction from their tutors.
- Tutored students were given frequent formative quizzes followed by feedback and correction on concepts they had missed.
- If students scored below 80 or 90 percent on quizzes, they got more feedback and another quiz – an implementation of the mastery learning principle.
- The summative assessments tutors used covered specifically what students had been taught.

Clearly this kind of tutoring was far better than what most students receive. It can serve as a template for what high-need students should receive – from humans and GenAI – if we hope to close the huge achievement gaps faced in many schools today.

Von Hippel says a realistic expectation of effective tutoring of any sort is one-third of a standard deviation. That, he says, "would be a huge triumph if it could be done at low cost, on a large scale, and on a broad test – all without requiring an army of human tutors, some of whom may not be that invested in the job… Once effects of one-third of a standard deviation have been produced and verified, we should be able to improve on them through continuous, incremental A/B testing – slowly turning science fiction into science fact."

"Two-Sigma Tutoring: Separating Science Fiction from Science Fact" by Paul von Hippel in *Education Next*, Spring 2024 (Vol. 24, #2, pp. 1-30); the author can be reached at paulvonhippel@utexas.edu.

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2. Dealing with Pushback on Minimum Grades

(Originally titled "The Unwinnable Battle Over Minimum Grades")

In this *Educational Leadership* article, Thomas Guskey (University of Kentucky) and Douglas Fisher and Nancy Frey (San Diego State University) say grading reform has been a "lightning rod for controversy," especially the idea of minimum grades – giving a student a 50 or 60 instead of a zero for work not turned in. The rationale: preventing a single grade from drastically pulling down overall performance and undermining students' incentive to keep trying.

The pushback: minimum grades "offer unfair and unearned assistance to low-performing students," say the authors, giving students credit for incomplete or failing work and not teaching them responsibility. This criticism has led some districts to reverse course on minimum grading.

But the real problem isn't zeroes, say Guskey, Fisher, and Frey. It's the 100-point grading scale and the time-honored practice of averaging grades. On the first:

- A percentage scale has 101 possible levels of performance, allowing teachers to assess student work in a super-precise manner.
- But tests and assignments are not exact measures, and subjectivity and other variables introduce distortions.
- The wide range of possible grades compounds those distortions (even with minimum grading, teachers must discern 51 levels), which increases unreliability.
- Errors and distortions have been especially harmful to students of color.

The solution? Using a five-level integer grading scale (4 3 2 1 0 or A B C D E) like most colleges and universities, say Guskey, Fisher, and Frey. This approach aligns with the four-point scale used by most state tests (Advanced, Proficient, Basic, Below Basic) and the classroom rubrics used by many teachers. Zeroes can still be given, but they have much less sting: students must improve only one level to pass, compared with moving from zero to 50 or 60 on a percentage scale. And grades can be converted to GPAs with several decimal points.

Integer grading systems, say Guskey, Fisher, and Frey, "make grading much more consistent and reliable. Teachers with comparable knowledge and experience find it easier to agree on distinctions between an A level versus a B level of performance than when asked to distinguish a 90 from an 89 using a percentage grading scale. Clear and well-defined scoring criteria, coupled with a limited number of grading categories, are essential in implementing grading reforms that prioritize fairness, accuracy, and equity."

The second design flaw in traditional grading, say the authors, is averaging all scores across a grading period. The problems:

- Averaging accentuates the devasting influence of zeroes.
- Averaging says that everything students do counts equally.
- Averaging makes students less likely to take risks and try new approaches.
- Averaging doesn't show student growth – the final grade may indicate mastery.
- If effort and behavior are averaged in, feedback on academic learning is diluted.

"The primary purpose of grading is to effectively communicate student achievement toward specified standards, at this point in time," says the American School of Paris's purpose statement. Well said! say Guskey, Fisher, and Frey.

"The Unwinnable Battle Over Minimum Grades" by Thomas Guskey, Douglas Fisher, and Nancy Frey in *Educational Leadership*, October 2024 (Vol. 82, #2, pp. 68-72); the authors can be reached at guskey@uky.edu, dfisher@mail.sdsu.edu, and nfrey@mail.sdsu.edu.

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3. In What Ways Is Playing in a Band Like Grading Students?

In this *Grading for Growth* article, Robert Talbert reveals that in addition to teaching college mathematics for 27 years, he plays in a cover band: 30-40 live performances a year, plus monthly jam sessions at the local brewpub and occasional fill-ins and collaborations with

other musicians. In this article, he connects his two lives, reflecting on three interesting parallels between the band and grading college math assignments:

• *The purpose of grading is growth*. In every break during band performances, Talbert jots notes about what's working and what's not: *This song landed with the audience, but this one was a dud. The intro to the final piece in the set was really nice. I couldn't hear myself during the guitar solo.* He also takes notes when he practices at home, listening to recordings of himself, which is the ultimate test. "The only way to really improve is to get feedback on what you do," he says, "and the purpose of the feedback is to improve."

With his college classes, he stopped conventional grading a decade ago because, he says, "traditional grading was doing absolutely nothing to incite intellectual growth in my students – in fact it was inhibiting that growth." Since then, he's focused on feedback similar to what he shares with his bandmates after each performance – "real information to a person, who then *can* use and *wants to* use the information to make improvements."

• *Mistakes are data*. Despite having played some sets many times, Talbert says he makes mistakes in every performance – but the band doesn't start over every time someone makes a mistake. They follow Miles Davis's advice: "When you hit a wrong note, it's the next note that makes it good or bad."

"It's not about mistake avoidances," says Talbert. "Obviously we want to play music, do math, write essays, or whatever as well as we can, and in all those areas express ourselves as clearly and faithfully to our own visions as possible. Mistakes can get in the way of that expression, but they are also inevitable." So the band keeps playing, and math students keep working on their problem sets, learning from their missteps and continuously improving.

• *Perfection is not the standard*. "No matter how discerning a listener you might be," says Talbert, "the music that affects us the most is not the stuff that has the fewest mistakes in it." Some of the best Motown songs were recorded in a basement studio with no air conditioning, which threw the instruments out of tune. But the mistakes the musicians made take nothing from their lasting quality.

Talbert tells his college students that perfection is not realistic or sustainable. "Instead, with grading, we are trying to help students 'make better music' – focusing on the big picture, the stuff that lasts well after the 'show' is over."

"What Music Has Taught Me About Grading" by Robert Talbert in *Grading for Growth*, October 7, 2024

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4. Teachers' Lectures Don't Have to Be a Passive and Boring Experience

In this *Edutopia* article, Youki Terada says students often zone out during teacher lectures, especially if instructors go on too long. "Even college students struggle to pay attention to long lectures," he says. "During video instruction, focus starts to wane after about 6 minutes, and by 12 minutes it's a ghost town."

But frontal teaching is sometimes the best way to convey important knowledge and skills before getting students engaged in more-active learning experiences. Terada suggests six ways to improve attention, engagement, and learning during lectures:

• *Collaborative note-taking* – The instructor pauses every few minutes and allows student partners to discuss what they've heard, compare the notes they've taken, and fill in gaps. Taking this a step further, literacy coach Joshua LaFleur asks students to refrain from taking notes while he lectures. "Traditional note-taking leads to a lesson that washes over students as they transcribe lectures without processing information," he says. Periodically he has students talk in groups and capture what they've just heard, and each student writes notes on the key points.

• *Pop quizzes* – Punctuating a lecture with quick checks for understanding (using clickers, plickers, and low-tech methods) jazzes things up and improves long-term memory. One study found a 13 percent improvement in retention of information – nearly a full letter grade – and students in the study had better recollection of the material being presented – and also of related material. That's because retrieving recently learned material activates related information in students' brains.

• *Rapid review and "warm calling"* – In the middle of a lecture, high-school teacher Henry Seton has students pair up, discuss a challenging review question (*What are John Locke's views on private property in government?*), and then he calls on them to share their answers with the class. The opportunity to think through their answers first makes the cold calling less intimidating: "It's a safe, supportive atmosphere and helps students feel confident in the material," says Seton.

• *Drawing to learn* – When the content of a lecture lends itself to visualization, asking students to take ten minutes to draw, sketch, or map what they're learning (for example, a diagram of the Earth's layers) can be a valuable learning aid – and artistic talent is not a prerequisite. "By reconstructing the material in different ways – visually, kinesthetically, and semantically – students create more-durable memory traces," says Terada.

• *Peer-to-peer teaching* – When a lecture is conveying challenging material, the teacher might have students find a partner and teach each other what they've just learned. This pushes students to develop a common understanding of the material and identify gaps in their existing knowledge and what the teacher is trying to convey.

• *Movement breaks* – Students of all ages get cognitive as well as physiological benefits from getting up periodically and moving their bodies, whether it's stretching, doing jumping jacks, or walking around.

"6 Research-Backed Ways to Break Up Your Lectures" by Youki Terada in *Edutopia*, September 27, 2024

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5. Leaders Letting Go of the Need to Be Right

In this *Inc*. article, executive coach Robin Camarote says she has a deep-seated need to be right. She wonders where this came from – perhaps it's because she was the oldest girl in

her family – and knows it's created problems for her as a leader. "When I feel justified in the moment," she says, "I can come across as annoyed, rude, or even mean."

People look to leaders for guidance and answers, and that suggests the leader needs to be right most of the time and not make mistakes. "For those of us with this deeply entrenched desire to be right," says Camarote, "hearing someone else's ideas can feel tedious. After all, in our minds, we already know which way we're headed." But that can undermine three important leadership goals:

- Input from others – "When people feel that their contributions will be disregarded or overshadowed by a leader who must be right, they stop sharing ideas altogether."
- Helping others grow – "Leadership isn't about showing up with all the answers," says Camarote; "it's about developing others so that they can find solutions themselves."
- Team collaboration – People may comply with a needs-to-be-right leader, but they're not engaged with each other and won't do their best work.

"It's not about being right," says Camarote; "it's about leading others to the best solution."

Shifting from this long-standing habit is one of her leadership goals. She catches herself falling into the familiar pattern, takes a breath, and tries to see the bigger picture. She works on delivering feedback to colleagues without making them feel wrong. She realizes she won't always succeed and apologizes when she backslides.

Her commitment is to being a more humble leader, a better listener, and letting the best ideas and answers emerge – often from others. "My desire to be right and my tendency to react is strong," she says. "My desire to be an effective leader has to be stronger."

"Leaders: Is Your Desire to Be Right Holding You Back?" by Robin Camarote in *Inc*., October 3, 2024

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6. Elena Aguilar on Fostering Healthy Conflict

(Originally titled "Coaching Through Conflict")

"If educators are to have the kinds of conversations necessary to meet the needs of every child," says Elena Aguilar (Bright Morning) in *Educational Leadership*, "then we're going to have to learn how to navigate conflict." Not angry, personalized, win/lose conflict, but healthy exchanges where colleagues wrestle with ideas, ask questions, demonstrate curiosity, change their minds, and keep students at the center.

How can we build the skills necessary for productive conflict? One way, says Aguilar, is using sentence stems that lead the conversation in the right direction. Some examples:

- *Can you elaborate on your thinking, because I'm not sure I understand?*
- *I have some concerns about that suggestion. Could you explain it more?*
- *I want to push back on that idea. I've noticed ___ and would like to suggest ___.*
- *I hear what you're saying, but have you considered ___?*
- *Can you help me understand why you believe that? My experience has led me to a different conclusion, but I want to understand your perspective.*
- *I disagree with you about that, but I want to hear your thoughts.*

- *It would help me get behind that idea if I could hear more about ___.*
- *I agree with several points you made, but I want to challenge you on this idea.*
- *I have a request to make. Are you open to hearing it?*

"Coaching Through Conflict" by Elena Aguilar in *Educational Leadership*, October 2024 (Vol. 82, #2, pp. 66-67); Aguilar can be reached at elena@brightmorningteam.com.

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7. Is Sustained Silent Reading a Good Use of Class Time?

In this online article, Timothy Shanahan (University of Illinois/Chicago) explains why he doesn't agree with the common practice of SSR – sustained silent reading of student-chosen books during the school day (a.k.a. DEAR, Drop Everything And Read). It's true that there's a correlation between time spent reading independently and students' reading proficiency, but Shanahan has three concerns:

- How focused are students during SSR time?
- Does in-class reading time reduce students' motivation to read outside school hours?
- Could SSR time be better spent on teacher-guided "deliberate practice" in class?

Teachers and publishers claim they have improved SSR by adding reading conferences and quizzes, says Shanahan, but "so far, no one has conducted a study showing unambiguously that we can increase kids' amount of reading, and that those increases, consequently, lead to higher reading comprehension."

Shanahan cites several studies on the links between reading instruction, amount of time reading, student choice, and reading proficiency. There are some causal links – for example, more-skilled and motivated readers tend to read more, and over time, reading more improves vocabulary, desire to read, and comprehension – but none of this makes a strong case for SSR.

Shanahan's conclusion: "Independent reading at school is not a research-based practice." Better to devote precious classroom time, he believes, to explicit, effective reading instruction and find ways to get kids reading on their own time. An intervention conducted by Doug Fisher found students will read outside school and boost achievement if (a) they have access to books they've chosen, (b) their choices are influenced by teacher book talks, and (c) students have opportunities to engage in book club discussions about what they read.

"That approach," says Shanahan, "though not yet proven to work by experimental study, intrigues me because it has the possibility of both increasing the amount of student reading while encouraging students to choose to read on their own. According to the research, that dual approach should be a real plus. And it would be doing this while preserving the maximum amount of teaching – an approach more consistent with research findings that show achievement to have a bigger impact on practice, than the opposite."

"Isn't Independent Reading a Research-Based Practice?" by Timothy Shanahan in *Shanahan on Literacy*, June 22, 2019; Shanahan can be reached at shanahan@uic.edu.

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8. Ideas for One-on-One Check-In Meetings

In this *Leadership Freak* article, Dan Rockwell suggests questions to spark reflection and connection during a series of one-on-one meetings:

• Safety and security:
- How is your level of psychological safety in your role or within the team?
- What aspects of working here increase your confidence?
- What could you do to elevate your sense of safety and security?
- What can I do to help?

• Connection and belonging:
- What helps you feel connected to people?
- How connected do you feel to the team, to colleagues?
- What could you do to strengthen those connections?
- How could we create an environment where feeling connected is more likely?

• Achievement and growth:
- On a scale of 1 to 10, how challenged do you feel in your role?
- What types of challenges most energize you?
- Where would you enjoy contributing more?
- How would you like to develop?
- If you grew in that way, what would be different for you?

• Purpose and meaning:
- What are the meaningful contributions you're making?
- How does your role give you opportunities to express your values?
- What brings you the most fulfillment?

• Joy and curiosity:
- What parts of your job energize you? How can we maximize them?
- What parts of your job drain you? How can we minimize them?
- What are you curious about as it relates to your job or working here?

"Use These Topics to Energize One-on-Ones" by Dan Rockwell in *Leadership Freak*, October 7, 2024

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9. Manga Books on Monsters

In this *School Library Journal* feature, Brigid Alverson recommends seven manga books on monsters:

- *Monster Cats* by Pandania, grade 5 and up
- *Aria of the Beech Forest* by Yugiri Aika, grade 8 and up
- *Witch Life in a Micro Room* by Akitaka, grade 8 and up
- *Noss and Zakuro* by Rariatto, grade 8 and up

- *The Haunted Bookstore: Gateway to a Parallel Universe* by Shinobumaru, illustrated by Medamayaki
- *Otaku Vampire's Love Bite* by Julietta Suzuki, grade 8 and up
- *Soara and the House of Monsters* by Hidenori Yamaji, grade 8 and up

"Manga Monsters" by Brigid Alverson in *School Library Journal*, October 2024 (Vol. 70, #10, pp. 38-41)

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10. Short Item:

A Briefer Version of Jonathan Haidt's October 24th Webinar – There were some tech issues accessing the Dropbox video of Haidt's talk in last week's Memo. Here's the same talk (with Jenn David-Lang), minus the introduction, in YouTube. Haidt's data on the impact of cellphones and social media on teen mental health are troubling; you might want to pass along this video to parents of young adolescents.

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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 54 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 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
Language Magazine
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