Marshall Memo 755

A Weekly Round-up of Important Ideas and Research in K-12 Education
October 1, 2018

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Quotes of the Week

"One in four girls and one in six boys today will be sexually abused before the age of 18. I am speaking now because I want us all to fight so that our daughters never know this fear and shame and our sons know that girls' bodies do not exist for their pleasure and that abuse has grave consequences."

Padma Lakshmi in "I Was Raped at 16 and I Kept Silent" in *The New York Times*, September 26, 2018, https://nyti.ms/2OcyxMO

"The teacher observation process has provided angst for teachers and principals for far too long. More than that, it's been a waste of time in many schools, which is highly unfortunate because it is one of the times during the school day that teachers and principals can really learn from one another."

Peter DeWitt in "Isn't It Time to Improve Teacher Observations?" in *Education Week*, September 26, 2018, https://bit.ly/2zIHeX9

"As you get better and better at what you do, your ability to communicate your understanding or to help others learn that skill often gets worse and worse."

Psychologist Sian Beilock, quoted in "Those Who Can Do, Can't Teach" by Adam Grant in *The New York Times*, August 26, 2018, https://nyti.ms/2Lriaq8

"I have no special talent. I am only passionately curious."
"It's not that I'm so smart, it's just that I stay with problems longer."

Albert Einstein quoted in "What and How Schools Teach" by Cheri Sterman in a *Principal* supplement, September/October 2018 (Vol. 98, #1, p. 12-15), https://bit.ly/2IuFNhv

1. A Sobering Report on Students Doing Below-Grade-Level Work

"While more students than ever before are enrolling in college, far fewer are succeeding once they get there," says Bailey Cato Czupryk, Kate McGovern, and Andy Jacob in this TNTP report. "Nationwide, 40 percent of college students (including 66 percent of black college students and 53 percent of Latinx college students) take at least one remedial course, where they spend time and money learning skills they were told they'd already mastered in high school."

To find the root causes of this phenomenon, TNTP partnered with five diverse school districts (including a charter management organization), observed 1,000 lessons, reviewed 5,000 classroom assignments, analyzed 20,000 student work samples, collected 30,000 student surveys, and conducted in-depth interviews with 50 students. Although the majority of students were doing the work their teachers assigned and were getting good grades, the work they were doing was often below grade level. This was especially true for low-income students, those with disabilities, English learners, and students of color.

Some details: only 17 percent of assignments gave students a chance to do grade-level work; fourth graders were often asked to do first- and second-grade work; some eighth graders were given a fill-in-the-missing-vowels task on a reading passage. This happens, the authors say, because teachers often came up with their own assignments and didn't gear them to grade-level expectations. When students did get appropriately rigorous class work, it immediately boosted their achievement – especially if the students started out behind.

What is to be done? The TNTP report concludes that four components need to be present for students to benefit from their classroom experiences:

- High expectations from teachers;
- Consistent opportunities to complete grade-appropriate assignments;
- Learning experiences that get students deeply engaged;
- Instruction that gets students doing most of the thinking.

Sadly, only 16 percent of the lessons observed by TNTP researchers met these criteria.

"The Opportunity Myth: What Students Can Show Us About How School Is Letting Them Down – and How to Fix It" by Bailey Cato Czupryk, Kate McGovern, Andy Jacob and a large team of researchers and writers at TNTP, September 25, 2018, https://tntp.org/publications/view/student-experiences/the-opportunity-myth

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2. Classroom Writing and Speaking Don't Prepare Students for Workplaces

In these two *Education Week* articles, Catherine Gewertz and Sarah Sparks contrast the kinds of reading and writing students do in school with what employers need on the job:

• Oral communication skills commonly taught in K-12 classrooms:
  - Book report presentations;
  - PowerPoint presentations;
  - Debate and argumentation;
  - Discussion skills like stating an idea, listening respectfully, and asking questions.

• What employers want (and say they rarely see in new hires):
  - Constructing a clear, concise message and tailoring it to different audiences;
  - Interacting well with a team, discussing ideas respectfully, formulating good questions, and being prepared to give thorough answers;
  - Public speaking: preparation, confidence, eye contact;
  - Listening and responding well to guidance and constructive criticism.

• The most common writing tasks in secondary schools:
  - Note-taking while listening;
  - Short-answer responses;
  - Worksheets;
  - Reading analysis and interpretation;
  - Explanations.

• Writing tasks most often demanded on the job:
  - Clear and courteous e-mails;
  - Succinct explanations of concepts and situations;
  - Evidence-backed persuasive writing;
  - Conveying the same information to different audiences;
  - Conducting and responding to a written interview.

"'Elevator Speeches' and Other Skills Students Are Missing" by Catherine Gewertz, and "When Book Reports and Essays Aren't Enough" by Sarah Sparks in an *Education Week* supplement, "Literacy for the Workplace" September 26, 2018 (Vol. 38, #6, p. 7-9, 15-17), https://bit.ly/2OYu9xR and https://bit.ly/2ItBdAl

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3. Toward a Better Understanding of Bloom's Taxonomy

In this *Education Week* article, Ron Berger (EL Education) says that Benjamin Bloom's Taxonomy of Learning, originally published in 1956 and revised in 2001, has served as a useful reminder of the need to balance lower- and higher-level thinking. "Classrooms that don't allow students to become experts in rich content knowledge are missing a vital foundation and contribute to a knowledge-equity gap in America," says Berger. "Conversely, classrooms that focus almost exclusively on content and memorization with little application, analysis, and creation cause a different problem."

But many educators believe that students need to progress up the taxonomy pyramid step by step – Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating. "This hierarchical vision of discrete, sequential steps in learning was not Bloom's intent," says Berger. "Nevertheless, it is now widespread among teachers and is as deeply troubling as it is fundamentally wrong."

If you wanted to learn the guitar, computer coding, or yoga, says Berger, "It is unlikely you would want to separate learning from doing. You would not want to sit at a desk for months listening to someone lecture about carpentry tools or musical instruments without being allowed to pick up a chisel or guitar… But that is often what school is like for our students." Could that be why so many are turned off school and forget most of what they've learned after taking a test?

The key is *integrating* the levels of Bloom's taxonomy in natural ways and hooking students' interest and engagement through authentic projects and applications in their communities – for example, producing books on local history, field guides, and water quality reports. Students who are taught this way, says Berger, "are learning content, analyzing data, and building understanding of both local issues and the broader fields of science and history at the same time as they are applying that learning to create and contribute." Berger believes that when teaching and learning are orchestrated in this way, racial/economic achievement gaps close.

"We Learn by Doing: Bloom's Taxonomy, Revised" by Ron Berger in *Education Week*, September 26, 2018 (Vol. 38, #6, p. 20), https://bit.ly/2xSceS8; Berger can be reached at rberger@eleducation.org.

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4. Getting Students Deeply Engaged in Learning

In this article in *Principal*, Douglas Fisher and Nancy Frey (San Diego State University) say that many students pretend to be engaged when their minds are elsewhere. Principals observing classes can be fooled by students sitting up straight with their eyes on the teacher, when in fact very little learning is taking place. Effective teachers, on the other hand, ensure that their students are cognitively engaged, see themselves as learners, and take responsibility for continued learning. Here is what's going on in those classrooms:

• *Students know their current level of understanding*. "It's hard to know where you're going if you don't know where you're starting from," say Fisher and Frey. Self-assessments and pre-tests are key tools; they also save class time that might be spent teaching things students already know.

• *Students see where they're g*oing. "Learning targets, objectives, or intentions are not a secret," say the authors, "and students should not have to infer what they are learning." It's also helpful for students to know specific criteria for success.

• *Students have options*. "When students have more choices," say Fisher and Frey, "their commitment is often higher, and their willingness to struggle through a task improves."

A range of learning tools – graphic organizers, note-taking approaches, other resources – can empower students to choose those best suited to the task at hand.

• *Students seek feedback*. "When feedback is unsolicited, it is easier to ignore," say the authors. Some teachers give students nonverbal ways to signal when they need help.

• *Students see errors as opportunities*. There's little anxiety about making mistakes; in fact, the teacher might highlight the most interesting error of the day for the whole class.

• *Students monitor progress and adjust strategy*. This comes naturally when students know their starting point and destination and have rubrics and probing questions to guide them along the way.

• *Students know what they've learned and can describe it to others*. There are also opportunities for them to engage in peer tutoring.

"Six Factors Define Assessment-Capable Learners Who Are Cognitively Engaged" by Douglas Fisher and Nancy Frey in *Principal*, September/October 2018 (Vol. 98, #1, p. 14-17), https://bit.ly/2Ra3boJ; the authors can be reached at dfisher@mail.sdsu.edu and nfrey@mail.sdsu.edu.

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5. A Fun, High-Tech Way to Learn Vocabulary

"It's well known that engagement with vocabulary words is central to students' ability to remember their meanings, understand their nuances, and come to use them fluently," say Chris Cunningham, (King School, Connecticut) and Vanessa Scanfeld, Leah Weintraub, and Vincent Dotoli (Harlem Academy, New York) in this article in *Literacy Today*. "Yet vocabulary exercises are often the most rote of classroom tasks, too often landing on last-minute memorization rather than in the realm of deep engagement."

To address this challenge, the authors implemented a vocabulary-teaching strategy that's fast-paced, engaging, and popular with students. Here's how it works:

- Five vocabulary words are introduced each round.
- The class uses a shared message board that projects what students write on their laptops.
- Students have two minutes to type a sentence that includes the first word.
- Students work silently so they can hear corrections from the teacher.
- Each sentence must use the word appropriately, clearly demonstrate the meaning, and be grammatically correct.
- Students are allowed to be silly and tap into shared jokes and experiences.
- If the teacher spots an error, the student is given a hint and a chance to make corrections before the teacher deletes the sentence from the message board.
- Students type their sentences in a separate document and paste them into the message board so if a sentence is deleted, they have a backup.
- Students receive credit only if a sentence is 100 percent correct, but they can take risks, make mistakes, and fix them in a fast-paced, low-stakes context.

- The game pushes students to read each others' sentences and move beyond prosaic (*The squalid house wasn't kept clean*) to interesting and imaginative (*Brady woke up in a squalid pen at the local farm, and he was covered in mud and something else that definitely didn't smell like mud*).
- The teacher can introduce an additional challenge, for example, "Incorporate a prepositional phrase."
- Students can continue to post corrections until the timer goes off.
- The class reads through all the sentences, and students choose two to write in their notebooks.
- The class tackles the next word and repeats this process until the list is finished.
- Almost every time, the authors report, "one or two of the crowdsourced sentences is a gem that the class can't forget."

"This exercise not only allows students to practice using the word in context," say Cunningham, Scanfeld, Weintraub, and Dotoli, "but also provides multiple exposures to a word, including hearing it out loud."

In conjunction with other strategies (short bursts of vocabulary work every day; choosing high-leverage academic words; interacting with words in a variety of ways; and frequent testing), this game has produced an average 14-percentile-point gain in students' vocabulary achievement from fourth to eighth grade. Over the last three years, the median eighth grader at Harlem Academy has scored at the 96th percentile on vocabulary nationally.

"Gamifying Vocabulary" by Chris Cunningham, Vanessa Scanfeld, Leah Weintraub, and Vincent Dotoli in *Literacy Today*, September/October 2018 (Vol. 36, #2, p. 44-45), https://bit.ly/2thRoLa; the authors can be reached at ccunningham@klht.org, vscanfeld@harlemacademy.org, lweintraub@harlemacademy.org, and vdotoli@harlemacademy.org.

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6. Seven Key Considerations When Schools Teach Sex Education

In this article in *Phi Delta Kappan*, Kim Marshall argues that school-based sex education is an urgent priority. Why? Because tweens' and teens' brains are continuously bombarded with sexual stimuli:

- Their own hormonally driven desires;
- Provocative content in movies, TV shows, and advertisements;
- Readily available Internet pornography, serving as "sex education" for many;
- Social media rife with flirtation and sexting;
- Pressure for casual sex as part of the (much-exaggerated) "hookup culture;"
- Peers confidently spouting misinformation;
- Sexual harassment of up to 84% of girls and young women;
- Sexual abuse experienced by significant numbers of boys and girls.

Surprisingly, more than three quarters of U.S. parents are comfortable having schools guide their children through this wilderness. "But if educators are going to be the ones teaching sex

ed," says Marshall, "they need to get it right, and their track record is not encouraging. Teacher training and support are uneven, few schools go beyond the basics, and there's timidity on the very subjects young people need to think through carefully."

Drawing on his 25 years teaching sex education to fifth and sixth graders, Marshall argues that the key to an effective program is making good decisions in seven areas:

• *The best age* – Sex ed is often launched in fifth grade, but Marshall wonders if that's a little too young: more parents opt their children out at this age, and parts of the curriculum may be confusing to the students who do take part. An alternative approach is phasing in the content grade by grade, starting in kindergarten. The problem here is that it's difficult to get high-quality teaching and coordinate the content across so many grade levels. Marshall suggests that sex ed should be concentrated at three strategic points: a sexual abuse prevention module in second or third grade; a comprehensive course in sixth grade; and a follow-up course focusing on adolescent decisions in ninth grade.

• *Purpose and content* – Following the backwards-planning model developed by Grant Wiggins and Jay McTighe, Marshall built his own course around the following Big Ideas:

1. Sex is normal. The sex drive is a deep, powerful instinct that is at the core of our survival as a species. Sexual desire is a healthy drive, and having a satisfying sex life (quite apart from procreation) is an important part of adult happiness and self-esteem.

2. Sex can harm people. Despite its positive side, sex is sometimes one-sided, exploitative, hurtful, traumatizing, even life-threatening. A significant number of people have had bad experiences with sex, including harassment, abuse, and rape, all of which can leave lifelong scars. In addition, sexually-transmitted diseases can mess up people's bodies and even be fatal.

3. Many people have difficulty talking about sex. The subject is personal and private, and a person may be dealing with negative past experiences, embarrassment, misconceptions, and shame. Euphemisms, slang, and jokes are common when people feel awkward about a subject.

4. The teen years are tricky. Twenty-first-century Americans reach puberty almost ten years before society considers it acceptable to have sexual intercourse. Teenagers have strong sexual urges and are bombarded with cultural messages (*Just do it!*). Dealing with sexual desire and pressure to have sex is a central task of adolescence.

5. Early sex is risky. One characteristic of adolescence is a feeling of invulnerability, which results in many teens becoming sexually active without thinking through the physical and psychological consequences. Getting pregnant or contracting a sexually-transmitted infection can negatively affect life options. Alcohol can cloud judgment and create dangerous situations.

6. Values matter. Strong moral beliefs (and common sense) are helpful as teens navigate these turbulent waters. Some areas are controversial (including premarital sex and abortion), but there's almost universal agreement on these values: Sexual exploitation of children (or anyone) is wrong. Sex should never be non-consensual. Open communication is good and sexual dishonesty is bad. Sex is best in a loving, stable relationship. Marriage is a

strong institution in which to raise children. Knowledge is powerful and ignorance is dangerous.

7. Assertiveness is an important life skill. Many teenagers will face situations in which they are tempted, pressured, manipulated, or forced to have sex that is harmful to them and their partners. Knowing how to avoid and/or deal with such situations is crucial.

Big Ideas like these should drive the content of a comprehensive sex ed course and help identify likely misconceptions. Marshall's course for fifth and sixth graders had twelve one-hour lessons (a ninth-grade course would have somewhat different content):

- Lesson 1: Curriculum overview, Essential Questions, ground rules, and pre-test
- Lesson 2: Male puberty – physical and emotional changes
- Lesson 3: Female puberty – physical and emotional changes
- Lesson 4: Male-female similarities and differences; the issue of masturbation
- Lesson 5: Sexual intercourse, pregnancy, and childbirth
- Lesson 6: Sex at its best – falling in love, the nature of true love, marriage
- Lesson 7: LGBTQ and transsexuality – facts, attitudes, and myths
- Lesson 8: Birth control and abortion
- Lesson 9: Sexually transmitted infections
- Lesson 10: Sex without love – harassment, sexual abuse, and rape
- Lesson 11: Being assertive – dealing with pressures and deciding on values
- Lesson 12: Wrap-up, post-test, and an application challenge

Two important goals – becoming comfortable talking about sex and applying knowledge and skills in real-life situations – need to be integrated throughout any curriculum.

• *Pedagogy* – Choosing the right teachers is a crucial first step, says Marshall. Ideally, sex ed is co-taught by a male-female team, but that's not always possible. Whoever ends up teaching should meet these criteria:

- Mature, authentic, and able to talk unblushingly about sex, but never sharing personal information;
- Committed to teaching students correct vocabulary and weaning them from profanity;
- A sense of humor but not allowing inappropriate humor;
- Good classroom management skills, including not overreacting to student giggling and quick to shut down teasing and ridicule;
- Confident and authoritative, but willing to admit gaps in knowledge;
- Committed to implementing the curriculum and not using unauthorized materials or speakers;
- Preparing thoroughly for each lesson and nimbly responding to unexpected questions;
- Encouraging student participation but stopping students from oversharing.

Marshall believes that sex ed calls for a more teacher-centered approach than teachers might use in other subjects. "That's because the potential for teasing and inappropriate comments is very high when young people are exposed to sexual content in less-structured formats like turn-and-talk and open-ended discussions," he says. PowerPoint slides with everyone looking

together at well-structured print material and illustrations on a screen take the focus away from the teacher, and slides can serve as cue cards to prevent having to look down at notes.

It's also good pedagogy to pose a set of Essential Questions (mirroring the Big Ideas) at the beginning of the course, referring to them throughout, and aiming to have all students be able to answer them at the end. These were the Essential Questions for Marshall's course:

- Why was sex invented?
- How can sex, which is supposed to be wonderful, hurt people?
- Why are there so many swear words, jokes, and lies about sex?
- How can kids deal with having sexual urges way before they're supposed to have sex?
- When is it okay for a person to have sex with another person?
- What's love got to do with it?
- With sex, what's normal and what's not, what's right and what's wrong?
- Are bad sexual experiences inevitable and irreparable?

Marshall also suggests starting each lesson by reading aloud three or four newspaper advice column questions on the topic of the day (e.g., male puberty), and five minutes before the end of class, calling for volunteers to answer the questions. This gives students practice using the correct vocabulary and giving advice in a semi-authentic context, and reviews the key content of the lesson. Finally, it's helpful for students to get a one-page summary of each lesson's content to put into a folder that they will take home at the conclusion of the course.

• *Assessment* – Marshall recommends using a detailed pre- and post-test to bookend the course, and gives the following rationale for reading the pre-test aloud as students write their answers:

- The test is a shared rather than an individual experience;
- It supports students who are unfamiliar with the vocabulary or read at a lower level.
- It helps desensitize students to sex vocabulary that initially makes them uncomfortable.
- It gives students a road map to the curriculum and piques their curiosity.
- It gives a heads-up on some important misconceptions.
- It brings overconfident students down a notch; they realize they have a lot to learn.
- The teacher can reassure students that it's okay not to know all this now (many adults don't) and invite them to set a learning goal for the post-test.
- It provides data for an item analysis of students' knowledge, targeting weak areas and making possible a before-and-after comparison.

During lessons, it's essential to check for understanding, but cold-calling is not a good idea in sex ed classes. Anonymous response devices of some kind are the best way to display students' answers and respond in real time to errors and misconceptions.

At the end of the course, Marshall suggests supplementing the post-test with a written application task. His scenario: *Your 14-year-old cousin in another city says she's in love with a 17-year-old boy and believes they are ready to have sex. What advice would you give her?* "This task measures whether students can apply what they've learned in an all-too-realistic situation," says Marshall, "understanding the emotions of the kids involved and thinking about how to present key information in a persuasive way."

• *Parent information* – Mothers and fathers may not be doing a terrific job teaching their children about sex, but they are their children's first and most important educators, especially when it comes to values and behavioral expectations. Parents need to know in advance what's being taught, feel confident about the teacher, and be able to opt out with no stigma. Marshall suggests that schools send home a hard-copy information letter and consent form after the sex ed teacher holds a brief general information session with students.

• *Ground rules* – Students need to know up front that sex ed is different from math and science. Some suggested rules to review on Day One and post during every class:

- No teasing, put-downs, or harassment;
- No cold-calling by the teacher;
- There's no such thing as a stupid question, but personal questions are not allowed;
- Only ask questions on the topic of the day;
- Respect different opinions;
- Outside the class, discuss sex only at appropriate times and places.

On the cold-calling rule, students should feel they can be silent throughout the course – although in practice, most students become increasingly comfortable with the vocabulary and ideas, and often end up raising their hands and participating.

• *Coeducation* – Some schools teach gender-separated classes on the theory that students (especially girls) will feel more comfortable with the opposite sex not present. Marshall disagrees. Students tend to be leery of co-ed classes before a course begins, but once they see that the teacher is comfortable and will not tolerate teasing and harassment, most kids prefer learning together. The strongest argument for co-ed classes is that the real world is gender-integrated and students need practice communicating across the divide. "If kids are flustered and tongue-tied talking about sex," says Marshall, "they're more likely to make poorly informed choices later on." Another problem with single-sex classes: where do teachers place students who identify as nonbinary?

A high-quality sex education course is a "tremendously important contribution to young adolescents' development," Marshall concludes. "It will help them sort out the confusing messages they get from peers, social media, TV, movies, and the Internet; talk comfortably and knowledgeably about sex with family members, friends, and lovers; and greatly improve the chances of making it through the teen years without disturbing or traumatizing sexual experiences. Good sex education might even help them lead happy sex lives as adults. These are worthy goals!"

"Teaching Sex Education: 7 Key Questions" by Kim Marshall in *Phi Delta Kappan*, October 2018 (Vol. 100, #2), www.kappanonline.org/marshall-sex-education; Marshall's pre- and post-test and day-by-day content summaries are available at www.marshallmemo.com (click Kim's Published Writing and scroll down).

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7. Giving Students a Digital Toolbelt to Deal with Phony Online Material

In this article in *Social Education*, Joel Breakstone, Sarah McGrew, Mark Smith, Teresa Ortega, and Sam Wineburg (Stanford University's History Education Group) look behind the discouraging findings about students' gullibility and uncritical thinking when viewing online material. "What mistakes do they tend to make?" ask the authors. "How might we build on what they do in order to help them become more thoughtful consumers of digital content?" They discovered three mistakes people frequently make:

• *Focusing on surface features* – Again and again, students (even college students) put too much stock in a website's URL, graphics, design, lack of advertising, having a .org domain, and the *About* page. "Not one of these features is a sound indicator of a site's trustworthiness," say Breakstone, McGrew, Smith, Ortega, and Wineburg. "Any well-resourced organization can hire web developers to make its website appear professional and concoct a neutral description for its *About* page."

• *Accepting evidence unquestioningly* – Students are far too quick to believe that if a website has *evidence* – graphs, charts, infographics, photographs, and videos – it is trustworthy. "The mere existence of evidence, the more the better, often does the trick," say the authors. "Students do not stop to ask whether the evidence is trustworthy or sufficient to support the claims the site makes."

• *Misunderstanding Wikipedia* – "Despite students' general credulity," say the authors, "they are sharply skeptical about one website: Wikipedia. Their responses show a distorted understanding about the site and a misunderstanding of its value as a research tool." Many students believe that because anyone can edit a Wikipedia page, it can't be trusted. Students aren't aware of "how Wikipedia regulates and monitors its content," say the authors, "from locking pages on many contentious issues to deploying bots to quickly correct vandalized pages." Students also don't appreciate the value of the many links on Wikipedia pages that can be used for deeper research.

"There is no silver bullet for combatting the forces that seek to mislead online," conclude Breakstone, McGrew, Smith, Ortega, and Wineburg. "Strategies of deception shift constantly and we are forced to make quick judgments about the information that bombards us… We believe students need a digital toolbelt stocked with strategies that can be used flexibly and efficiently." From their own research, and drawing on the techniques of professional fact-checkers, the researchers came up with the following ways students can improve their critical online skills:

- Scan laterally when checking out a website – that is, open up new browser tabs along the screen's horizontal axis to see what other sources say about the site's author and sponsoring organization.
- Dig to ascertain who is behind a website, and think about their motives – commercial, ideological, or otherwise.
- Look for the evidence on the site, where that evidence comes from, and whether it really supports the site's claims.
- Find out what other sources say, consulting multiple sources – one of them being

Wikipedia.

"Teaching Students to Navigate the Online Landscape" by Joel Breakstone, Sarah McGrew, Mark Smith, Teresa Ortega, and Sam Wineburg in *Social Education*, September 2018 (Vol. 82, #4, p. 219-221), https://bit.ly/2QnIjc9; Breakstone can be reached at breakstone@stanford.edu; the ongoing work of the Stanford History Education Group is at https://sheg.stanford.edu.

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8. Short Items:

a. An infographics website – This Kathy Schrock site has numerous ideas for constructing and using infographics, as well as suggested books, website, and samples: http://www.schrockguide.net/infographics-as-an-assessment.html

"Infographics as a Creative Assessment" by Kathy Schrock, September 2018, at Kathy Schrock's Guide to Everything

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b. Photographs of where children sleep – Click on the slide show in this Kerri McDonald *New York Times* article to see 19 photographs of the bedrooms and other places where children around the world sleep.

"Where Children Sleep" by Kerri McDonald in *The New York Times*, August 4, 2011, https://lens.blogs.nytimes.com/2011/08/04/where-children-sleep/

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c. A TEDx talk on understanding the world through mathematics – This talk by Roger Antonsen gives new ways of shifting one's perspective, using math as an example.

"Math Is the Hidden Secret to Understanding the World" by Roger Antonsen, on TEDx, September 2018 https://ed.ted.com/featured/m9hD2tyM#review

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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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- The current issue (in Word and PDF)
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- The "classic" articles from all 14+ 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
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 Teaching in the Middle School
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
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