



Narrowing the Third Grade Reading Gap

Embracing the Science of Reading to Improve Student Outcomes

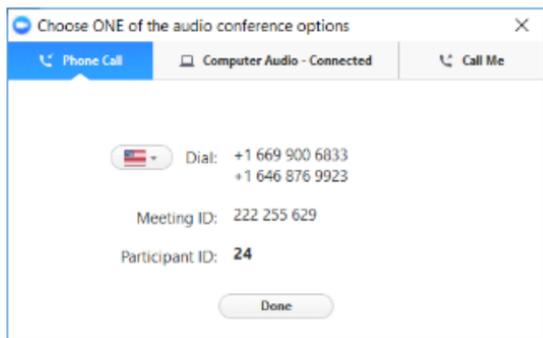
District Leadership Forum

Audio Options



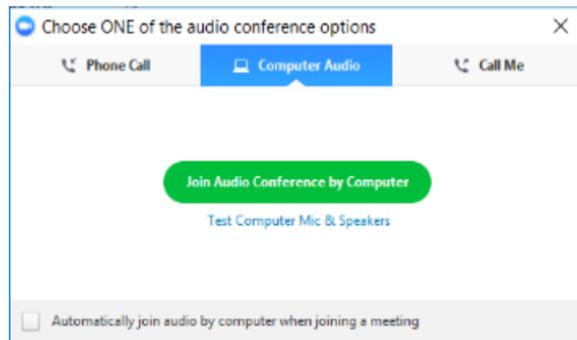
Using Your Telephone

If you select the “Phone Call” option, please dial in with the phone number and access code provided.



Using Your Microphone and Speakers

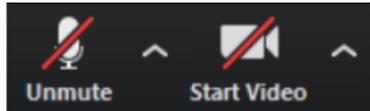
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Using Zoom

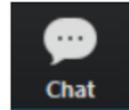
Mic and Video Controls

Click the mic and camera pictures until they have a red line indicating they are both off.



Asking a Question

To ask the presenter a question, type it into the Chat panel and press send.



EAB: Making Education Smarter

Who We Are

▶ **2007**
Year founded

▶ **1,300+**
College and
university members

▶ **1,200+**
Dedicated EAB Staff

How We Serve

Identify **proven best practices** for the **most critical challenges** facing education leaders

Provide customized, **on-demand research** to help members meet their immediate needs

Help leaders **engage key stakeholders and accelerate progress** on key initiatives

Introducing the District Leadership Forum

▶ **2016**
Year founded

▶ **100**
Member districts

▶ **29**
States represented

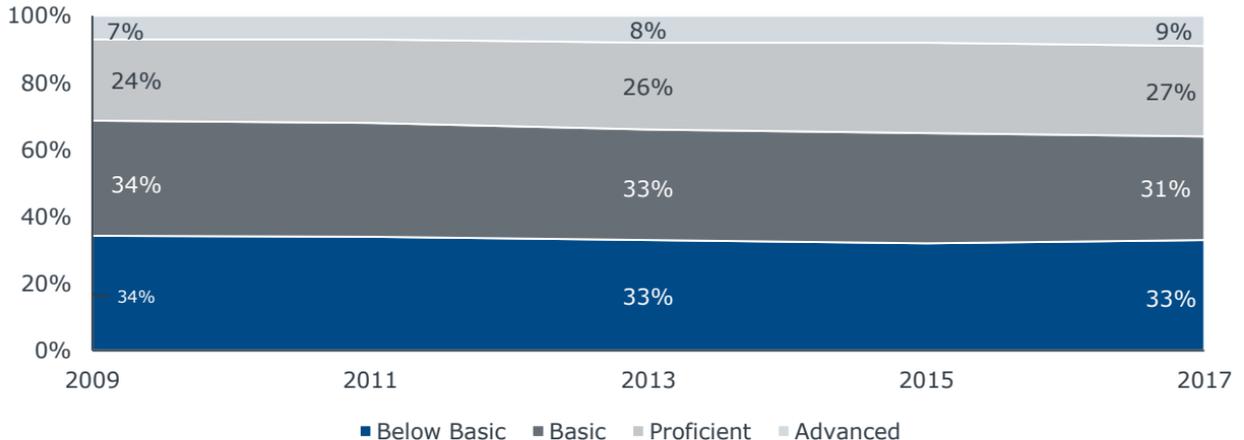


Far Too Many Kids Can't Read at An Early Age

The Nation's Poor Reading Scores Remain Stagnant

NAEP¹ 4th Grade Reading Scores Persistently Low

Percent of Students Scoring at Each Achievement Level, 2009-2017



Minimal Growth in Reading Outcomes Over the Last Decade

5%

Percentage increase in share of 4th grade students **at or above proficiency** over the past eight years

64%

Of 4th graders are reading **at or below basic** levels on NAEP in 2017

1) National Assessment of Educational Progress.

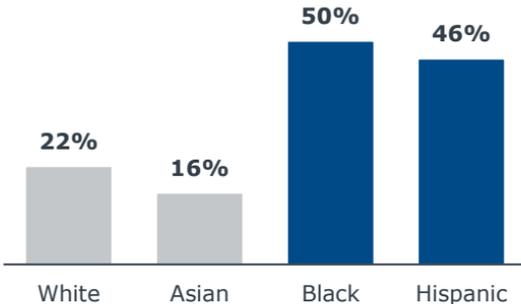
Source: The Nation's Report Card, 2018, [NAEP Data Explorer](#); EAB interviews and analysis.



Poor Reading Outcomes Transcend Demographics

While Minority Students Are At Risk for Poor Reading Scores...

% of 4th Graders Performing Below Basic Reading Levels on NAEP, by Race/Ethnicity (2017)



...Special Populations Are the Furthest Behind in Reading

% of 4th Graders Performing Below Basic Reading Levels on NAEP, by Population Classification¹ (2017)



A Significant Share of Students from Highly Educated Families Struggle to Read



30%

Of struggling readers come from households with at least one **college-educated parent**

1) ELL= English Language Learners, SWD = Students with Disabilities, FRPL= Free- and Reduced-Price Lunch.
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Source: The Nation's Report Card, 2018, [NAEP Data Explorer](#); APM Reports, 2018, [Hard Words: Why Aren't Kids Being Taught to Read?](#); EAB interviews and analysis.



States Not on the Same Page on Proficiency Standards

State Data Inflation Often Muddies the Waters of Who Can Read

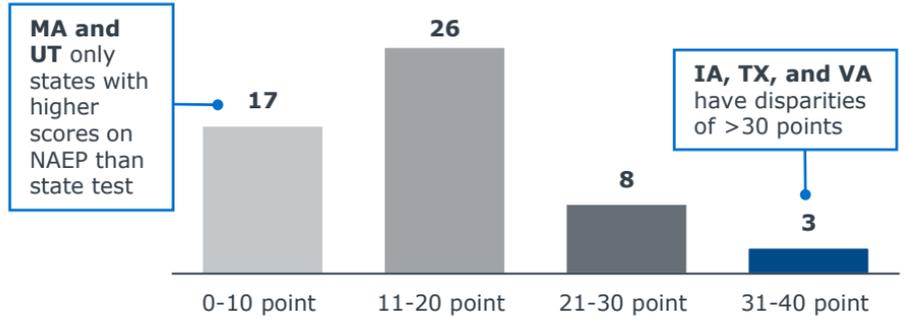
Reading Measures Inconsistent Across States



30

Different assessments used for 4th grade ELA nationwide¹

State Data Inflation Masks the Depths of Reading Failures
States' Fourth Grade Reading Proficiency Rate Gap Between State Tests and NAEP



Leaving Many Questioning, "Can This Student Read?"

"There are so many definitions of what grade-level reading means depending on which measure we use. How do we know which one is right?"

Superintendent, Midwest District

Visit Achieve's "Proficient vs. Prepared" [report](#) for a comparison of 4th grade state reading scores versus NAEP 4th grade reading scores

1) Some states are using PARCC, Smarter Balanced, or ACT Aspire



Assessment Debates Shouldn't Distract from Realities

Poor Reading Outcomes Are Costly For Students and Districts

Failing to Address the Issue Is Problematic For Students...

Struggle to Learn Other Subject Areas

3rd

Grade marks the shift to reading to learn. Students' reading ability becomes essential to success in other subjects

Rarely Catch Up In Reading

75%

Of students who do not read proficiently by 3rd grade never reach reading proficiency in future grades



Less Likely to Attend College

54%

Decrease in likelihood that struggling readers in 3rd grade will attend college, compared to their more proficient peers

Face Challenges Finding Living Wage Jobs

93M

Adults in the nation today read at or below basic levels, even though most living-wage jobs require proficient readers

...And Costly For Districts, Particularly in States With Retention Laws

16

Number of states requiring districts to retain third graders who do not meet reading standards as of 2018

\$11K

Average per pupil cost to retain students in 2017

Source: Education Commission of the States. (2017) "Creating Preventative, Rather Than Reactive, Policies to Boost Third Grade Literacy"; US Department of Education, America Reads Challenge (1999). "Start Early, Finish Strong: How to Help Every Child Become a Reader"; Ann E. Casey foundation. (2010) "Early Warning: Why Reading by the End of Third Grade Matters"; Arellano, A et al. (2015) "Michigan Achieves: Becoming a Top Ten Education State." The Education Trust; Center For Public Education, (2015) "Learning to Read, Reading to Learn"; EAB interviews and analysis.



Truth Be Told: There's No Excuse for Poor Outcomes

Virtually Every Student Can Learn to Read

Almost All Students Have the Cognitive Capacity to Read

Distribution of Early Readers' Cognitive Ability, According to the National Institutes of Health

1 Capable of Learning Regardless of Environment

These students will learn how to read, regardless of instructional quality

2 Able to Learn With High Quality Tier 1 Instruction

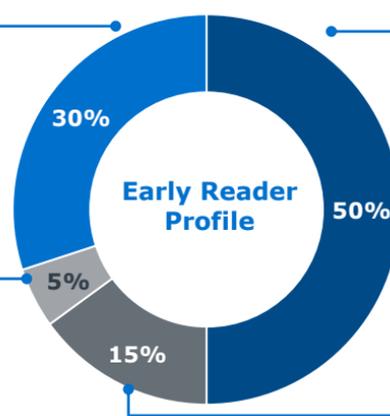
Half of students will learn to read from explicit and direct instruction in foundational skills

4 Struggle with Severe Cognitive Impairments

Small subset of students have severe cognitive disabilities and will likely struggle to read throughout their schooling

3 Require Additional Time and Support

Minimal share of students will eventually enter tier 1 with additional attention and support



95%

Of elementary students, regardless of background, are cognitively capable of learning to read when they receive sufficient direct instruction on the foundational skills of reading

A Different Approach Is Needed to Improve Reading

District-Funded Initiatives Appear Insufficient in Improving Scores

Districts Invest Significant Time and Resources on Reading...



Extending School Days or Literacy Time Blocks



Hiring Literacy Specialist or Instructional Coaches



Updating Instructional and Curricular Materials



Purchasing 1:1 Reading-Related Technology

...Yet Often See Minimal Lasting Results

“It feels like we’ve tried everything and anything to improve reading, but nothing seems to really work. In the end, we keep seeing very similar outcomes.”

Superintendent, Southwest District

Pre-K Helpful, But Not Sufficient

Key Findings Regarding the Effects of Pre-K on Reading, Vanderbilt Peabody Study (2015)¹

✓ **Improves Kindergarten Readiness**
Students who attended pre-k had higher reading outcomes at the start of kindergarten

✓ **Effects on Reading Are Not Sustained**
By the end of kindergarten, students who attended pre-k were no longer significantly outperforming those who didn't attend

Source: Lipsey, M et al. (2013) "Evaluation of the Tennessee Voluntary Prekindergarten Program: Kindergarten and First Grade Follow-Up Results from the Randomized Control Design;" EAB interviews and analysis.

1) Most recent RCT and longitudinal study examining the effects of Pre-K on reading outcomes; N=1070 students attending publicly funded preschools in Tennessee. ©2019 EAB Global, Inc. • All Rights Reserved • eab.com.

Good News: Science Provides a Blueprint for Reading



Decades of Neuroscience Research Provides Insight on How Students Learn to Read

42 Research centers nationwide examine reading-related brain activity

30 Years of brain-based research dedicated to learning to read

“

Science Has Implications For How to Teach Reading...

“We [NICHD] have multidisciplinary [research] teams—including cognitive neuroscientists and pediatricians—who have developed a body of information on reading and the brain that can inform practice in schools and policy.”

Dr. G. Reid Lyon
*National Institute of Child Health
and Human Development*

”

“

...And How Schools Can Help Struggling Readers Read

“Every year, there are hundreds of newly published, scientifically oriented research reports on reading...There is ample research that shows how weak readers can make substantial reading gains, with a fairly large percentage developing normalized reading skills.”

Dr. David Kilpatrick
Professor of Psychology, SUNY¹ Cortland

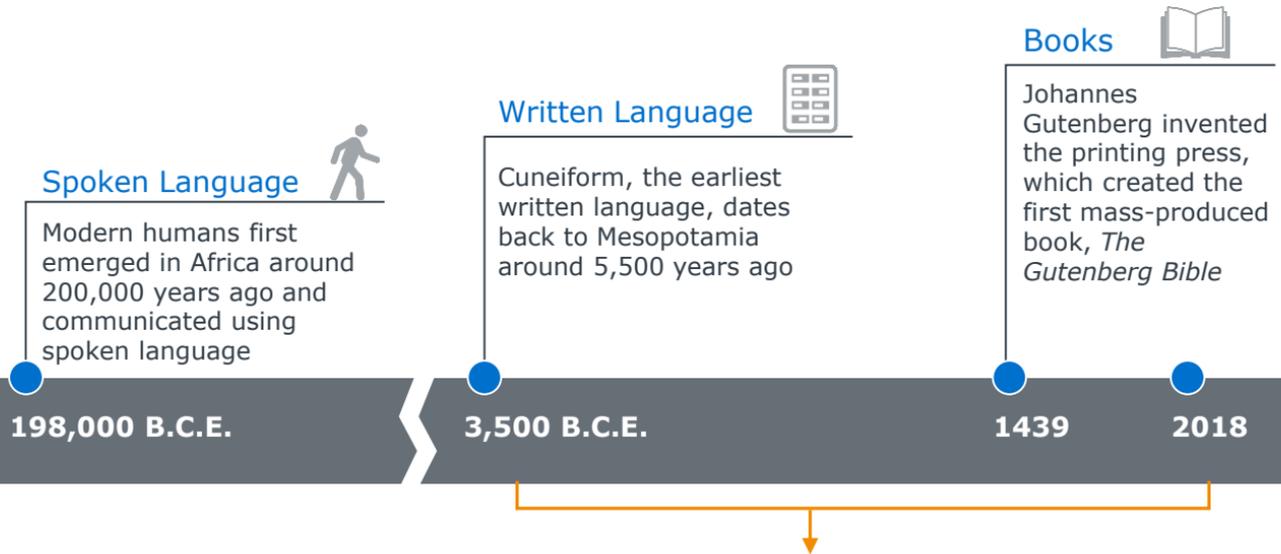
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Source: Boulton, D (2015) “An Interview with Dr. G. Reid Lyon—Converging Evidence—Reading Research What it Takes to Read;” Loyd, G. (2009) “Reading Difficulties: Prevention, Early Intervention, and Remediation;” Kilpatrick, D. (2015) “[Essentials of Assessing, Preventing, and Overcoming Reading Difficulties](#).” EAB interviews and analysis.

Human Brains Are Not Naturally Wired to Read

Reading and Writing Are Relatively Recent in the Span of Human Existence

Timeline of Spoken and Written Language in Relation to Human History

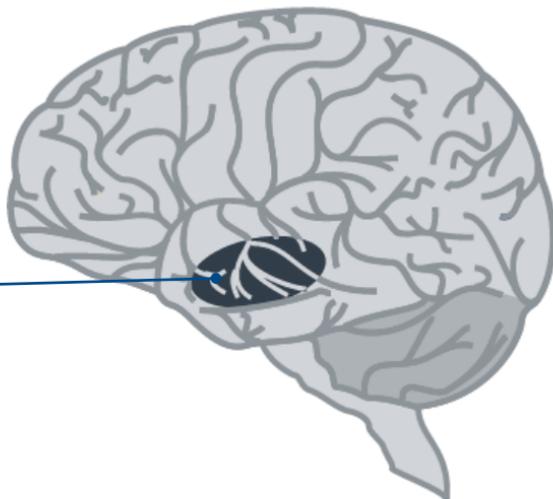


<3%

Of human existence includes written language and reading. **The human brain has not evolved to learn reading naturally.**

Auditory Cortex

- Located within the temporal lobe
- Processes auditory stimuli transmitted through the ears
- Contains Wernicke's area, known for its role in speech comprehension



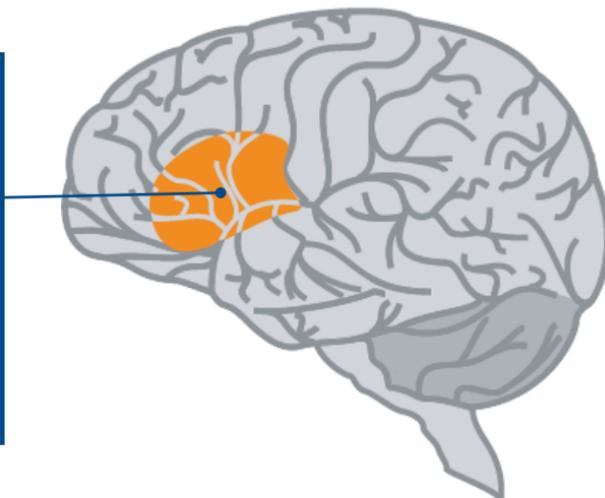
Role in Reading: Phonological Processing

Critical for the discernment and recognition of unique speech sounds, which is foundational to the decoding process

Source: Harvard Medical School, Department of Neurobiology, "[Reading and the Brain](#)," 2018; Burns, "[The Reading Brain: How Your Brain Helps You Read, and Why it Matters](#)," FastForward by Scientific Learning, 2017; Pegado et al., "Brain Pathways for Mirror Discrimination Learning During Literacy Acquisition," 2014; Buchweitz et al., "Brain Activation for Reading and Listening Comprehension: An fMRI Study of Modality Effects and Individual Differences in Language Comprehension," 2011; Seidenberg, *Language at the Speed of Sight: How We Read, Why So Many Can't, and What Can Be Done About It*, 2017; EAB interviews and analysis.

Inferior Frontal Gyrus

- Located within the frontal lobe, which deals with executive functioning and higher-order processing
- Includes Broca's area, known for its role in speech production
- Linked to a semantic hub that assists in processing meaning



Role in Reading: Speech Production, Fluency, and Comprehension

Essential for multiple functions, including grammatical usage, effective speech production, and language comprehension

Visual Cortex Recognizes Printed Letters and Words



Visual Cortex

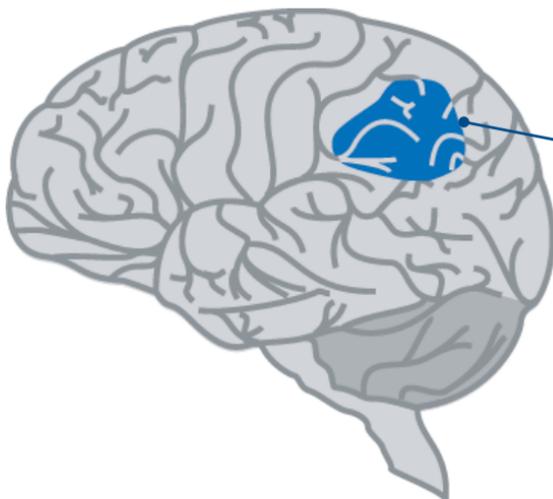
- Located within the occipital lobe
- Processes visual stimuli transmitted through the eyes



Role in Reading: Orthographic Processing

Recognizes and processes visual information conveyed through written letters and words

Angular Gyrus Associates Letters with Sounds



Angular Gyrus

- Located within the parietal lobe
- Responsible for many multimodal functions
- Links semantic, phonological, and orthographic processors



Role in Reading: Sound-Symbol Connections and Semantic Processing

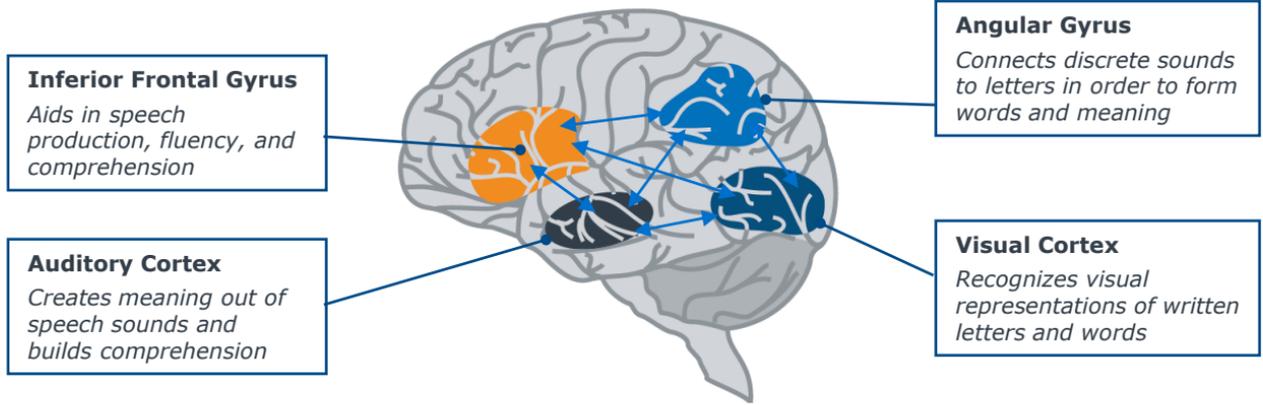
Makes connections between sounds and visual representations of letters and words, which is critical for speech-to-print and print-to-speech circuits

Source: Harvard Medical School, Department of Neurobiology, "[Reading and the Brain](#)," 2018; Burns, "[The Reading Brain: How Your Brain Helps You Read, and Why it Matters](#)," FastForward by Scientific Learning, 2017; Pegado et al., "Brain Pathways for Mirror Discrimination Learning During Literacy Acquisition," 2014; Buchweitz et al., "Brain Activation for Reading and Listening Comprehension: An fMRI Study of Modality Effects and Individual Differences in Language Comprehension," 2011; Seidenberg, *Language at the Speed of Sight: How We Read, Why So Many Can't, and What Can Be Done About It*, 2017; EAB interviews and analysis.

There is No Single “Reading Region”

Reading Requires Building Neural Circuits Across Critical Brain Regions

Regions of the Brain Activated While Reading, as Viewed in fMRI¹ Scans



Early Reading Instruction that Builds Neural Pathways Is Essential



The quality of reading instruction impacts a child’s white matter development—the neural pathways that connect areas of the brain

56%

Of variance in reading outcomes is accounted for by the change in volume in white matter between kindergarten and 3rd grade

1) fMRI= Functional Magnetic Resonance Imaging

Source: Konnikova, M (2015) [“How Children Learn to Read,”](#) *The New Yorker*; Myers, C (2014) [“White Matter Morphometric Changes Uniquely Predict Children’s Reading Acquisition,”](#) Seidenberg, M (2017) *Language at the Speed of Sight: How We Read, Why So Many Can’t, and What Can Be Done About It*; EAB interviews and analysis.

Bring the Science of Reading into Your Classrooms



Our **student-friendly reading infographic** is intended to illustrate some of the scientific processes at work while learning to read.

It also provides some practical guidance for elementary teachers by highlighting the **foundational skills** needed to develop the critical brain regions used in reading.

How Our BRAINS Learn to Read

Reading is an important and fun skill that nearly everyone can learn with time and practice. Our brains are naturally set up to learn to speak, but learning to read does not happen on its own. Scientists have found that we must develop certain parts of our brains and build connections between brain areas that were not connected before. The picture below shows **four different areas of our brains** that we use when we read.

VISUAL CORTEX

The part of our brains helps us see things. We use this part when we look at and recognize written letters and words.

READ INSTRUCTION: Orthographic Processing

AUDITORY CORTEX

This brain area allows us to hear and tell the difference between sounds in spoken language. When we read, we use this part of our brains to identify the sounds that make up words.

READ INSTRUCTION: Phonological Processing

ANGULAR GYRUS

This brain area helps us connect sounds with letters and letters with sounds. We use this part of our brains to read words aloud or to ourselves and to put words on a page.

READ INSTRUCTION: Sound-Semantic Connections and Semantic Processing

INFERIOR FRONTAL GYRUS

This part of our brains helps us make speech sounds, form words and sentences, and understand the meaning of what we listen to and read.

READ INSTRUCTION: Sentence Production, Fluency and Comprehension

We Need to Teach Our Brains to DECODE to Become Good Readers

What we learn in school can help us build the brain connections that we need to read. The four decoding skills below help develop different parts of the brain. It is important that kindergarten, first graders, and second graders spend a lot of time in the classroom learning and practicing these skills because they are the building blocks of reading.

- Phonological Awareness**
It is important that we can recognize all of the sounds in the English language to be able to read well. English has **44 different speech sounds**, which is more than many other languages. **Sound walls** in our classrooms can help us learn how to make these unique sounds.
- Print Concepts**
To become readers, we must also recognize the **letters of our alphabet**, the **basic parts of a book**, and the **special rules that print must follow**. Pointing out the front and back of a book, capital letters, lowercase letters, and punctuation marks can help us understand how writing works.
- Phonics & Word Recognition**
Once we know our sounds and the alphabet, we can begin to put them together to read words. We learn **blends** when our teachers help us to **sound out words** and know which **letters and combinations of letters make a word's sounds**. When we become good at this skill, we can read and spell many words.
- Fluency**
Now that we've learned about the connections between sounds, letters, and words, we can put it all together by **reading sentences and books**. The more we practice sounding out words, the easier it will become to recognize both new and familiar words on the page.

Learn more about the strategies and systems needed to improve students' reading outcomes by visiting our resource center on narrowing the third grade reading gap. <https://www.uic.edu/officeofeducation>

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Each highlighted brain region explains how that region contributes to the **process of learning to read**.

Research Confirms: Strong Readers Decode

Research Distinguishes Strong From Poor Readers

Key Differences Between Strong and Poor Readers, According to Numerous Studies

1 Strong readers rely heavily on decoding skills

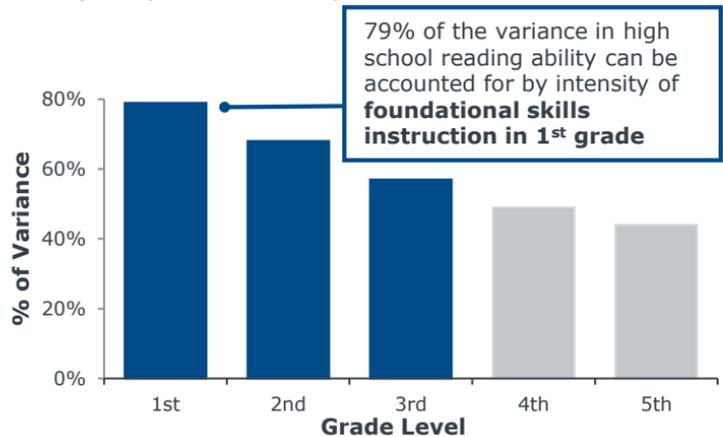
- Adelman (2012)
- Frost (1998)
- Gringirenko & Naples (2008)
- Halderman, et al. (2012)
- Pugh & McCardle (2009)
- Share (1995)

2 Poor readers rely heavily on context clues

- Corkett & Parrila (2008)
- Nation & Snowling (1998)
- Rack et al. (1992)
- Van Den Broeck & Geudens (2012)

A Focus on Foundational Skills¹ in Early Grades is Essential for Future Reading Success

Influence of Early Decoding Skills-Focused Instruction on Reading Comprehension Ability in Later Grades²



87% Of English words are either fully or easily decodable³

- 1) Phonological awareness, print concepts, phonics/word recognition, and fluency
- 2) Results from a ten-year longitudinal study out of Yale University; n=445 randomly selected kindergarten students.
- 3) 50% of English words are fully decodable; 37% of words are mostly decodable with the exception of one sound, many of which can be solved by knowledge of prefixes, roots and suffixes

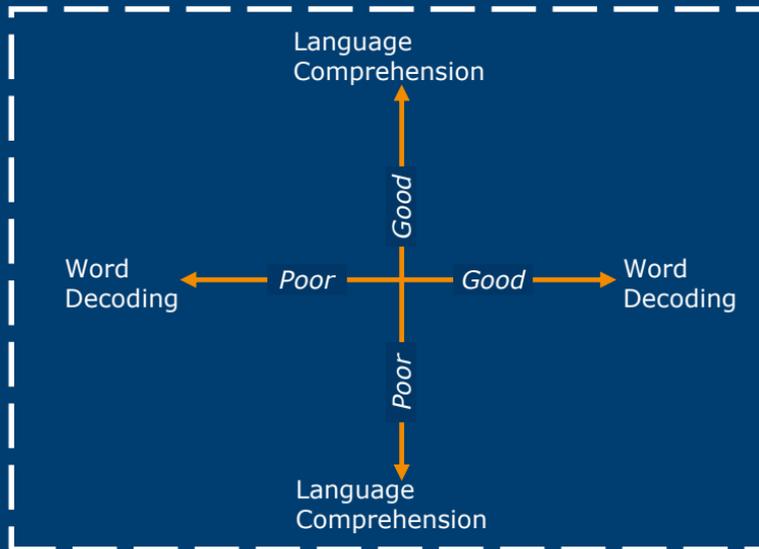
Source: Shaywitz, et al., (1999) "Persistence of Dyslexia: the Connecticut Longitudinal Study at Adolescence;" Student Achievement Partners, "[Foundational Skills Guidance Documents: Grades K-2](#)"; Kilpatrick, D. (2015) "Essentials of Assessing, Preventing, and Overcoming Reading Difficulties"; Reed, D. (2016), "[The Importance of Phonics Instruction For All Students](#)," Iowa Reading Research Center³ EAB interviews and analysis.



The Simple View of Reading

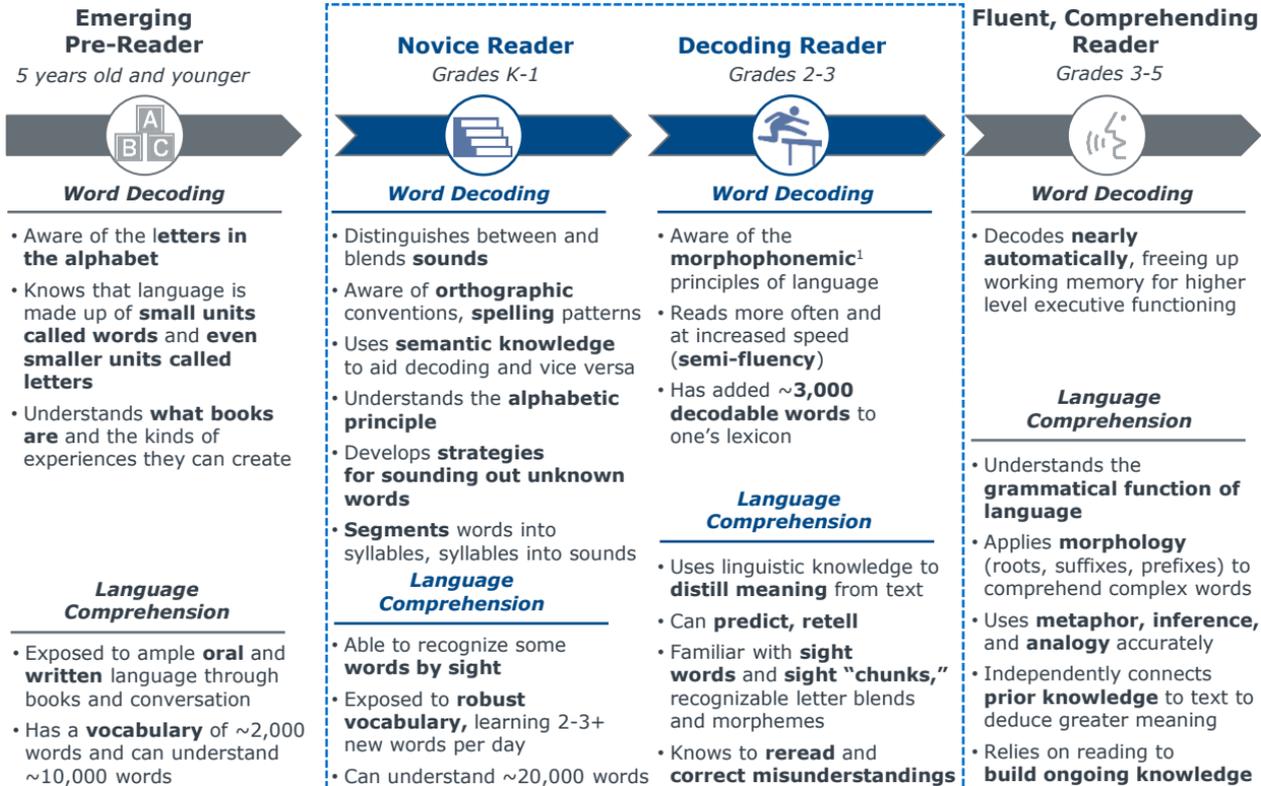
Research-Based Equation for How Students Learn to Read

Reading Comprehension = Word Decoding \times Language Comprehension



Reading Mastery Is an Ongoing Progression

Phases of a Student's Reading Development



1) The relationship between sounds and word

units and the rules that govern their pronunciation

Source: Wolf, M, Prout and the Squid: *The Story and Science of the Reading Brain*, 2007; Temple et al., *All Children Read: Teaching for Literacy in Today's Diverse Classrooms*, 4th ed., 2010; Virtual Speech Center, "Speech and Language Development Milestones," 2018; Loraine, S, "Vocabulary Development," (2008; Lyon, R., "Reading Difficulties: Prevention, Early Intervention, and Remediation," Southern Methodist University, 2009; EAB interviews and analysis.

What Does the Science Mean for Comprehension?

Developing Good Readers Requires Ongoing Comprehension Support

1 Morphological Awareness

Explicit instruction in **morphology, or the study of the structure of words and word formation**, helps students build lifelong comprehension skills by recognizing the meaning of word roots, prefixes, and suffixes. Direct instruction in morphology also helps ELL students make connections between English words and words in other languages.

Example of Word Comprehension through Morphology

Prefix	Root	Suffix	Full Word
un-	system	-atic	Unsystematic
<i>Negates, "opposite of"</i>	<i>noun, "an organized process"</i>	<i>converts noun to adjective</i>	<i>Something that is not done according to an organized plan or process</i>

2 Explicit Vocabulary Instruction

Teachers can help **narrow the word gap** by using more robust vocabulary in class and teaching at least 2-3 new words per day in 1st and 2nd grades and at least 6-8 new words per day for 3rd grade and older.¹

Recommendation for Vocabulary Instruction

12

Average number of times that early readers need to encounter a new word before they know it well enough to improve comprehension

3 Expanding Background Knowledge

Teachers should consider the **requisite background knowledge needed to access a text** and use pre-reading discussions to familiarize students with new words and concepts. Culturally diverse and responsive materials can facilitate **text-to-self** and **text-to-world connections**, while helping students develop an excitement for reading.



Visit the [Inclusive Schools Network](#) and the [International Literacy Association's](#) lists of teacher-recommended, culturally responsive books for students.

1) 800+ words per year in grades 1-2; 2,000+ words per year in grades 3+
 2) English language learners

What Does the Science Mean for Word Decoding?

Direct Instruction on Decoding Skills is Fundamental For Early Grades

1 Phonemic Awareness

Direct instruction related to recognition and production of the **44 speech sounds (phonemes) in the English language** is critical for students who are starting to learn to read, particularly for ELLs.¹

Visit the [American Speech-Language-Hearing Association's](#) site for lists of English phonemes that are most challenging for English language learners.

Language	Number of Speech Sounds
English	44
Haitian Creole	32
Mandarin	29
Spanish	21

2 Mastery of Print Concepts

Recognizing letters and basic elements of print (*see right*) is foundational to mastering the **orthography** (writing system) of English. Teachers should create multiple and meaningful exposures to print to introduce students to the **alphabetic principle**.²

- | | |
|--------------------------|--------------------------------|
| ✓ Front, back of book | ✓ First, last word in sentence |
| ✓ Title of the book | ✓ First, last word on page |
| ✓ Where to begin reading | ✓ Capital letter |
| ✓ One letter | ✓ Lowercase letter |
| ✓ One word | ✓ Punctuation marks |

3 Phoneme-Grapheme Correspondence

Once students have acquired the alphabetic principle, teachers should explicitly explain how each of English's 44 speech sounds maps to a letter or letter combination (grapheme). **Sound walls** in early grades that include photos of each oral pronunciation help students practice individual sound-symbol correspondences (*see right*).



1) English language learners

2) The systematic relationship between the written letters of an alphabet and its sounds

Source: The National Reading Panel (2000) "Teaching Children to Read;" American Speech-Language-Hearing Association, (2018) "Phonemic Inventories and Cultural and Linguistic Information Across Languages; Seldenberg, M (2017) "Language at the Speed of Sight: How We Read, Why So Many Can't, and What Can Be Done About It;" Basic Books, New York; Iruljo, S. "What Does Research Tell Us About Teaching Reading to English Language Learners;" "Print Awareness: Guidelines for Instruction," Reading Rockets; Castles et al. (2018), "Corrigendum: Ending the Reading Wars: Reading Acquisition from Novice to Expert," Association for Psychological Science; EAB interviews and analysis.

Most Reading Instruction Fails to Align with Science

Typical Classrooms Rarely Incorporate the Science of Reading

Limitations of Status Quo Early Elementary Reading Instruction



Unfamiliarity with Foundational Reading Skills

60%

Of elementary teachers have **never been trained** in strategies for teaching phonemic awareness, phonics, vocabulary, fluency and comprehension



Oversimplified Phonemic Awareness

95%

Of early elementary classrooms **spend insufficient time** providing direct instruction on all English phonemes¹



Overemphasis on Using Context Clues for Decoding

80%

Of early elementary teachers **encourage students to use pictures or context clues** to identify unfamiliar words



“A look at the research reveals that **the methods commonly used to teach children to read are inconsistent with basic facts about human cognition and development** and therefore make learning to read more difficult than it should be... In short, what happens in classrooms isn’t adequate for many children.”

Mark Seidenberg, Cognitive Neuroscientist, University of Wisconsin-Madison

1) In fact, most 2nd-4th grade curricula and assessments stop monitoring phonemic awareness, even though phonics skills continue to develop through fourth grade (David Kilpatrick, 2015)

Source: Kilpatrick, D (2015) “Essentials of Assessing, Preventing, and Overcoming Reading Difficulties;” Seidenberg, M. (2018) “Language at the Speed of Sight: How We Read, Why So Many Can’t, and What Can Be Done About It;” EAB interviews and analysis.



Limited Phonics Compounds Future Reading Struggles

Insufficient Phonics Instruction Can Hinder Reading Ability in Future Grades...



90

Number of research studies that conclude that the absence of direct **phonics and phonemic awareness** instruction in early grades impedes students' reading growth in later grades¹

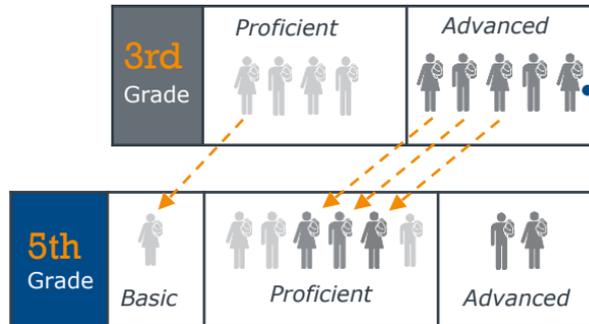
...And Can Lead to "The Fourth Grade Slump"²

55%

Of **advanced** 3rd grade readers no longer receive an advanced score in 5th grade

20%

Of **proficient** 3rd grade readers dropped down to basic by 5th grade

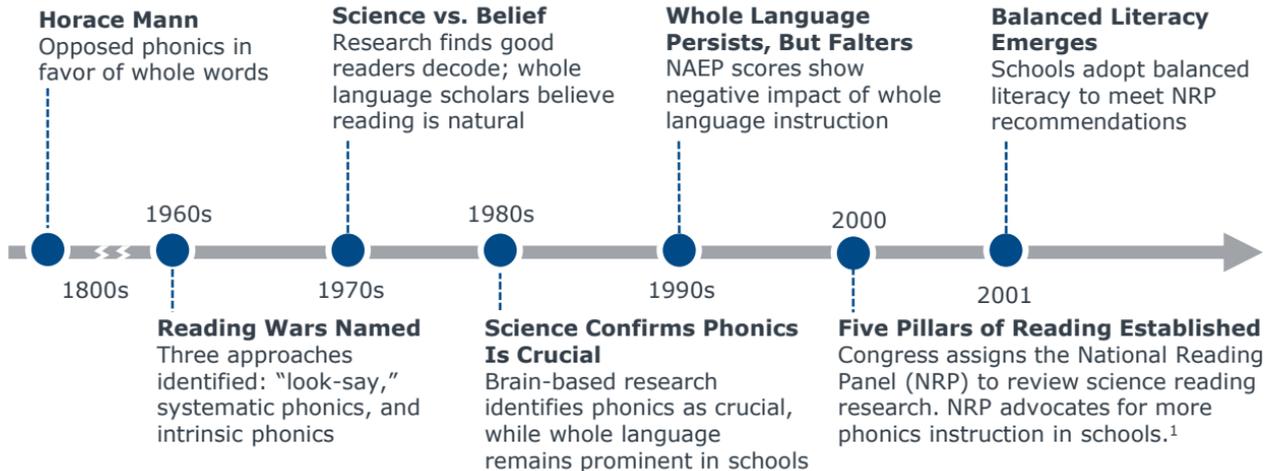


Students with strong visual memories may **appear to be advanced readers when given simple reading assignments**, but struggle later when given more complex texts

Source: Tennessee Department of Education (2016) "Setting the Foundation: A Report on Elementary Grades Reading in Tennessee"; https://www.researchgate.net/publication/242710402_Phonemic_Awareness_and_Phonics; Lyon, R. (2009) "Reading Difficulties: Prevention, Early Intervention, and Remediation." Southern Methodist University; Seidenberg, M. (2018) "Language at the Speed of Sight: How We Read, Why So Many Can't, and What Can Be Done About It; Mathes, P. (2015) "The Case of Early Intervention in Reading;" EAB interviews and analysis.

1) All 90 studies were reviewed by the National Reading Panel
2) Fourth Grade Slump from Tennessee Department of Education's "Setting the Foundations" Report

Reading Wars Overshadow Brain-Based Research



“Most districts claim they are doing ‘balanced literacy.’ In practice, this means that whole language got repackaged. **People briefly teach phonics, but phonics is treated like salt on a meal.** A little here and there, but not too much. The problem with teaching just a little bit of phonics is that phonics is crucial when it comes to learning how to read.”

Emily Hanford, "Hard Words: Why Aren't Kids Being Taught to Read?" (2018)

1) The NRP recommends the five reading pillars: phonemic awareness, phonics, vocabulary, fluency, and reading comprehension

Source: Kim, J. (2008) "Research and the Reading Wars"; Hanford, E (2018) "Hard Words: Why Aren't Kids Being Taught to Read?" American Public Media; EAB interviews and analysis.

Higher Education Inadequately Prepares Teachers

Almost All Higher Ed Programs Fail to Teach the Science of Reading

Most Schools of Education Fail to Prepare Educators to Teach Reading

31% Of teacher preparation programs devote **no coursework to reading science**¹

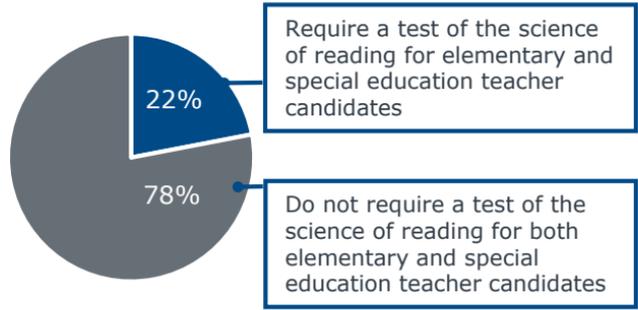
39% Of teacher undergraduate elementary education programs provided **instruction in all 5 components of reading**²

46% Of undergraduate elementary education programs **teach phonemic awareness**

23% Of graduate elementary education programs **teach scientifically-based reading methods**

Most State Teacher Licensing Exams Fail to Test the Five Components of Reading

% of State Teacher Licensing Exams That Test Teachers' Reading Knowledge (n=51)



”What these programs most often teach is not to adopt the whole language approach, but that the candidate should **develop her own approach to teaching reading, based on exposure to various philosophies and approaches, none more valid than any other.**”

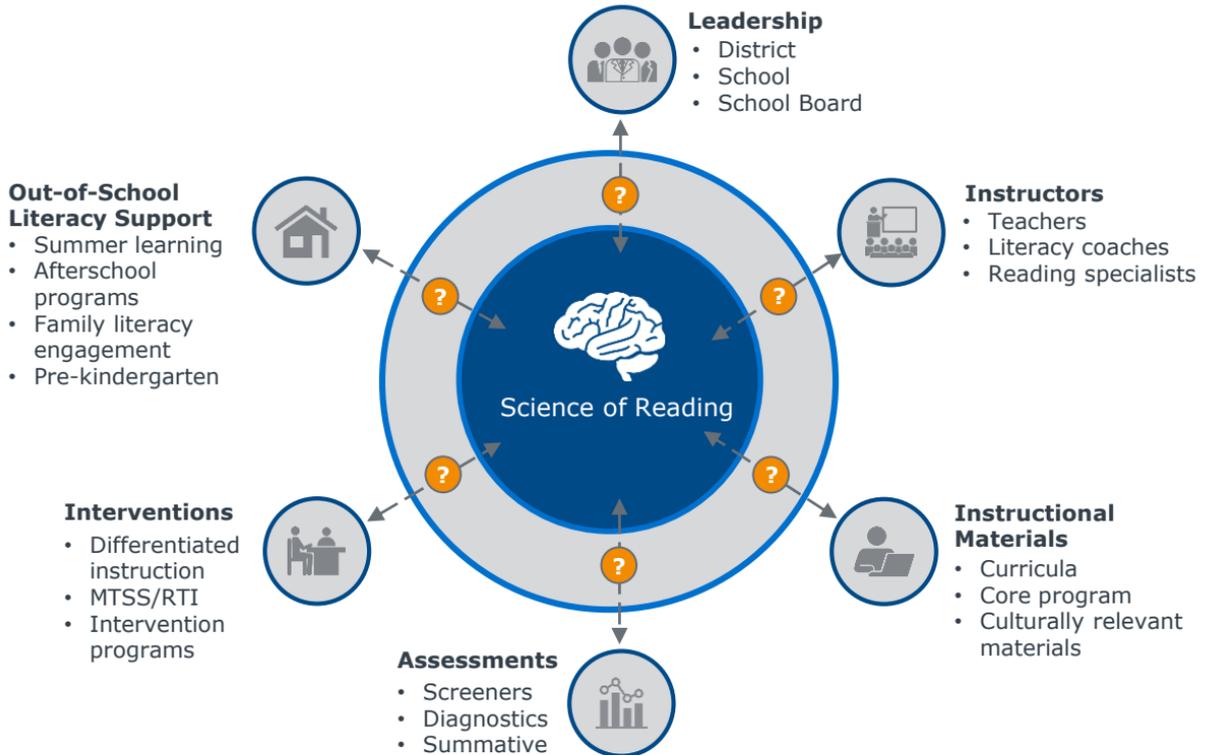
*Kate Walsh, President, NCTQ
21st-Century Teacher Education*

1) N = 72 teacher preparation program syllabi.
 2) N = 820 undergraduate elementary education programs.
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Source: National Center on Teacher Quality (NCTQ), 2018, NCTQ Databurst: [Strengthening Reading Instruction through Better Preparation of Elementary and Special Education Teachers](#); NCTQ, 2018, [2018 Teacher Prep Review](#); Education Next, 2013, Vol. 13, No. 3, [21st-Century Teacher Education](#); NCTQ, 2016, [Landscapes in teacher prep, undergraduate elementary ed](#); Walsh, K., Glaser, D., & Wilcox, D., 2006, [What Education Schools Aren't Teaching about Reading and What Elementary Teachers Aren't Learning](#); EAB interviews and analysis.

Reading Systems Remain Disconnected From Science

Science Has Had Little Impact on What Happens in Schools



Success Is Possible: Science Critical for Improvement

Districts that Have Aligned Systems with Science Dramatically Improve



Demographics



Performance Before



Performance After

Rapides Parish



(32 elementary schools)

FRPL 69%; Title I: 94%

Black: 43%

Hispanic: 3%

IDEA: 11%

LEP: 2%

41%

Of kindergarteners reading on or above grade level in 2016

99%

Of kindergarteners reading on or above grade level in 2017

Bethlehem Area School District



(16 elementary schools)

FRPL 57%; Title I: 82%

Black: 10%

Hispanic: 39%

IDEA: 17%

LEP: 6%

47%

Of kindergarteners scored at or above the DIBELS benchmark composite score in 2015

84%

Of kindergarteners scored at or above the DIBELS benchmark composite score in 2018

Grant County Schools



(2 elementary schools)

FRPL 46%; Title I: 50%

Black: 1%

Hispanic: 1%

IDEA: 18%

LEP: 0.3%

43rd

Lowest-performing school district out of 55 districts total in the state in 2010

6th

Highest-performing school district out of 55 districts total in the state in 2016

Narrowing the Third Grade Reading Gap

Embracing the Science of Reading to Ensure All Students Can Read

1

Develop and Sustain Schoolwide Expertise in the Science of Teaching Reading



1. Science of Reading Professional Development
2. Train the Trainer Sustainability Plan
3. Grassroots Pilot Success Models
4. Principal Literacy Champions

2

Aid Teachers in Implementing Science-Based Instruction



5. Instructional Materials Selection Tools
6. Science-Directed Literacy Look-For
7. Video-Based Teacher Observations
8. Literacy Implementation Evaluations

3

Redesign Small Group Instruction to Target Student Skill Deficits



9. Skills-Based Grouping
10. Cross-Classroom Intervention Specialists

4

Mitigate Summer Slide with Engaging Summer Programming



11. Camp-Style Summer Literacy
12. Online Video Enrollment Campaigns
13. Summer School Attendance Incentives
14. Parent-Facing Literacy Nudges

Revisiting Our Case Study Districts



Grant County Schools

Before

10% Of K-5 students meeting DIBELS benchmark



State takeover due to low performance

What They Did

- Science of reading training
- Data summits
- Skills-based grouping
- Summer learning focused on literacy

Results

6th Highest performing district (out of 55)

85% Of K-5 students meeting DIBELS benchmark at grade level within 6 years



Rapides Parish Schools

Before

76% District accountability performance score

What They Did

- Science of reading training
- New curriculum
- Skills-based grouping
- Summer learning focused on literacy

Results

8x As many K-3 students achieving highest STAR classification in one year

92% District accountability performance score (improvement over 5 yrs.)



BETHLEHEM
AREA SCHOOL DISTRICT

Bethlehem Area School District

Before

31% Of elementary schools had 60% or more of kindergarteners meeting benchmark on DIBELS

What They Did

- Science of reading training
- Data summits
- Skills-based grouping
- Summer learning focused on literacy

Results

100% Of elementary schools had 60% or more of kindergarteners meeting benchmark on DIBELS



Upcoming Webconferences

Develop and Implement Schoolwide Expertise in Science-Based Reading Instruction

Join us to learn strategies to **develop districtwide support for and ongoing implementation of science-based reading initiatives**. This webconference will focus on building principal knowledge and teacher expertise and highlight ways to transfer practitioner knowledge into classroom action.

Wednesday, April 10

3:00 – 4:00 p.m. ET



Redesign Small Group Instruction to Target Student Skill Deficits

This presentation will introduce proven ways to **enhance the effectiveness of small group instruction and intervention**. We will discuss how to reorganize student reading groups around skill deficit rather than broad reading levels. We will also discuss how teachers can support students across grade levels to maximize teacher expertise.

Thursday, April 18

3:00 – 4:00 p.m. ET



Archived Webconference

Mitigate Summer Slide with Engaging Summer Programming

This webconference provides ways to **mitigate the impact of summer slide by improving student participation and engagement in summer learning programs** and by supporting students who cannot attend summer learning experiences through parent-facing literacy prompts.

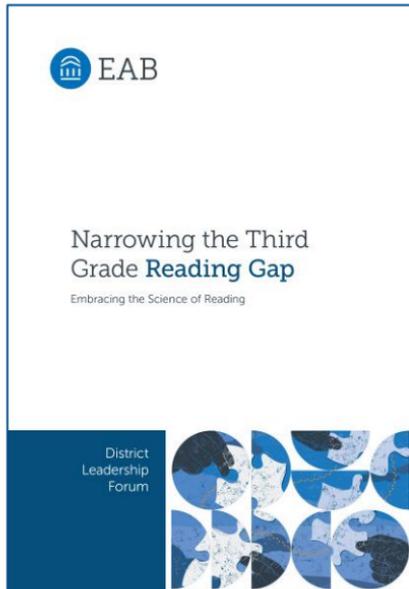
Available On-Demand



Register for the above webconferences at eab.com.

New Additions to Our Research Library

Coming Soon: Embracing the Science of Reading Research Brief



Embracing the Science of Reading research brief will be available at eab.com

Questions About Today's Presentation?



Pete Talbot
Managing Director

ptalbot@eab.com

Additional Resources Available Online



[Narrowing the Third Grade Reading Gap Resource Center](#)



[On-Demand Research Library](#)



[K-12 Student Mental Health and Wellness Resource Center](#)



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