Marshall Memo 1043

A Weekly Round-up of Important Ideas and Research in K-12 Education
July 1, 2024

In This Issue:

Quotes of the Week

"Fairy tales can often be brutal and cruel – people and animals die – and yet, despite everything, the positive powers always win. There can be no other ending."

Annemarie Wächter, quoted in "The Case for Not Sanitizing Fairy Tales" by Haley Stewart in *Plough*, June 17, 2024

"The response is not: 'You are bad, you need to leave.' The response is: 'What you did was wrong, so we need to fix that.'"

Allison Payne (Villanova University), quoted in "What Is Restorative Justice, and How Can It Be Implemented in Schools?" by Brooke Schultz in *Education Week*, June 19, 2024

"Much of what you are experiencing right now will be lost in less than a day."

Charan Ranganath, quoted in "Forget It" by Jerome Groopman in *The New Yorker*, May 20, 2024, reviewing Ranganath's book, *Why We Remember* (2024)

"Forgetting isn't a failure of memory; it's a consequence of processes that allow our brains to prioritize information that helps us navigate and make sense of the world."

Charan Ranganath (*ibid*.)

"The more we internally access or recall a memory, the deeper, more durable, and more accessible that memory becomes in the future."

Jared Cooney Horvath on the power of the "retrieval effect" (see item #2)

"Too many principals think that ignoring and even discouraging writing frees up time better devoted to higher reading scores. Too many teachers are anxious about writing because of the limited preparation they receive in this area."

Timothy Shanahan (see item #5)

1. How Continuous Improvement Played Out in Three Memphis Schools

In this *American Journal of Education* article, Adrian Larbi-Cherif (Manhattan Strategy Group), Joshua Glazer (George Washington University), and Ashley Ison (Harvard Graduate School of Education) report on their study of how three principals used their network's continuous improvement strategy to boost mathematics teaching and learning in high-need Memphis, Tennessee schools.

Continuous improvement originated in the private sector (especially health care and engineering) as a way to solve specific problems through focused improvement cycles and disciplined analysis of data. The approach typically involves asking:

- What problem needs to be solved?
- What change strategy should be introduced and why?
- Is the strategy causing improvement?

More generally, continuous improvement asks what works, where, and under what conditions. It's helpful if the problem isn't vague – for example, "weak math scores" – but is defined in ways that helps find the root of the problem, devise solution strategies, and measure results.

Continuous improvement "is not without its challenges," say the authors, including in K-12 settings. It's difficult for school leaders to stick with an improvement plan when there is high-stakes accountability breathing down their necks, they have to wrangle skeptical staff members, and it's challenging to agree on a theory of action to address their school's problem of practice. In addition, because every school is different, it can be hard to share insights and strategies across schools, which should result in more-effective implementation.

Larbi-Cherif, Glazer, and Ison studied three elementary schools that were part of the iZone, a 23-school network that had some of the lowest student achievement in Tennessee. These schools were required to use the Eureka Mathematics curriculum and engage in nine-week cycles of professional learning, complete with structured classroom observations, professional development, and curriculum monitoring. In the three schools studied by the authors, principals defined their problem of practice in quite different ways, and complied to varying degrees with the zone's mandates on continuous improvement. The details:

• Woodson School – The principal and leadership team zeroed in on teachers not asking cognitively demanding questions, which they believed was preventing students from developing a conceptual understanding of math. "We need to get teachers to ask the kind of questions that will really force students to think about what they're doing," said the principal. "I wouldn't want to hear a student say, 'If I multiply both the numerator and denominator by four, then I get four-eights, then I know they're equivalent.' No. I want to hear the student say

that one-half and four-eights are equivalent because when I put them on this number line they are on the same spot.'" The principal organized professional development around higher-order questioning and closely monitored teachers with frequent classroom visits, gambling that changing practice would eventually result in higher test scores. This school was closest to the iZone plan.

• Longview School – The principal identified the problem as poor scores on the state assessment. He created interim assessments closely aligned with the state math test, monitored students' performance on each interim test, and orchestrated small-group reteaching. "We need to know the exact place where that child is struggling," he said. "Is that child struggling in geometry? Was it algebraic equations? Was it measurements?" The principal embraced the logic of accountability but rejected the iZone's goal of developing conceptual understanding. For a child without grade-level basics, he said, "It's not happening." He encouraged teachers to depart from the Eureka curriculum if students weren't performing well on specific sections of the interim tests. He pushed teachers to define their value-add in terms of how much they could increase the test scores with which students began the year. "Can you add 15%?" he demanded. "If they're passing the test, they are learning."

• Baldwin School – This principal was skeptical about the iZone's focus on conceptual math, didn't trust Eureka Math's spiral curriculum, didn't buy into the logic of students engaging in "productive struggle," and was not overly concerned with the state test. "See, for this school in this area, I have to set students up for life, not just the test," he said. "My kids need everything they can get, because this might be the only learning they ever get at a high level. See, I have to think about the child as a whole. This testing stuff, it can go out tomorrow. At the end of the day, I have to make sure these kids are prepared for life." He pushed teachers to give students on-grade-level work and aggressively monitor them in class to make sure no students were falling behind. If students weren't learning with Eureka lessons, he helped teachers find Khan Academy or YouTube lessons that worked better – this in direct contradiction of iZone math coaches' contention that Eureka Math would eventually work.

Larbi-Cherif, Glazer, and Ison say that on the surface, the iZone had an impressive system for continuous improvement. It had a common curriculum and pedagogical vision, detailed lesson plans supported by coaching and classroom observations, and a data-driven ethos for supporting meaningful student achievement. But under the surface, each principal's approach to continuous improvement "was shaped by particular field-level logics they embraced and their corresponding theories, frames, and narratives," say the researchers. "In drawing from different logics, each principal enacted a different vision of instruction and in doing so, established different learning opportunities for students."

Over a three-year period, students in each of these schools made impressive gains in math state test scores, bringing credit, even a little glory, to the iZone's approach. But was it okay that two of the principals (at Longview and Baldwin) ignored much of the zone's theory of action and went their own way?

"In our view," conclude Larbi-Cherif, Glazer, and Ison, "the answer to these questions is negative." Yes, the maverick principals "can point to their schools' performance as evidence

that they have little need for the type of collective technical culture that the iZone sought to foster and that is at the heart of the larger continuous improvement enterprise. Yet in redefining the nature of the problem in ways that fundamentally departed from the iZone's commitment to grade-level, conceptually focused math instruction, they undermined the network's coherence and integrity. In so doing, they deprived the iZone of the opportunity to benefit from their experience.

"Indeed, the overarching problem of practice that the iZone set out to tackle was not simply to increase math scores but to build the network's professional capacity to tackle intellectual rigor, pervasive student need, and stringent accountability. That two of the iZone's most celebrated principals declined to contribute to the larger infrastructure that extended beyond their campuses was an opportunity lost."

"Continuous Improvement in Urban Districts: Bringing Environments Back In" by Adrian Larbi-Cherif, Joshua Glazer, and Ashley Ison in *American Journal of Education*, May 2024 (Vol. 130, #3, pp. 363-394); Glazer can be reached at jglazer@gwu.edu.

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2. Low-Tech Learning: Five Advantages

In this *Psychology Today* article, Jared Cooney Horvath (University of Melbourne) says that in recent decades, neuroscience (his field) has been consolidating research on how the human brain learns. These insights have direct bearing on the choices schools make on how much to use digital tools:

• *Learning requires empathy*. Despite impressive gains, artificial intelligence hasn't been able to match human counselors in one-on-one therapy sessions. Why? "Because the operative word in *therapeutic relationship* is *relationship*," says Horvath. "Decades of research consistently show that the relationship between therapist and patient is far and away the greatest predictor of therapeutic success, with some data suggesting that 80 percent of the outcome is attributable to a strong empathetic relationship."

The same is true of learning. An empathetic student-teacher relationship delivers 2.5 times the instructional gain compared to individual tutoring, says John Hattie in his meta-analysis. The combination of caring and psychological safety between teacher and student releases oxytocin, which is rocket fuel for learning. That chemistry can't exist with a chatbot or in remote instruction. Could this be why online courses have such a high dropout rate: 85 percent of students who are taking them for free, 50 percent of those paying tuition? "Without empathy," says Horvath, "individuals become passive receivers of information with little impetus to push through the inevitable struggles encountered along the learning process."

• *Creativity relies on knowledge and skills*. To unleash critical thinking and creativity, says Horvath, we need to encode information and capabilities in long-term memory. Learning to play the guitar, for example, requires countless hours practicing finger placement and chords and building fluency before it's possible to create original music.

• *Multitasking degrades learning*. When using a computer for homework, most students can't go for more than six minutes before checking social media, messaging, and other digital distractions. Using a laptop during class, 38 minutes of every hour is typically spent off-task. "In order to effectively learn while using a computer," says Horvath, "people must expend an incredible amount of cognitive effort battling impulses that they've spent years honing, a battle they lose more often than not." Neuroscientists have found that jumping quickly among tasks has three significant costs for learners:

- Attentional blink – With each shift of focus, the brain stops processing all external information for 0.15 seconds.
- Accuracy – With each shift among tasks, general performance suffers.
- Memory – When multitasking, memories are stored in a part of the brain where they are less accessible in the future.

In short, says Horvath, "multitasking is one of the worst things human beings can do for learning and memory. That may be why today's students are doing poorly on tests of information, composition, and the application of higher-order thinking skills." It explains Sweden's decision to urge teachers to have students read physical textbooks and hand-write on paper, while progressively reducing the use of digital tools.

• *Print is mostly better than digital*. As information enters long-term memory, the hippocampus instantly encodes its three-dimensional orientation. For example, we can often remember that something happened on the bottom of a right-hand page about half-way through a book. "Print ensures that material is in an unchanging and everlasting three-dimensional location," says Horvath. "This is why, when it comes to reading comprehension and retention, hard copy always beats digital."

In some situations, digital is better, including when searching for information in a text, and with learners who have physical or neurological impairments that require text interactivity.

• *Flashcard practice really works*. Memories fade quickly and can also be distorted as we try to recall them. One of the most efficient and effective ways to commit important information to long-term memory is using flashcards with the prompt on one side and the answer on the other. Testing ourselves using flashcards strengthens memories. "The more we internally access or recall a memory," says Horvath, "the deeper, more durable, and more accessible that memory becomes in the future." Seeing the correct answer immediately after trying to recall it is also helpful in retaining the memory accurately. Research has repeatedly found that retrieval practice is far more effective than re-reading or re-viewing.

Horvath recommends grouping flashcards in thematic or shared-characteristic groups and continuing to use retrieval practice on each group, even with cards we recall accurately. This retains the conceptual links between the memory items.

"How the Brain Learns Best" by Jared Cooney Horvath in *Psychology Today*, July/August 2024 (Vol. 57, #4, pp. 34-39)

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3. Tough Love with Required Reading in College Classes

In this *Teachers College Record* article, Reynaldo Reyes (University of Texas/El Paso) says that he and his fellow instructors are finding that few college students do the required reading for classes. Why not?

- The distraction of texting, social media, and YouTube;
- Other time commitments;
- Reading for other courses;
- The demands of a part-time or full-time job;
- Being a parent, especially a single parent;
- Lack of interest in the reading;
- Not seeing the reading as important to the learning process;
- Seeing the reading as a frustrating chore;
- Procrastination;
- No consequences for not doing the reading.

Early in his teaching career, Reyes discovered that the only way to counteract this dynamic was to give a short quiz on the reading at the beginning of class. If students know they will be accountable, they organize their lives accordingly and do the reading. "Simply knowing the quiz will be there," he says, "reduces the need to decide whether they will read or not for class." Almost all of them do it.

Reyes goes on to argue that this policy is especially important for students who have any kind of disadvantage. These students have at least as many reasons for not doing the reading as their more-fortunate classmates, but for them, the consequences of coming to class unprepared are more serious. Why? Because their background knowledge, skills, and self-confidence may not be as strong, so if they don't do the reading, they will get less out of the class. This is why a quiz that holds all students accountable for being well-prepared for class disproportionately benefits less-advantaged students.

Reading for class is a gatekeeper to student success. "Using a quiz to promote the act of reading acknowledges this as a necessity," says Reyes. If students do the reading, they are more likely to get past the other gatekeepers: engaging thoughtfully in class discussions, understanding course content at a deeper level, doing well on assessments, getting good grades, and being prepared for higher-level coursework.

"When historically marginalized students who are now at the university are not expected to perform and produce at these particular gatekeeping points in the academic learning and development process," he concludes, "it not only disregards their ability and potential, but also does not equip them to compete in a culture of power and in a society of the racially and socioeconomically privileged."

"Considering the Educationally Marginalized: A Quiz as Social Justice?" by Reynaldo Reyes in *Teachers College Record*, March 2024 (Vol. 126, #3, pp. 168-173); Reyes can be reached at rreyes9@utep.edu.

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4. Cross-Age Peer Tutoring: A Simple, Effective Way to Improve Reading

In this article in *The Reading Teacher*, Andrew Chang (Vanderbilt University) and Emily Mauer (University of Texas/Austin) say cross-age tutoring is a "powerful, often overlooked resource" for boosting reading proficiency, with added social-emotional payoffs for both students. Chang and Mauer have five suggestions for successful implementation:

• *Choose student dyads and get them ready for tutoring sessions*. Pairing partner classes is helpful (for example, a first-grade and fourth-grade class), then scheduling tutoring times about twice a week and creating pairs with an eye to students' academic achievement, personal characteristics, neighborhood, and home language. Chang and Mauer recommend matching students who are at similar reading levels in their respective classes to create even differentials across pairs. Before kicking off tutoring sessions, it's a good idea to give students 15-20 minutes to get to know each other while engaging in a game or activity.

• *Teachers give tutors structured preparation, supervision, and feedback*. This includes a 30-40-minute training session up front on learning objectives, tutoring strategies, classroom management tips, and assessments, then supervision and suggestions as the tutoring proceeds. Periodically gathering feedback from tutors and tutees is also important.

• *Use structured, evidence-based materials suitable for student tutors*. To get the most out of tutoring sessions, plan specific activities (for example, a writing task, word sort, and text reading), have materials ready (magnetic letters, sentence strips, decodable texts, books), provide user-friendly directions and, if necessary, have a quick prep huddle with tutors before each session. A predictable sequence of events is important, but Chang and Mauer recommend leaving some choices so students feel a sense of agency.

• *Give students appropriate reinforcers*. These might include suggestions on praise, sticker charts, certificates, and other rewards. Tutors need coaching on not doing too much of the work for their tutees and using positive feedback and reinforcement to encourage persistence in overcoming challenges.

• *Monitor student progress and adjust tutoring materials as needed*. There needs to be a clear plan for measuring tutees' gains in reading proficiency, identifying gaps in reading skills, and having one-on-one and group sessions with tutors to reinforce and redirect their efforts based on the data.

"While cross-age tutoring provides an approach that is student-centered, interactive, and supportive for a wide range of student needs," say Chang and Mauer, they note two possible challenges and suggested workarounds:

- A scripted reading curriculum with no room for tutoring – Cross-age tutoring might have to take place in writing, social studies, or science periods.
- Behavior – Tutors need strategies up front and teachers must provide constant supervision to head off problems and be right there to deal with issues if they occur.

"Five Recommendations to Implementing Cross-Age Tutoring in Reading" by Andrew Chang and Emily Mauer in *The Reading Teacher*, July/August 2024 (Vol. 78, #1, pp. 1-8); Chang can be reached at andrew.e.chang@vanderbilt.edu, Mauer at emauer@utexas.edu.

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5. Why Reading and Writing Should be Taught Together

In this article on his website, Timothy Shanahan (University of Illinois/Chicago) updates an earlier piece on the synergy that occurs when teachers combine reading and writing. According to the research, says Shanahan, there are three reasons this is so important:

• *Reading and writing draw on the same body of knowledge and skills*. To be proficient readers, kids must perceive the separate phonemes in words, recognize common spelling patterns, link meanings to their growing vocabularies, know enough grammar to grasp the meaning, link together narrative and conceptual sequences, recognize and use discourse structure, and draw on background knowledge. "Yep, learning to read requires all of that," says Shanahan. "But think about it. That knowledge is integral to writing too… That means when you are teaching the foundations of reading, you are also teaching the foundations of writing." Student writers must use all those skills to get their thoughts down on paper or screen.

• *Reading and writing are all about communication*. Reading opens a world of experience, information, and authors to students; writing allows them to reach out to others near and far. Both can develop students' empathy and connections to others – mirrors, windows, and sliding glass doors.

• *The combination of reading and writing is powerful*. The strongest research focuses on two practices. First, writing about what one is reading (creating summaries, critiques, syntheses, analyses) "has a powerful and positive impact on learning," says Shanahan. "We should be teaching students how to use writing in concert with reading to improve comprehension, increase knowledge, and conquer academia." The second is synthesis writing – teaching students to collect information from two or more sources and synthesize it into something unique and personally meaningful.

"Too many principals think that ignoring and even discouraging writing frees up time better devoted to higher reading scores," says Shanahan. "Too many teachers are anxious about writing because of the limited preparation they receive in this area. But having kids writing every day – in any and all the ways described here – is a good idea. Not doing so leaves reading achievement points on the table."

"How Can We Take Advantage of the Reading-Writing Relationship?" by Timothy Shanahan in *Shanahan on Literacy*, January 20, 2024; Shanahan can be reached at shanahan@uic.edu.

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6. Thought-Provoking Questions for Elementary Social Studies

In this *Elementary School Journal* article, Kathryn Roberts (Wayne State University), Kristy Brugar (University of Oklahoma), and Alexander Cuenca (Indiana University) report on their study of 37 social studies inquiry models and the core teaching practices embedded within them. Here is a selection of the "compelling questions" from the programs:

- Why do I have to be responsible?
- Do I have to like everyone?

- Is everyone unique?
- What makes *me* become *we*?
- On social media, why can't I post that?
- Which is better, a map or a globe?
- How do maps talk to us?
- Why do we still need paper maps?
- How do we shape our environment?
- Is sharing and trading across cultures always a good thing?
- What makes holidays special?
- What makes a complex society complex?
- Does where we live matter?
- How would our lives be different if we lived in a different kind of community?
- How does our culture make us similar and different?
- What choices do we make with our money?
- How can families be the same and different?
- Do we *have* to have rules?
- Are all rules good rules?
- Is betrayal always bad?
- Does it matter how leaders are chosen?
- Is the president the most important person in government?
- If we live in the present, why should we care about the past?
- How did slavery shape my state?

"A Content Analysis of Inquiry Design Models" by Kathryn Roberts, Kristy Brugar, and Alexander Cuenca in *Elementary School Journal*, June 2024 (Vol. 124, #4, pp. 644-668); Roberts can be reached at k.roberts@wayne.edu.

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7. Recommended Summer Books with an Urban Theme

In this *School Library Journal* feature, librarian Karen Jensen recommends summertime books and activities set in cities (click the article link for cover images and brief summaries).

Middle grades:

- *Magnolia Wu Unfolds It All* by Chanel Miller, grade 3 and up
- *Karthik Delivers* by Sheela Chari, grade 5 and up
- *The Flyers* by Beth Turley, grade 3 and up
- *One Crazy Summer* by Rita Williams-Garcia, grade 3 and up
- *Summer in the City* by Mary-Louise Gay and David Homel, grade 2 and up
- *Summer in the City* by Fracaswell Hyman, grade 5 and up

Young adult:

- *Summer and the City* by Candace Bushnell, grade 10 and up

- *Blackout: A Novel* by Dhonielle Clayton, grade 9 and up
- *Amy & Roger's Epic Detour* by Morgan Matson, grade 9 and up
- *Loveboat, Taipei* by Abigail Hing Wen, grade 9 and up

"Summer in the City" by Karen Jensen in *School Library Journal*, June 2024 (Vol. 70, #6, pp. 29-31)

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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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- The current issue (in Word or PDF)
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- The "classic" articles from all 20 years

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