Marshall Memo 1104

A Weekly Round-up of Important Ideas and Research in K-12 Education
September 15, 2025

In This Issue:

Quotes of the Week

"Think big, act small, learn fast."

Elizabeth City, interviewed by Rick Hess in "Better Leaders Make Better Schools" in *Education Next*, Summer 2025 (Vol. 25, #3)

"We think a good reading program should be built around students reading the best books we can find for them, in their entirety, and most often together as a group."

Doug Lemov, Colleen Driggs, and Erica Woolway (see item #1)

"Students should learn to be comfortable struggling."

Doug Lemov, Colleen Driggs, and Erica Woolway (*ibid*.)

"How are you, really? What's been a recent win or challenge in your teaching? Is there anything you need from me right now?"

Michael Bungay Stanier's suggested questions for regular check-ins with teachers, quoted by Matt Pitman in "Building School Culture Through One-on-One Conversations" in *Edutopia*, September 9, 2025

"If we want to prepare our young people for a future that demands focus, knowledge, and critical thinking, the first steps are simple: ban the phones, close the laptops, put away the tablets, and let the learning begin."

Henry Seton in "Cellphone Bans Are Not Enough" in *Education Gadfly*, September 11, 2025; Seton can be reached at hseton@gmail.com.

"AI is different. It's one of the first technologies that arrived whether or not schools wanted it, whether or not classroom teachers wanted it. There is no procurement process; it is something that school leaders and educators just have to deal with."

Justin Reich in "How to Make Purposeful Decisions About Generative AI in Your School," interviewed by Andrew Boryga in *Edutopia*, September 11, 2025

"We, of course, do not want our students to fail, but we don't want them to fail to learn, either. A student who cuts and pastes a history paper is enrolled in a cutting-and-pasting class, not a history class… Contrary to much popular opinion, college is not in the information transfer business; we are in the identity formation business."

Clay Shirky, NYU Provost, in "The Only Real Solution to the AI Cheating Crisis" in *The New York Times*, August 31, 2025

"Humans are pros when it comes to cognitive offloading, meaning using tools to free up mental processing space and avoid thinking… Brains, like bodies, develop as they are used. That's especially important for students, whose brains are still maturing."

Jenny Anderson and Rebecca Winthrop in "Parents, Your Job Has Changed in the AI Era" in *The New York Times*, September 12, 2025

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1. After Phonics, What Is the Science of Reading?

In their new book, *The Teach Like a Champion Guide to the Science of Reading*, Doug Lemov, Colleen Driggs, and Erica Woolway affirm the importance of systematic, synthetic phonics instruction in the early grades: "If students have not mastered letter-sound correspondence in the primary years, they will be sorely hampered throughout their school lives."

But if schools were successful teaching phonics in kindergarten and grades 1 and 2, "and then failed to make informed decisions about what to teach, and how, in grades 3, 5, 8, and 10, our victory would be largely pyrrhic," say Lemov, Driggs, and Woolway. "So it is important to ask: after we've nailed phonics in the early grades, what does the science tell us should happen in reading classes from then on?" The fact that reading scores often plateau after fourth grade is a sign that something important is missing.

Their book synthesizes research on eight essential elements of post-phonics literacy instruction: attention, fluency, background knowledge, vocabulary, writing, books, complex text, and cognitive load theory:

• *Attention* – "Attention is central to every learning activity, especially reading, and building attention is a necessary step in effective reading instruction," say the authors. "Staying focused on a long and challenging text for an extended period of time requires an especially high level of focus and self-regulation." Cellphones and other screens make this particularly difficult; one of the authors' teenagers lay on a sofa trying to read *The Giver*, but his attention was broken every few minutes by a text or notification.

The solution for teachers, say Lemov, Driggs, and Woolway, is "low tech/high text" in classrooms – blocks of time with no screens and extended focus on print books and materials: "A great reading classroom, we argue, should feature text in hard copy with students annotating to shape and focus their attention as they read."

• *Fluency* – Being able to read words "at the speed of sight" – quickly and easily as soon as they are encountered – is a prerequisite for reading comprehension at every grade level, say the authors. "When you can read effortlessly, without having to think about it, your working memory, that critical part of your brain for encoding memory and building understanding, is free to do other things, like think about the meaning of the text or perceive details within it."

There are three components of fluency: (a) accuracy – reading the words in a text correctly; (b) automaticity – reading accurately at a rate of at least 110 words per minute; and (c) prosody – appropriate expression, intonation, and phrasing that shows understanding. It's concerning that almost 42 percent of fourth graders and half of high-school students have fluency issues – a hidden reason for their weak comprehension.

• *Background knowledge* – Once students are fluent, knowing stuff is the biggest driver of understanding, say Lemov, Driggs, and Woolway. They attack what they call "the most common chimera" among reading teachers – that teaching discrete reading skills (main idea, inference) will make students better readers. In fact, studies show that these skills don't transfer from one text to another and students get better at reading when they know something about the text. In other words, their ability to infer is a function of prior knowledge.

This is best demonstrated with The Baseball Study by Sonna Recht and Lauren Leslie. Seventh and eighth graders were sorted into those who knew a lot about baseball and those who didn't, and those with high and low reading skills. When students were tested after reading a passage about baseball, the weak readers who knew about baseball scored almost as well as the strongest who were baseball-savvy. Students who had good reading skills but didn't know about baseball did much worse, and those who were weak readers and baseball novices followed close behind. This study has been replicated in other areas and it shows "quite elegantly," say Lemov, Driggs, and Woolway, "that you read well and successfully when and because you have background knowledge of what you are reading about."

• *Vocabulary* – Knowing lots of words and their meanings is an especially important kind of background knowledge, and it correlates strongly with reading comprehension. The relationship works in both directions: better vocabulary leads to better understanding, and better understanding leads to a stronger vocabulary. This means vocabulary instruction should be both explicit – direct instruction of new words – and indirect – students learning words as they read texts rich in good vocabulary.

Why is vocabulary a separate item from background knowledge? Because the authors have noticed that many teachers teach vocabulary as if it's a skill, often relying on students using context clues to learn new words. Inferring the meaning of unfamiliar words is important, say Lemov, Driggs, and Woolway, but so is explicit instruction, starting with a

student-friendly definition of new words and then having students work with them in thought-provoking, interactive, and playful ways. Another important component: lots of reading!

• *Writing* – "Reading and writing are in many ways two sides of the same coin," say the authors, noting that there is a 50-70 percent overlap in students' reading and writing abilities. "Intentional writing development can play a critical and synergistic role in developing better readers," they continue. "Done carefully, writing in response to reading can assist in memory formation and help students develop mastery of the written code that reading relies on."

But just assigning lots of writing isn't very helpful. For writing to boost reading proficiency, students need to practice specific kinds of writing – summarizing passages, sentence combining, learning different kinds of syntax, and jotting notes during class discussions of books (to avoid overtaxing working memory). "Students who struggle to read," say the authors, "are often undone by complex or unfamiliar syntax – by a compound subject, by a subject a long way from its object, by the subordination of one idea to another." Students need plenty of deliberate practice with different kinds of writing, followed up with feedback from peers and teachers.

• *Books* – "Books package information and ideas in a unique form to which our brains are especially receptive," say Lemov, Driggs, and Woolway. "We think a good reading program should be built around students reading the best books we can find for them, in their entirety, and most often together as a group." This approach contrasts to two approaches many students are getting: choice-based reading, where students decide on what books they read and rarely come together as a class to discuss them; and short passages out of context, with skills questions geared to standardized tests. By contrast, good books contain extended stories and convey key ideas about our civilization; historical fiction is one of the best genres for classrooms.

"But books can be hard," say the authors. "They are often old, written in the parlance of a bygone era. They are often complex, occasionally even resisting the efforts of readers to make easy meaning of them. This is beneficial. Students should learn to be comfortable struggling. The only way to sustain access to the ideas encoded in the history of books is to struggle with archaic syntax… read it two or three times until its style becomes more accessible… Do we really want a society where students lack the familiarity with outdated writing and the mindset to persist at the challenges it presents?"

That's why Lemov, Driggs, and Woolway advocate students reading (often aloud), annotating, and discussing carefully curated books (as well as lots of self-chosen books outside of school). "In an era when social media disconnects and isolates young people," they say, "books can connect them through a shared experience of reading together…" This whets their appetite for more reading as it builds skills and makes connections with classmates.

• *Complex text* – The ability to read challenging material "is the gatekeeper to long-term success," say the authors. They cite a study done by the ACT showing that the most important variable in high-school students who were ready for college was not their literal or inferential comprehension level, nor their scores on various reading subskills. It was their ability to read difficult material that was out of their comfort zone.

Complexity is more than sentence length, vocabulary, and other measures of readability; *The Outsiders* and *Lord of the Flies* have about the same Lexile level, but Golding's novel is much more difficult because of its archaic syntax, complex symbolism, and allusions to mid-20th-century British culture. The need for background knowledge is what makes some texts much more complex and challenging.

• *Cognitive load theory* – When we see students engaged in the classroom, say Lemov, Driggs, and Woolway, we may think they are learning, but it's not learning – yet. What we're seeing is ideas and skills bouncing around in students' working memory. Only when it is embedded in long-term memory can teachers say they're successful. "The aim of all instruction is to alter long-term memory," say researchers Paul Kirschner, John Sweller, and Richard Clark. "If nothing has changed in long-term memory, nothing has been learned."

A key insight for teachers is understanding the fragility of short-term memory and applying the insights from cognitive science on moving information and skills into students' long-term memory: spaced retrieval, desirable difficulty, deliberate practice, and interleaving. It's also important for teachers to be aware of the "curse of knowledge" – not understanding how students are having difficulty with something that seems obvious to the teacher.

Much of this applies to the primary grades, implemented alongside a rigorous phonics component. In all the grades K-12, none of it needs to be dry, dull, and dreary, say Lemov, Driggs, and Woolway: "In fact, we think teaching that applies the science of reading and learning is very likely to be *more* engaging for students… Perhaps the biggest motivation to a learner is the knowledge that they are succeeding and making progress."

The Teach Like a Champion Guide to the Science of Reading by Doug Lemov, Colleen Driggs, and Erica Woolway, Jossey-Bass, 2025

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2. Convincing Students of the Retrieval Effect's Power

In this *Scientists in the Making* article, Los Angeles teacher Marcie Samayoa says that although retrieval practice is an excellent way to get information into long-term memory, students resist using it. For example, when a teacher asks students to write answers to a few questions on what they learned the day before, some sneak a look at their notes or copy from their elbow partner.

Why the shortcuts? Students may think learning this stuff doesn't matter, or they may resist the cognitive effort needed to recall learning that has started to slip into oblivion. "Copying takes no effort," says Samayoa. "Our brains are wired to conserve energy, so if there's an easier way to complete a task, we take it."

But the mental effort involved in retrieving recently learned information is what makes it effective. Students need explicit instruction on how retrieval works and getting that the mental effort (and sometimes the frustration) is well worth it – far superior to time-worn study methods like re-reading, underlining, and copying. "It is this struggle that contributes to long-

lasting learning," says Samayoa. "This is why shifting students' mindset is so important. We have to normalize the discomfort and reframe it as a sign of growth, not failure."

The analogy she recommends is lifting weights in a gym. Here's a summary of her slide presentation for high-school students (click the link below to see the slides and graphics):

- Review how the brain works – billions of neurons connected by neural pathways.
- When information is first learned, neural pathways are weak so it's easy to forget.
- Pathways get stronger through repeated practice.
- For example, the pathways involved in walking are strong through repeated practice.
- It's analogous to building strong muscles by lifting heavy weights in a gym.
- Retrieving information that's still weakly encoded is "lifting weights" in our brains.
- It only strengthens neural pathways if it's done without getting help or looking at notes.
- This involves a struggle, which makes students think retrieval is ineffective.
- But that's what makes it effective; the difficulty is what strengthens the pathways.
- Frustration trying to retrieve information is akin to the "burn" with heavy weights.
- It builds stronger neural pathways, which result in better long-term remembering.
- Getting help during retrieval is like lifting lighter weights – there's little benefit.
- Some "mental sweat" is essential to improve long-term remembering.
- It's important for retrieval to be low-stakes so students relax and do the work.

"Explaining the science behind retrieval practice can increase student buy-in," says Samayoa. "However, keep in mind that breaking old habits takes time."

"Why Students Resist Retrieval Practice and How to Change That" by Marcie Samayoa in *Scientists in the Making*, March 9, 2025; Samayoa is at scientistsinthemakingblog@gmail.com.

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3. Daniel Willingham on Dealing with Cellphone Distraction

In this article in *Education Next*, Daniel Willingham (University of Virginia) says that more than half of U.S. states have legislation banning cellphones in schools, in response to teachers saying phones are a major distraction in classrooms. Teachers report that students have less stamina, more difficulty staying on task and deferring gratification, and are quick to declare that schoolwork is boring. Why? Because social media, YouTube, and video games involve rapid shifts of attention, quick rewards, and constant enticements to move on to something else.

Willingham reviews a number of studies and concludes all this doesn't seem to have rewired students' brains. Students still have the ability to pay attention, but are often choosing not to do so. He offers two possible explanations:

- Digital devices provide immediate gratification, which trumps the longer-term rewards offered by teachers.
- Students are quicker to say they're bored with schoolwork because they're unconsciously comparing it to the entertainment they can get on their phones.

There isn't conclusive evidence for either hypothesis, says Willingham, but "we should probably hope these explanations are valid, because both suggest that the degradation of attention has been learned – and what is learned can potentially be unlearned."

What should schools do? Here's how teachers can exert countervailing influence on deferring gratification and the perception of boredom:

• On deferring gratification – coaxing students to reassess the importance of long-term rewards by making them more explicit and salient. For example, portfolios of work can help students see and appreciate the progress they've made during a school year and see the need for hard work and deliberate practice and the satisfaction they can bring.

• On boredom – with phones not available for the whole school day, says Willingham, "the unconscious mind will learn that the phone is unavailable in a particular context, and so the calculation of boredom will adjust accordingly." This is an argument for a bell-to-bell versus a classroom-by-classroom cellphone ban.

"Pay Attention, Kid!" by Daniel Willingham in *Education Next*, Summer 2025 (Vol. 25, #3); Willingham can be reached at willingham@virginia.edu.

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4. Helping Students with Anxiety Learning a Language

In this *Kappan* article, Soyoung Lee (Konkuk University, South Korea) remembers how stressed she was at age 9 when her family moved to Australia and she had to learn English. "I had always loved school," she says, "but for the first time, I felt defeated and frustrated most days." She had *foreign language anxiety*, which researchers say is distinct from general anxiety and doesn't mean a student is disengaged or has a poor attitude. Here are some of the ways it can be triggered:

- Being called on to speak in front of the whole class;
- Teachers' and peers' negative evaluation of competence;
- Harsh correction of errors;
- Competition and social comparison;
- Unpredictable classroom procedures;
- Insufficient wait time.

In Lee's case, things got better when her teachers told her it was okay to make mistakes and took other steps to help her relax, interact with classmates, and build confidence.

When teachers spot students who are developing negative attitudes about learning a new language and withdrawing, the first step is diagnosing the problem by observing and talking to students and giving the Foreign Language Classroom Anxiety Scale. This questionnaire from the University of Wisconsin/Madison provides data on students' attitudes, motivations, and beliefs about themselves as language learners.

Then teachers can work to shift from pressure to motivation and reduce students' anxiety by using some of these strategies:

- Normalizing mistakes;

- Delaying error correction;
- Giving students space to self-correct;
- Providing extended wait time;
- Letting students interact with a partner or a small group before being called on;
- Displaying and reviewing the lesson agenda;
- Establishing routine language activities – warm-up, read-aloud, discussion, etc.
- Using consistent procedural language;
- Offering flexible options for participation – for example, students write answers;
- Students journaling so they can share their thoughts with the teacher in writing.

"The Emotional Side of Learning a New Language" by Soyoung Lee in *Kappan*, Fall 2025 (Vol. 107, #1-2, pp. 56-59); Lee can be reached at soyounglee@konkuk.ac.kr.

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5. How to Get Authentic Student Writing in the Age of GenAI

In this *Chronicle of Higher Education* article, Ellen O'Connell Whittet (University of California/Santa Barbara) says she thought the personal essay was one kind of writing where students would never use GenAI. "How could a machine possibly replicate the messy authenticity of human experience," she says, "or the hard-won wisdom that emerges from surviving something painful?" But she was wrong. Some students were clearly using ChatGPT. When she challenged one young man, he said, "It still makes my writing better. I hate that I use it, but I do."

Where does that leave teachers of writing? Trying to catch students with plagiarism detection tools won't work, says Whittet. "AI will only get better at mimicking human writing, while detection tools will always lag behind."

Instead, she's rethinking how she teaches: "This fall, I'm placing more emphasis on pre-writing. I'll spend more time helping students excavate what's truly theirs: details, images, emotions that no machine could invent, through memory-mapping exercises where they visualize significant places in their lives. I'm using sensory-detail inventories that oblige them to catalog what they saw, heard, and felt during pivotal moments. I'm implementing interview protocols where students talk to family members about shared experiences, comparing perspectives to complicate their own initial version of events. I'm talking more openly about what's at stake, not just a grade, but the chance to know yourself better through writing."

"The Personal Essay, Now Written by ChatGPT" by Ellen O'Connell Whittet in *The Chronicle of Higher Education*, September 5, 2025 (Vol. 72, #1, pp. 38-39); Whittet can be reached at whittet@writing.ucsb.edu.

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6. Self-Deprecating Spirals – and How to Rethink Them

In this article in *Behavioral Scientist*, Gregory Walton (Stanford University) describes an incident that didn't seem like a big deal. You were 12 minutes late for a meeting and a

colleague said, “There you are! So glad you could fit us in.” You gave your excuses – horrible traffic, difficulty dropping kids off at school – and things moved on.

But what if you were low on the totem pole at work and the person who made the comment was your boss? In that case, it might send your mind into a downward spiral. *Was that snark in my boss’s voice? Were they talking about me before I arrived? Do I fit in here? Am I any good at this job?* “You might not be fully aware of these questions,” says Walton. “Your mind works quickly on multiple tracks at the same time. And those questions are nasty; they threaten your sense of belonging, your worth, and your value, at least at work.”

Walton unpacks the three stages of negative spirals like this, which can lead people to an unfortunate place:

- Core question: an interaction puts your identity, belonging, or adequacy on the table.
- Construal: you interpret something negatively that may have been neutral.
- Calcification: you obsess about the pessimistic hypothesis, making things worse.

“When you start to look,” says Walton, “you can see spirals everywhere.” After an bad date, you think, *Am I unlovable? Will I be alone forever?* You fail a math test and think you can’t succeed and skip classes. A medication isn’t helping to resolve an ailment and you stop taking it. You have a fight with your kids, think you’re a bad parent, and yell at them even more the next time. “This is self-sabotage,” he says, “and one step at a time it costs us our achievements, our health, our relationships, and our well-being.”

Walton explains how to recognize a TIFBIT – tiny fact, big theory – with another story. In his first year in college in California, he was biking through the campus on a lovely fall day and saw a large group of fellow students having a good time as they waited to order from an In-N-Out food truck (coming from Michigan, he didn’t recognize the brand name). “Feeling excluded from the burger party,” he says, “I biked off in a huff to eat my lunch in the dining hall alone. I remember thinking, *I’m not standing in line for a burger!*”

What the incident triggered was being homesick, feeling he didn’t belong, and wondering if he would ever make friends in California. “Beneath every TIFBIT is a real question,” says Walton, “and it’s almost always a reasonable one. But responses to small experiences can help us see what lies beneath the surface. For a TIFBIT is never just a tiny fact; it’s a clue to the bigger questions that define our lives.”

The key is controlling what happens at the construal stage. Instead of drawing a negative inference, step back and consider a more neutral or even positive spin. “With a little prompt,” he says, “I could have known that almost everyone feels homesick at first in college, that we’re all in some sense far from home, even the kids from California, that everyone was trying to find new communities. Maybe then I would have joined the line at the In-N-Out truck. I could have asked someone to tell me what In-N-Out was. Why do they love it? What is ‘animal style’? I’m sure they would have been glad to share. I knew I would have had a better lunch. I would have made a friend too.”

“Why We Spiral” by Gregory Walton in *Behavioral Scientist*, August 18, 2025; Walton can be reached at gwalton@stanford.edu.

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7. The Annual PDK Poll

This annual poll reports on public attitudes toward U.S. public schools. Click the link below for details and graphs on:

- Confidence in public schools – percent giving schools an A or B
- Parent satisfaction
- Students feeling they belong
- Security measures
- Vouchers for private and religious schools
- Charter and lab schools
- Teacher salaries
- Teacher shortages
- Cellphone limits
- Eliminating the federal Department of Education
- The role of artificial intelligence
- Career and technical education
- Diversity, equity, and inclusion

"The 57th Annual PDK Poll of the Public's Attitudes Toward the Public Schools" by John Hendron in *Kappan*, Fall 2025 (Vol. 107, #1-2, pp. 50-55)

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8. Looking Back to High School, Books That Stood Out

In this National Public Radio feature, Beth Novey, Meghan Collins Sullivan, and Andrew Limbong report on the books that NPR listeners said had profoundly affected them when they were in high school – that broadened their perspective and stuck with them long after they graduated. Click on the link below to see the cover images of the 23 books that were mentioned.

"What Books Shaped You in High School? Here's What You Said" by Beth Novey, Meghan Collins Sullivan, and Andrew Limbong, *National Public Radio*, August 28, 2025

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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 early Tuesday (there are 50 issues a year). Every week there's a podcast and HTML version. Artificial intelligence is not used.

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- The current issue (in Word or PDF)
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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