Marshall Memo 798

A Weekly Round-up of Important Ideas and Research in K-12 Education
August 12, 2019

In This Issue:

Quotes of the Week

"Turning ambition into aspiration is one of the job descriptions of any teacher."

Agnes Callard, quoted in "The Art of Decision-Making" by Joshua Rothman in *The New Yorker*, January 21, 2019, https://bit.ly/2FuGAQ8

"The ability to express ideas in writing is one of the most important of all skills. Good writing is a mark of an educated person and perhaps for that reason it is one of the most important skills sought by employers and higher education institutions."

Robert Slavin, Cynthia Lake, Amanda Inns, Ariane Baye, Dylan Dachet, and Jonathan Haslam (see item #5)

"Perhaps more than any other subject, writing demands a supportive environment, in which students want to become better writers because they love the opportunity to express themselves, and to interact in writing with valued peers and teachers… Motivation is particularly important. If students love to write, because their peers as well as their teachers are eager to see what they have to say, then they will write with energy and pleasure."

Robert Slavin et al. (*ibid*.)

"For as long as teachers have assigned tasks in exchange for grades, late work has been a problem."

Jennifer Gonzalez (see item #3)

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1. Third Graders Learn about Fractions and Social Justice

In this article in *Rethinking Schools*, third-grade teacher Ilana Greenstein describes being inspired by a San Francisco Exploratorium exhibit that graphically displayed:

- How Americans believe wealth *should* be distributed across the population;
- How people believe wealth *is* distributed;
- Actual statistics on the distribution of wealth in the U.S.

Greenstein planned a fractions lesson that would incorporate these statistics and get students thinking about economic inequality. She believed this was particularly apt for her economically diverse 8- and 9-year olds, most of them second-generation immigrants from Mexico, India, Egypt, Pakistan, Iran, Nigeria, China, and the Philippines. The class had begun to study fractions the week before, including some basic concepts: fractions are equal parts of a whole; different numbers of equal parts have different names (thirds, fourths); and the names given to different amounts of these parts (one-fourth, three-eighths). Here's how the lesson unfolded:

• Students were divided into groups, given lots of dry macaroni (which students had been asked to bring in), and asked to divide the pieces into groups of ten and put 100 into each Ziploc bag. Students hadn't been told the objective of the lesson and enjoyed this initial activity: "Wow," said one, "this is the most fun math lesson we've ever had!"

• Students moved to the carpet area, which Greenstein had divided into five segments with masking tape. Greenstein elicited from students that the rug was divided into fifths, and that meant there were five equal parts.

• She then explained the purpose of the lesson: to show how wealth (money) was spread (distributed) in the U.S., with the fifths on the carpet representing the poorest, the second poorest, the middle, the second-richest, and the richest portions of the population.

• Students counted all the baggies of macaroni aloud, and there were 90, meaning there were 9,000 individual pieces of macaroni in all. Greenstein said that for this lesson, the macaroni represented the total wealth of all the people in the United States. She clarified what wealth meant: toys, clothes, money, bicycles, cars, houses, boats, all the things people own.

• Greenstein then had students think about how the bags of macaroni (wealth) were actually distributed among Americans. "Hmmm, I'm not sure," said one student. "I know the richest people are going to have more, but how much more?" "I bet the richest people have at least 30 bags," said another. "No way!" said a third. "That is way too many." "But they have mansions and stuff!" said another. "That must cost a lot of macaroni!"

• After some discussion, the class reached a consensus on how to sort the bags: 5 for the poorest fifth, 10 for the second-poorest, 20 for the middle, 25 for the second-richest, and 30 for the richest.

• Greenstein then sat down in the poorest segment and said it was time to see how wealth was actually distributed (she'd quickly done the math on her phone calculator once she knew the total number of bags). She pushed all but one bag out of the sector and then opened that bag and counted out nine individual pieces of macaroni. That's how much the poorest fifth of the population (60 million people) actually has, she said (.001 percent of the total wealth). Students stared at her in disbelief.

• Greenstein them moved to the second-poorest quintile, pushed all the bags over to the next segment, and counted out 18 pieces of macaroni: another 60 million Americans, with .002 percent of the wealth.

• As she scooched over to the middle segment and pushed the accumulated pile of baggies ahead, students cried out, "Noooo!" "Oh yes," said Greenstein. "I wish I were joking, but this is the truth, friends." The middle fifth ended up with one-and-a-half bags of macaroni. "Can you believe this?" she said. "We have now covered three-fifths of the population. Ninety bags of wealth in total. Only two used so far."

• The second-richest fifth ended up with nine bags of macaroni, and the richest fifth (the class counted the remaining bags together) had 79. "The visual of the distribution of the macaroni was staggering," says Greenstein: "The nine puny pieces of macaroni all the way to the left, and the abundance of dozens of bags all the way to the right."

• "At this point," she writes, "a lesson on fractions morphed into a discussion of economics and social justice." Some student comments:

- "I can't believe this. This is unfair. The rich people should give their money to the poor."
- "The people in the richest fifth need to give their money to the homeless. The homeless don't have any money."
- "But the rich don't even know that the poor don't have any money."
- "They don't care anyway."
- That's very interesting," said Greenstein. "Why do you think the rich don't know that poor people don't have money?"
- "Well, if they did, wouldn't they have given them money already?"
- "Isn't that kind of like racism, like we talked about before?"

"The conversation continued like this for a few minutes," says Greenstein, "and while I maintained my face of concern and respect as the students shared, I was beaming inside. I was overwhelmed that my students were both beginning to understand these complex concepts and that they cared about them. I felt this was a great start, the foundation upon which to add more ideas about wealth disparities." Reflecting on how the discussion unfolded, she planned for the next year some ways to elicit from students their own theories about what was going on rather than giving them her own views.

Greenstein followed up on the fractions content, having students complete a worksheet, write about what they had done using math vocabulary, and translate the macaroni representation into a bar graph. One student suggested following up with a letter to the mayor of their city about wealth distribution. At the end of the day, Greenstein asked students if they were going to tell their families about what they'd learned. "Without missing a beat," she says, "every single student's hand flew into the air."

"Macaroni Social Justice" by Ilana Greenstein in *Rethinking Schools*, Summer 2019 (Vol. 33, #4, pp. 52-55), https://www.rethinkingschools.org/articles/macaroni-social-justice; Greenstein can be reached at ilana.greenstein@gmail.com. Here's a YouTube video from 2012 showing wealth distribution then (worse now): https://www.youtube.com/watch?v=QPKKQnijnsM

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2. Are Students Getting Better At Spotting Online Hoaxes?

In this article in *The Reading Teacher*, Jodi Pilgrim and Christie Bledsoe (University of Mary Hardin-Baylor), Sheri Vasinda (Oklahoma State University), and Elda Martinez (University of the Incarnate Word) revisited the classic Tree Octopus hoax of 2006. Back then, researchers had no trouble fooling every single one of a group of seventh graders with a bogus website with the heading, "Help Save the Endangered Northwest Tree Octopus from Extinction." The website had photos, links for further reading, and a magazine cover showing a woman wearing a stylish tree octopus hat, which was supposedly why the creature was endangered. Students simply lacked the critical thinking skills to determine the credibility of the content. What's more, when they were told the website was a fake, students struggled to find the evidence that this was the case.

Pilgrim and colleagues repeated the study in 2018 with grade 1-5 students to see if students' skills were any better. "Thinking critically about online information is often referred to as web literacy," say the researchers. "To be web literate, readers need to become healthy skeptics who develop what we call reliability reasoning, to determine deceptions and truths in an increasingly complex world that grows more and more dependent on online information." Students looked at the Tree Octopus website and were interviewed individually: "How can you tell if this website has accurate (or true) information?" Overall, only 35 percent of students saw through the hoax. Here's the grade-by-grade percent of students who trusted the phony website:

- First grade – 80%
- Second grade – 50%
- Third grade – 80%
- Fourth grade – 79%
- Fifth grade – 42%

Pilgrim et al. found that although there was progress from the 2006 study, far too many students were inadequately skeptical about online material. The researchers analyzed students' responses on three dimensions:

• *Application of prior knowledge about content* – Most students who uncovered the fake did so because they used their prior knowledge about octopuses: they live in the ocean, not in trees! However, say Pilgrim et al., "Relying on schema only works if a reader has enough related schema to make a critical and informed decision. A major concern is that students trusted the information if it looked real." This is another argument for a solid curriculum in literature, science, social studies, and the arts.

• *Use of text features* – Students were mixed in their use of these, with some trusting the website because it had a "real" photo and others suspicious of Twitter references. One fifth grader knew that a URL ending in .net was a red flag.

• *Knowledge about "facts"* – Most students believed the website because it presented what they believed were facts: "It says where the habitat is." "It mostly states facts and specific details and has photographs." Only fifth graders saw the "facts" as a problem, and even there, many were fooled.

The biggest takeaway: teachers at all levels need to keep working on critical thinking, leading their students to be skeptical, thoughtful readers with detailed knowledge of how to unpack and analyze material, especially on the Internet.

"Critical Thinking Is Critical: Octopuses, Online Sources, and Reliability Reasoning" by Jodi Pilgrim, Sheri Vasinda, Christie Bledsoe, and Elda Martinez in *The Reading Teacher*, July/August 2019 (Vol. 73, #1, pp. 85-93), https://bit.ly/2ZNcKOj; Pilgrim can be reached at jpilgrim@umhb.edu.

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3. Jennifer Gonzalez on Dealing with Late and Missing Student Work

"For as long as teachers have assigned tasks in exchange for grades, late work has been a problem," says Jennifer Gonzalez in this *Cult of Pedagogy* article. How can teachers hold students accountable while still keeping them motivated? When she was a teacher, most of her nine-week grading periods ended with the same unproductive dynamic: a few students working their way through piles of make-up assignments and gradually boosting their scores from 37 percent to 41, then 45, then 51, and finally to a passing grade. At that point, says Gonzalez, she and the students would "part ways, full of resolve that next marking period would be different. And the whole time I thought to myself, *This is pointless. They aren't learning anything at all*. But I wasn't sure what else to do."

For starters, she believes it's a good idea for teachers to answer some basic questions about grades.

- *What do your grades represent?* Are they more about academic growth or compliance? "Although it's important for kids to learn how to manage deadlines," says Gonzalez, "do you really want an A in your course to primarily reflect the ability to follow instructions?"
- *Are you grading too many things?* There's an argument for grading only major projects, writing assignments, or exams, and treating all other work as formative or practice work, ungraded or counting for very few points.

- *What assumptions do you make when students don't turn in work?* That they're unmotivated? More likely, students are having executive function and anxiety problems and need help managing their time and responsibilities. And we now know that homework is a major equity issue.
- *What kind of grading system is realistic for you?* Your credibility is on the line, as is your level of fatigue, so it's important to have a system you can stay on top of.

Gonzalez then lists some possible solutions she found when she went on Twitter and asked what other teachers do:

• *Penalties* – Teachers reported a range of consequences for late work, including escalating point deductions, getting a grade but no feedback, not being allowed to revise and improve work, and parent contact. Gonzalez says it's important to have incentives, because late work is less useful for student learning and a burden on teachers.

• *A separate grade for work habits* – These include meeting deadlines, neatness, and following non-academic guidelines like font size and correct headings. One school gives a separate "Behavior" grade that doesn't factor into GPA, but students can't be on the honor roll with a low behavior grade. There's usually a correlation between work habits and academic grades, and it's a good idea to zero in on students where this is not the case (and, of course, with students who score low on both).

• *Homework passes* – Things happen in students' lives, and forgiveness passes give students a break – perhaps an extra day to hand in assignments. Teachers who responded to Gonzalez's outreach mentioned ways of handling these, including offering them only for low-point assignments, setting a cap on the number per marking period, and limiting the percent of a grade that can be recovered.

• *Extension requests* – Quite a few teachers have a policy of requiring students to turn in *something* on the due date – either the assignment or a written request for more time, with the reasons.

• *Floating deadlines* – Some teachers reported giving students a range of dates to submit work, allowing students to plan their work around other life activities. A variation is building in incentives to submit work earlier – perhaps faster feedback or extra credit. An advantage of this is spreading out the teacher's correcting workload over time.

• *Students submit work in progress* – Some digital platforms like Google Classroom let students submit assignments while they are still working on them, allowing the teacher to see how far they've moved and what needs work.

• *Full credit for late work* – The rationale here is that if the work is important and students have completed it, it deserves to be graded. Of course there's the worry that this policy will lead students to disregard deadlines, and some teachers put a temporary zero in the gradebook until work was submitted, to push students to bring closure. A variation is giving a deadline for late work, most commonly when the assignment has been graded and returned to other students. But teachers who take the full-credit-for-late-work approach have been surprised that it had little or no effect on the amount of work handed in on time. The big advantage was not having to spend time calculating deducted points.

• *Other preventive measures* – Teachers mentioned involving students in setting deadlines (so that major athletic and school events are taken into account), not assigning homework (all meaningful work is done in class), and making homework optional or self-selected (not all students need the same amount of practice).

"Experiment with different systems," Gonzalez concludes, "talk to your colleagues, and be willing to try something new until you find something that works for you."

"A Few Ideas for Dealing with Late Work" by Jennifer Gonzalez in *The Cult of Pedagogy*, August 4, 2019, https://www.cultofpedagogy.com/late-work/

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4. Getting to Know Middle-School Students, Part 2

In the second part of this *AMLE Magazine* article (see Memo 797 for part 1), teacher/author/consultant Rick Wormeli suggests ways to get to know students throughout the year.

• *Online portfolios and social media postings* – Tuning in (appropriately) on students' YouTube channels, Instagram accounts, websites, and 6-second vines can be revelatory.

• *Experiences* – Particularly helpful, says Wormeli, "is time together working on something important or tough to do" – for example, an all-day hike up a mountain, working together on an extended service project, or building and maintaining the school's website.

• *Intelligences profiles* – Robert Sternberg's four intelligences – creative, analytical, practical, wise – can be a useful way of thinking about students' unique characteristics. The Myers-Briggs personality inventory is another tool for understanding what makes students tick.

• *Good questions* – Checking in with students as they work can be very informative, especially if the questions are open-ended and non-judgmental – for example:

- *How's this work going?*
- *What is your goal?*
- *Tell me more about…*
- *Why did you choose…?*
- *What do you mean by…?*
- *How does that further your goal?*
- *What have you done best in the past, and what was the result?*

As students respond, paraphrasing and listening for confirmation or clarification can be helpful: "It sounds like you're saying…" "So you're worried that… Do I have that right?"

• *Insights on young adolescents* – Wormeli recommends several AMLE (Association for Middle Level Education) books and articles on the unique characteristics of middle-school students; see www.amle.org/Shop/ThisWeBelieve.aspx.

• *Disaggregating assessment results* – There's valuable information when teacher teams break down test, quiz, and project data by standard, revealing striking differences in performance that aren't visible in overall averages.

• *On-the-spot assessments* – Socrative, ScreenCasting, Google Docs, clickers, and other audience response systems can give immediate, anonymous readings of what students are thinking.

• *Developing student metacognition* – Wormeli suggests several ways to get students self-monitoring: asking good questions and having students place themselves on a Likert scale and explaining their self-ratings; having students view videos of classroom activities and asking students what they see; having students complete prompts like *I used to think… and now I think…* and *Can I connect what I'm learning to something else?*

"While it's easy to be indifferent to people and circumstances with which we are unfamiliar," Wormeli concludes, "we gravitate readily towards complex, multi-dimensional humans we understand, and this summons within us strong compassion and advocacy for each student."

"Getting to Know Our Students" by Rick Wormeli in *AMLE Magazine*, August 2019 (Vol. 7, #3, pp. 31-35), no e-link available; Wormeli is at rick@rickwormeli.onmicrosoft.com.

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5. Keys to Effective Writing Instruction

"The ability to express ideas in writing is one of the most important of all skills," say Robert Slavin, Cynthia Lake, and Amanda Inns (John Hopkins University), Ariane Baye and Dylan Dachet (University of Liège, Belgium), and Jonathan Haslam (Institute for Effective Education, England) in this Education Endowment Foundation paper. "Good writing is a mark of an educated person and perhaps for that reason it is one of the most important skills sought by employers and higher education institutions." The researchers reviewed high-quality research on programs that teach writing from 2nd through 12 th grade and synthesized the key characteristics:

- Use of cooperative learning;
- Structured approaches giving students step-by-step guides to writing in various genres, focused squarely on writing outcomes;
- Teaching students to assess their own and others' drafts, providing students more feedback and insight into effective writing strategies;
- Balancing writing with reading;
- Building students' motivation to write and enjoy self-expression;
- Teaching writing conventions (e.g., grammar, punctuation, usage) explicitly, but in the context of creative writing;
- Providing extensive professional development to teachers, in which they themselves experience the writing strategies they will employ.

"In many cases," the researchers conclude, "successful writing approaches will be exciting, social, and noisy, but they should always be intentionally structured to build students' skills, confidence, and motivation. Motivation is particularly important. If students love to write, because their peers as well as their teachers are eager to see what they have to say, then they will write with energy and pleasure. Perhaps more than any other subject, writing demands a supportive environment, in which students want to become better writers because they love the opportunity to express themselves, and to interact in writing with valued peers and teachers."

"Writing Approaches in Years 3 to 13: Evidence Review" by Robert Slavin, Cynthia Lake, Amanda Inns, Ariane Baye, Dylan Dachet, and Jonathan Haslam, Education Endowment Foundation, July 2019, https://bit.ly/2ThcJiX; Slavin can be reached at rslavin@jhu.edu.

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6. Children's Books to Accompany Forthcoming Movies

In this *School Library Journal* article, Indiana librarian Abby Johnson suggests "read-alikes" – books to recommend when students see some new movies this fall:

• *Abominable* (September) – A DreamWorks animated feature about a baby yeti found on the roof of a Shanghai apartment building and the adventures that ensue:

- *The Abominables* by Eva Ibbotson (Amulet, 2013) – Children must journey from Tibet to England to save their yeti friends from intrusive reporters.
- *The Emperor's Riddle* by Kat Zhang (Aladdin, 2019) – A mystery story about Mia Chen trying to solve a centuries-old riddle during a summer trip to visit family in China.

• *The Addams Family* (October) – An animated adaptation of the classic 1960s TV show about the kookiest (and scariest) family on the block:

- *Frankenstein Eats a Sandwich* by Adam Rex (HMH, 2006) – Humorous poems on the everyday life of ghouls, including Frankenstein, the Creature from the Black Lagoon, and Count Dracula.
- *Monster Mayhem* by Chris Eliopulos (Dial, 2018) – A graphic novel about a young engineer who accidentally summons a giant monster and needs help to handle the situation.

• *Maleficent: Mistress of Evil* (October) – Picks up where the 2014 Maleficent film left off:

- *Fairest of All: A Tale of the Wicked Queen* by Serena Valentino (Disney, 2009) – A teen novel exploring the stories of villains in Disney movies, including Ursula the Sea Witch and Snow White's evil queen.
- *Forest of a Thousand Lanterns* by Julie Dao (Philomel, 2017) – An Asian-inspired fantasy retelling of *Snow White*.

• *Sonic the Hedgehog* (November) – An adventure comedy about an extraterrestrial hedgehog who's come to save the Earth – quickly:

- *Hilo: The Boy Who Crashed the Earth* by Judd Winnick (Random, 2015) – A blend of sci-fi adventure and humor, with Hilo trying to save the planet from a villain.
- *Ricky Ricotta's Mighty Robot* by Day Pilkey (Scholastic, 2000) – Can a small but mighty duo save a whole city or planet?

"See the Movie, Read a Book" by Abby Johnson in *School Library Journal*, August 2019 (Vol. 65, #7, p. 16), no e-link available

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7. Making School Libraries Work for Teenagers

"What will make the teens who walk into your library keep coming back?" asks Texas librarian Karen Jensen in this *School Library Journal* article. Above and beyond the basics of creating an attractive space, curating a first-rate collection, and hosting engaging and relevant programs, here are her suggestions:

• Young adolescents must find something they need, want, or value. If they don't find something of interest, they're not coming back – and since there's a wide range of interests in any student population, there must be a variety of things to do: books, information, programs, access to the Internet, and a safe space to be social.

• Teens must feel valued and respected by the library and its staff. "By staff, I mean *all* staff," says Jensen, remembering a colleague who hated young adolescents and made a point of giving them the "stink eye" when they arrived. "From the moment they walk through the door to the moment they leave, teens need to be treated well," says Jensen. "Everything done behind the scenes is undone and every dollar invested is wasted if we aren't providing good customer service."

• Teens must have an overall positive experience. They are likely to remember and share negative experiences, including on social media. "The only control we have is to do our parts to make sure our young patrons have positive experiences," Jensen concludes. "It takes knowledge, passion, and dedication to make all this happen."

"Keep Them Coming Back for More" by Karen Jensen in *School Library Journal*, August 2019 (Vol. 65, #7, p. 18), no e-link available

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8. Short Item:

Free online racial equity curriculum – PROJECT READY (Reimagining Equity and Access for Diverse Youth) is available at http://ready.web.unc.edu. The curriculum has 27 professional development modules for educators and youth workers. The units, developed by 40 researchers, practitioners, administrators, and policymakers, can be completed by individuals or in small groups.

Spotted in *School Library Journal*, August 2019 (Vol. 65, #7, p. 14)

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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 HTML 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
District Management Journal
Ed. Magazine
Education Digest
Education Next
Education Update
Education Week
Educational Evaluation and Policy Analysis
Educational Horizons
Educational Leadership
Educational Researcher
Edutopia
Elementary School Journal
English Journal
Essential Teacher
Exceptional Children
Go Teach
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
Knowledge Quest
Language Arts
Literacy Today (formerly Reading Today)
Mathematics Teacher
Middle School Journal
Peabody Journal of Education
Phi Delta Kappan
Principal
Principal Leadership
Reading Research Quarterly
Responsive Classroom Newsletter
Rethinking Schools
Review of Educational Research
School Administrator
School Library Journal
Social Education
Social Studies and the Young Learner
Teachers College Record
Teaching Children Mathematics
Teaching Exceptional Children
The Atlantic
The Chronicle of Higher Education
The Education Gadfly
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 Magazine