

It's Time for a Reading Reset!

Reading results are largely stagnant and remain depressingly low. It's time we own up to the fact that what we're doing isn't working. Reading comprehension depends heavily on the background knowledge a reader brings to a text. Sadly, reading instruction over the past 20 years has been excessively focused on teaching comprehension "strategies." A greater focus on deliberately building students' background knowledge of the world, so they can comprehend the text they read, is the best hope for improving reading results.



Our Argument:

1. For the past 20 years, since 1998, 8th grade reading scores have risen a paltry few points. **Only one-third of the nation's 4th and 8th graders are reading at grade level.**
2. Reading comprehension, the main ability measured on NAEP's reading test, **depends heavily on background knowledge**—knowledge that comes largely from learning about science and social studies.
3. The period of NAEP's 8th grade reading flatline has coincided with a period of de-emphasizing science and social studies at the elementary grades.

Time spent in 1st-4th grade social studies and science classes has decreased – down by nearly an hour and a half a week (<https://nces.ed.gov/pubs/97293.pdf>).

Time dedicated to reading instruction has increased – to more than two-and-a-half hours a day. (<https://nces.ed.gov/pubs/97293.pdf>).

4. **The increased time given to reading has been dominated by practicing reading comprehension strategies/skills.** Instead of using the extra time to read, discuss, and understand texts that intentionally build students' vocabulary and knowledge of key topics in science and social studies, an excessive focus has been put on practicing reading comprehension skills such as “finding the main idea,” “making inferences,” and “understanding text features.”
5. Most educators have been taught to believe that practicing reading comprehension skills will help students comprehend better. In limited amounts, some do. But, as Dylan William writes in *Creating the Schools our Children Need*:

*The strategies work because they provide a few pointers when readers are stuck, but that's as far as they go. The most convincing evidence for this is **that fifty lessons on reading strategies don't seem to be any more effective than ten.*** [Willingham & Lovette, 2014]

6. The misplaced belief that a lack of comprehension skill is what holds weak readers back often results in such students being assigned below grade level texts – called “leveled readers” – that **deprive students who need background knowledge the most from exposure to rich content.**

Once reading comprehension skills have been taught, we need to move on – and use the valuable time dedicated to reading more wisely. A reading reset would shift the majority of English language arts instruction to reading, speaking, listening, and writing about topics that also build students' background knowledge of the world.

Why background knowledge matters, particularly for our most vulnerable students

- **You can't understand a text without adequate knowledge of the topic.** For example, most lay readers cannot understand these sentences from a science journal:

“Pathological and physiological hypertrophy of the heart is associated with decreased expression of the Kv4.3 transient outward current channel. The downregulation of channel mRNA and protein, which may be proarrhythmic, is recapitulated with cultured neonatal rat ventricular myocytes treated with angiotensin II...”

- **Even much smaller gaps in background knowledge can affect comprehension.** For example, take this reading passage from a 3rd grade standardized reading test:

“In one of the most remote places in the world, the Canadian Arctic, a people have survived over thousand of years. They are the Inuit. For the Inuit, the Arctic is a place teeming with life. Depending on how far north they live, the Inuit, find everything from caribou herds and polar bears to beluga whales, The Inuit have adapted themselves to the various regions they inhabit...”

—Grade 3 Released item from 2015 PARCC test

The reader who doesn't know what “remote” or “teeming” means, where or what the Canadian Arctic is, or what “a people” is will be lost immediately. He may not be able to deduce that Inuit refers to an ethnic group or tribe, let alone that they live in a frigid region. Surely, he will not figure out the main idea of the passage, as the reading test asks. **But the reason won't be that he doesn't know how to find the main idea; the reason will be that he doesn't have the background knowledge to understand the passage.**

- **Background knowledge is like Velcro; the more you have, the easier it is for additional knowledge and vocabulary to “stick.”** Recent studies have found that students who read a series of texts on a topic are likely to learn new vocabulary four times faster than jumping from topic to topic, as happens in strategies-based instruction (Landauer and Dumais 2007; Cervetti, Wright, and Hwang 2016).
- Another study showed that students taught with an approach based on text content (now called “text dependent”) questions outperformed students taught with a strategies approach because they focus students on important ideas and making connections (McKeown, Beck and Blake 2009).
- Much background knowledge can be picked up at home. **But for many students, and especially for those growing up in poverty, most of that knowledge has to be learned in school.** If it's not learned there, it won't get learned. **Our most vulnerable students are the greatest victims of a knowledge-light reading diet.**
- **All students need and will benefit from an increased focus on building knowledge,** but the greatest beneficiaries of knowledge-building will be our most vulnerable students.

We must fundamentally redesign how we teach reading by taking the focus off excessively practicing skills/strategies and putting it on deliberately building background knowledge of the world.

Contrasting a strategies/skills-focused reading class with a reading class designed around building background knowledge

In a reading class focused on skill-building:

- The curriculum hopscotches around topics, with one day’s text on hurricanes, another about ants, and a third on families. The potential for creating familiarity with a topic and the opportunity to maximize vocabulary growth is lost.
- A potentially knowledge-building text is used as a vehicle to practice comprehension skills, not build knowledge. For example, after students read a text about hurricanes, they are asked to point to the captions and explain what a caption is. Or, after reading a text about some different uses of plants, they are asked to practice using context clues to figure out what different words in the text might mean.
- The text is about topics students already know. For example, a basal reader might include many stories about the community or families, where most of the content is familiar and redundant. For exercises, students might be asked to describe the sequence of activities that a character followed to make his dinner.

In a reading class focused on knowledge-building:

- **Students spend a series of lessons or time with texts focused on different aspects of the *same or similar topic*.** This is done because it’s easier to learn new material and vocabulary when you already are familiar with a topic.
- Lessons deliberately build on each other, giving students a chance to see new vocabulary used in multiple ways and to become familiar with new topics as they return to them in slightly different ways. For example, a unit on weather would include multiple readings and lessons during which students would encounter hurricanes, earthquakes, and rain—along with such repeating ideas and vocabulary as atmosphere, meteorology, climate, air currents, and so on. Both academic vocabulary (perceive, excessive, frightening) and domain-specific vocabulary (hypertrophy in the example above) are taught.
- The lessons are **aimed at understanding** different aspects of weather. Questions and assignments (and indeed reading skills!) would be aimed at building that knowledge and understanding. For example, students would be asked to compare and contrast how different weather systems get started or to describe the sequence of events that leads to a hurricane.

How do knowledge-building and skills-focused ELA classrooms differ?

Following are vignettes from two classrooms – one using a skills approach and another using knowledge-building one – as told in *The Knowledge Gap* by Natalie Wexler (forthcoming from Avery in 2019):

In Ms. Arredondo's first-grade classroom, the focus of the lesson is the skill of identifying captions, after a recent test showed that most students couldn't distinguish them from subtitles. Ms. Arredondo is trying to get the kids to understand the concept of a caption, which she's explained before: it's a label that tells us about a picture. When it's clear the kids don't remember the definition, she tells them again.

But the kids have trouble grasping the idea. "Words?" one student ventures, when asked to repeat the definition. What the students are interested in is what's going on in the pictures.

When Ms. Arredondo shows the children a book with a picture of a shark, they're eager to know what the shark is eating. When she shows them a picture of a planet, they want to know if it's the moon. But Ms. Arredondo doesn't answer these questions, because the point is not to have students learn about sharks or planets but to identify the captions that go with the pictures.

By the time she shows the students a funny photograph of a bunch of goats that have climbed a tree--a photo that cries out for an explanation--they don't even ask about it. It's not clear they've learned what a caption is, but they seem to have learned that their questions about the content of the photos aren't going to be answered.

In another first-grade classroom--one that is using a knowledge-building curriculum--Ms Williams is reading her students a book about mummies. They already have lots of ideas about mummies--derived from movies and TV--but today they listen, rapt and open-mouthed, as Ms. Williams tells them what mummies are really like and what scientists can tell about them: that one ancient man used hair gel, that another mummy's last meal was vegetable soup.

Along the way she casually points out the "text features" that, in a typical elementary classroom, would be the focus of instruction: the table of contents ("So if I want to make a mummy, what page do I go to? ... Yes, page 18, 'How to Make a Mummy'"), a text box that contains a definition of bacteria ("You already know about bacteria after studying germs," she reminds them).

When Ms. Williams asks the children if they have any questions, hands fly up: "Can they tell how the mummy died? ... Was the soup still in the mummy's stomach?" Kids groan when it's time to stop--some of them still have their hands in the air. But they'll be reading about mummies for the next seven weeks – while also learning about Mesopotamia and ancient Egypt – and Ms. Williams promises their questions will all be answered.