



## Reading by Third Grade: How Policymakers Can Foster Early Literacy

*As in an E.R., there are many possible diagnoses and interventions in the classroom, and the stakes are high.*

**Nell K. Duke**

Reading by third grade is a hot topic. Dozens of state legislatures have passed laws aimed at improving early reading, many of them mandating retention if the job is not done by the end of grade 3. Everyone from philanthropists to publishers, from parents to the press, have fixed on it. And setting aside too many people's assumptions to the contrary, educators, teacher educators, and researchers across the nation work hard every day to figure

out how to build reading proficiency in individual children and groups of children.

This onslaught of attention is largely justified. Early reading achievement strongly predicts later school success, and early reading difficulties place learners at greater risk for a wide range of problems, from low achievement in other academic areas, to dropping out, and even to incarceration.<sup>1</sup> Getting off to a strong

start is particularly powerful. Put another way, it can be hard to catch up from a slow start. For all of these and other reasons, it makes sense for state policymakers to invest heavily in fostering early reading development.

## Third Grade Is Not Magical

At the same time, there is nothing magical about reading by third grade in particular. Reading achievement at the end of second grade is also predictive of later success, as are some measures of language and emerging literacy in preschool and kindergarten.<sup>2</sup> Similarly, instruction by grade 3 cannot entirely inoculate learners from later reading difficulties. Reading Shakespeare or a chemistry textbook pose their own challenges and illustrate why students need ongoing support to develop as readers.

Some argue for third grade as a linchpin because of the prevalent notion that children first learn to read and then, in fourth grade, read to learn. Although catchy, it is not actually true. Even very young children can learn from reading, first from books read to them and—well before third grade—from books they read themselves.<sup>3</sup> Most state learning standards expect reading to learn of some kind or another in kindergarten and first grade. Likewise,

learning to read does not end at fourth grade. Similarly, the fact that third grade is typically the first year in which states administer standardized tests of reading achievement is not reason enough to treat reading achievement at the end of this year as profoundly more important than at other grade levels before and after.

## Much More Than Decoding Words

One of first steps that state policymakers can take is to learn what reading is. So often, people assume that “reading” means a student can look at a list of words, and sound them out, or pronounce them correctly at sight. People are appalled that their schools have failed to teach students to do even that much by third or fourth grade.

But doing well on state summative tests of reading in third grade and beyond requires far, far more than the ability to read individual words (see box 1). A quick review of sample items from your state’s third-grade reading test will reveal what I mean. These tests are based on rigorous, wide-ranging state standards and typically include long passages of literary and informational text followed by questions on the intended meaning of words, paragraphs, or passages. Students are asked to comprehend

### Box 1.

The range of knowledge, skills, and dispositions entailed in state reading tests presents a formidable task for classroom teachers. Among other things, teachers need to develop children’s

- print awareness/concepts of print
- phonological awareness
- decoding and word recognition
- word-reading strategies
- comprehension monitoring
- reading fluency
- vocabulary knowledge
- vocabulary strategies
- morphological analysis
- science and social studies knowledge
- graphophonological semantic cognitive flexibility
- syntactic awareness
- text structure analysis
- executive skills (e.g., inhibitory control)
- genre knowledge
- comprehension strategies
- literal comprehension
- inferential comprehension
- critical comprehension
- scanning and skimming
- text navigation and search
- reading stamina
- facilitative reading attitudes

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not only literally but to make inferences. They are asked to identify themes, main ideas, and specific rhetorical strategies. They are asked to compare and integrate information across multiple texts and to read not only written text but diagrams, graphs, and other devices that are used to convey meaning.

They may even be asked to write. One example: a fourth-grade reading item from the National Assessment of Educational Progress (NAEP) asked this of students, after they read a three-page article about an aquarium's work with a baby great white shark: "Based on the article, is it a good idea to keep white sharks in captivity? Explain your answer using information from the article." Think for a moment about everything a student needs to know and be able to do to get this item correct. Reading and spelling words is crucial, to be sure, but so is a broad range of other knowledge (e.g., what is *captivity*?), skills (e.g., identifying relevant information), and dispositions (e.g., to slog through a long article and list of questions with full effort). So when you read that two-thirds of U.S. fourth graders are not proficient in reading on NAEP or half are not proficient on your state test, understand that it is not the case that these students cannot read a list of words—although that is true of some. Rather, this proportion of students do not yet have everything they need to perform proficiently.

For test items that include short answers or essays, students also need handwriting and/or keyboarding, spelling, writing fluency, various composition abilities, and facilitative dispositions toward writing. In any case, writing instruction clearly supports reading development—and vice versa.<sup>4</sup> Indeed, policymakers should really be talking about literacy education, not just reading education.

## Why Students Get Off Track

Given how much goes into the ability to read, it should not be surprising that students struggle with reading for many different reasons. Some have terrible trouble reading words. Perhaps they have *dyslexia*, a specific neurobiological profile that makes learning to read (and spell) words more difficult than it is for most people. Or they may have received poor-quality or limited instruction to enable them to read words

(what I call *dysteachia*). Sometimes, both factors may be at work.

Still other students may be good at reading words—reading accurately, with automaticity and expression (what we call *fluency*)—and yet not understand what they read. Sometimes referred to as word callers, these students constitute a significant percentage of those who struggle on state tests of reading. A number of factors can be the source of the difficulty: a relative challenge with language processing (e.g., processing sentences that are long and complex); a mismatch between what the author of the text assumes they know and their actual vocabulary and background knowledge (content knowledge, cultural knowledge, etc.); and/or inadequate cognitive engagement (e.g., not generating necessary inferences or not generating mental images during reading).

Still other readers are not marshalling the executive skills needed for proficient reading. For example, they may struggle to focus on the text and inhibit thoughts that do not support meaning construction. They may exhibit relatively low cognitive flexibility, struggling to attend simultaneously to the many processes required for proficient reading. Those students require intervention that goes beyond literacy alone. And there are many other factors and many combinations in which they are manifested.

Given the variety of reading strengths and weaknesses that occur at varying degrees, it would be reasonable to guess that schools tend to match interventions to students' varied needs. However, in too many U.S. schools, all elementary-age children who do poorly on the school's reading screening are placed in the same intervention. Michigan State University professor Tanya Wright likens this to administering a vision screener and then giving everyone who fails it the same eyeglass prescription. There are myriad evidence-based practices that address specific literacy strengths and weaknesses, but most never make their way into practice.

## Reading Teachers Are Like E.R. Doctors

The demands of state reading tests and the myriad profiles of students' reading strengths and weaknesses are complex in and of themselves. But keep in mind that an elementary classroom teacher likely has at least 20 to 30

**Figure 1. Effective Professional Development**

	<b>Weak PD Processes</b>	<b>Strong PD Processes</b>
<b>Weak PD Content</b>	Little hope of improvement	Teachers get good at implementing practices that don't work
<b>Strong PD Content</b>	Teachers don't actually implement practices that do work	<b>Our best chance for improvement</b>

students, many areas to address other than reading (assemblies, mathematics, physical education, etc.), and only 180 days to do it all. In my view, teaching reading to a class of first graders is akin in complexity to being an emergency room physician, requiring a broad range of knowledge and skills and the ability to manage and coordinate many “cases” at once. One might argue that the stakes are higher in an E.R., but they are high in classrooms too, given that reading difficulties are associated with serious long-term effects, most notably dropping out of school, which is in turn associated with higher rates of incarceration, unemployment, and chronic health problems.<sup>5</sup> E.R. physicians have typically had four years of undergraduate school, four years of medical school, three to four years of residency, and perhaps even further specialized training to prepare them for the role. In contrast, one can be certified as an elementary school teacher after just an undergraduate degree, only part of which is focused on teacher preparation, or through alternative and emergency certification processes that involve even less preparation than that.

Because the complexity and the stakes of teaching are high, state policymakers should set rigorous standards for preservice teacher preparation. For example, Michigan’s newly adopted standards for preparation of pre-K to grade 3 teachers in English language arts and literacy provide pages of detail regarding what teacher candidates need to learn and be able to do, with expectations for 13 contributors to literacy that address what the construct

is, how it develops, how to assess it, and how to teach it, as well as three other strands on matters such as the classroom literacy environment and management of literacy instruction.<sup>6</sup> State policymakers also need to require that teacher preparation programs—all programs, including alternative certification programs—offer adequate course credits to address these standards, ensure that the courses are of high quality, allow candidates to specialize in specific developmental periods, and infuse many opportunities for prospective teachers to observe and experience scaffolded practice in implementing research-informed practices in actual classrooms with actual children.

But higher standards are not a silver bullet (nor is there any silver bullet). Among other things and no matter how strong our initial preparation of teachers, we need to provide continued professional learning throughout teachers’ careers. Much as we would not want to have a doctor who stopped learning about medicine after completing their initial training, we do not want to have teachers whose learning stops upon graduation. Fortunately, research reveals that professional development can have a significant impact on teachers’ practice and on children’s growth. To be most effective, professional development needs to be strong in both process and content (figure 1). Process-wise, one-day sit-and-get workshops with no follow up, which are still commonplace in K-12 education, are generally not effective. More extensive workshops involving active learning, opportunities to see practices modeled, an

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environment with collective participation and goal setting, and opportunities to work with a literacy coach are among the professional development practices that enjoy research support. Content-wise, professional learning should focus on knowledge and practices that have been shown to be effective in research. The Washington DC Public Schools' LEAP (Learning Together to Advance our Practice) program is an example of an innovative approach to providing research-aligned professional learning in a large school district.

## **Reading Education Should Be Research Informed**

Imagine that you have a child who has leukemia. Consider what you would do in that situation. When I carry out this thought experiment in lectures and presentations, participants typically note that they would look to see what the latest research says about the treatment of leukemia and then make sure they have a doctor who is implementing the latest treatment with the best results. Let's apply this same thinking to reading education. Research should inform curriculum materials, assessments, and instruction of every classroom at every grade level. Too often, it does not. Programs and practices that do not work persist in many classrooms. I co-edit a book series, *Not This but That*, in which each of 14 books published so far takes on a practice that is widespread in U.S. classrooms but is not effective or is less effective than an alternative.<sup>7</sup> Similarly, in a recent article, Heidi Mesmer and I identified a number of phonics faux pas that are likely having a significant negative impact on reading development.<sup>8</sup> More concerning, perhaps, are that there are so many practices that research has found to be effective but are not incorporated into curriculum materials or commonly implemented in U.S. classrooms.<sup>9</sup>

The United States needs to move to a much more research-informed culture in education. When a problem of practice arises, research ought to inform attempts to address it. When a dispute arises, research should inform a resolution. What Works Clearinghouse Practice Guides or the "Literacy Essentials" documents are positive examples of codifying information about practices that are research supported.<sup>10</sup> Major

influencers in reading education (and education in general) should be regular readers of actual, primary research published in peer-reviewed journals and regular users of research databases rather than relying on personal opinion or secondary and tertiary sources that are far removed from the original research they (sometimes inaccurately) cite. In selecting curricular materials, there should be a far greater emphasis on the degree to which they reflect research and far less emphasis on word-of-mouth recommendations or vendors' attestations.

## **Equity Should Be Top of Mind**

More so than many other industrialized nations, the United States has enormous gaps between its highest and lowest performing readers. These gaps are not randomly determined. Rather, some demographic groups have higher proportions of high-performing readers than others. We do not provide equitable educational opportunities. For example, in a study I conducted some time ago, I found that first-grade classrooms serving mostly children of high-socioeconomic-status families provided, on average, a much richer literacy environment and experiences than classrooms serving mostly children from families of low-socioeconomic status.<sup>11</sup> There are inequities in everything from the print on classroom walls to opportunities for higher-order discussion, from time devoted to building content knowledge for reading to opportunities to write for an audience beyond the teacher.

Inequity in opportunities for reading development are not limited to individual teacher practices. For example, access to high-quality preschool education is not equitably distributed. Because so many of the literacy knowledge, skills, and dispositions I discussed earlier begin to develop well before children enter kindergarten, and because preschool education can foster literacy development, uneven access to high-quality preschool education is quite problematic. Access to books and other written texts in homes, public libraries, stores, and schools is another inequity. Children with fewer books at home also have, on average, fewer books available to them in the community and in school.<sup>12</sup> High-speed internet access and other access to written text is also inequitably distributed in our

society. Yet greater access to books and summer reading opportunities supports reading growth. As I often say, learning to read without books is like learning to swim without water. In fact, there are a number of effective approaches to increasing book access and summer reading opportunities.<sup>13</sup> Policymakers and educators alike need to marshal the will, expertise, and resources to scale these approaches so they reach all children.

## What State Policymakers Can Do

Policymakers, including those on state boards of education, have an important role to play in improving early reading in the United States. Early reading matters, as does reading at other ages, thus the initiatives policymakers design or support should improve it. Recognizing that “reading” is much more than decoding words, state boards should understand—and communicate to others—the broad range of knowledge, skills, and dispositions that state reading tests in third grade and beyond are measuring, and their policies should enable classroom instruction that reflects that breadth.

State boards should beware of those espousing a magic pill for their state’s early literacy problems. Interventions for those who struggle with reading should be differentiated based on students’ strengths and needs—not the “one size fits all” approach that so often occurs in practice. Teaching reading is highly complex—perhaps akin to working in an E.R.—and thus state policies should ensure that initial and ongoing professional learning is strong in process and content.

Research should inform not only the process and content of professional learning but also curriculum materials, daily teaching practices, and the entire culture of reading education. Drawing on research, policymakers can tackle the most inequitable aspects of our reading education system—for example, promoting policies that provide equitable opportunities to engage in higher order discussion, attend high-quality preschool, and access books and summer reading programs. Together, we can provide the effective early literacy education that every child deserves. ■

<sup>1</sup>On the association of poor early reading to poor later reading, see, e.g., Joy Lesnick et al., “Reading on Grade

Level in Third Grade: How Is It Related to High School Performance and College Enrollment?” (Chicago: Chapin Hall at the University of Chicago, 2010). On the association of poor later reading to a number of social costs, such as a greater likelihood of incarceration, see Elizabeth Greenberg et al., “Literacy behind Bars: Results from the 2003 National Assessment of Adult Literacy Prison Survey,” NCES 2007-473 (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2007).

<sup>2</sup>E.g., Enis Dogan et al., “Early Childhood Reading Skills and Proficiency in NAEP Eighth-Grade Reading Assessment,” *Applied Measurement in Education* 28, no. 3 (2015): 187–201, doi: 10.1080/08957347.2015.1042157; Greg Duncan et al., “School Readiness and Later Achievement,” *Developmental Psychology* 43, no. 6 (2007): 1428–46, doi:10.1037/0012-1649.43.6.1428.

<sup>3</sup>This is true in both science and social studies. See, e.g., Marcia H. Davis and John T. Guthrie, “Measuring Reading Comprehension of Content Area Texts Using an Assessment of Knowledge Organization,” *The Journal of Educational Research* 108 (2015): 148–64, doi: 10.1080/00220671.2013.863749; Stephanie L. Strachan, “Kindergarten Students’ Social Studies and Content Literacy Learning from Interactive Read-Alouds,” *The Journal of Social Studies Research* 39 (2015): 207–23.

<sup>4</sup>Steve Graham and Michael Hebert, “Writing to Read: A Meta-Analysis of the Impact of Writing and Writing Instruction on Reading,” *Harvard Educational Review* 81, no. 4 (Winter 2011); Steve Graham et al., “Reading for Writing: A Meta-Analysis of the Impact of Reading Interventions on Writing,” *Review of Educational Research* 88, no. 2 (April 2018): 243–84, doi: 10.3102/0034654317746927.

<sup>5</sup>Lesnick et al., “Reading on Grade Level”; Greenberg et al., “Literacy behind Bars.”

<sup>6</sup>As part of its Early Childhood Education Network initiative, NASBE supported work in Michigan on several early learning initiatives, including restructuring its licensure bands and supporting standards development.

<sup>7</sup>Books in the *Not This but That* series are listed on the publisher’s webpage, <https://www.heinemann.com/series/72.aspx> (Portsmouth, NH: Heinemann).

<sup>8</sup>Nell K. Duke and Heidi Anne E. Mesmer, “Phonics Faux Pas: Avoiding Instructional Missteps in Teaching Letter-Sound Relationships,” *American Educator* (Winter 2018–19).

<sup>9</sup>For a broad discussion, see Vivian Tseng, “The Uses of Research in Policy and Practice,” *Society for Research on Child Development Social Policy Report* 26 (2012): 1–23.

<sup>10</sup>The cited practice guides are available at <https://ies.ed.gov/ncee/wwc/practiceguides> and <http://www.Literacyessentials.org>.

<sup>11</sup>Nell K. Duke, “For the Rich It’s Richer: Print Experiences and Environments Offered to Children in Very Low- and Very High-SES First Grade Classrooms,” *American Educational Research Journal* 37 (2000): 441–78.

<sup>12</sup>Susan Neuman and Donna Celano, “Access to Print in Low-Income and Middle-Income Communities: An Ecological Study of Four Neighborhoods,” *Reading Research Quarterly* 36, no. 1 (2001): 8–26; Shana Pribesh et al., “The Access Gap: Poverty and Characteristics of School Library Media Centers,” *Library Quarterly* 81 (2011): 143–60.

<sup>13</sup>James S. Kim and David M. Quinn, “The Effects of Summer Reading on Low-Income Children’s Literacy Achievement from Kindergarten to Grade 8: A Meta-Analysis of Classroom and Home Interventions,” *Review of Educational Research* 83 (2013): 386–431.

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