EDUCATION

Elementary Education Has Gone Terribly Wrong

In the early grades, U.S. schools value reading-comprehension skills over knowledge. The results are devastating, especially for poor kids.

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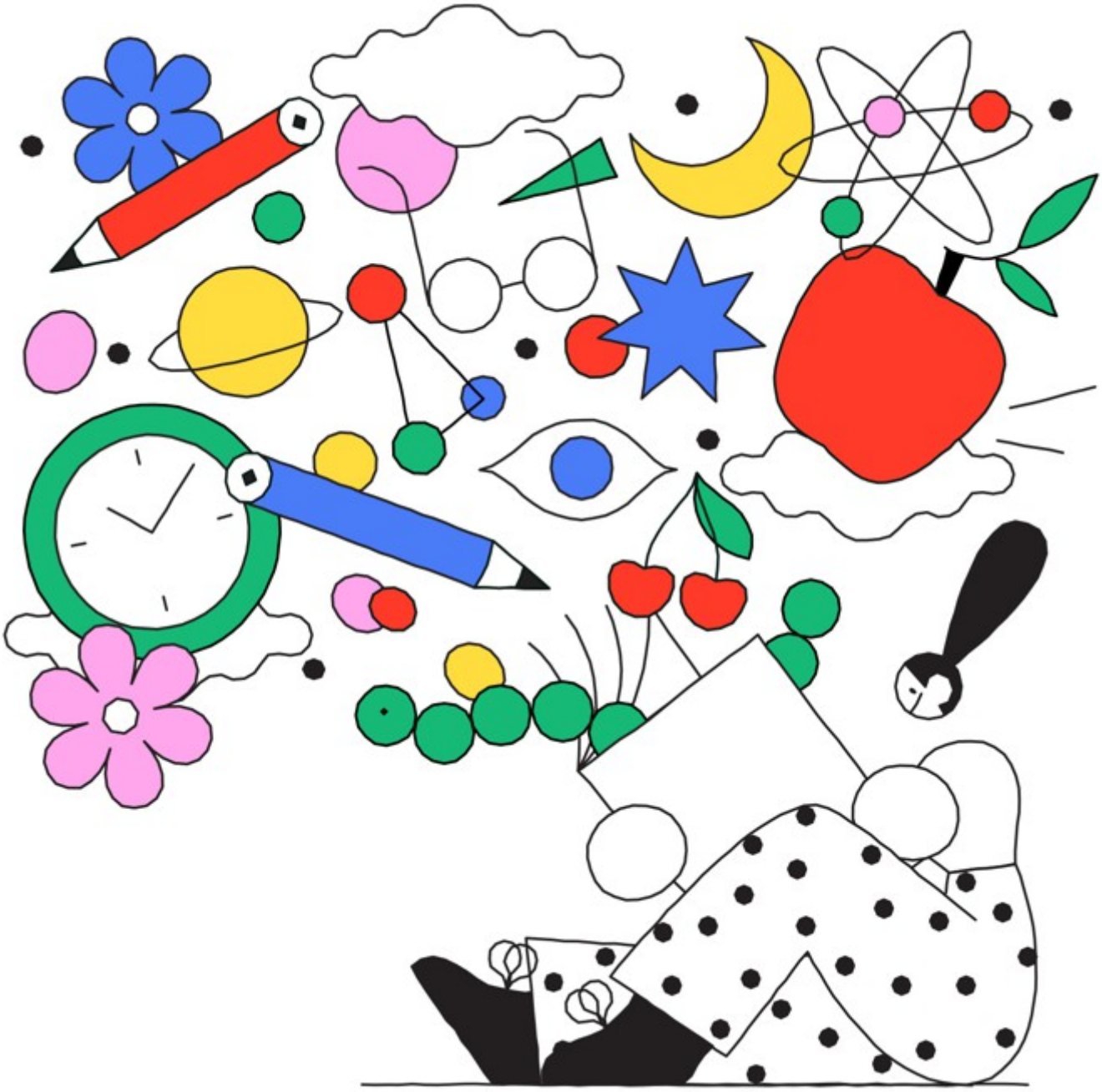

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AT FIRST GLANCE, the classroom I was visiting at a high-poverty school in Washington, D.C., seemed like a model of industriousness. The teacher sat

at a desk in the corner, going over student work, while the first graders quietly filled out a worksheet intended to develop their reading skills.

As I looked around, I noticed a small girl drawing on a piece of paper. Ten minutes later, she had sketched a string of human figures, and was busy coloring them yellow.

I knelt next to her and asked, "What are you drawing?"

"Clowns," she answered confidently.

"Why are you drawing clowns?"

"Because it says right here, 'Draw clowns,'" she explained.

Running down the left side of the worksheet was a list of reading-comprehension skills: finding the main idea, making inferences, making predictions. The girl was pointing to the phrase *draw conclusions*. She was supposed to be making inferences and drawing conclusions about a dense article describing Brazil, which was lying facedown on her desk. But she was unaware that the text was there until I turned it over. More to the point, she had never heard of Brazil and was unable to read the word.

That girl's assignment was merely one example, albeit an egregious one, of a standard pedagogical approach. American elementary education has been shaped by a theory that goes like this: Reading—a term used to mean not just matching letters to sounds but also comprehension—can be taught in a manner completely disconnected from content. Use simple texts to teach children how to find the main idea, make inferences, draw conclusions, and so on, and eventually they'll be able to apply those skills to grasp the meaning of anything put in front of them.

In the meantime, *what* children are reading doesn't really matter—it's better for them to acquire skills that will enable them to discover knowledge for themselves later on than for them to be given information directly, or so the thinking goes. That is, they need to spend their time "learning to read" before "reading to learn." Science can wait; history, which is considered too abstract for young minds to grasp, must wait. Reading time is filled, instead, with a variety of short books and passages unconnected to one another except by the "comprehension skills" they're meant to teach.

As far back as 1977, early-elementary teachers spent more than twice as much time on reading as on science and social studies combined. But since 2001, when the

federal No Child Left Behind legislation made standardized reading and math scores the yardstick for measuring progress, the time devoted to both subjects has only grown. In turn, the amount of time spent on social studies and science has plummeted—especially in schools where test scores are low.

And yet, despite the enormous expenditure of time and resources on reading, American children haven't become better readers. For the past 20 years, only about a third of students have scored at or above the "proficient" level on national tests. For low-income and minority kids, the picture is especially bleak: Their average test scores are far below those of their more affluent, largely white peers—a phenomenon usually referred to as the achievement gap. As this gap has grown wider, America's standing in international literacy rankings, already mediocre, has fallen. "We seem to be declining as other systems improve," a federal official who oversees the administration of such tests told *Education Week*.

All of which raises a disturbing question: What if the medicine we have been prescribing is only making matters worse, particularly for poor children? What if the best way to boost reading comprehension is not to drill kids on discrete skills but to teach them, as early as possible, the very things we've marginalized—including history, science, and other content that could build the knowledge and vocabulary they need to understand both written texts and the world around them?

In the late 1980s, two researchers in Wisconsin, Donna Recht and Lauren Leslie, designed an ingenious experiment to try to determine the extent to which a child's reading comprehension depends on her prior knowledge of a topic. To this end, they constructed a miniature baseball field and peopled it with wooden baseball players. Then they brought in 64 seventh and eighth graders who had been tested both for their reading ability and their knowledge of baseball.

Recht and Leslie chose baseball because they figured lots of kids who weren't great readers nevertheless knew a fair amount about the game. Each student was asked to first read a description of a fictional baseball inning and then move the wooden figures to reenact it. (For example: "Churniak swings and hits a slow bouncing ball toward the shortstop. Haley comes in, fields it, and throws to first, but too late. Churniak is on first with a single, Johnson stayed on third. The next batter is Whitcomb, the Cougars' left-fielder.")

It turned out that prior knowledge of baseball made a huge difference in students' ability to understand the text—more so than their supposed reading level. The kids who knew little about baseball, including the "good" readers, all did poorly. And all

those who knew a lot about baseball, whether they were "good" or "bad" readers, did well. In fact, the "bad" readers who knew a lot about baseball outperformed the "good" readers who didn't.

About 25 years later, a variation on the baseball study shed further light on the relationship between knowledge and comprehension. This team of researchers focused on preschoolers from a variety of socioeconomic backgrounds. First they read them a book about birds, a subject they had determined the higher-income children knew more about than the lower-income ones. When they tested comprehension, the researchers found that the wealthier kids did significantly better. But then they read a story involving a subject neither group knew anything about: made-up animals called "wugs." When the kids' prior knowledge was equal, their comprehension was essentially the same. In other words, the gap in comprehension wasn't a gap in skills. It was a gap in knowledge.

For a number of reasons, children from better-educated families—which also tend to have higher incomes—arrive at school with more knowledge and vocabulary. In the early grades, teachers have told me, children from less educated families may not know basic words like *behind*; I watched one first grader struggle with a simple math problem because he didn't know the meaning of *before*. As the years go by, children of educated parents continue to acquire more knowledge and vocabulary outside school, making it easier for them to gain even more knowledge—because, like Velcro, knowledge sticks best to other, related knowledge.

Meanwhile, their less fortunate peers fall further and further behind, especially if their schools aren't providing them with knowledge. This snowballing has been dubbed "the Matthew effect," after the passage in the Gospel according to Matthew about the rich getting richer and the poor getting poorer. Every year that the Matthew effect is allowed to continue, it becomes harder to reverse. So the earlier we start building children's knowledge, the better our chances of narrowing the gap.

[Read: Poor students need homework]

WHILE IN SOME RESPECTS American schools vary tremendously, in nearly all elementary classrooms you will find the same basic structure. The day is divided into a "math block" and a "reading block," the latter of which consumes anywhere from 90 minutes to three hours.

In perhaps half of all elementary schools, teachers are supposed to use a reading textbook that includes a variety of passages, discussion questions, and a teacher

guide. In other schools, teachers are left to their own devices to figure out how to teach reading, and rely on commercially available children's books. In either case, when it comes to teaching comprehension, the emphasis is on skills. And the overwhelming majority of teachers turn to the internet to supplement these materials, despite not having been trained in curriculum design. One Rand Corporation survey of teachers found that 95 percent of elementary-school teachers resort to Google for materials and lesson plans; 86 percent turn to Pinterest.

Typically, a teacher will focus on a "skill of the week," reading aloud books or passages chosen not for their content but for how well they lend themselves to demonstrating a given skill. The demonstration of that skill may not involve reading at all, however. A common way of modeling the skill of "comparing and contrasting," for example, is to bring two children to the front of the room and lead a discussion on the similarities and differences in what they're wearing.

Then students will practice the skill on their own or in small groups under a teacher's guidance, reading books determined to be at their individual reading level, which may be far below their grade level. Again, the books don't cohere around any particular topic; many are simple fiction. The theory is that if students just read enough, and spend enough time practicing comprehension skills, eventually they'll be able to understand more complex texts.

[Read: Americans aren't practicing democracy anymore]

Many teachers have told me that they'd like to spend more time on social studies and science, because their students clearly enjoy learning actual content. But they've been informed that teaching skills is *the* way to boost reading comprehension. Education policy makers and reformers have generally not questioned this approach and in fact, by elevating the importance of reading scores, have intensified it. Parents, like teachers, may object to the emphasis on "test prep," but they haven't focused on the more fundamental problem. If students lack the knowledge and vocabulary to understand the passages on reading tests, they won't have an opportunity to demonstrate their skill in making inferences or finding the main idea. And if they arrive at high school without having been exposed to history or science, as is the case for many students from low-income families, they won't be able to read and understand high-school-level materials.

The Common Core literacy standards, which since 2010 have influenced classroom practice in most states, have in many ways made a bad situation worse. In an effort to expand children's knowledge, the standards call for elementary-school teachers to expose all students to more complex writing and more nonfiction. This may seem like a step in the right direction, but nonfiction generally assumes even more background knowledge and vocabulary than fiction does. When nonfiction is combined with the skills-focused approach—as it has been in the majority of classrooms—the results can be disastrous. Teachers may put impenetrable text in front of kids and just let them struggle. Or, perhaps, draw clowns.

[Read: Why I support the Common Core reading standards]

In a small number of American schools, things are beginning to change. A few years ago, there was no such thing as an elementary literacy curriculum that focused on building knowledge. Now there are several, including a few available online at no cost. Some have been adopted by entire school districts—including high-poverty ones such as Baltimore and Detroit—while others are being implemented by charter networks or individual schools.

The curricula vary in their particulars, but all are organized by themes or topics rather than skills. In one, first graders learn about ancient Mesopotamia and second graders study Greek myths. In another, kindergartners spend months learning about trees, and first graders explore birds. Children usually find these topics—including and perhaps especially the historical ones—far more engaging than a steady diet of skills.

At schools using these new curricula, all students grapple with the same texts, some of which are read aloud by teachers. Children also spend time every day reading independently, at varying levels of complexity. But struggling readers aren't limited to the simple concepts and vocabulary they can access through their own reading. Teachers tend to be amazed at how quickly children absorb sophisticated vocabulary (like *fertile* and *opponent*) and learn to make connections between different topics.

As promising as some of the early results are, it seems reasonable to ask: With inequality increasing and a growing share of American students coming from low-income families, can any curriculum truly level the playing field? The relatively few schools that have adopted knowledge-building elementary curricula may have trouble using test scores to prove that the approach can work, because it could take

years for low-income students to acquire enough general knowledge to perform as well as their more affluent peers.

And yet, there *is* evidence—on a large scale—that this kind of elementary curriculum can reduce inequality, thanks to an unintentional experiment conducted in France. As E. D. Hirsch Jr. explains in his book *Why Knowledge Matters*, until 1989, all French schools were required to adhere to a detailed, content-focused national curriculum. If a child from a low-income family started public preschool at age 2, by age 10, she would have almost caught up to a highly advantaged child who had started at age 4. Then a new law encouraged elementary schools to adopt the American approach, foregrounding skills such as "critical thinking" and "learning to learn." The results were dramatic. Over the next 20 years, achievement levels decreased sharply for all students—and the drop was greatest among the neediest.

The United States can't simply adopt the kind of comprehensive national curriculum that France once had (and that countries outperforming us on international tests still have). By American law and custom, curriculum is determined at the local level. Still, much can be done by individual schools and districts—and even states—to help build the knowledge that all children need to thrive.

A couple of years ago, in a low-income suburb of Dayton, Ohio, a fourth-grade teacher named Sarah Webb decided to try out a new content-focused curriculum that her district was considering adopting. The adjustment from a skills focus wasn't easy, but soon Webb could see that students at all levels of reading ability were flourishing. They wanted to know more about certain topics featured in the curriculum, so Webb took books out from the public library to satisfy their curiosity. She told me that after the unit on "What Makes a Great Heart?" one girl "talked about plasma all year long." This was the way Webb had always wanted to teach, but she'd never been able to make it happen.

Like other teachers I've spoken with, she said kids who were previously considered low achievers were particularly enthralled. She remembers a sweet kid I'll call Matt, who had a history of reading difficulty. As the year went on, Matt found himself keenly interested in everything the class was studying and became a leader in class discussions. He wrote an entire paragraph about Clara Barton—more than he'd ever written before—which he proudly read to his parents. His mother said she'd never seen him so enthusiastic about school.

Before, Webb says, Matt felt permanently consigned to what kids see as "the dumb group." But at the end of the year, he wrote Webb a thank-you note. Reading, he told her, "was not a struggle anymore."

This article is adapted from Natalie Wexler's book The Knowledge Gap: The Hidden Cause of America's Broken Education System—And How to Fix It. *It appears in the August 2019 print edition with the headline "The Radical Case for Teaching Kids Stuff."*

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