

# Research to Action: Improving K-3 Literacy Instruction for Students with Learning Differences

March 2020



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# 1 | Summary

# Oak Foundation partnered with Education First to research efforts to improve K-3 literacy, with special attention to students with learning differences

## Who we are

**Oak Foundation** commits its resources to address issues of global, social and environmental concern, particularly those that have a major impact on the lives of the disadvantaged. With offices in Europe, Africa, India and North America, Oak Foundation makes grants to organisations in approximately 40 countries worldwide.



**Oak Foundation's Learning Differences Programme (LDP)** believes that together we can build a world in which schools unlock the creativity and power of every young person, especially the most marginalized, and equip them to shape more just and equitable communities.

The LDP focuses on equity as a proactive strategic approach that accounts for structural differences in power, opportunities, burdens, and needs to design targeted responses that improve outcomes and close gaps.

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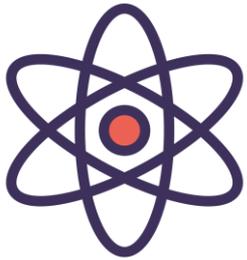
**Education First** is a seasoned team of trusted advisors to the leaders responsible for delivering what many Americans want most: public education that effectively prepares students for success in college, careers and a world of constant change. We devote our energy and expertise to improving opportunities for all children, especially students from low-income families and students of color.



education**first**

# Oak Foundation's Learning Differences Programme supports efforts to improve K-3 literacy instruction, particularly for students with learning differences who also experience additional adversity due to racism and poverty

## The opportunity



The Learning Differences Programme is particularly interested in opportunities for **improving early (K-3) literacy instruction, particularly for students with learning differences who also experience additional adversity due to racism and poverty.**

Oak Foundation aims to contribute to this work by **helping the field build educator knowledge and skill in the science of learning and early literacy.** We **focus particularly on educators' initial preparation and ongoing development as well as high-quality instructional materials and support.**

## Why this deck



Across the U.S., there is a renewed focus on improving students' early literacy, especially given stagnant reading scores across the nation. **We offer this resource to help funders and others in the education sector make decisions to meet the challenge of improving early literacy for all students, particularly those who have learning differences, ensuring they have access to effective instruction and materials to support their reading acquisition.**

Education First originally developed this landscape scan in January 2020 for the Oak Foundation to support its early literacy investments and adapted the scan in March 2020 as a public resource.

# This scan explores potential levers and highlights opportunities for the education sector to support effective early literacy instruction

## Key questions this scan seeks to answer:



### **The science of reading, learning differences and equity**

What does the research say about how children learn to read and about effective teaching practice for reading instruction in the early grades, specifically for students with learning differences and those furthest from opportunity?



### **Systemic levers for change in education**

What are the key areas where important shifts in the education system are needed to better to serve all students, and specifically for students with learning differences and those furthest from opportunity, in learning to read proficiently?



### **Bright spots**

What promising practices, approaches or models for implementing effective reading instruction currently exist in the field, specifically to support students with learning differences and those furthest from opportunity?



### **Strategies for the field**

What are the high-potential strategies and solutions to improve K-3 literacy instruction, specifically for students with learning differences and those furthest from opportunity?

# Based on reading science, a K-3 classroom where all children have their best shot at reading proficiently, has three related building blocks

## A reading classroom with a basis in science

*Teacher*

Skilled reading teacher

*Curricula\**

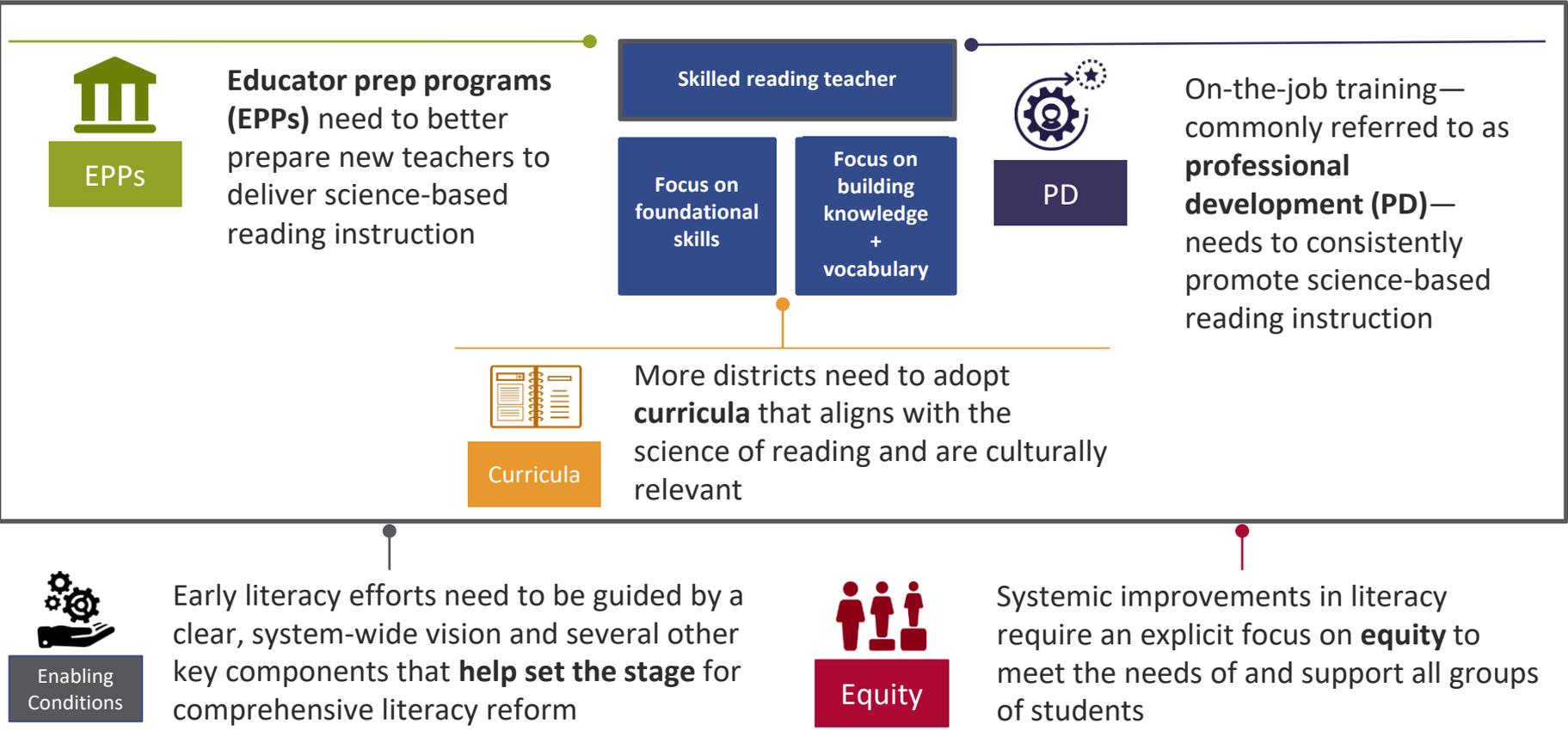
Focus on  
foundational  
skills

Focus on  
building  
knowledge +  
vocabulary

- The curricula helps **build background knowledge and vocabulary** with carefully selected, culturally-relevant texts on related topics from various content areas, written at the level of typically developing readers in students' grade, and tasks that are cognitively rigorous for the age group.
- The curricula also helps build the **foundational skills** for decoding (e.g., phonological awareness and phonics) by supporting teachers to teach all skills explicitly and systematically, using diagnostic assessments to fill in student needs.
- Most importantly, a **skilled reading teacher** uses knowledge about reading development and instruction to deliver the curricula with fidelity and to supplement it appropriately, based on their particular students' needs. The teacher also understands his/her students and works to affirm and celebrate their identities.

\*Some commercially available products include both a core literacy curriculum and a foundational skills curriculum, while others focus on one or the other and should be paired with a complementary product designed to plug in what it lacks in a seamless way.

# Our research elevates five key areas across the education system to better to serve all students in learning to read proficiently



# Lessons learned from states and districts that have made significant strides point to several key strategies to improve reading instruction at scale



Enabling  
Conditions

- Educate and empower policymakers to build the will for change
- Support and incent district leaders to establish a comprehensive vision for early literacy that aligns educators' initial preparation with curricula and PD



Equity

- Use an equity framework to guide systemic reforms and support early literacy for all students, particularly those furthest from opportunity



EPPs

- Use data and advocacy to push for policy change in licensure and educator preparation
- Build EPP faculty capacity and expertise to redesign coursework and clinical experiences



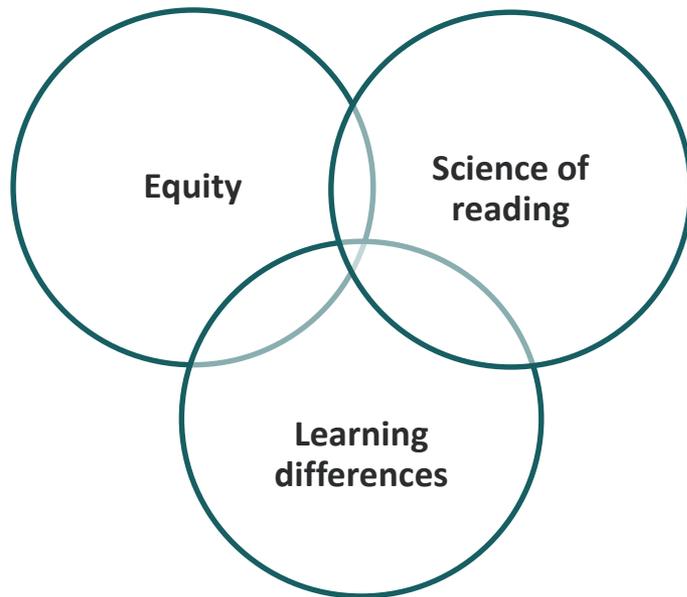
Curricula



PD

- Provide structures and supports to help district leaders build the will, skill and capacity for change
- Educate and partner with school leaders on the science of reading to build will and capacity for change at the school level
- Invest in high-quality coaching to support immediate changes in teacher practice

# The strategies and recommendations in this scan represent some of the most promising efforts in the field; we know that any effort to support early literacy will require an integrated approach



This scan highlights ways the field can act on key system elements to improve early literacy, particularly for students with learning differences and those experiencing additional adversity due to poverty and/or racism.

Funders, in particular, are well-positioned to support the field to improve early literacy in ways that both integrate these system elements *and* that work at the intersections of the science of reading, learning differences and equity. For example:

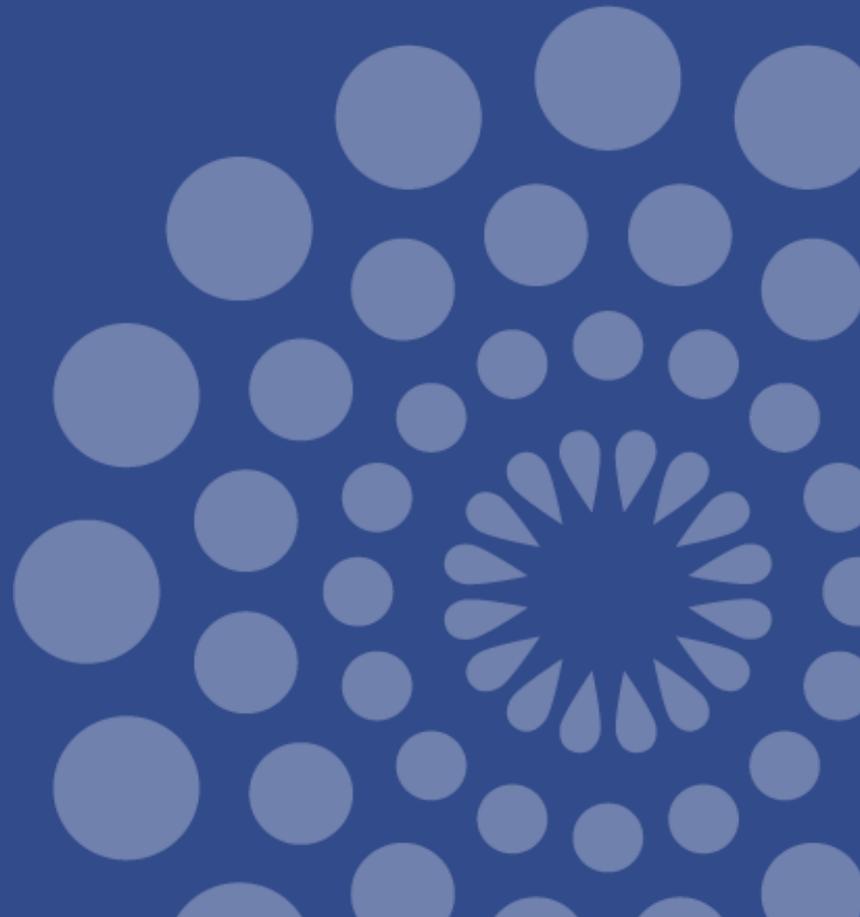
- **Convene:** Bring system leaders, policymakers, practitioners and researchers together to better understand the research on early literacy, learning differences and equity—and learn from best practice
- **Educate:** Highlight the urgency of the issue and lift up bright spots through storytelling
- **Support:** Invest in stakeholders at multiple levels of the system to create the space for and implement best practice and create change

**We are committed to putting these ideas into action.  
We hope you will join us.**

**To learn more about Oak Foundation's efforts to improve early literacy for students with learning differences, contact:  
Julie.Kowal@oakfnd.org**

**Questions or comments about this scan? Please contact:  
info@education-first.com**

# 2 | Background



# Oak Foundation partnered with Education First to research efforts to improve K-3 literacy, with special attention to students with learning differences

## Who we are

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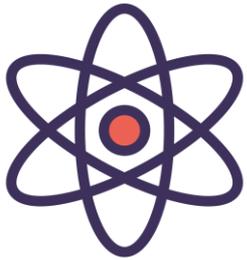
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## The opportunity



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## Why this deck



Across the U.S., there is a renewed focus on improving students' early literacy, especially given stagnant reading scores across the nation. **We offer this resource to help funders and others in the education sector make decisions to meet the challenge of improving early literacy for all students, particularly those who have learning differences, ensuring they have access to effective instruction and materials to support their reading acquisition.**

Education First originally developed this landscape scan in January 2020 for the Oak Foundation to support its early literacy investments and adapted the scan in March 2020 as a public resource.

# This landscape scan highlights challenges and opportunities for improving reading instruction in the early grades particularly for students furthest from opportunity

This landscape scan focuses on **effective reading instruction in kindergarten through 3<sup>rd</sup> grade**, with a focus on students with learning differences who also experience additional adversity due to poverty and/or racism. We also explore **challenges to effective implementation and promising strategies for overcoming those challenges.**

While we recognize there are many potential strategies for improving early literacy\* this scan focuses specifically on strategies related to **educator preparation, professional development and curricula**, with a particular emphasis on **equity**.

# Education First conducted online research, interviewed education leaders and experts and facilitated a convening to inform this landscape scan

## Research methodology

### Literature review

#### Preliminary research

Conducted a high-level review of **publicly available reports, scholarly articles and other materials** to understand the science of reading and effective reading instruction in kindergarten through 3rd grade.

#### Selection of areas for deeper research

Reviewed potential levers for change and **selected three levers for deeper research** (education preparation, professional development and curricula).

### In-depth research

#### Interviews

Conducted in-depth phone interviews with **22 leaders in early literacy, educator preparation, professional development and curricula**, including funders, researchers, policymakers and practitioners.

#### Online Research

Reviewed additional **publicly available reports, scholarly articles and other materials** to complement the information provided by interviewees and fill any gaps in our knowledge of the field.

### Convening + Final analysis

#### Expert Convening

Convened a group of **diverse stakeholders to review a draft of this deck and discuss high-potential levers and solutions** to improve K-3 literacy.

Refined the research findings based on **input from the expert convening**.

Developed **recommendations for philanthropic investment** in light of the research findings.

# The landscape scan seeks to: deepen the field's understanding of early literacy instruction, describe its challenges and bright spots and elevate potential levers and strategies for change



## The need

Provides an overview of the **challenges in early literacy for students with learning differences who also experience additional adversity due to racism and poverty**

## Key insights from research

Reviews the **literature on the science of reading**, particularly as it relates to early literacy, learning differences and equity

+

Outlines **key components and important shifts needed in the education system** to support change

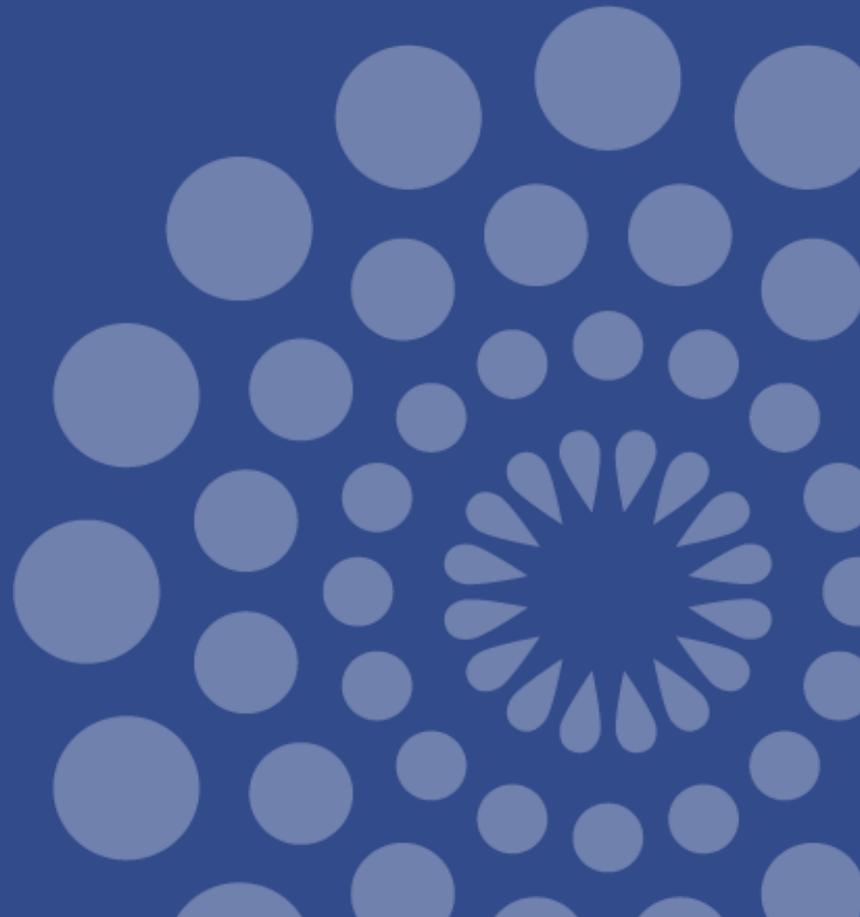
## Bright spots

Highlights **strategies and lessons learned from states and districts** whose students have **produced gains** in reading or that **show promise** in early efforts

## Promising strategies and recommendations

Outlines **potential strategies and recommendations for the field** in supporting change related to early literacy, with a particular focus on learning differences and equity

# 3 | The need



# Nationally, two-thirds of students in the U.S. are struggling to learn to read and to do so proficiently

NAEP 2019 scores reveal a decline in students scoring *proficient or above* in reading since 2017 with only...



# 35%

of 4<sup>th</sup> grade students scoring *proficient or above* in reading

# And there are particularly stark disparities for students of color and students from low-income families

*For example...*

In the U.S., white male students are



**3x**

more likely to read proficiently  
by 4<sup>th</sup> grade than their Black  
peers



*And even when controlling for income...*

**25%**

of white boys from low-  
income families

achieve reading  
proficiency by 4<sup>th</sup> grade,  
compared to

**10%**

of Black boys from  
low-income families

# The consequences for students are severe: Children who can't read well by the 4th grade are more likely to...



Have **behavioral and social problems**



Be **retained** and have to repeat a grade



Be involved with the **juvenile justice system**



Stay **poor readers** through high school



Drop out or not **graduate** high school

And the consequences are even more severe for students experiencing poverty, children of color and English Learners, who are also disproportionately placed in special education and removed from the general education classroom

# Many students who experience challenges with reading have learning and attention issues

Learning and attention issues are brain-based differences that can take a variety of forms and can affect all aspects of life



Math



Reading



Writing



Organization

Students with learning and attention issues **struggle with one or more of these issues...**



Focus



Motor skills



Listening comprehension



Social skills

# Overall, 1 in 5 students are estimated to struggle with learning and attention issues, but are not necessarily identified in school as having a disability



## Students struggle with learning and attention issues

Early and accurate identification of learning disabilities in schools can set struggling students on a path for success. But **identification can be influenced by many factors—and too often is not happening early enough.**

For instance, signs of learning and attention issues get overlooked or misinterpreted, or some parents are hesitant to let schools “label” their child as having a learning difference.

## For students of color and students experiencing poverty, the challenges of identification and getting the right supports may be even more acute

Researchers and policymakers have suggested that historically students of color and students experiencing poverty are far **more likely to be placed in special education** than their peers.

**12%**

of students below the federal poverty level are identified with a specific learning disability\*

**6%**

of students at 400%+ of the federal poverty level are identified with a specific learning disability\*

More recent research suggests that the problem may be more complex: students of color and students experiencing poverty **may be both over-identified and under-identified** and, as a result, **may not be getting supports and services they need.**

*For example, a 2017 study found that...*

**44%**

of the lowest achieving black boys are receiving special education services

**74%**

of the lowest achieving white boys are receiving special education services

\*Under IDEA, children with disabilities in reading are categorized under the umbrella of 'specific learning disability' (SLD), which can also include dysgraphia and dyscalculia. However, in the absence of specific numbers on dyslexia, SLD is still a decent proxy for reading impairment, as 75–80 percent of children with SLD have deficits in language and reading.

# Dyslexia is the most common reading-related learning difference, but there are other learning differences that can affect or even co-occur with dyslexia

## Reading difference

### Dyslexia

Dyslexia is a brain-based learning difference specifically affecting reading. Children with dyslexia may have difficulty with **word-level reading (decoding), spelling** and performing other skills related to the **use of printed language**.

## Other learning differences that can affect reading

### Attention deficit and hyperactivity disorder (ADHD)

ADHD is a neurodevelopmental condition that makes it hard to focus. It can also cause trouble with organization and executive function—particularly, **working memory**—which is needed for reading but not specific to it.

### Slow processing speed

Slow processing speed means it takes longer to **take in information and respond to it**. Though it sometimes co-occurs with dyslexia (and ADHD), it is not specific to reading.

### Dyscalculia

Dyscalculia makes **working with numbers and mathematical concepts** challenging. It sometimes co-occurs with dyslexia.

### Dysgraphia

Dysgraphia makes the **physical act of writing** difficult and labored. It sometimes co-occurs with dyslexia.

**With so many students struggling to read, those with dyslexia are often not identified for the extra support they need before the optimal intervention window ends**



### **The Dyslexia Paradox**

Most students with dyslexia are not identified until the 2<sup>nd</sup> or 3<sup>rd</sup> grade—but the interventions that typically follow are most effective at mitigating dyslexia when delivered in kindergarten and 1<sup>st</sup> grade.

“When schools produce kids who can’t read and spell, then you can’t find the five percent who are dyslexic.”\*

—Dr. Timothy Odegard, Chair of Excellence in Dyslexic Studies, Middle Tennessee State University

\*Estimates of the incidence of dyslexia vary, but most place the incidence of dyslexia between five percent and 17 percent of the general population.

# Research suggests that the reading challenges students with dyslexia experience can be significantly mitigated with appropriate reading instruction in the early grades

Without assistance  
until age nine or later...

**75%**

of these students will  
struggle throughout their  
entire school careers



If these students get the right  
supports, with the right  
intensity by 1<sup>st</sup> grade...

**Majority**

of these students can  
eventually read on  
grade level

# 4 | Key insights from the research

# 4a | The science of reading, learning differences and equity

# Reading is not a skill that is naturally developed, like speaking— reading must be taught

In 2000, a Congressionally commissioned panel of reading experts (National Reading Panel) synthesized the scientific research on reading into a report identifying the most important components of reading development. Since then, the Institute of Education Sciences at the U.S. Department of Education has published additional research and findings to share what works to support early literacy (e.g., foundational skills to support reading for understanding). This section highlights key elements of this research.

Research shows the kind of instruction that children at risk for reading difficulties need would also benefit the vast majority of students, including those experiencing poverty and racism.

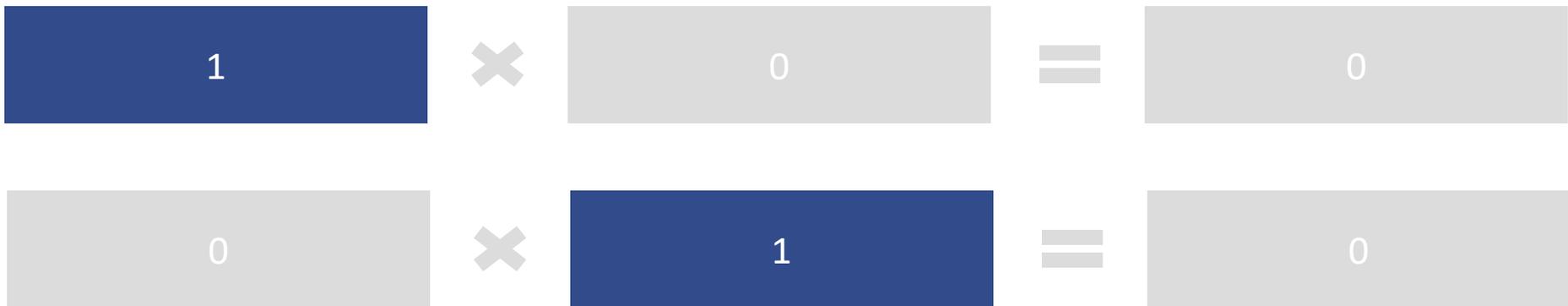


# Reading for understanding is an equation that depends on both acquiring language and learning to access that language through print

A framework called the “**Simple View of Reading**” summarizes what science has confirmed over many decades about what children need to read with understanding: language comprehension and word recognition.



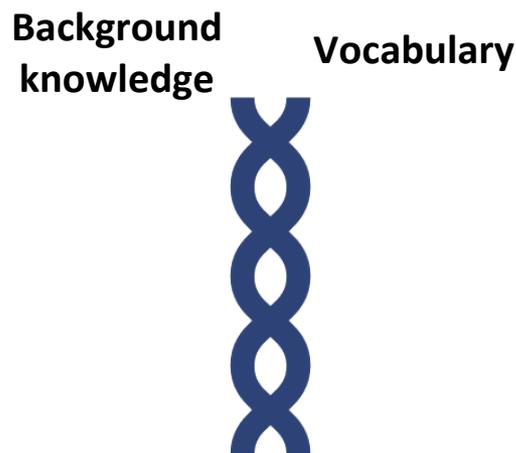
It follows that children who have gaps in either language comprehension or word recognition will struggle to read:



# The first half of the reading equation depends on the vocabulary one brings to a text, which in turn depends on the extent of one's knowledge about various subject matters

Readers who come to a text with prior knowledge of its subject matter, including words commonly associated with that subject (vocabulary), have a much better chance of understanding it.

**Encountering too many unfamiliar words disrupts reading and, thus, understanding.** Children learn new words not in isolation but through exposure to related webs of words (e.g., “monitor,” “keyboard”) in context while learning about associated topics (e.g., computers), which provide a memory scaffold for children to attach new words to.



“The more content you’ve learned in school, the more topics you’ve been exposed to outside school, the more language you’ve heard, the more books you’ve read, the more you know about the world around you, the better your overall reading comprehension. Why? Because new knowledge builds on prior knowledge, so all of us are better at comprehending when we already know something about the subject. Students with topical knowledge have an advantage in reading at grade level.” (Weiss, 2019)

# The second half of the reading equation depends on the ability to decode, which in turn depends on various foundational skills that students are expected to master by 4<sup>th</sup> grade

Typical adult readers recognize many words they encounter by sight. But early in a child's reading development, as they encounter words they've never seen before in print, **recognizing a word they know from speech requires the ability to invoke the word's pronunciation—by matching each piece of the printed word to its corresponding sound, or “decoding.”** Children cannot go on to become fluent word readers, much less comprehend texts at a higher level, if they do not master decoding.

Language  
comprehension

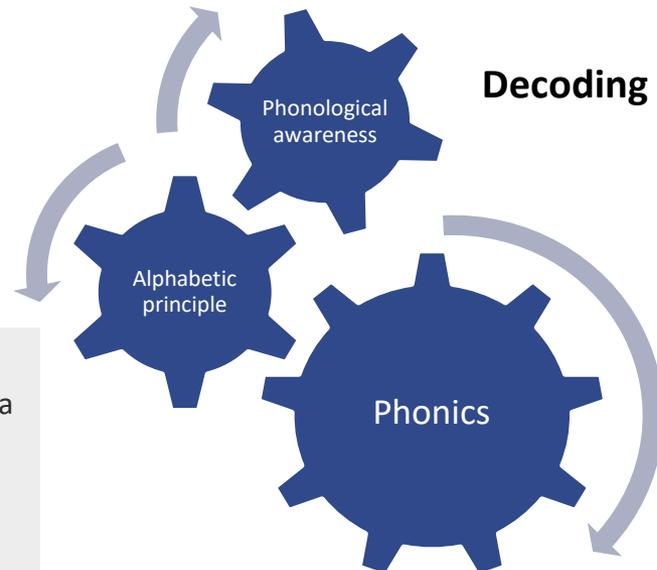


Word recognition



Reading for  
understanding

Decoding is a complex process that requires learning multiple interdependent **foundational skills** that build over time\*, such as:



Grades K-3 are critical to a child's ability to master decoding by 4<sup>th</sup> grade, when phonics instruction typically ends and children are assigned to read increasingly complex texts on their own as the primary means of acquiring new knowledge across all subject areas.

## ***Why not just teach reading by sight?***

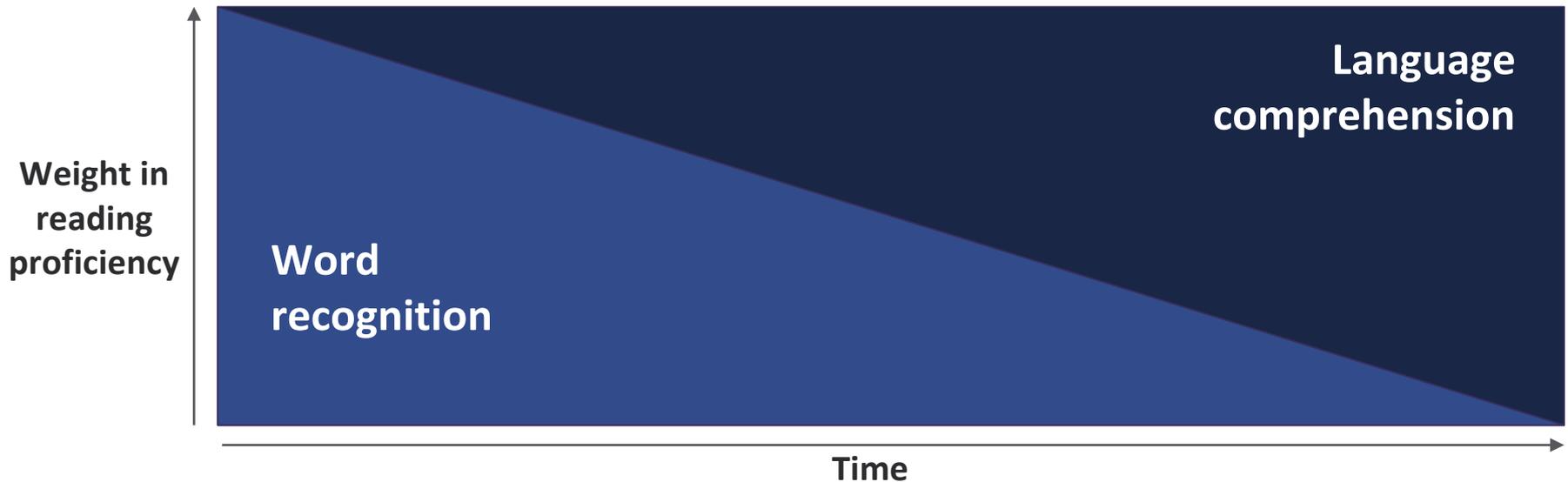
Scientists have found that skilled readers use a combination of sight-reading and decoding. Teaching students to recognize all printed words by sight would take far too long, reducing the chance of becoming skilled at word recognition by the end of third grade.

\*Note: The scope and sequence of these skills are important

Source(s): Moats (2016); Seidenberg (2017).

# As students master decoding and start encountering more complex texts, reading comprehension becomes increasingly dependent on background knowledge and vocabulary

Even though reading proficiency in K-3 is heavily dependent on the foundational skills that support decoding, later reading will suffer if students do not also start building the vocabulary and background knowledge they need to comprehend increasingly complex texts they will encounter as they move into the upper grades.



In the early grades, ability to read grade-level texts is largely determined by decoding skill, so decoding instruction often produces immediate gains in reading proficiency. However, those gains may not transfer to later grades if teachers have not simultaneously built students' background knowledge and vocabulary.

“Decoding has a really outsized role on reading comprehension in the early grades. But as students consolidate their decoding, very quickly that equation shifts.” (Cervetti, 2019)

# Students experience reading difficulties for many reasons...

		Language comprehension	
		Strong	Weak
Word recognition	Strong	Typically developing reader	Gaps in vocabulary and background knowledge
	Weak	Phonological difficulty	Mixed reading difficulty

# And students with phonological difficulties and/or gaps in key vocabulary and background knowledge are at greatest risk—those with dyslexia, who speak different dialects, are from low-income families and/or are English learners

## Language comprehension

Strong

Weak

Word recognition	Strong	Typically developing reader	Gaps in vocabulary and background knowledge
	Weak	Phonological difficulty	Mixed reading difficulty

### Gaps in vocabulary and background knowledge

- **Low-income students**, on average, experience fewer opportunities to acquire vocabulary prior to entering school. This can make it difficult for students to understand the words they read.
- **English learners** often have typical word recognition (decoding) skills; but may struggle, particularly in later grades, as they encounter texts with more advanced language that exceeds their conversational English vocabulary.

### Phonological difficulty

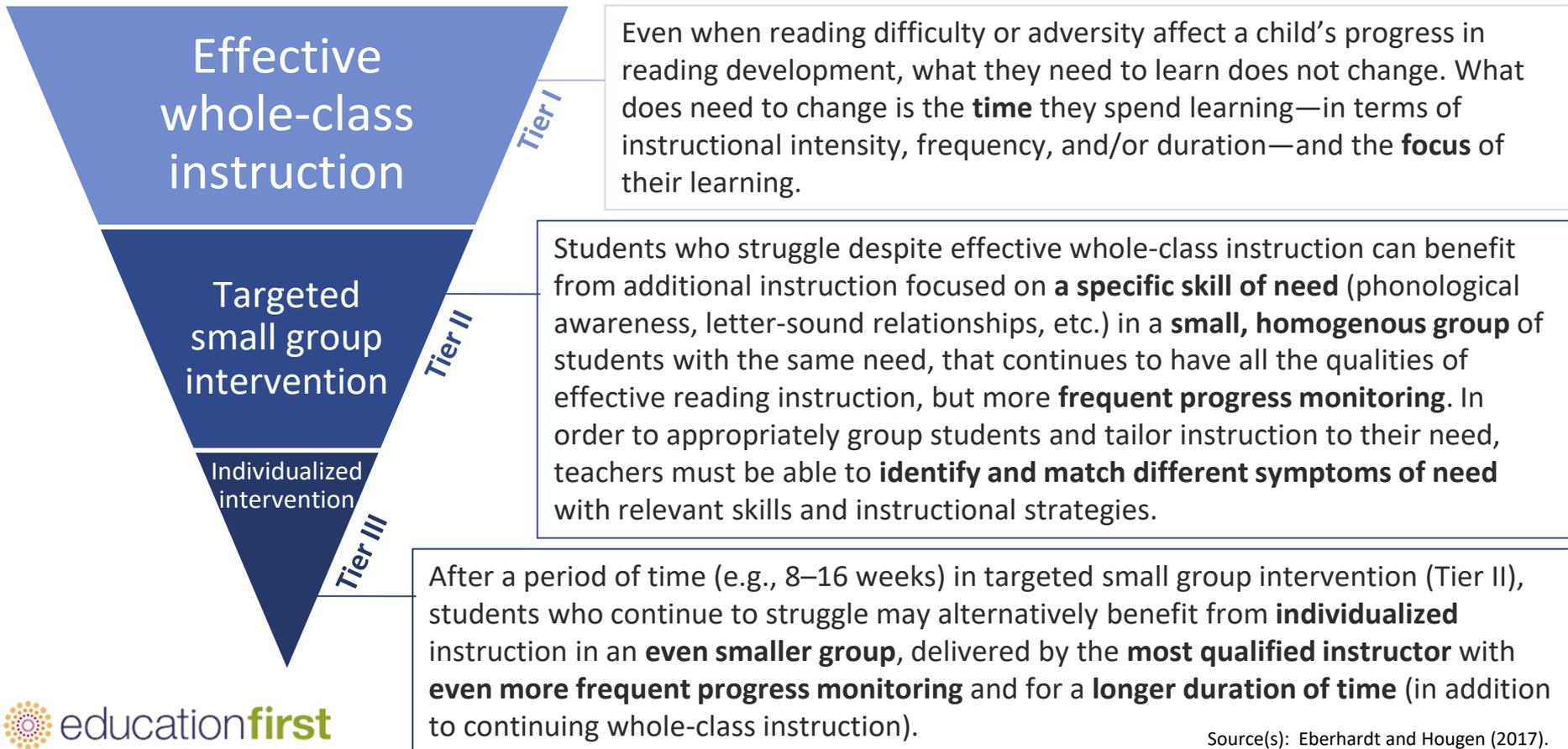
- **Students with dyslexia** typically struggle with poor phonological processing—one of the foundational skills for decoding (see slide 25). This can be due to genetic factors, environmental factors, or a combination.
- **Speakers of a non-mainstream dialect** (e.g., African American English) can struggle because of differences in how words are pronounced at school versus at home, which may complicate the process of learning to recognize a printed word based on its pronunciation (i.e., decoding).

### Mixed reading difficulty

Students with challenges in both language comprehension and word recognition are doubly at risk for reading difficulty.

# In addition to receiving effective whole-class instruction, these students can benefit from more intensive, frequent and targeted intervention

Even when a teacher uses an **effective approach as the first line of instruction with the whole class**, some children will still struggle with word-level reading. Fortunately, studies of interventions for children who need additional support have surfaced **practices that can be effective when layered onto effective whole-class instruction**.



# Further, research has converged on five qualities of early reading instruction that are beneficial for most students with dyslexia—the most common reading-related learning difference

## Code-emphasis

- Early reading instruction should focus primarily on skills related to decoding
- Instructional focus can shift to meaning + comprehension once a child has mastered word recognition

## Explicit

- Instruction should teach all concepts directly and deliberately
- If left to infer concepts on their own, most children will struggle to master them

## Teacher-led

- ...not student-directed. Teachers should explain and model all skills (e.g., using an “I do, we do, you do” sequence)

## Systematic + cumulative

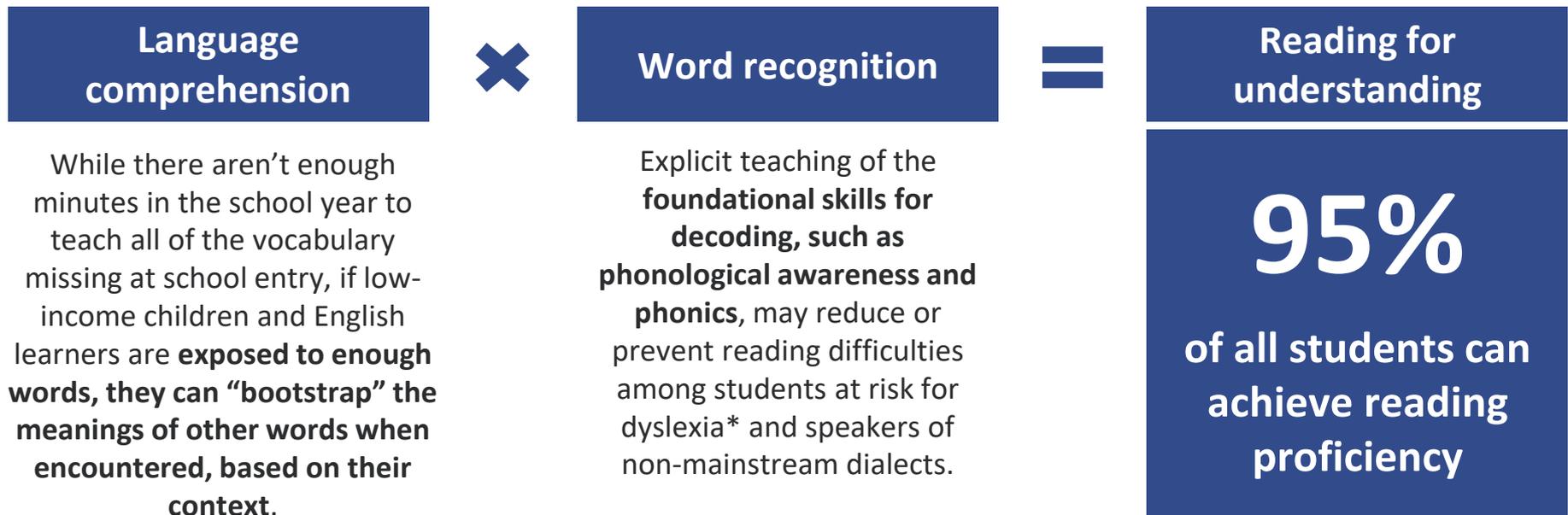
- Since literacy skills follow a developmental trajectory such that early skills lead into more complex and integrated skills, instruction should begin with the easiest and most basic concepts and progress methodically to more difficult concepts, each step building on the ones before it

## Diagnostic

- Teachers should use careful and continuous assessment—both informal (e.g., observation) and formal (e.g., standardized measures)—to adjust content, methods and intensity to student needs

# However, research indicates that nearly all students—even most of those at risk for reading difficulties—can learn to read proficiently with appropriate instruction (e.g., tiered, explicit instruction)

Scientists estimate that **instruction based on reading science**—that is, instruction that builds knowledge and vocabulary (language comprehension) while also teaching all of the foundational skills for decoding (word recognition)—**can lead 95 percent of students to become proficient readers.**



\*Research notes that a small share of students with dyslexia have been found not to respond to interventions that are otherwise broadly effective. Scientists indicate an ongoing need for research specifically focused on these “non-responders.”

# And the kind of instruction that children at risk for reading difficulties need, would also benefit the vast majority of students

With just 35 percent of U.S. 4<sup>th</sup> graders proficient in reading, it's clear that more students are struggling to read than just those with risk factors for reading difficulty.

## Language comprehension



## Word recognition



## Reading for understanding

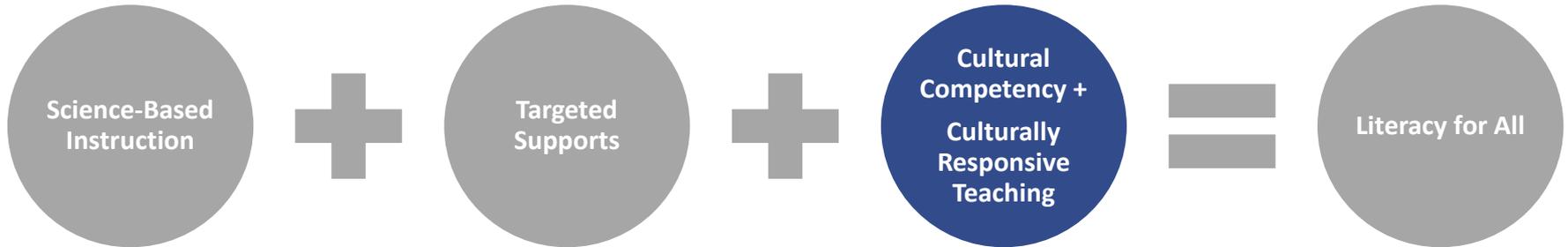
Building vocabulary and background knowledge means **restoring time to learning about science and social studies for all students**, from today's all-time low of just 35 minutes per day in K-3.

Unlike learning to speak, which happens naturally with exposure to speech, **learning to decode requires explicit teaching for most students.**

**If all K-3 classrooms delivered science-based reading instruction, most children would have their best chance of learning to read proficiently.**

**Science-based reading instruction matters to all students—and is especially critical for students with dyslexia and those experiencing additional adversities (e.g., those experiencing racism).**

# Even with science-based reading instruction to support all students' literacy development, incorporating cultural competency and culturally responsive teaching is important



Cultural competence can increase educators' awareness of their privilege, implicit bias, and microaggressions, and support them in creating conditions where students and families feel a sense of belonging, support, respect and safety.

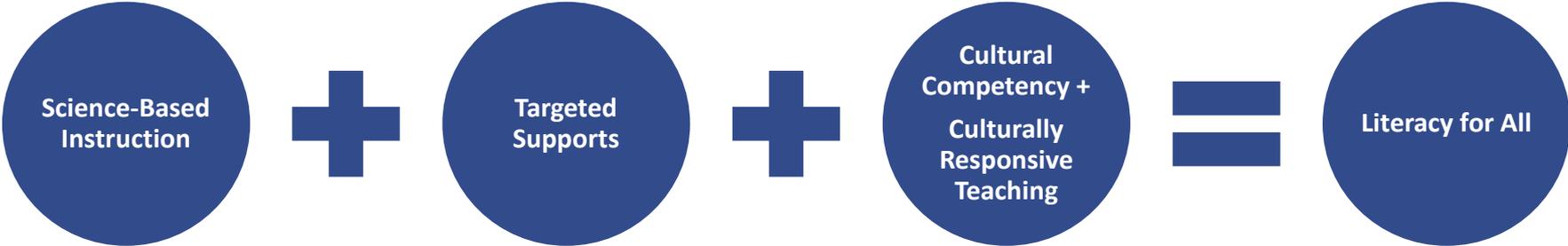
Cultural competency includes **valuing diversity**, being **culturally self-aware**, understanding the dynamics of cultural interactions, and **designing curricula that incorporates students' lives**.



Culturally responsive teaching is a pedagogy that **recognizes the importance of including students' cultural references in all aspects of learning**, including instructional materials.

**For students with learning differences who also experience additional adversity due to racism and poverty, it may be even more critical to address these issues in tandem with the science of reading and targeted supports.**

# While there is a dearth of research at the nexus of learning differences and SES, race and English learner status, cultural competency and culturally relevant teaching and materials matters



Instruction that builds knowledge and vocabulary (language comprehension) while also teaching all of the foundational skills for decoding (word recognition, effective whole-class instruction).

Additional instruction (small group or 1:1) focused on a specific skill of need, with frequent progress monitoring, and for a longer duration of time (Tier I or Tier).

Valuing diversity, being culturally self-aware, understanding the dynamics of cultural interactions, and designing curricula that incorporates students' lives.



Pedagogy that recognizes the importance of including students' cultural references in all aspects of learning, including instructional materials.

Enhanced opportunities for students to access reading materials resulting in equal outcomes for students, particularly for students with dyslexia, who are students of color, experiencing poverty and/or are English learners.

# 4b | Key elements and shifts in the education system

# Based on reading science, a K-3 classroom where all children have their best shot at reading proficiently, has three related building blocks

## A reading classroom with a basis in science

*Teacher*

Skilled reading teacher

*Curricula\**

Focus on  
foundational  
skills

Focus on  
building  
knowledge +  
vocabulary

- The curricula helps **build background knowledge and vocabulary** with carefully selected, culturally-relevant texts on related topics from various content areas, written at the level of typically developing readers in students' grade, and tasks that are cognitively rigorous for the age group.
- The curricula also helps build the **foundational skills** for decoding (e.g., phonological awareness and phonics) by supporting teachers to teach all skills explicitly and systematically, using diagnostic assessments to fill in student needs.
- Most importantly, a **skilled reading teacher** uses knowledge about reading development and instruction to deliver the curricula with fidelity and to supplement it appropriately, based on their particular students' needs. The teacher also understands his/her students and works to affirm and celebrate their identities.

\*Some commercially available products include both a core literacy curriculum and a foundational skills curriculum, while others focus on one or the other and should be paired with a complementary product designed to plug in what it lacks in a seamless way.

# However, this knowledge has not yet translated consistently into practice

## Common instructional practices

### Decoding

Phonics skills are usually taught but not emphasized, even for beginners. Teaching is **often not highly explicit or systematic**. Prerequisite skills may not be taught first.

Beginning readers usually read **leveled and predictable texts** (texts in which words are predictable based on sentence structure, repetition or pictures) that do not easily lend themselves to application of phonics skills. Partner reading and independent reading may be emphasized more than oral text reading with a teacher.

When students read text orally, teachers may overlook some errors, especially if they do not greatly alter meaning. Teacher feedback may emphasize **using context or pictures to guess** the unrecognized word (a debunked strategy called “three-cueing”) rather than consistent application of decoding skills.

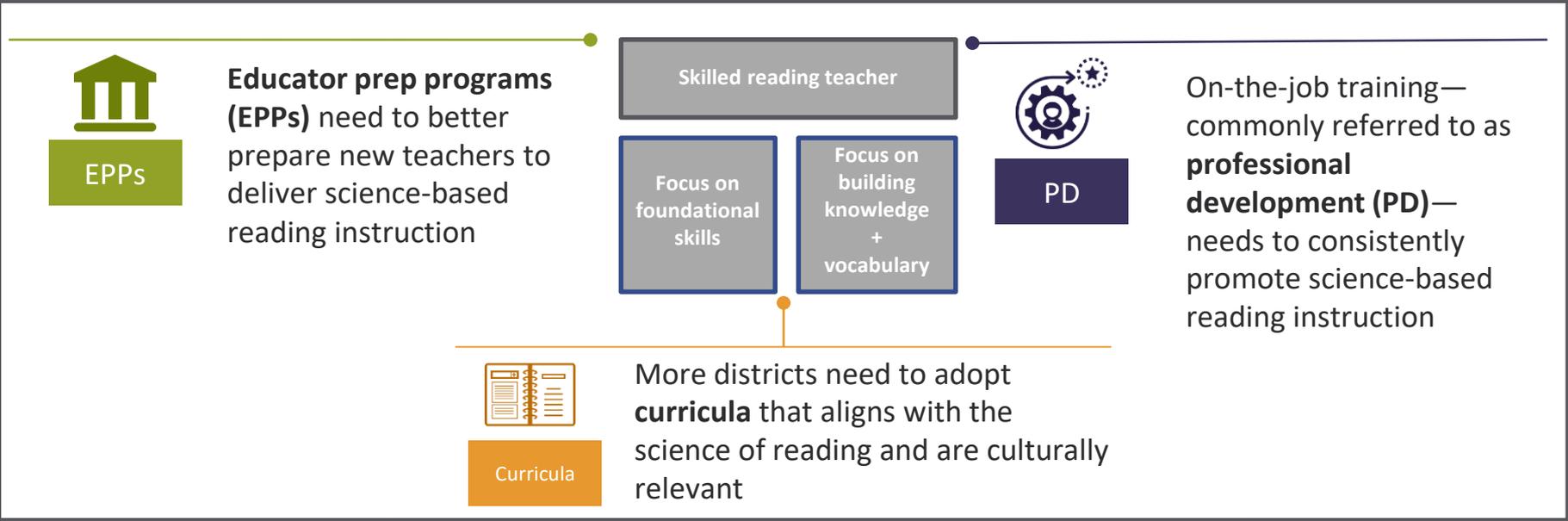
Spelling is often not taught in an explicit or systematic manner. Students may learn lists of **spelling words that exemplify no particular phonics pattern** or spelling rule. Spelling program may be completely distinct from decoding program with different words in the two programs.

### Comprehension

**Generic comprehension strategies** like summarizing, making inferences, and identifying the author’s purpose are emphasized more than carefully selected background knowledge and vocabulary. While some comprehension strategies are backed by science, students gains from strategy instruction diminish quickly. Students usually need sufficient background knowledge and vocabulary to understand what they’re reading before they can apply these strategies successfully.

“Teachers are using flawed reading practices not because they're ignorant, ill-prepared, or incompetent. They are doing it because... **they are being told to use them—usually by deeply trusted sources, like cherished mentors, colleagues, or the popular curriculum** sitting in their classrooms.” (Sawchuk, 2019)

# Improving literacy requires important shifts in the education system to serve all students, particularly those with learning differences and those who face additional adversity due to racism and poverty

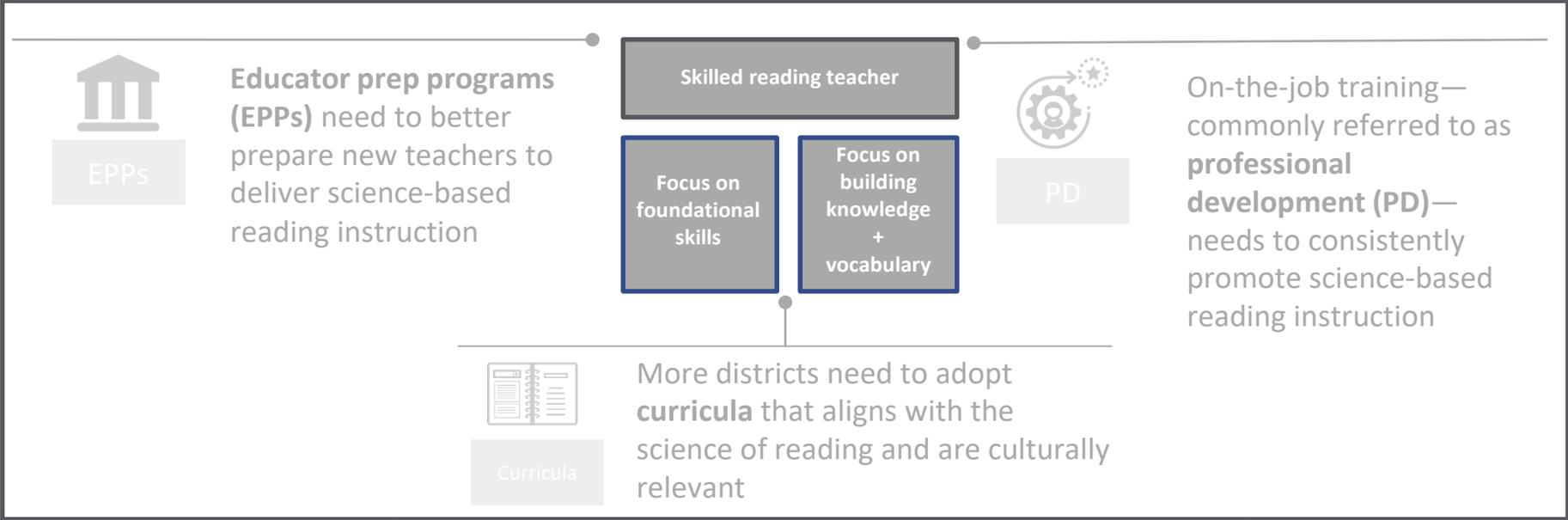


Early literacy efforts need to be guided by a clear, system-wide vision and several other key components that **help set the stage** for comprehensive literacy reform



Systemic improvements in literacy require an explicit focus on **equity** to meet the needs of and support all groups of students

# Enabling conditions and equity are two cross-cutting components that are foundational to supporting these shifts



Early literacy efforts need to be guided by a clear, system-wide vision and several other key components that **help set the stage** for comprehensive literacy reform



Systemic improvements in literacy require an explicit focus on **equity** to meet the needs of and support all groups of students



## Cross-cutting component #1: Early literacy efforts need to be guided by a clear vision, that then informs shaping a coherent, comprehensive approach to tackle the issue

- At the center of any change effort must be a vision for early literacy instruction, based on reading science and culturally relevant teaching principles, which aligns the multiple system factors shaping EPPs, PD and/or curricula in a common direction
- Depending on existing conditions within a state or district, the appropriate combination of strategies may vary. But **the importance of a systems approach with multiple, mutually reinforcing strategies is key**

“I think one thing that's hard about this problem is **there are a lot of moving parts**. So if you only change one or two of the parts [like curriculum or training], you're not necessarily going to see an impact.”

—Dr. Louise Spear-Swerling, Professor Emerita, Southern Connecticut State University, Department of Special Education and Reading

“**Let's do all the things that research says make a difference, not just certain selected ones**. What you tend to get when you go after a selected piece of the curriculum is that people will do that and you'll get whatever improvement comes from that. Then **you will usually pull people back from other things that are essential and that undermines your success**. So you're doing great with your phonics and you're teaching that really well. But to get that to happen, the teacher had to do less vocabulary. They figured they weren't supposed to do anything with vocabulary anymore because your initiative said phonics was the most important thing. Now the kids are still testing low in reading because you have one essential piece but you're leaving out a different one. **The puzzle is always going to be incomplete if all you're doing is trading pieces in and out.**”

—Dr. Timothy Shanahan, Professor Emeritus, University of Illinois at Chicago

# Cross-cutting component #1: While having a clear vision for this work is key, there are also other important components that help set the stage for comprehensive literacy reform efforts



Enabling  
Conditions

Lessons from locally-driven education reform efforts suggest that early literacy reform efforts are better positioned for long-term success when these key pieces are in place from the beginning

## Developing a coherent, focused strategy

- **Non-negotiable metrics/goals/vision** for the initiative
- Strategy **co-developed** with key stakeholders **for local context**
- Commitment to use an **equity lens**, including but not limited to **equitable resource allocation**
- **A focus on early literacy** as a clear and explicit priority, with plans to resource and support



## Executing tightly against the strategy

- Work is a **priority for system and school leaders**
- **Partners, including parents and families, are clear** about their contributions
- **Data-informed and results-driven**
- Uses **research + policy + advocacy** as levers for change
- Focus on **building and harnessing capacity and knowledge** at the local level

## Foundational elements

- **Need/demand** from local community (often informed by data)
- (Increased) **sense of urgency** to address the problem
- **Key stakeholders** onboard, particularly **parents and families**
- **Champions** for the work identified, including **school leaders**
- Shared belief in **community agency**
- **Shared accountability** across the system(s)

# Cross-cutting component #1: Community stakeholders, such as parents and families, can play a powerful role in creating the conditions and demand for change



Enabling  
Conditions



Parent and family leadership is essential, from the educational environments and activities parents and families facilitate for their children at home, to **the ways parents and families access and influence educators, schools and systems**. Its importance is based in a deep body of educational research, as well as the lived experiences of parents, families and educators around the country. **Students with more engaged parents miss fewer days of school**, have better attitudes toward school, improved homework and study habits, and **higher graduation rates and college attainment**. On the educator side, educating teachers on best practices for parent and family engagement can improve outcomes for students and teachers.



**Engagement is especially critical for younger children** who rely on adults to support and drive decisionmaking, foster wellbeing and cultivate a learning environment for the child at home; this early engagement significantly influences long-term student outcomes and engagement continues to be vital as students enter elementary school and beyond.



**These results are consistent across racial and economic groups**, with students experiencing poverty benefiting more from parent/family leadership than their peers from higher socioeconomic backgrounds.

# Cross-cutting component #1: Community stakeholders, such as parents and families, can play a powerful role in creating the conditions and demand for change



Enabling  
Conditions

**Supporting learning at home:** Parents and families can draw on their own knowledge as well as information on parenting to support the academic and social development of their own children at home.

**Partnering with schools to support learning:** Parents and families can use information and data from schools about their children's learning to communicate with educators and schools.

**Making informed decisions and exercising choice:** Parents and families can use information on school systems to make informed decisions about their children's school options.

**Organizing and advocating for change:** Parents and families can organize and advocate for desired change.

Parents and families of students with learning differences have played an important role in advocating for policy change (e.g., pushing for state dyslexia laws).

Parents and families can play a critical role in building the enabling conditions for early literacy.

# Cross-cutting component #2: Systemic improvements in literacy require an explicit focus on ensuring equity to truly meet the needs of and support all groups of students



Equity

- Meaningful use of the term equity requires leaders to continuously ask, **“Who is being well-served, and who is left out or harmed by the policies and practices of the organization?”**
- Leaders for equity must be committed to **interrupting policies, practices and procedures that, explicitly or implicitly, perpetuate unequal outcomes for children who are furthest away from opportunity.** The work of interrupting entrenched systems often requires **redefining “success”** and **reframing how we understand problems and develop solutions.**

**Pursuing equity and excellence in school system improvement means:**

- **Removing and interrupting** the predictability of academic success or failure based on social, economic or cultural factors and inequitable practices; eliminating biases and creating inclusive school environments for adults and children;
- **Discovering and cultivating** the unique gifts, talents and interests that each human being possesses, with schools, districts and communities working in partnership;
- **Broadening notions of “success”** and the skills students need to include more robust competencies for their individual thriving, contribution to communities and to creating a society that better supports the well-being of our diverse world; and
- **Using a combination of structural, technical, cultural, political and social approaches** to achieve deep and lasting system-wide improvement, which include:
  - + A systemic focus on multiple levels of experience in educational systems (bottom-up combined with top-down expertise);
  - + The central place of the experience of local educators, students and communities in defining, implementing and refining strategies, in combination with policymakers and funders; and
  - + An intentional focus on the nature and impact of race, class, gender, socioeconomics, power and history in how systemic change processes are undertaken and evaluated at local, state and national levels.

# Cross-cutting component #2: While equity can be pursued at the system level, it is in schools and classrooms where equitable practices matter most for students on a day-to-day basis



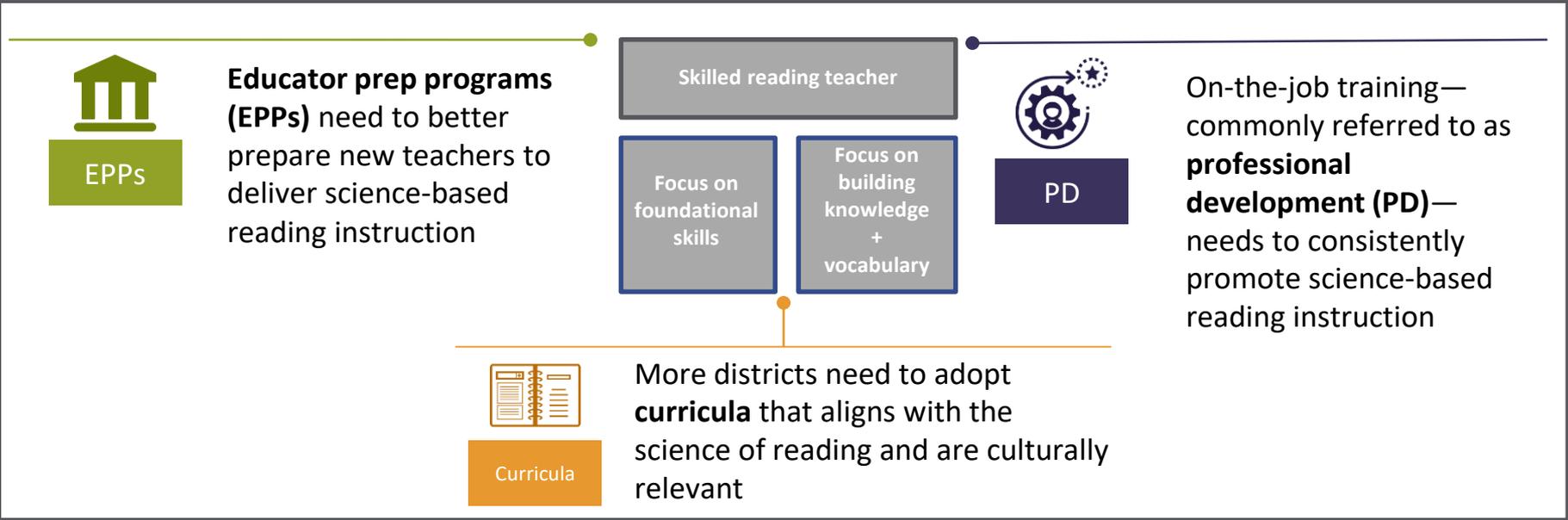
Equity

- Equitable outcomes for all students in our classrooms, our schools, and the system as a whole, means that **student learning and achievement (and success or failure) are not predictable by race, class, language, gender or other social factors.**
- To make the equity work “real” in our schools, **teachers and school leaders should celebrate and incorporate students' differences and cultural references** in all aspects of learning and implement **practices and policies that interrupt inequitable patterns.** To do this, they must be willing to engage in **ongoing self-reflection about their background, experiences, biases and expectations** that influence their work with students.

**Pursuing equity and excellence in schools requires:**

- School and classroom environments where **students' differences and backgrounds are celebrated and respected** and their unique gifts are cultivated.
- **Teaching practices and organizational policies that promote these results;** that create inclusive, multicultural classrooms and school environments for children and adults; and that interrupt inequitable patterns.
- **Individual awareness and responsibility;** educators who acknowledge the realities of oppression and how it has affected their own and others' lives:
  - + Understand how their own background and experience—and that of their students—matters in the educational process;
  - + Work to understand and reduce their own assumptions and biases about those who do not share their race, class, culture, linguistic background, gender and so on;
  - + Believe that all students are capable of achieving at high levels, and take responsibility for their students' learning, despite the circumstances in students' lives and our society that can make achievement difficult.

# With enabling conditions and a focus on equity as underpinnings, shifts in three specific elements of the education system—EPPs, PD and curricula—would elevate and prioritize scientific, culturally relevant approaches to reading instruction in the classroom



Early literacy efforts need to be guided by a clear, system-wide vision and several other key components that **help set the stage** for comprehensive literacy reform



Systemic improvements in literacy require an explicit focus on **equity** to meet the needs of and support all groups of students

# System element #1: Educator preparation programs (EPPs) need to improve at preparing reading teachers to deliver science-based instruction



EPPs

**Undergraduate teacher preparation programs have made progress in adopting practices aligned with the scientific reading research**

**2013**

**39%** of programs taught most or all of the important components of reading instruction

**2020**

**57%** of programs taught most or all of the important components of reading instruction

**However, much work still remains to be done to integrate the science of reading into EPP programs**

**43%**

of **undergraduate programs** teach less than two-thirds of the most important components of reading instruction

**33%**

of **graduate programs** teach science-based methods of early reading instruction, with no improvement since 2016

# Why it matters: When programs do not prepare teachers to deliver science-based reading instruction, districts bear the burden



"When I was Director of Reading at the Chicago Public Schools, we were hiring roughly 3,000 teachers a year. Those **teachers were coming out of their pre-service preparation programs knowing shockingly little about how to teach reading** in the way the research would say would be most effective. That's in a city that has a large number of university-based teacher preparation programs, and a city that's able to attract folks from really all over the country. So **we had to spend literally tens of millions of dollars on teacher education** within our own district."

—Dr. Timothy Shanahan, Professor Emeritus, University of Illinois at Chicago

## In districts with high-poverty schools and significant turnover, the costs are even greater

Each year, high-poverty schools are not only more likely than low-poverty schools to experience teacher turnover—they are also more likely to hire brand new teachers to fill the vacancies.

Paying to re-train teachers can cost taxpayers millions of dollars—when they have already paid for training through federal and state grants to EPPs and their participants.

	% of teachers newly hired	% of newly hired teachers in their first year of teaching
Low-poverty schools	10%	34%
High-poverty schools	12%	40%

# Root causes: To better prepare reading teachers, EPPs have several fundamental root causes to address



## Expertise

EPP faculty may lack the expertise in teaching science of reading, dyslexia and cultural competence



## Incentive + Accountability

With insufficient direction from states, EPPs receive little guidance about their methods and have little incentive to change



## Policy Gaps

Many states allow teachers entering the profession without being required to demonstrate sufficient knowledge about science of reading instruction, especially via non-traditional pathways



## Insufficient Data

States and districts may not have the right data to really know what or how their EPPs are doing

*Slides 93–97 in the Appendices describe in further detail each of these root causes.*

## System element #2: Educators need sustained, long-term learning opportunities to implement best practice



PD

Districts invest massive sums in professional development (PD), but the most common PD does not often allow for the sustained learning opportunities educators need to implement best practice. The extensive technical expertise and knowledge required for educators to implement the science of reading in a classroom and support students with learning differences makes this challenge an even more critical one to address.

### Insufficient technical expertise

Most PD spending goes toward district-employed staff, rather than external experts. Yet a 2007 federally funded review of over 1,000 studies on PD suggests that within-district staff often lack the expertise to lead teachers in PD efforts aimed at student improvement.

### Limited opportunities for feedback and coaching tied to PD

Most successful PD programs include sustained follow-ups—for example, by school-based coaches. Yet data suggest that few teachers are receiving this kind of PD. TNTP found that only 20 percent of teachers said they “often” receive follow-up support or tailored coaching opportunities, and only 10 percent reported frequent opportunities for practicing new skills.

### Need for more sustained learning over time

Most PD is “one-shot” (e.g., single-day workshop). Yet science-based reading instruction requires technical knowledge that takes considerable time to master and apply. (The most popular provider of science-based reading PD uses a two-year program.) It is unlikely that districts using “one-shot” workshops are doing justice to the science of reading.

# Why it matters: Most teachers are not prepared to teach students reading, let alone students who struggle with reading and need the most help



PD

## Teacher perceptions related to supporting students with learning differences

- A 2019 survey found that only **30 percent of general education teachers feel "strongly" that they can successfully teach students with specific learning differences**—and only 50 percent believe those students can reach grade-level standards.
- When you add in other brain-based learning differences (e.g., ADHD), the percentage of teachers who feel well prepared to teach these students is even worse (20 percent).

## Teacher reading instructional training and skills

- Studies in 2009 and 2011 found that although nearly all (94 percent) of preservice teachers **acknowledge the need for phonemic awareness (PA) instruction in kindergarten and first grade, few have the knowledge to teach it.**
- Except in a few states, **special education teachers are not required to be any better prepared to teach reading or students with dyslexia than general education teachers.** Only 11 states in the nation require special education teacher candidates to demonstrate knowledge of the science of reading on a test.

“Survey respondents indicated the problems begin in teacher preparation programs, well before education students lead a classroom: Many teachers reported they were not required to take courses in working with students with disabilities or found that the courses they did take left them unprepared to work with all students.” (Mitchell, 2019)

**Why it matters:** While EPPs are an important lever for change, we also know that PD is critical; in part because we need to reach current teachers and provide all teachers with ongoing training and support after they leave their prep program



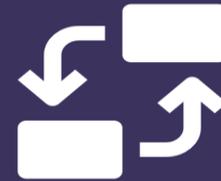
PD



Even in EPPs that teach reading science, there is little time for supervised clinical practice. Ongoing practice and feedback from an expert coach after an EPP graduate transitions to the classroom is critical to their successful application of reading science.



Elementary EPPs prepare participants for teaching positions in a wide band of grade levels (kindergarten through 5th or 6th grade). After a teacher is hired, they must learn specific expectations for reading proficiency at their assigned grade level.



Even if all EPPs in a state taught reading science, there is no guarantee that teachers hired from out of state will bring the same knowledge. Professional development should help districts and states ensure that all of their reading teachers are on the same page about reading science.

# Root causes: District PD does not consistently focus on the science of reading



PD



## Lack of Common Vision

District-provided PD is often disjointed and incoherent



## PD Provider Selection

Though there are several quality options, many districts don't use providers of science-based reading PD



## Expert Coaching Capacity

Capacity for school-based coaching in early literacy is limited

*Slides 98–100 in the Appendices describe in further detail each of these root causes.*

## System element #3: More districts need to adopt curricula that align with the science of reading



Curricula

### *Districts are using curricula out of step with reading science...*

“It is not an overstatement to say that **a school that doesn’t have a phonics program is doing its students a huge disservice**. Increasingly, the same can be said about the lack of intentionality for building students’ knowledge of the world and access to complex text.”  
(Pimentel, 2018)

For example, many districts are using older curricula that lack systematic foundational skills programs. In an Education Week analysis of the top five curricula used, teachers report their **districts or schools have them use curricula that don’t treat the foundational skills for decoding in a systematic way** and often push the debunked three-cueing strategy.

### *...meanwhile, many teachers turn to unvetted sources, further exacerbating the problem*

“I saw a spreadsheet of everything teachers have been using in my district—my heart broke. Teachers are trying everything, but I knew many things they’re using don’t work or don’t have evidence about what kids they work for or when to use them. It’s like grabbing some herbs to help your headache. We should be doing better in 2019.”

—Munro Richardson, Executive Director, Read Charlotte

A 2016 RAND study found that many teachers develop their own or use the internet to identify supplemental materials. Over 70 percent reported using TeachersPayTeachers and Pinterest to find lessons. Yet these crowdsourced platforms provide no information about quality. **A recent review of over 300 resources from crowdsourced platforms found that most (64 percent) are low-quality**, failing basic tests such as alignment to state standards.

# Why it matters: Inconsistent access to and use of high-quality, science of reading-aligned, culturally relevant curricula impacts student achievement



Curricula

## Access and quality of instructional materials

Instructional materials make a difference for student achievement. Research shows that students learn primarily through their interactions with teachers and content. This is particularly significant for **students living in poverty and students of color who have less access to high-quality standards-aligned materials than their peers.**

- A 2015 study found low-income students are less likely than high-income students to have quality content and curricula in the classroom.



## Culturally relevant curricula

“Knowledge of children’s lives should be incorporated into the work of classrooms beginning with the physical environment and moving into the instructional strategies used by teachers. The curriculum should be culturally responsive, designed around the students in the classroom, and include resources that help them learn about their own culture and the cultures of others. Literature, art, history and social studies are strong first steps, including having books, stories and visual art that demonstrate to children the richness of their own cultures. **All children should see connections to their own lives in all school-wide curricula.**”  
(Jackson and McIver, 2016)

# Root causes: Curricula options are often fragmented and/or don't focus on the core components that support teaching science of reading



Curricula



## Comprehensive Approach

Fragmented curricula often result in incomplete adoptions that fail to produce the expected results



## Incentive

Until recently, districts lacked options for curricula and instructional materials that build knowledge and vocabulary; now, many lack incentive to adopt them



## Selection

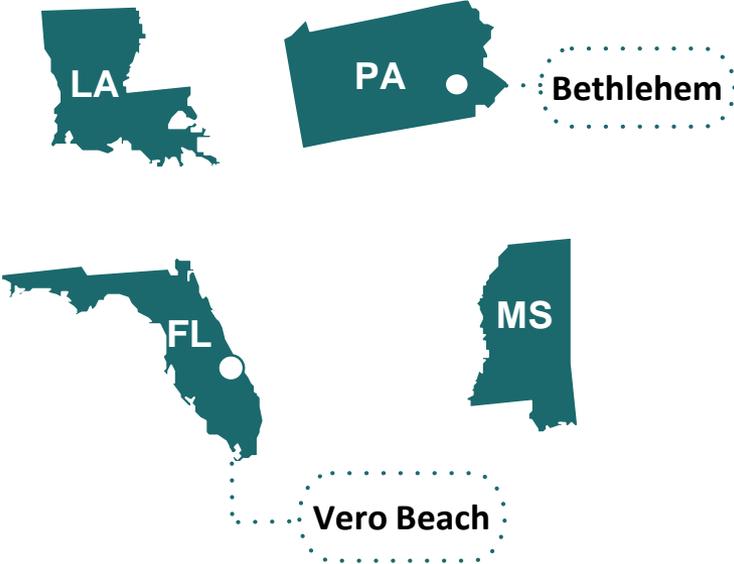
It remains difficult for districts to find a good supplemental curriculum to teach foundational skills, despite many products on the market

***Slides 101–103 in the Appendices describe in further detail each of these root causes.***

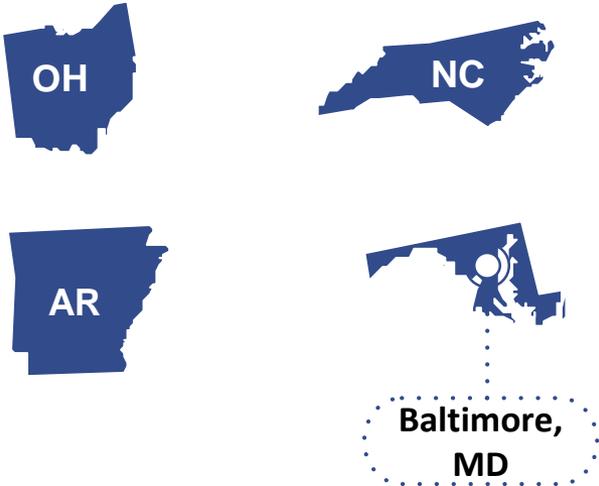
# 4c | Lessons learned from bright spots

# Interviews with experts and lessons from eight select states and districts offer important insights about promising efforts underway

Effort has been in place long enough to produce gains

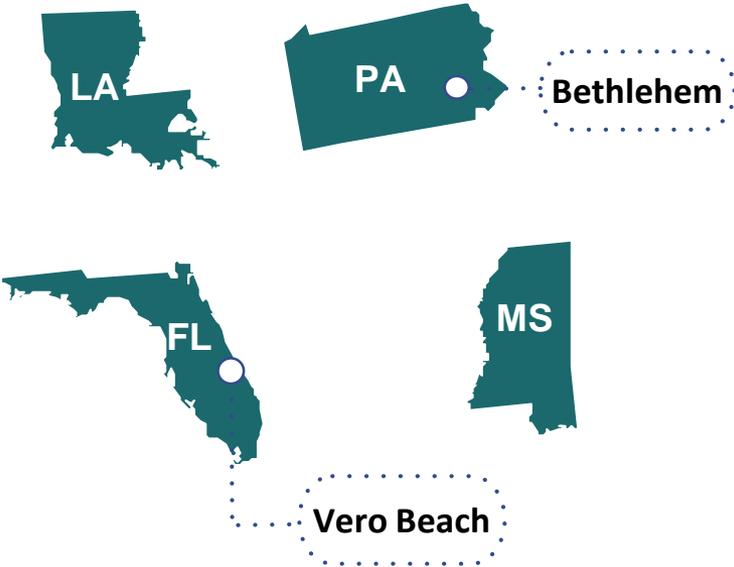


Effort began too recently to produce gains, but shows promising indicators

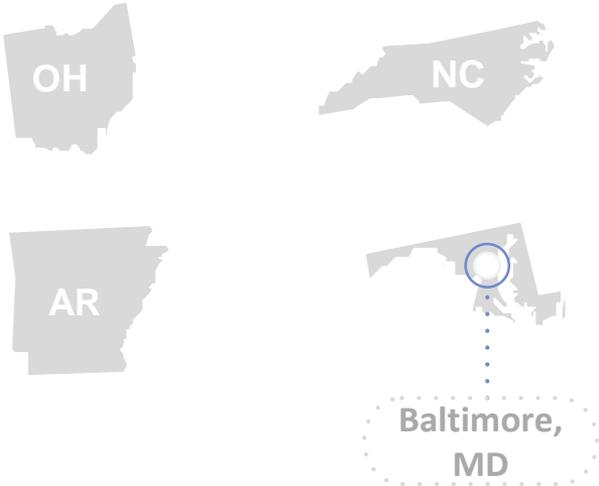


# Some states and districts have seen system-wide gains within three to four years, and continued implementation largely sustains them

Effort has been in place long enough to produce gains



Effort began too recently to produce gains, but shows promising indicators



\*See appendix for a list of our interviewees.



## Challenges + Solutions



Curricula



PD

In 2012, new state superintendent of education John White found that just one in 60 curricula used by Louisiana school districts aligned with state standards. The department of education (**LDOE**) began **publishing reviews of curricula by Louisiana's network of teacher-leaders, as well as incentivizing adoption of highly rated curricula by securing discounted prices on these curricula for district purchase.** LDOE also began rating providers of teacher training on their academic content focus and other indicators of quality professional learning.

## Outcomes to Date

In 2015, **Louisiana led the nation in 4<sup>th</sup> grade reading growth, though NAEP scores dipped in 2017.** An independent study found more teachers using quality curricula and instructional practices, with 80 percent of districts using high quality curricula.



## Challenges + Solutions



Curricula



PD

The state identified Bethlehem's lowest-performing elementary school as a priority for improvement in 2014. **After seeing gains in its first year piloting a comprehensive literacy plan based in the science of reading, Bethlehem implemented the plan districtwide.** The plan combines training and coaching on reading science for all principals and teachers, a new curricula, extended time for literacy, and a multi-tiered system of supports for struggling readers. The plan rolled out with kindergarten and ultimately extended through 3<sup>rd</sup> grade.

## Outcomes to Date

Bethlehem has **nearly closed its achievement gap in reading.** Kindergarten grew from 56 percent to 84 percent proficiency by 2018. The lowest performing schools grew from 40 percent to 70 percent proficiency. Fewer students are referred for special education.



## Challenges + Solutions



EPPs



PD

After a 2003 law requiring educator preparation programs to provide early literacy coursework failed to produce change in faculty practice, Mississippi passed the **Literacy-Based Promotion Act in 2013 requiring that students not reading proficiently repeat 3<sup>rd</sup> grade**. To ensure students get appropriate support to meet the requirement, **the law included funds to train the state's K-3 teaching force on the science of reading**. The lowest-performing schools also received **state-funded literacy coaches to support teacher application of the training**. In 2016, Mississippi passed another law requiring new teachers to pass a science of reading exam to become licensed.

## Outcomes to Date

Since 2013, Mississippi has seen a **10 percentage point increase in 4<sup>th</sup> grade reading proficiency on the NAEP exam**. MS was the only state to post gains in 4<sup>th</sup> grade reading proficiency in 2019.

# Bright spot: Vero Beach



## Challenges + Solutions



PD

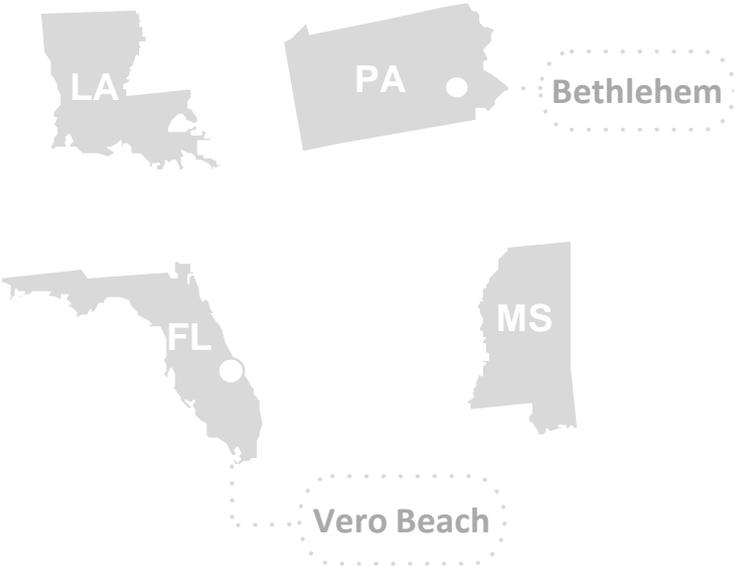
In 2012, after two Vero Beach mothers of children with dyslexia founded the non-profit Learning Alliance (TLA), they joined a local philanthropist in **recruiting the school district and 125 community partners for a system-wide initiative to increase 3<sup>rd</sup> grade reading proficiency 90 percent by 2019.** As part of the initiative—which also includes work on attendance, summer reading slide, and kindergarten readiness—TLA partners with the district to provide teachers PD based in reading science, using a framework that combines foundational skills, content-rich texts from various subject areas and social emotional learning. Coaches with specialized training in reading science provide follow-up support as teachers practice applying new skills.

## Outcomes to Date

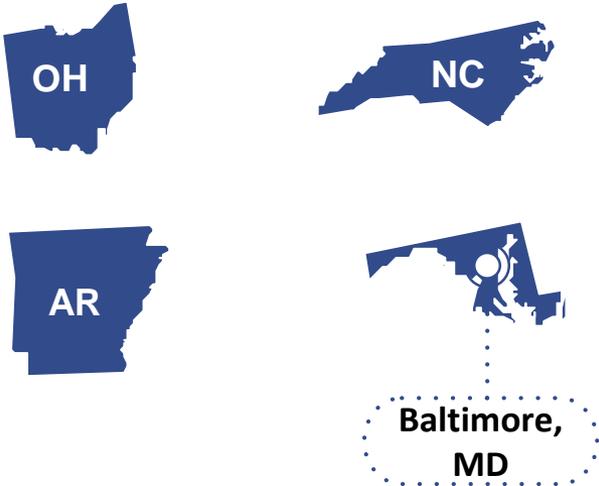
Between 2015 and 2019, **3<sup>rd</sup> grade reading proficiency in Vero Beach increased from 53 percent to 60 percent.** An independent evaluation found evidence of less restrictive classrooms and change in instructional practice among teachers most involved in TLA's PD.

# Others with more recent efforts are already seeing promising short-term indicators of system change

Effort has been in place long enough to produce gains



Effort began too recently to produce gains, but shows promising indicators





## Challenges + Solutions



EPPs



PD

After a 2012 law to retain 3<sup>rd</sup> graders not proficient in reading yielded disappointing results—despite requiring districts to make provisions for struggling readers—OH reassessed its literacy plan. Its **2018 literacy plan provides districts with supports and incentives to develop teacher capacity in science-based reading instruction, including technical assistance for creating district literacy plans, PD from new regional specialists in early reading, and federally funded grants for districts that commit to research-based practices.** Meanwhile, new teachers must now pass an exam on science-based reading instruction to earn licensure. And Ohio’s Board of Regents began requiring all university-based EPPs to demonstrate evidence of science-based reading instruction to secure program approval. To support them, the state has provided faculty training and grants for development of model programs.

## Outcomes to Date

“I think for the first time, I have **real glimmers of hope** that in [EPPs], there may be room to change.” —Amy Murdoch, Reading Science Director, Mount St. Joseph University



## Challenges + Solutions



EPPs



Curricula



PD

Like Ohio, North Carolina saw disappointing results from a 2013 state law to retain and provide supports for 3rd graders not proficient in reading, leading its state board of education to lay out a **9-Point Framework for Action on K-3 Reading in 2019**. The Framework seeks to strengthen supports for new and existing reading teachers by directing the state education agency to recommend standards for EPP program approval and licensure, provide state-funded reading coaches to the lowest performing schools, assess the need for a statewide system of PD in science-based reading instruction, promote adoption of high-quality reading curricula and more. Meanwhile, a 2018 study of the University of North Carolina's EPPs led then-UNC System President Margaret Spellings to convene an EPP advisory group charged with improving preparation on reading instruction.

## Outcomes to Date

Five North Carolina EPPs interested in making changes to their programming based on reading science joined a **community of practice** launched by the advisory group.



## Challenges + Solutions



EPPs



Curricula



PD

Passed in 2017, **AR's Right to Read Act** requires all elementary teachers to **demonstrate proficiency in the science of reading by 2021**. New teachers must pass an exam focused entirely on reading science to earn licensure. All other teachers must earn a credential by completing the PD program (“pathway”) their district adopts from a state-approved list. The list includes both third-party and state-developed PD options. Principals and district administrators must demonstrate “awareness” of reading science but also have the option to earn a certification in coaching and evaluating teacher proficiency in reading instruction. Another law passed in 2019 requires districts to adopt curricula aligned with reading science from a state-approved list or provide rationale for failing to do so.

## Outcomes to Date

Universities have started to **align their teacher preparation programming with the science of reading**.

# Bright spot: Baltimore City



## Challenges + Solutions



Curricula



PD

In 2016, Baltimore City Public Schools, under the leadership of new superintendent Sonja Santelises, conducted an **audit of its curriculum with Johns Hopkins University**. **It found that teachers were spending significant time seeking out supplemental materials because district-provided textbooks and curricular materials were poorly aligned to the state-adopted Common Core State Standards.** In response, Baltimore created a new adoption process for reading and English curricula, including a **curriculum review committee inclusive of general and special educators, collaborative development of a curriculum review rubric informed by the audit, and a policy that prospective curricula have high ratings from Ed Reports to be eligible.** A careful stakeholder engagement process also gathered input from teachers, principals and community members. Once new curricula were selected, Baltimore partnered with curriculum providers to provide PD prior to implementation.

## Outcomes to Date

A case study of Baltimore's effort found **improved teacher collaboration and increased engagement in reading and writing among students** as a result of the process.

# Lessons learned about how to create the enabling conditions for comprehensive literacy reform



Enabling  
Conditions

- Several of the states we looked at established some form of **statewide plan**, based on a **comprehensive vision** for what **science-based reading instruction** looks like and the **system conditions** it requires, that gave **coherent direction across two or more drivers** of early reading instruction—EPPs, PD and/or curricula. Often these plans were **precipitated by state leaders**—state superintendents, state boards of education, and/or state university system leaders—with an awareness of reading science and a bent for systems thinking.
- Choices about PD and curricula typically live at the district level, making a **districtwide vision for science-based reading instruction** crucial. In all of the districts we looked at, leaders articulated a vision for how they would create system conditions for better reading instruction. In the best cases, these visions **cut across both PD and curricula**, ensuring that both drivers of instruction reinforce science-based practice.

*Slides 83–84 describe in further detail strategies states, districts and policymakers can use to create the overarching conditions for success.*

# Lessons learned about how to promote equitable practices and outcomes for all students



Equity

- Some states and districts **provided targeted resources to students who needed them most** by:
  - + Sending literacy coaches to their lowest performing schools;
  - + Allowing extended time for literacy; and/or
  - + Using a multi-tiered support system to help students struggling with reading.
- Additionally, some states **focused on increasing equitable access to high-quality materials for all students** by requiring or incentivizing the adoption of high-quality curricula at the local level, while some districts adopted a new science of reading-aligned curricula.

*Slide 85 describes in further detail strategies states, districts and policymakers can use to prioritize equity.*

# Lessons learned about how to support EPPs to better prepare teachers to deliver science-based reading instruction



EPPs

When it comes to shifting EPPs at scale, states are indispensable. Two conditions for success showed up across multiple states that addressed EPPs specifically:

- **EPP policy** that promotes reading science by **establishing baseline expectations** for teacher prep programs, tied to indicators of teacher proficiency in science-based reading instruction. For example:
  - + Reading science exams that teacher prep grads must pass to secure state licensure to teach
  - + Program approval standards that promote coursework and clinical experiences proven to produce effective reading teachers
- Support to build **EPP capacity** to deliver on policy requirements through their programming

*Slides 86–87 describe in further detail strategies states, districts and policymakers can use to strengthen EPPs to prepare teachers to deliver science-based reading instruction.*

# Lessons learned about how to support district efforts to improve early literacy through PD and curricula



PD



Curricula

Three conditions for success showed up across multiple systems that tackled PD, curricula or both:

- District leaders need support **to manage complex change** efforts, such as using best practices to change culture in schools and build educator skill
- **Principals who provide consistent support** to sustain early literacy efforts over time through allocation of instructional time and resources (e.g., budget, hiring, etc.)
- A system of **school-based coaches expert in early literacy** who help teachers apply professional development in their own classrooms using their own curricula, with tailored feedback/support

*Slides 88–90 describe in further detail strategies states, districts and policymakers can use to improve curricula and PD to support early literacy.*

# 5 | Promising strategies and recommendations

# Lessons learned from states and districts that have made significant strides point to several key strategies to improve reading instruction at scale



Enabling  
Conditions

- Educate and empower policymakers to build the will for change
- Support and incent district leaders to establish a comprehensive vision for early literacy that aligns educators' initial preparation with curricula and PD



Equity

- Use an equity framework to guide systemic reforms and support early literacy for all students, particularly those furthest from opportunity



EPPs

- Use data and advocacy to push for policy change in licensure and educator preparation
- Build EPP faculty capacity and expertise to redesign coursework and clinical experiences



Curricula



PD

- Provide structures and supports to help district leaders build the will, skill and capacity for change
- Educate and partner with school leaders on the science of reading to build will and capacity for change at the school level
- Invest in high-quality coaching to support immediate changes in teacher practice

# Enabling conditions strategy #1: Educate and empower policymakers to build the will for change



Enabling  
Conditions

- State leaders can use policy to create coherence across key agencies, institutions or departments, pushing actors across the system to collaborate in the necessary ways to achieve change
- They can also use state dollars to provide material support for these efforts
- Policymakers need support to apply the lessons of successful systems in their own states

## Potential actions

- **Convene elected or appointed leaders** like state superintendents of education and university system chancellors and/or provosts in communities of practice **to learn about the science of reading and best practices to support change**
- Support leaders to **articulate the urgency of early literacy efforts** to legislators or other stakeholders using relevant statewide data or events
- **Continue to support storytelling and reporting** on the science of reading and efforts to improve early literacy to build public understanding

## For example...

- After a study of North Carolina's EPPs, then-University of North Carolina System President Margaret Spellings held a **symposium with EPP deans and faculty** that **resulted in a cross-system advisory group** charged with improving preparation on reading instruction
- Mississippi State Superintendent Carey Wright used **findings from a report on the state's EPPs** to successfully **lobby the state assembly for legislation requiring a reading science exam for licensure**

## Orgs doing this type of work

- Council of Chief State School Officers + Barksdale Institute
- Collaboration for Effective Educator Development, Accountability, and Reform Center (CEEDAR Center) at the University of Florida
- Regional Education Laboratory at Florida State University



## Enabling conditions strategy #2: Support and incent district leaders to establish a comprehensive vision for early literacy that aligns educators' initial preparation with curricula and PD

- Shifts in curricula and PD require both state and district action. States can play an important leadership role in supporting districts to undertake comprehensive literacy reforms
- State support can include: setting a statewide vision and plan for literacy, providing dedicated funding to districts for literacy reform and other supports (e.g., state-funded PD and coaching)

### Potential actions

- **Create plans and policies at the state level that incent and support** district leaders to assume a comprehensive instructional strategy around early literacy, (e.g., a statewide strategic plan for early literacy that includes support for aligned district efforts)
- Provide **dedicated funding for districts** willing to undertake comprehensive early literacy reforms

### For example...

- **Ohio created a statewide early literacy plan**, which also **includes a popular grant program for districts** called Striving Readers that **requires participating districts to implement Local Literacy Plans** aligned to the state's comprehensive literacy plan
- Mississippi Department of Education provides a **state-funded literacy coach** to the lowest performing school districts. In exchange, **districts commit to supporting the coach** to secure principal buy-in and to sending teachers to state-funded LETRs **professional development**
- **North Carolina's state education agency's investment** in statewide implementation of Multi-Tiered Systems of Support, a framework for reading instruction and supports, **has increased district interest in science-based reading curricula and professional development**

# Equity strategy #1: Use an equity framework to guide systemic reforms and support early literacy for all students, particularly those furthest from opportunity



Equity

- State and district leaders can use an equity framework to begin their work in creating a system that has equity as its foundation; below are some of the high-level strategies the Urban Strategies Council developed as an example

## Potential actions

- **Define equity and link that definition to expected outcomes in various settings.** This is a complex process and requires that all personnel develop a deep understanding of issues of equity, power, privilege and culture
- **Mine and utilize data systems to understand how equity is either supported or constrained.** States and districts should use quantitative metrics (namely test scores, graduation rates, special education referrals and identification) as indicators or “flags” to look deeper. Systems committed to ensuring equity would also utilize such strategies as site visits or equity audits to understand the contextual issues and perceptions of stakeholders about the depth and breadth of equity in school systems
- **Commit to representation of diverse perspectives in leadership, staff and community input**
- **Utilize a “targeted universalism” approach.** In this approach, policy and practices must be both designed to improve outcomes for all as well as targeted specifically to address the unique needs and conditions of marginalized groups
- **Continually assess for equity.** Rather than identifying equity only as a goal to be assessed as an outcome, create mechanisms for reflecting on how equity considerations inform design, ongoing interim assessment, resource allocation, training and outcome measures
- **Hold systems and individuals accountable for equity.** In both system-level reviews and individual job descriptions and performance evaluations

# EPP strategy #1: Use data and advocacy to push state legislators and leaders for policy change in licensure and educator preparation



- Constituent pressure can help build state legislators' appetite for taking on EPP reform, which can be long and difficult compared to district reform
- State affiliates of advocacy groups for parents and families of children with dyslexia (e.g., Decoding Dyslexia) have successfully advocated for state legislation related to dyslexia in 40+ states
- Data can play a key role in highlighting the need for reform

## Potential actions

- Support advocacy and grassroots organizing with parents, families and community members to **pressure state legislators, state board of education members and university system leaders for legislation or policy change** that can spur EPPs to integrate reading science, such as laws to require a reading science exam for new teacher licensure and/or created program requirements aligned to the science of reading (e.g., coursework and clinical experiences in reading science) and supporting students with learning differences, such as dyslexia
- **Gather and analyze data on teacher preparation and licensure** to push for change

## For example...

- In Philadelphia, a **local dyslexia advocacy group is organizing to press the region's EPPs** that feed into the School District of Philadelphia to pursue accreditation by the International Dyslexia Association, which would **ensure they provide coursework on the science of reading**
- NCTQ's annual review of teacher preparation programs have helped **shine a light on gaps in educator preparation**

## Examples of orgs doing this work

- Decoding Dyslexia
- National Center on Learning Disabilities
- National Council on Teacher Quality

# EPP strategy #2: Build EPP faculty capacity and expertise to redesign coursework and clinical experiences



EPPs

- Requiring new tests of EPP graduates seeking licensure or requiring EPPs to deliver specific coursework is an important first step. However, many EPPs still need to build the capacity, skills or expertise to adequately prepare teachers to use science-based reading practices in the classroom and support students with dyslexia
- Opportunities for EPP faculty and students to collaborate and learn from one another can help build and sustain momentum for change
- States and higher education administrators can support EPPs to make shifts to their curricula and training through professional development and training aligned to science based-reading instruction, IDA standards and culturally relevant pedagogy

## Potential actions

- **Convene cohorts of administrators and faculty across EPPs within a state** in communities of practice to discuss how to integrate reading science into their programs, problem-solve common challenges, receive coaching on change management and evaluate progress
- EPPs that lack capacity to develop their own coursework may **consider offering coursework (e.g., micro-credentials) developed by high-quality third-party providers** as an alternative method for students to complete requirements in science-based reading instruction and supporting students with learning differences

## For example...

- From 2018 to 2019, Deans for Impact and the Louisiana Department of Education brought together six educator-preparation programs to improve the preparation of future ELA and math teachers. Over the course of a single academic year, members of the collaborative made targeted changes to their programming
- **In Mississippi**, where EPP graduates must now pass a reading science exam to secure licensure, **the state opened its PD in science-based reading instruction to EPP participants**

## Examples of orgs doing this work

- Technical assistance providers:
  - + Deans for Impact
  - + CEEDAR
- Providers of science-based reading courses/microcredentials:
  - + Hill Center
  - + Barksdale Institute

# Curricula and PD strategy #1: Provide structures and supports to district leaders to help them build the will, skill and capacity for change



PD



Curricula

- A vision and infusion of resources are necessary but insufficient for effective implementation. Administrators undertaking change efforts can benefit from support to build will, new skills and culture among school-based staff
- Data can serve as a powerful tool for surfacing gaps and highlighting the need for change

## Potential actions

- **Provide coaching to and/or facilitate shared learning among networks of district leaders**, including superintendents, as they work to create the system conditions for success; support districts to identify science-based curricula & PD
- **Analyze and use district-level data** and observations of practice to highlight the urgency of the problem, reveal equity gaps and pinpoint potential opportunities for improvement
- **Support districts to do curricula audits** to review their curricula and materials against the science and also for cultural relevance

## For example...

- In Bethlehem, PA, district leaders were alarmed by their reading data: just over half of their 3rd graders were proficient or above in reading. Using this data, they took a hard look at how teachers were teaching reading and dug into the research base, where they found that the practices they were seeing did not line up with the science. They instituted district-wide training for school staff and collaborated with consultants from Step by Step Learning who provided coaching and support for change management to help them overcome initial resistance and build teacher buy-in through structures like weekly “WIN” (What I Need) meetings
- Ohio’s state education agency is facilitating networks of districts as they implement local literacy plans aligned to the statewide vision, and providing technical assistance and “systems coaching” for district and school administration teams on best practices like how to use literacy data for decisionmaking

## Examples of orgs doing this work

- Step by Step Learning
- Belk Foundation (in North Carolina)
- National Center on Improving Literacy

# Curricula and PD strategy #2: Educate and partner with school leaders on the science of reading to build will and capacity for change at the school level



PD



Curricula

- Even with district leadership on reading instruction, change efforts need buy-in among on-the-ground educators to have lasting impact on classroom practice. School-based staff who can champion change efforts in partnership with district leaders can support buy-in at the school level
- Principals set the instructional vision for their schools and can make or break change efforts with their support for teachers, particularly when change is difficult and takes time
- Principals need knowledge of reading science to align school activities in support of it (e.g., coaching, scheduling, student supports, teacher collaboration)

## Potential actions

- Gather **data on what school-based staff already know and believe** about reading instruction
- **Train school leaders on the science of reading and effective reading practice** and support school leaders to analyze their current practice against the science in a network and/or include them in PD trainings in partnership with teachers
- Identify school leaders who can **serve as champions for change** and support implementation

## For example...

- Bethlehem—where principals are their schools' instructional coaches—had all of its principals complete the same training as teachers, teach a class and receive third-party feedback, and participate in a principal network for continuous improvement. Analyzing their own practices against the science of reading helped catalyze buy-in and commitment for change

## Examples of orgs doing this work

- Barksdale Institute
- Curriculum Matters Professional Learning Network
- Hill Center
- LETRs
- The Reading League

# Curricula and PD strategy #3: Invest in coaching to support immediate changes in teacher practice



PD



Curricula

- Teachers are more likely to buy into instructional change when they see it produce gains with their students or students similar to theirs. Quick wins not only provide encouragement for teachers who experience them directly but, if they come from similar contexts, serve as proof points to bring the remaining teachers on board
- Coaching is an important aspect of improving teacher practice. Yet coaches are expensive, meaning states and philanthropy should consider targeting their investments strategically in schools or grade levels that are likeliest to spark broader embrace of coaching by districts, schools and teachers

## Potential actions

- Supplement district-funded, school-based coaching positions** with funds for additional coaches in schools or grade levels that are either most initially receptive, most in need (i.e., lowest performing schools), or most foundational (i.e., kindergarten) and therefore likeliest to see initial gains within a year. Secure support from expert coaching providers to quickly build the capacity of newly hired coaches

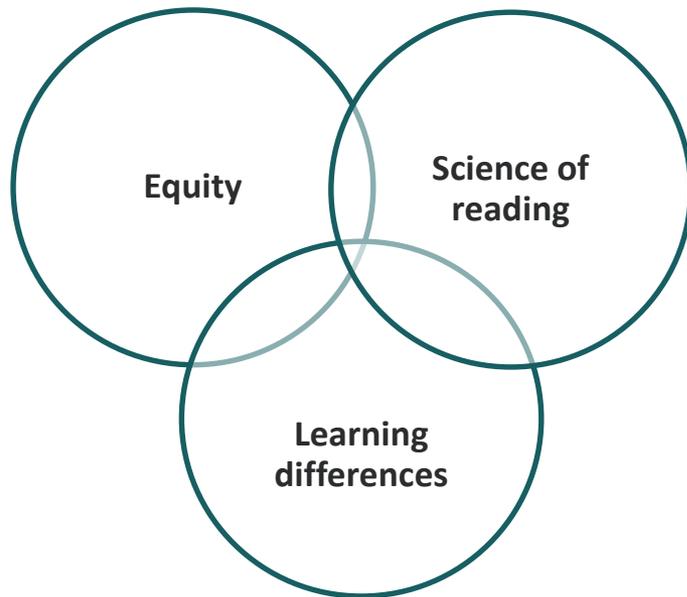
## For example...

- In Bethlehem, coaching was first rolled out in kindergarten and produced immediate gains, dissolving resistance among kindergarten teachers and high-performing schools, and leading teachers in later grade levels to demand coaching as well. Expert coaches from third-party provider Step by Step Learning provided intensive support in the first years, and diminishing support as internal capacity for coaching grew
- In Mississippi, the state funded school-based coaching positions in the lowest performing schools. Coaches convened regularly with state education agency staff to engage in their own professional development and community of practice

## Examples of orgs doing this work

- Step by Step Learning
- The Learning Alliance
- Tremaine Foundation
- Mebane Foundation
- AIM Institute

# The strategies and recommendations in this scan represent some of the most promising efforts in the field; we know that any effort to support early literacy will require an integrated approach



This scan highlights ways the field can act on key system elements to improve early literacy, particularly for students with learning differences and those experiencing additional adversity due to poverty and/or racism.

Funders, in particular, are well-positioned to support the field to improve early literacy in ways that both integrate these system elements *and* that work at the intersections of the science of reading, learning differences and equity. For example:

- **Convene:** Bring system leaders, policymakers, practitioners and researchers together to better understand the research on early literacy, learning differences and equity—and learn from best practice
- **Educate:** Highlight the urgency of the issue and lift up bright spots through storytelling
- **Support:** Invest in stakeholders at multiple levels of the system to create the space for and implement best practice and create change

# 7 | Appendix: Root causes

# Root cause #1: EPP faculty may lack the expertise in teaching science of reading, dyslexia, and cultural competence



EPPs



Expertise

## *Science of reading*

- Many faculty in educator preparation programs have not stayed up to date on reading science, or maintain beliefs about literacy that are no longer supported by the science. For example, **86 percent of professors claim to model how to teach phonics in their reading classes, yet over half incorrectly believe students can understand texts with unfamiliar words even if they don't have good phonics.** Nearly 60 percent of professors say their philosophy of teaching early reading is “balanced literacy.”
- In Mississippi, a 2005 revision in state licensure requirements for elementary education majors required EPPs to teach all five components of reading as identified by the National Reading Panel (2000). Yet a 2015 study found that NO EPP deans and faculty in the state could answer basic questions about reading science.

## *Dyslexia*

- Many faculty who are teaching reading instruction courses also don't have sufficient knowledge of dyslexia and language structure to effectively support teacher candidates.
- In 2010, the International Dyslexia Association created its Knowledge and Practice Standards (KPS). Since then, IDA has used its KPS to review programs for IDA accreditation. However, out of thousands of EPPs only 26 university programs and five independent teacher training programs have been accredited.

# Root cause #1: EPP faculty may lack the expertise in teaching science of reading, dyslexia, and cultural competence (cont'd)



EPPs



Expertise

## ***Cultural competency + culturally responsive teaching:***

- Culturally responsive teaching is a pedagogy that recognizes the importance of including students' cultural references in all aspects of learning. Some of the characteristics of culturally responsive teaching are: positive perspectives on parents and families; communication of high expectations; learning within the context of culture; and student-centered instruction.
- It's difficult to know how successfully the nation's 2,200 teacher-preparation providers have integrated cultural competency into their training because no national inventory spells out what individual programs or even states require. Plus, education faculty tend not to be as diverse as the school-age population and have not necessarily taught in diverse school settings.

## Root cause #2: With insufficient direction from states, EPPs receive minimal guidance about their methods and have little incentive to change



EPPs



Incentive +  
Accountability

- State leaders have historically declined to provide much direction to EPPs, despite their executive and legislative authority to do so. This may be, in part, because state leaders and policymakers do not have the requisite knowledge themselves to make evidence-based recommendations. For example, few EPPs receive feedback on their graduates' teaching outcomes, which would require states to spearhead complex multi-agency data-sharing agreements. And **most states' rules on exams for teacher licensure continue to require few or no questions on reading science, meaning EPPs have no reason to teach it.**

"I think one thing that's sorely needed are policies that will help make good teacher preparation practices more systemic. We have individual teachers and teacher educators and even programs that are doing a really good job. But then we have others that are teaching content that's really wildly inconsistent with the scientific evidence on how kids learn to read. I'm not suggesting that one [policy] by itself is enough, but it's the type of thing that helps create systemic change."

—Dr. Louise Spear-Swerling, Southern Connecticut State University

# Root cause #3: Many states allow teachers entering the profession without being required to demonstrate sufficient knowledge about science of reading instruction, especially via non-traditional pathways



EPPs



## Policy Gaps

- Teachers who enter the profession via non-traditional pathways can do so while completing licensure requirements like coursework and exams during non-school hours. Typically states give them 2–3 years to do so—meaning **they may teach many children before receiving any formal instruction on reading. This matters because enrollment has increased in alternative programs as it has declined in traditional EPPs.** Also, students of color and low-income students are more likely to have a teacher from an alternative program.
- States set the standards for what new teachers need to know and be able to demonstrate in order to be licensed to teach. While 32 states require EPPs to address the science of reading, most states do not sufficiently assess for this knowledge:
  - + **Twenty-two** states have **“insufficiently rigorous” tests** to assess teacher candidates’ science of reading knowledge
  - + **Ten states do not require a test** in this area at all

“We have to look at the curriculum candidates have to take. An alternative program candidate may be enrolled for a semester before taking a reading course in a local college [because] candidates are allowed to take whatever is offered that semester at the university they attend. [But] universities are set up for people that have 4 years [to train before teaching], and small programs don’t offer every course every semester.”

—Dr. Marion Gillis-Olion, Fayetteville State University

# Root cause #4: States and districts may not have the right data to really know what or how their EPPs are doing



EPPs



Insufficient  
Data

- For over a decade, the National Council on Teacher Quality (NCTQ) has rated teacher education programs—including on their instruction in the science of reading—and disseminated the results of those ratings. However, NCTQ is highly controversial among schools of education. Though many have improved since NCTQ began rating their programs, others have changed very little.
- Beyond the NCTQ reviews, state-led program reviews vary from state to state in terms of their breadth, depth and quality. And especially, in regards to the data the state requires and collects to review its EPPs.
- There are questions related to the dearth of data related to the way EPPs are preparing teachers and teachers' readiness to support all students effectively in the classroom.

# Root cause #1: District-provided PD is often disjointed and incoherent



PD



## Lack of Common Vision

- In its 2015 report on Teacher Development, TNTP reported hearing that while many central office employees focused on helping teachers, that working consistently as a team is a challenge. Given that these development personnel often span different departments, report to different leadership and perform different functions, coordination can become difficult. “We also heard from teachers that often, the people employed to support their development may not actually be on the same page about their development goals. They may not even coordinate with each other. More broadly, **teachers described a system that lacks any real vision or strategy—one that channels an enormous amount of time and resources to teacher development in the hope that they will turn into results.**”

## Root cause #2: Though there are several quality options, many districts don't use providers of science-based reading PD



PD



### PD Provider Selection

- It's unclear whether this is due to district lack of awareness, likely time investment for their teachers, provider cost, provider capacity, or some other reason. The provider with the widest reach is ten-year-old LETRS, which according to the company has been used at most by “hundreds” of districts—a fraction of the nation’s 13,000+ districts. However, recent publicity from American Public Media’s 2018 documentary has led to an increase in district interest in LETRS. Though a 2008 study of LETRS found no sustained impact on teacher practice or student learning, **LETRS has since demonstrated promising results in Mississippi, where federally funded researchers recently found that LETRS had a large and significant relationship with teacher knowledge, skills and instruction within one year.** The state managed to train and coach 15,000 teachers in LETRS since 2013 at a cost of \$15 million per year (\$9 million in year one).
- Though LETRS is showing promising results in Mississippi, it's had mixed results elsewhere. This raises a larger question about the efficacy of PD providers. The reality is that not all PD providers are competent and not all of the PD they offer is based on the science of reading.

# Root cause #3: Capacity for school-based coaching in early literacy is limited



PD



## Expert Coaching Capacity

“Researchers are finding that individuals with reading specialist and special education licenses often know no more about research-based, effective practices than those individuals with general education teaching licenses.”

—International Dyslexia Association, 2018

- Eighty-nine percent of surveyed K-3 teachers in Mississippi recently agreed that their reading coach or literacy leader provides them support that helps them improve their reading instruction. Yet **most systems have yet to invest in school-based coaching positions, while others struggle to find educators with sufficient background in reading science to fill their positions.**
- In Mississippi, the state funded 75 school-based coaching positions in early literacy but filled only 24 in its first year of hiring, despite receiving over 500 applications. That’s because it couldn’t find enough candidates experienced in PD who also brought knowledge of science-based reading instruction. Only in its third year did the state meet its target for hiring. More commonly, coaches have little more training in reading science than teachers with whom they work.

# Root cause #1: Fragmented curricula often result in incomplete adoptions that fail to produce the expected results



Curricula



## Comprehensive Approach

- Few commercially-available curricula address both foundational skills and building knowledge and vocabulary. When districts adopt a curriculum that addresses one without adopting another to supplement it, or adopt a supplement that is poorly aligned in scope and sequence, then students may not see continued gains in reading achievement—leading educators to abandon course without realizing they are only mid-stream.
- And even fewer include explicit guidance and materials to adequately support students struggling with reading, including those with dyslexia.
- In most curricula and other instructional materials culturally and linguistically diverse students and their heritages are not generally well represented. This can add to students' reading struggles, because when students don't see themselves reflected in the characters and events of the stories that they read, it can hurt their ability to bring their background knowledge and vocabulary to their learning and ultimately cause issues with reading comprehension.

## Root cause #2: Until recently, districts lacked options for curricula and instructional materials that build knowledge and vocabulary; now, many lack incentive to adopt them



Curricula



Incentive

- In the last two years, at least half a dozen open source curricula focused on building knowledge and vocabulary came onto the market, in what some are describing as a “curriculum renaissance.”
- Yet **as districts come up on their regular curricular purchase cycles, there remain too few incentives for them to assume the implementation cost of switching from their old publishers.** Where nearly half of states used to require districts to choose curricular materials from a list of state-reviewed and –approved products, recent years have seen more states rolling back these requirements and even suspending their reviews of materials against state standards, which many small districts without capacity to review curricula for themselves depend on. For districts in states that have adopted the Common Core State Standards for English Language Arts or a state-adapted version of it, the recent emergence of independent reviews of curricula could be promising. But **districts still need support and policy incentives to ensure their curricular adoption process results in a quality selection.**

## Root cause #3: It remains difficult for districts to find good supplemental curricula to teach foundational skills, despite many products on the market



Curricula



Selection

- Many districts are seeking to adopt supplemental curricula to address foundational skills (“supplementals”), as evidenced by increasing demand for independent reviews of them. Yet it’s hard for districts to identify quality of supplementals—let alone ones that plug seamlessly into their existing curricula. **The most commonly used supplementals all lack features of high-quality foundational skills curricula and, perhaps unsurprisingly, have mixed results according to research.** For example, Ed Reports reviews of several lesser used but higher quality foundational skills curricula found that all fail to teach at least one of the foundational skills for decoding. Still other lesser used curricula have not been sufficiently researched for districts to gauge their quality. **Districts trying to do the right thing need more guidance.**

# 7 | Appendix: Sources

# Interviews

## Early literacy researchers + experts

- **Timothy Shanahan**, Distinguished Professor Emeritus, University of Illinois at Chicago
- **Timothy Odegard**, Murfree Chair of Excellence in Dyslexic Studies, Center for the Study and Treatment of Dyslexia, Middle Tennessee State University
- **Julie Washington**, Chair, Department of Communication Sciences and Disorders, Georgia State University
- **Louise Spear-Swerling**, Professor of Special Education, Southern Connecticut State University
- **Munro Richardson**, Executive Director, Read Charlotte
- **Emily Hanford**, Senior Producer and Correspondent, APM Reports
- **Sarah Schwartz**, Reporter, Education Week

## Educator preparation

- **Marion Gillis-Olson**, Dean, College of Education, Fayetteville State University
- **Ellen McIntyre**, Dr. Ellen McIntyre, Dean, College of Education, Health and Human Sciences, University of Tennessee
- **Jean Rohr**, Professor of Education & Director of the Center for Access and Success, Elon University
- **Ben Riley**, Founder and CEO, Deans for Impact
- **Graham Drake** (Managing Director, Teacher Prep Review) and **Bob Marino** (Expert Analyst, Teacher Prep Review), National Council on Teacher Quality

## Professional development + curricula

- **Susan Atkins**, ELA Research and Design Specialist, TeachingWorks
- **Liz Woody Remington**, Co-Founder and Director of Professional Development, Learning Alliance
- **Kelly Butler**, CEO, Barksdale Reading Institute
- **Eric Hirsch** (Executive Director), **Lisa Potts** and **Stephanie Stephens** (ELA Leads), EdReports
- **Beth Anderson**, Executive Director, Hill Center

## Policy experts

- **Paolo DeMaria**, State Superintendent, Ohio Department of Education
- **J.B. Buxton**, Member, North Carolina State Board of Education
- **Lindsay Jones** (President & CEO) and **Meghan Whittaker** (Director of Policy & Advocacy), National Center for Learning Disabilities
- **Kathleen Airhart**, Program Director, Special Education Outcomes, Council of Chief State School Officers
- **Johanna Anderson**, Executive Director, Belk Foundation

# Convening Participants

- **Kathleen Airhart:** Program Director, Special Education Outcomes, Council of Chief State School Officers
- **Beth Anderson:** Executive Director, Hill Learning Center
- **Johanna Anderson:** Executive Director, The Belk Foundation
- **Alexis Bivens:** Program Director, Emily Hall Tremaine Foundation
- **Kelly Butler:** Chief Executive Officer, The Barksdale Reading Institute
- **Rupen Fofaria:** Storyteller, EdNC.org
- **Marion Gillis-Olion:** Dean, College of Education, Fayetteville State University
- **Crystal Gonzalez:** Executive Director, English Learners Success Forum
- **Eric Hirsch:** Executive Director, EdReports
- **Lindsay Jones:** President & CEO, NCLD
- **Ayanna Kilgore:** Cognitive Development Specialist, Georgia State University
- **John Pruette:** Senior Program Officer, Bill and Melinda Gates Foundation
- **Jean Rattigan-Rohr:** VP/Access and Success & Professor of Education, Elon University
- **Munro Richardson:** Executive Director, Read Charlotte
- **Alice Wiggins:** Senior Director, ELA, UnboundEd
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