

# Science of Reading: Debunking Common Myths

Produced for the New York State Education Department by Nonie K. Lesaux, PhD & Katie C. Carr, M.Ed.

Recent years have brought growing focus on the term “Science of Reading.” Importantly, this increased attention and momentum has underscored the need to bring scientific principles and findings to literacy instruction. But as the term has gained momentum, so too have some myths and misconceptions. Educators, leaders, policymakers, and publishers are grappling with the Science of Reading’s implications for their work and leadership—and it’s crucial they understand common myths, and work to avoid the associated pitfalls.



## MYTH #1

The Science of Reading refers to one instructional approach, i.e., it is a tangible program or curriculum.

**FACT:** The Science of Reading is a term that refers to more than 50 years of interdisciplinary research. While the term is relatively new, the research is long-standing and evolving. The term’s value-add is to remind us to draw very closely on the findings, principles, and practices from research when designing and implementing literacy instruction, i.e., to use that knowledge to inform approaches to promote learners’ reading, writing, and communication skills.

The Science of Reading reflects research in education, psychology, linguistics, neuroscience, sociology, speech and language pathology, implementation science, and more.

## MYTH #2

The Science of Reading signals that reading instruction should focus on teaching skills in isolation.

**FACT:** Effective curriculum and pedagogical approaches match goals and target skills with the appropriate instructional strategies, ranging from isolated practice to integrated application. This daily work is always in service of the ultimate goal: to develop learners’ skills and competencies that support higher-order thinking and knowledge building.

**MYTH #3**

The Science of Reading demonstrates that effective early literacy instruction is limited to promoting the acquisition of code-based skills, specifically phonics and decoding.

**FACT:** The Science of Reading shows clearly that explicit, intensive phonics and word reading instruction is imperative for all readers in the primary grades. The Science of Reading also shows that intensive oral language and reading comprehension instruction is equally important in the primary grades and beyond.

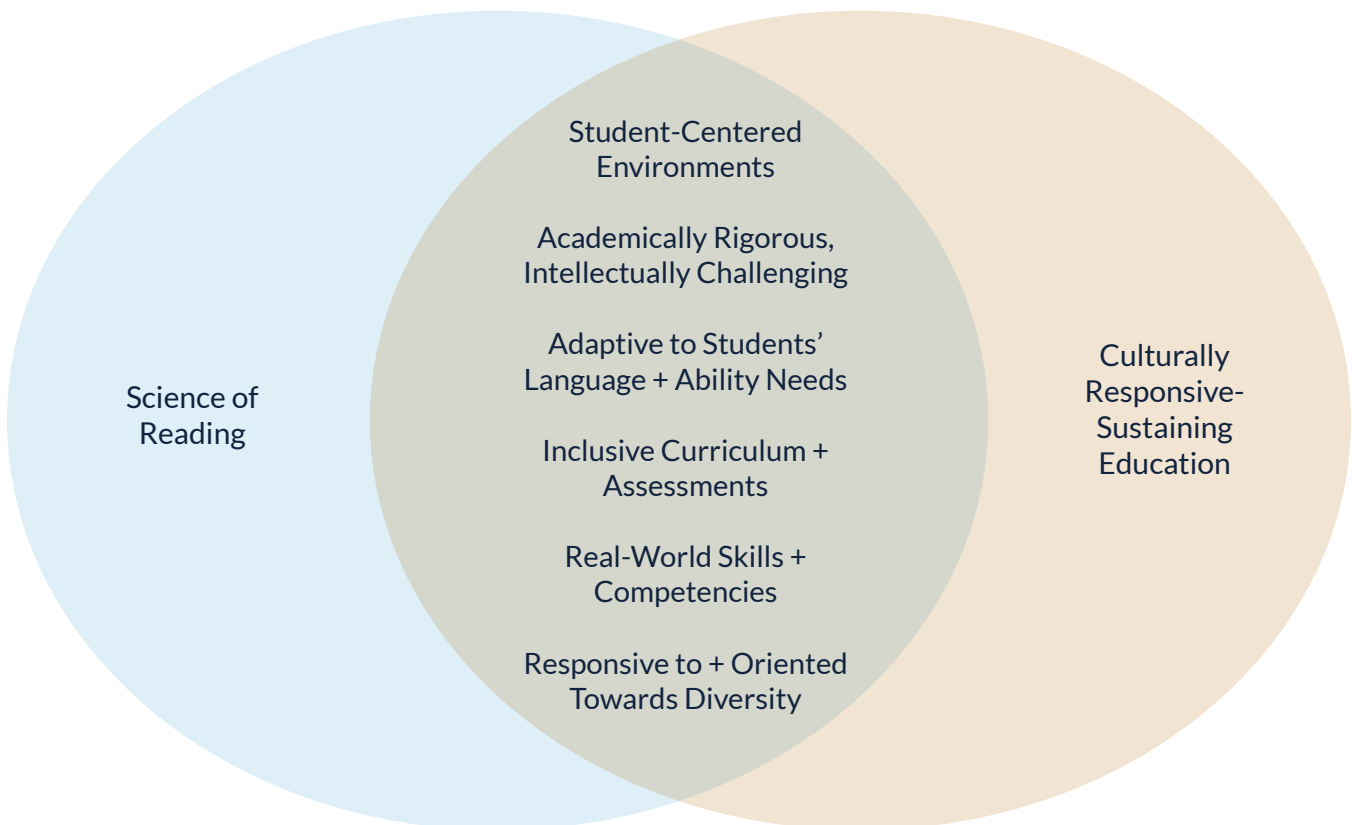
**TRUTH TIP:** Without the ability to access print, students cannot make meaning from text. While a student is building foundational word reading skills, instruction should also build oral language and reading comprehension, background knowledge, and vocabulary. “Learning to read” and then “reading to learn” are not two distinct developmental stages—effective literacy instruction cultivates both sets of skills and competencies, from the earliest years.

**MYTH #4**

The Science of Reading and Culturally Responsive-Sustaining teaching are distinct and separate approaches that inform instruction.

**FACT:** It is in student-centered, culturally-responsive and inclusive classrooms characterized by rigor and high expectations that children develop literacy skills for life. The Science of Reading and Culturally Responsive-Sustaining Education are therefore key ingredients in efforts to promote literacy for all.

**TRUTH TIP:** Both the Science of Reading and Culturally Responsive-Sustaining Education approaches can and should inform efforts to support students with identified disabilities and English Language Learners. When selecting, designing and/or auditing curriculum and instruction for equity and impact—and to cultivate literacy for all—it’s important to draw on the principles of both the Science of Reading and Culturally Responsive-Sustaining Education.



## Reflect and Analyze:

- Which myths and facts challenged your thinking about the Science of Reading? How has your thinking changed?
- Which myth and fact is most relevant to your work or role? Why is that?
- Why do you think that these misconceptions about the Science of Reading came about?

### KEY REFERENCES

- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science, 24*(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>
- Duke, N. K., & Mesmer, H. A. E. (2018-2019). Phonics faux pas: Avoiding instructional missteps in teaching lettersound relationships. *American Educator, 42*(4), 12-16.
- Duke, N. K., Ward, A. E., & Pearson, P. D. (2021). The science of reading comprehension instruction. *The Reading Teacher, 74*, 663–672.
- Foorman, B. et al. (2016). *Foundational Skills to Support Reading for Understanding in Kindergarten through 3rd Grade*. (Washington, DC: National Center for Educational Evaluation and Regional Assistance), <https://ies.ed.gov/ncee/wwc/practiceguide/21>
- Goodwin, A. P., & Jiménez, R. T. (2020). The science of reading: Supports, critiques, and questions. *Reading Research Quarterly, 55*(S1), 331–345. <https://doi.org/10.1002/rrq.360>
- Hirsch, E.D., Jr. (2016). *Why Knowledge Matters: Rescuing our Children from Failed Educational Theories*. Cambridge, MA: Harvard Educational Press.
- Moje, E. B., Afflerbach, P. P., Enciso, P., & Lesaux, N. K. (2020). *Handbook of Reading Research, Volume V*. <https://doi.org/10.4324/9781315676302>
- Shanahan, T. (2020). What constitutes a science of reading instruction? *Reading Research Quarterly, 55*(S1). <https://doi.org/10.1002/rrq.349>

## **ACTIVITY FOR BRIEF 2**

### **SCIENCE OF READING: DEBUNKING COMMON MYTHS**

- Identify a myth or fact that challenged your thinking about the Science of Reading. Think about how your thinking has changed after reading the brief.
- In your table group, discuss how your thinking has changed about the Science of Reading.
- When prompted by the Facilitator, please raise your hand to share a shift in your thinking about the Science of Reading.