

# Addressing America's Literacy Crisis Through Evidence-Based Action

Case Study of California's  
New Literacy Plan  
*With Gary D. Soto*



BRANCHING  
MINDS

# Introducing...



**Dr. Eva Dundas**  
Chief Product Officer,  
Branching Minds



**Gary D. Soto**  
Instructional  
Leadership Coach

Let's get to know you.

In the chat, answer the following:

**What district and state are you associated with?**

**What is your role within your district?**

*Rough estimate:* **What percentage of students in your school (or district) require reading intervention?**



# Agenda



Current National Literacy Crisis and  
Need for Action



Addressing Literacy Crisis:  
California Case Study



Science of Reading and the Need for Clear  
Instructional Guidance



Q&A

# *It's 'Alarming': Children Are Severely Behind in Reading*

The fallout from the pandemic is just being felt. “We’re in new territory,” educators say.

## The Coming Literacy Crisis: There’s No Going Back to School as We Knew It

By Comer Yates, Renée Boynton-Jarrett & Maryanne Wolf — March 23, 2021 ⌚ 4 min read

In Virginia, [one study found](#) that early reading skills were at a 20-year low this fall, which the researchers described as “alarming.”

In the Boston region, 60 percent of students at some high-poverty schools have been identified as at high risk for reading problems — twice the number of students as before the pandemic, according to Tiffany P. Hogan, director of the Speech and Language Literacy Lab at the MGH Institute of Health Professions in Boston.

AdLit | All About Adolescent Literacy

The Scope of the

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... graders read and write at a proficient level. The statistics for low-income students, students of color, and students with disabilities are even more alarming.

# Status Check

1 in 3 students  
in K-3 require  
reading  
intervention

Source: Amplify Data, 2022

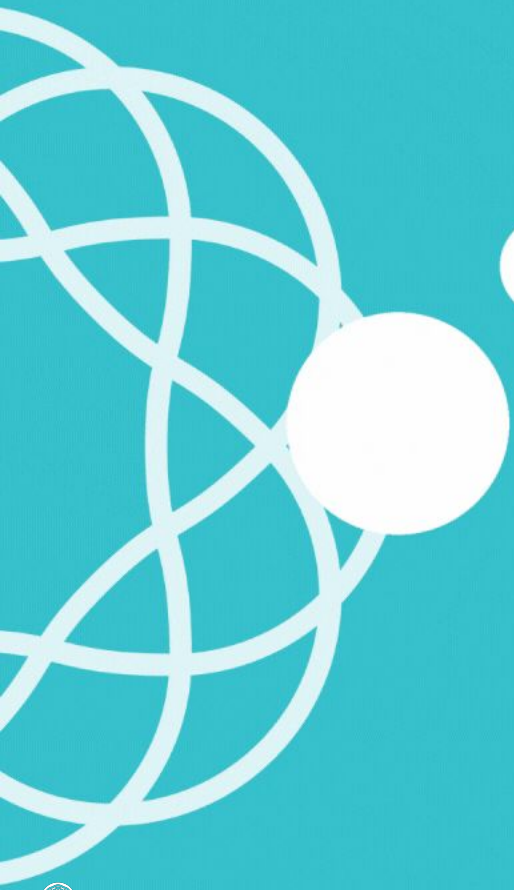
Black and Latino  
students are  
further behind  
White peers in  
reading.



Source: iReady Data,  
Fall 2021

Grades 1-8  
declined in  
reading, with  
the highest  
declines in 2nd  
and 3rd grade

Source: iReady Data,  
Fall 2021



# Case Study : The California Literacy Plan

# California's Literacy Plan

March 2021 - California Department of Education was awarded \$37.5 million to create a system of literacy supports

## Purpose of the Plan:

**Align** and **Integrate** state literacy initiatives, content standards, state guidance documents to support PreK-12 teachers





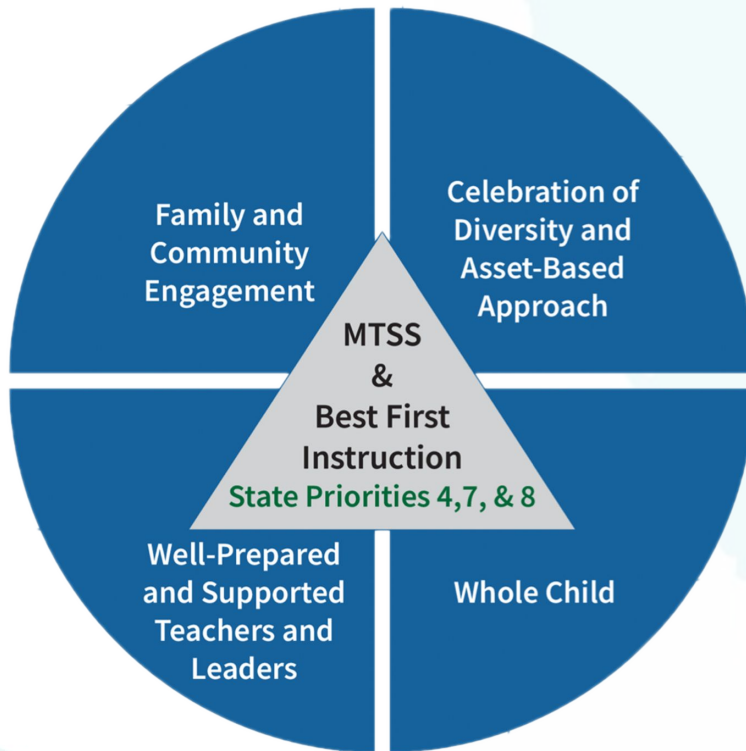
# California's Literacy Plan: Breakdown

## MTSS and First Instruction:

Strengthening Tier 1 with standards-aligned, differentiated, culturally/linguistically responsive teaching

## Additional Focus:

Asset-Based Pedagogies  
Access and Equity



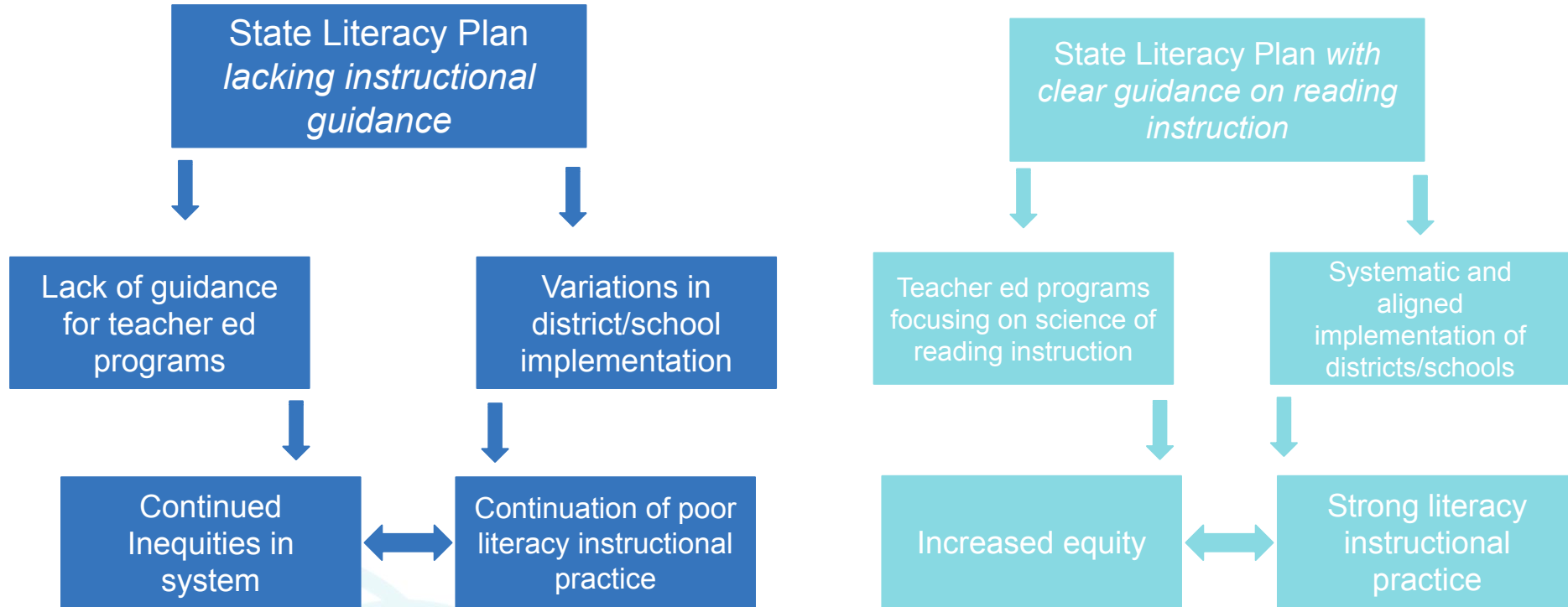
# The Problem: Lack of New Guidance on Literacy Instruction

This plan stays away from prescribing a “single approach” to literacy instruction

- Science of Reading - backed by research
- Whole Language - proven unsuccessful
- Balanced Literacy - proven unsuccessful



# A Continual Problem: Lack of Guidance in Literacy Plans



# Poll: How do you feel when someone brings up “the science of reading”?



A



B



C

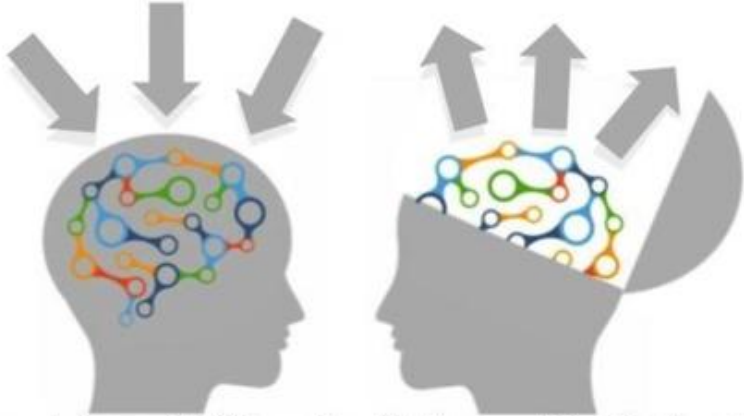


D

# Outside-In and Inside-Out Model of Science of Reading

Jan Burkins and Kari Yates 2021

## Outside-In and Inside-Out Approaches to Reading Instruction



An excerpt from *Shifting the Balance: The Online Class*

TheSixShifts.com

# Interactive Specialization of the Interior Temporal Cortex: The developmental of visual word processing

Eva Dundas  
Doctoral Candidate  
Department of Psychology  
Carnegie Mellon University



# Science of Reading Basic Principles

1. Reading is not natural and learning how to read requires a *dramatic* reorganization of the brain
2. Brain cells that “fire” together, “wire” together
3. The hardest part of “wiring” the reading brain, is to connect language sounds with their visual representation
4. Building that bridge between sound (phonemes) and vision (graphemes) is the foundation of reading skills that enables reading comprehension

# Brain changes in readers

1. Brain imaging allows us to see changes in brain function (patterns of activity) and brain structure (size of brain regions and connections)
2. We can examine reading related changes several ways:
  - a. Compare literate and non-literate adults
  - b. Examine children over learning how to read
  - c. Compare typical readers with those with reading disorders
  - d. Correlate brain changes with reading performance



# Brain changes in readers

## Human Bulletin

AMERICAN MUSEUM OF NATURAL HISTORY

## HOW DOES READING CHANGE THE BRAIN?

NOVEMBER 29, 2010



**Literate**

**Newly literate**

**Illiterate**

Studying how reading reorganizes our neural networks gives scientists a powerful window into understanding brain function and learning.

● Written sentences  
● Spoken sentences

fMRI data: Stanislas Dehaene



# How do we change our brain?

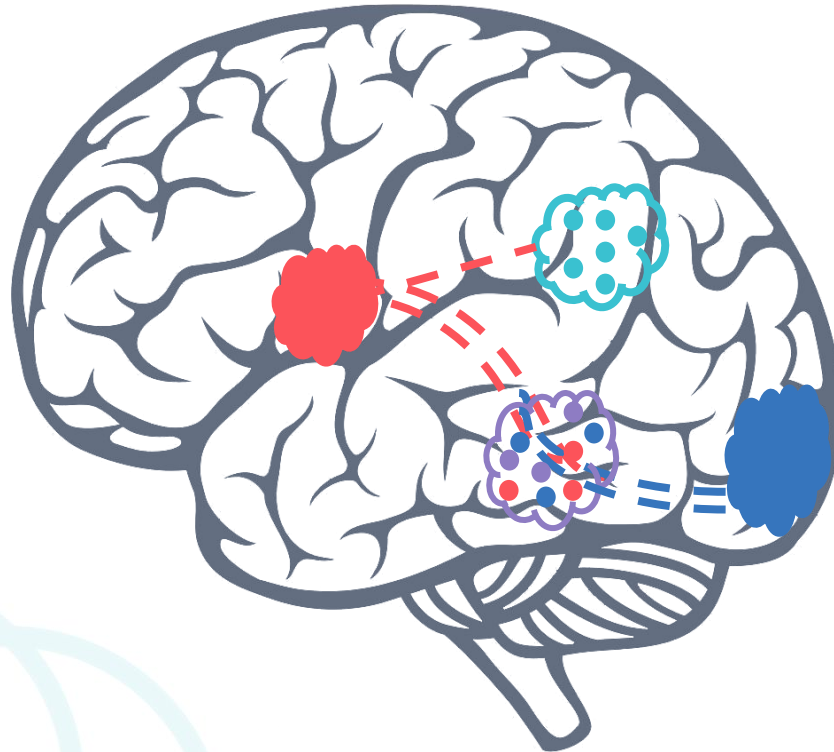
- **Cells that “fire” together, “wire” together**



[Click here  
https://youtu.be/V  
NNsN9IJKws?t=29](https://youtu.be/VNNsN9IJKws?t=29)

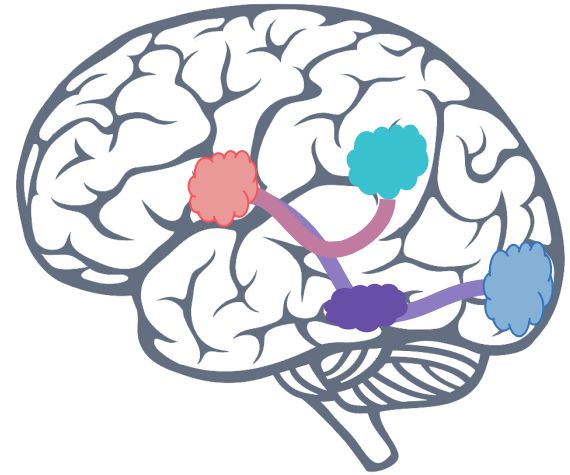
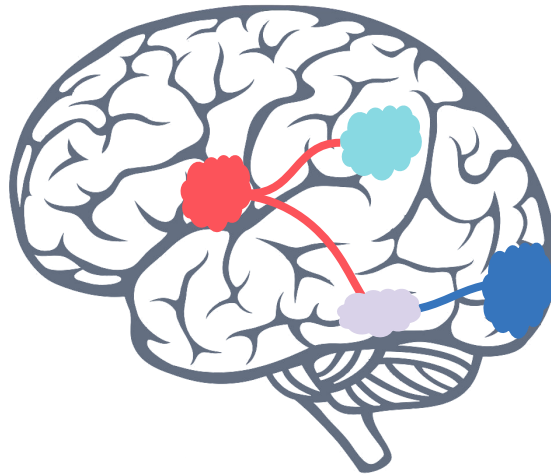
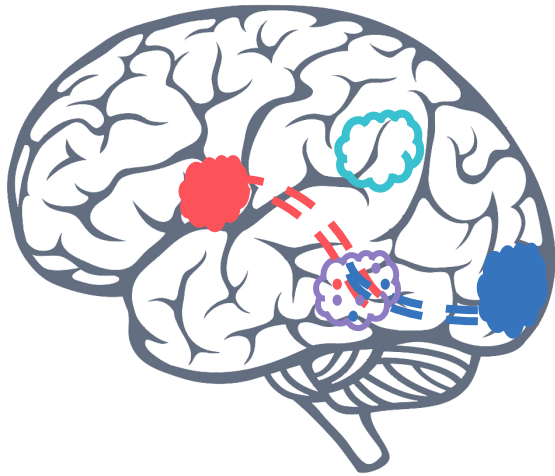
# What's difficult about the "wiring" needed for reading?

- **We're making a connection between two sensory regions**

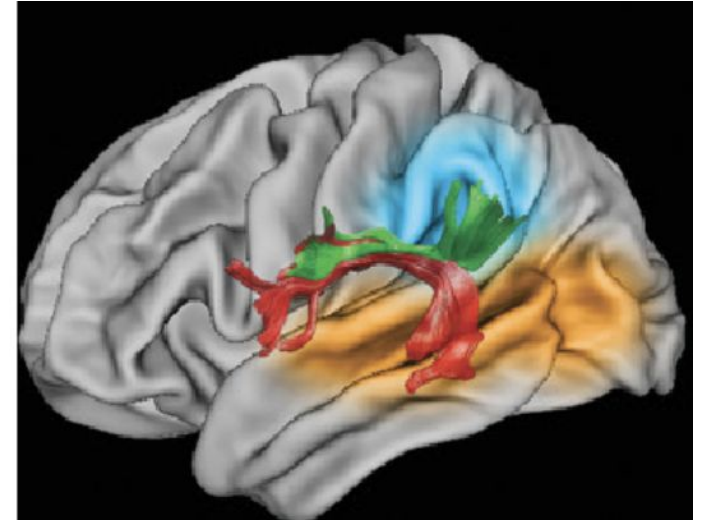
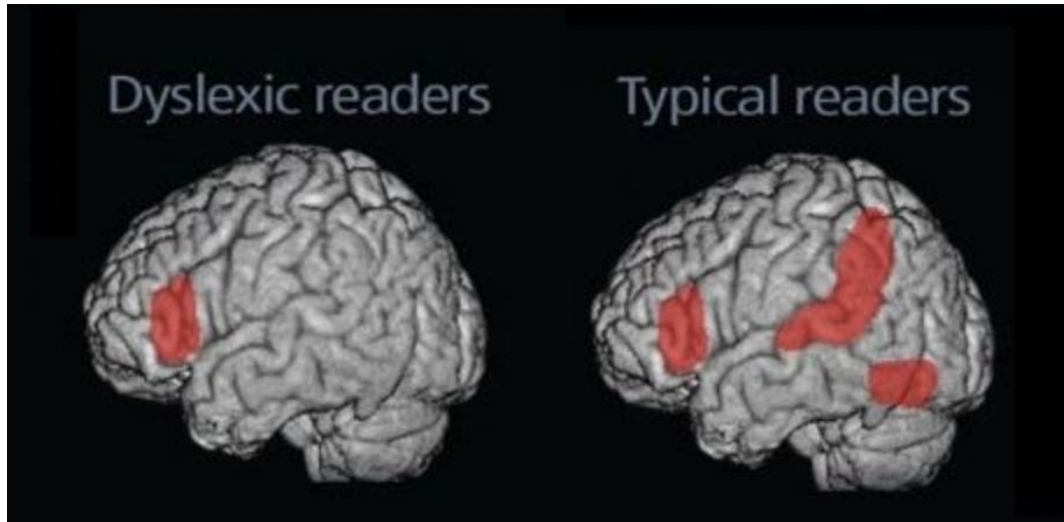


# How do we “wire” the sensory regions needed for reading?

- **Sounds and letters need to “fire” together**

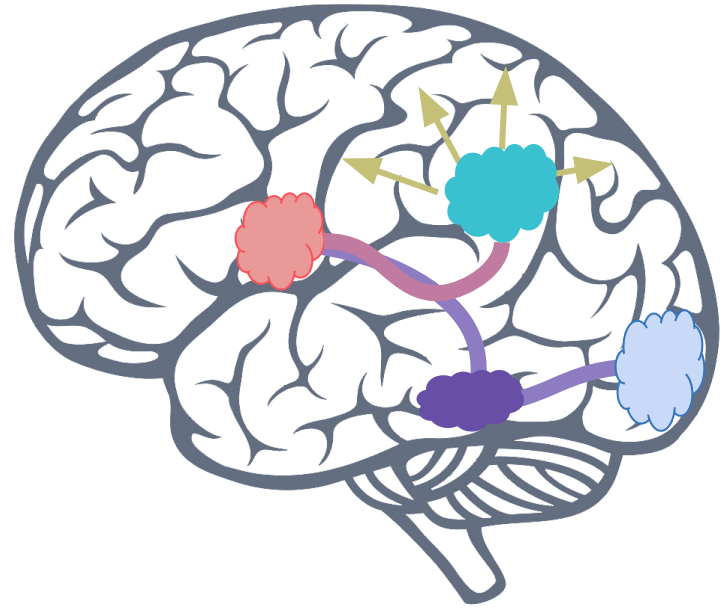
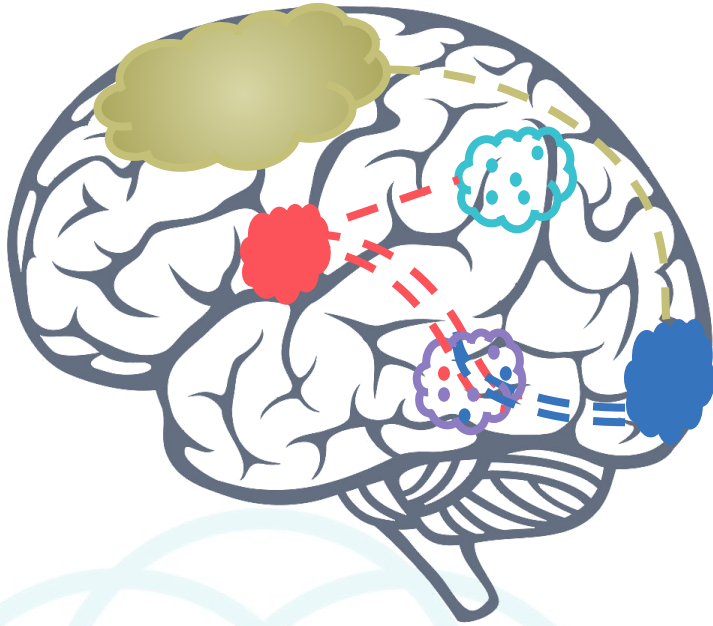


# Individual differences can influence how difficult the networks are to build



# The sensory area connection provides the foundation for reading

- How does phoneme-grapheme pathway ladder up to comprehension?



## Whole Language

Teaches reading through word study, without explicitly teaching phonics or decoding

Uses the “3 cueing system”

- Semantics
- Syntax
- Graphophonic cues

## Balanced Literacy

Utilizes the same 3 cueing system as Whole Language with the addition of phonics instruction

Students use leveled readers for independent reading practice

## Structured Literacy

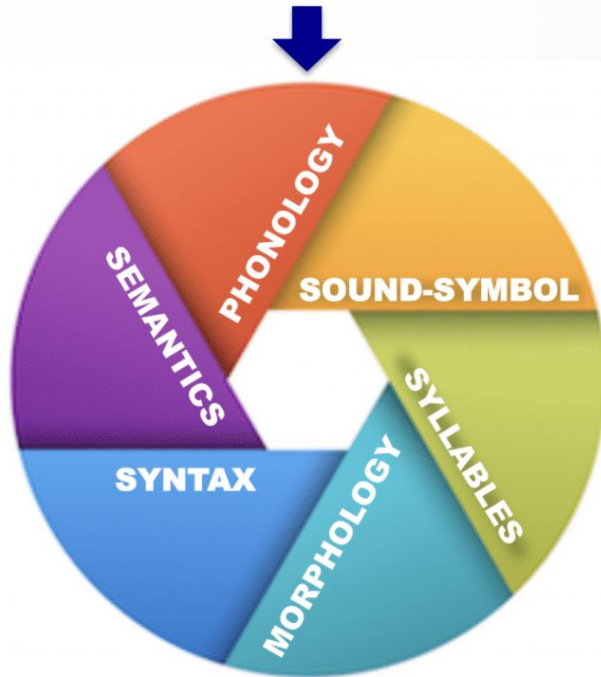
Teaches reading guided by the evidence and research of the Science of Reading

Directly teaches decoding skills and comprehension strategies through:

- Explicit and systematic instruction
- Skill building
- Data collection

## STRUCTURED LITERACY PRIMER

### Structured Literacy's ELEMENTS work together.



Structured Literacy's  
Evidence-Based Elements

**Phonology** (study of sound structure of spoken words) is a key element of Structured Literacy Instruction. **Phonemic awareness** (ability to distinguish / segment / blend / manipulate sounds relevant to reading/spelling) is central to phonology.

**Sound-Symbol Association** Once students develop phoneme awareness, they must learn the **alphabetic principle**—how to map phonemes to letters (**graphemes**) and vice versa.

**Syllables** Knowing the six syllable / vowel grapheme types helps readers associate vowel spellings with vowel sounds. Syllable division rules help readers divide / decode unfamiliar words.

**Morphology** A **morpheme** is the smallest unit of meaning in language. Studying base elements and affixes helps readers decode and unlock the meanings of complex words.

**Syntax**—the set of principles that dictate the sequence and function of words in a sentence—includes grammar, sentence structure, and the mechanics of language.

**Semantics** Semantics is concerned with meaning. The Structured Literacy curriculum (from the start) includes instruction in the comprehension and appreciation of written language.



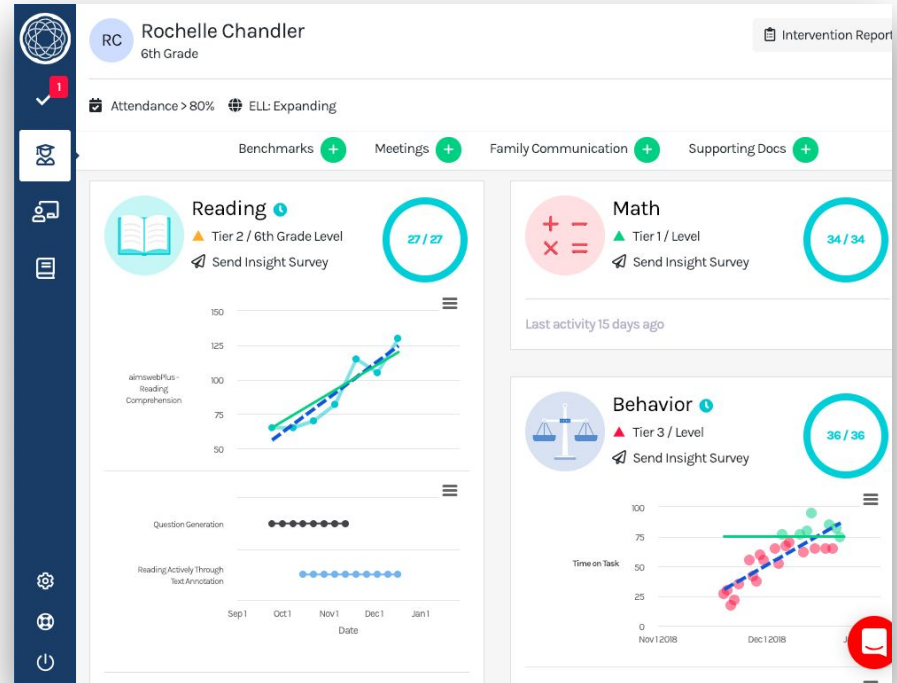
# What does this mean for literacy instruction?

1. Build the phoneme-grapheme bridge first – structured literacy instruction is a critical foundation for **efficient** and **effective** reading **for ALL students**
2. **Most** children will learn how to read with balanced literacy and whole language programs **under ideal conditions** – but they are reinforcing the wrong brain networks which disproportionately affects students with disabilities and those not receiving additional reading time outside of the classroom.

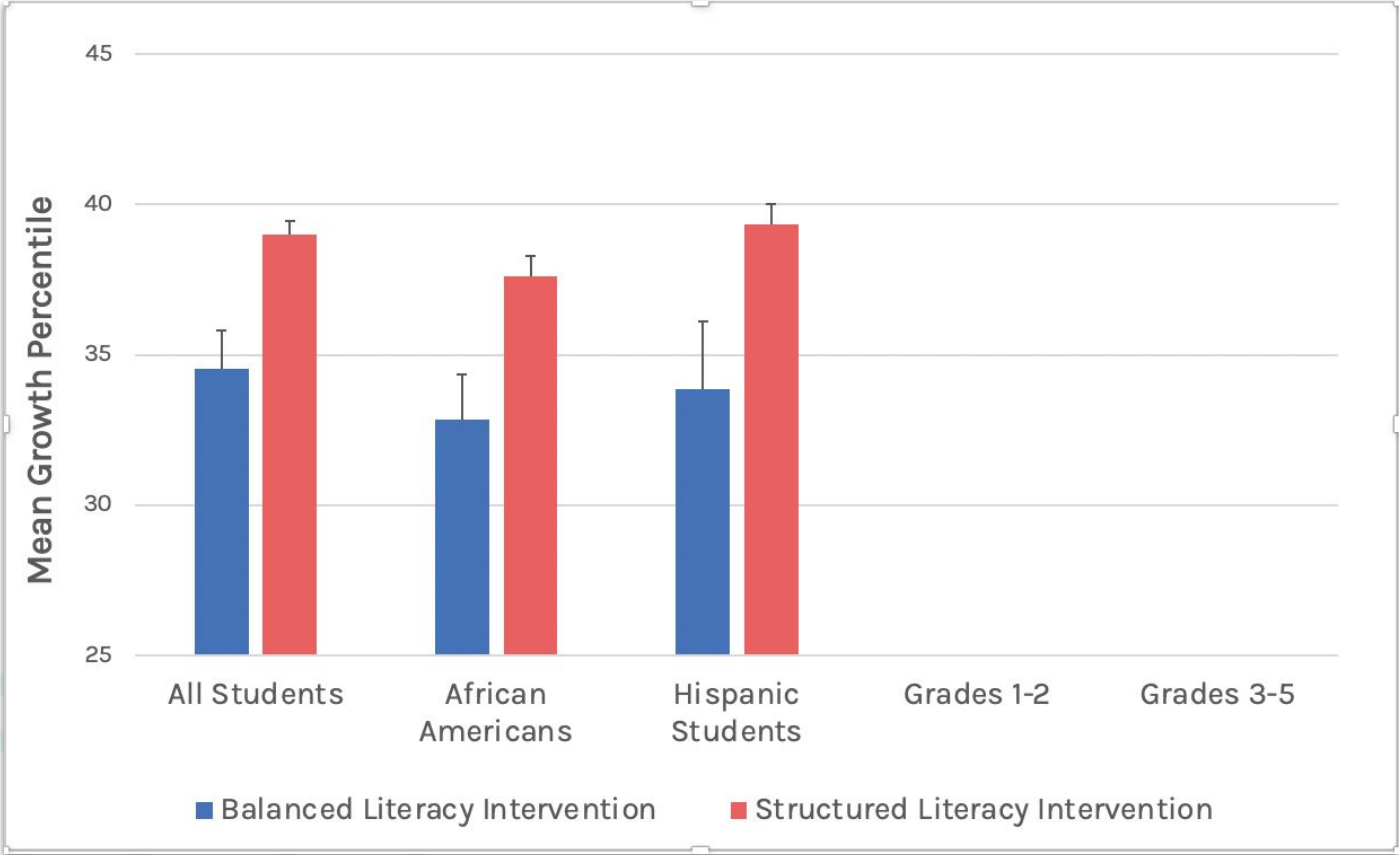
# Branching Minds Web Application

## ➤ Streamline and scaffold MTSS practice

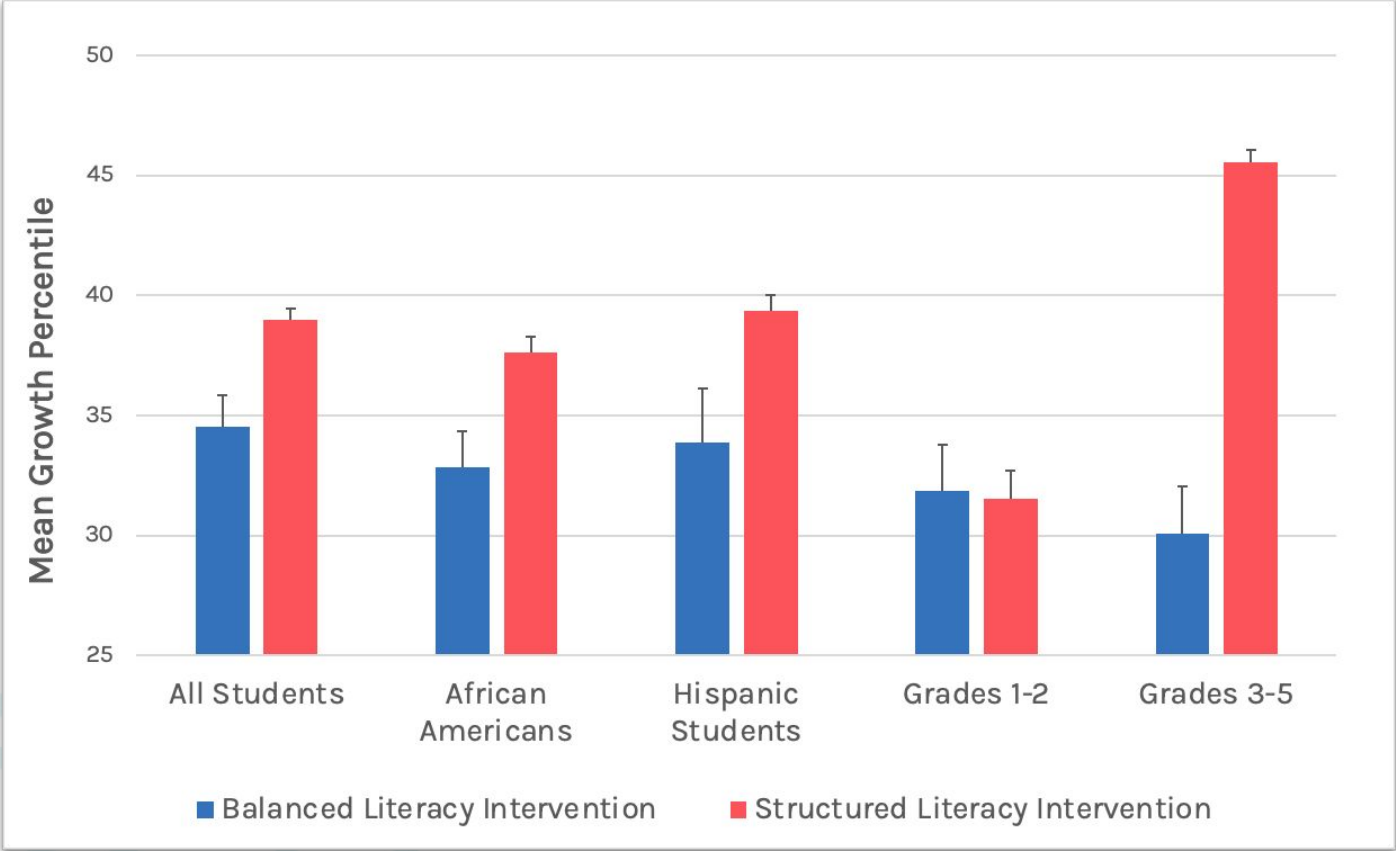
- ❏ Ingest assessment data
- ❏ Use data to ID who needs support
- ❏ Find evidence-based interventions
- ❏ Create academic/behavior/sel plans guided by best practices
- ❏ Monitor implementation and progress
- ❏ Streamline communication across colleagues and families



# Data on program efficacy we see on Branching Minds



# Data on program efficacy we see on Branching Minds

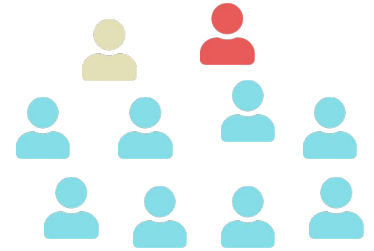
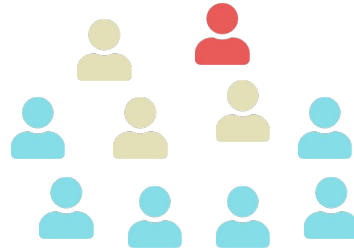
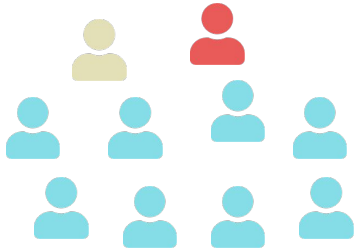


# Compounding effects of poor reading architecture

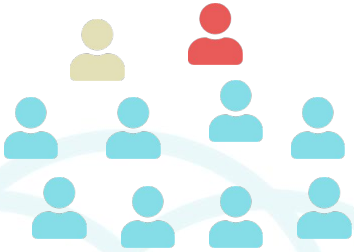


# How do these programs affect MTSS structures and systems?

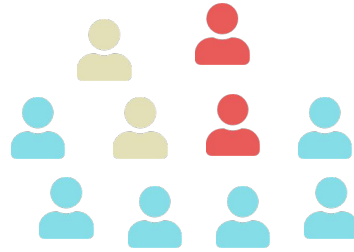
## ➤ Structured literacy



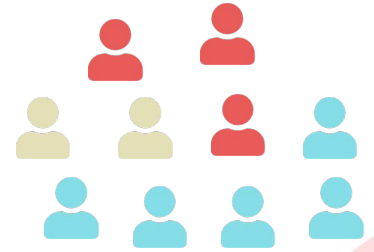
## ➤ Balanced literacy



1st Grade



2nd Grade



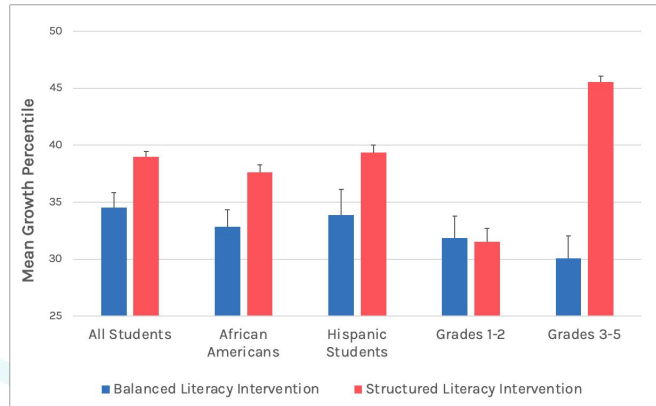
3rd Grade

# Final Note: How does this impact our California case study?



1 in 3 students in  
K-3 need reading  
intervention

Data shows Structured  
Literacy to have a greater  
impact than Balanced  
Literacy



State, district, school  
literacy plans need  
evidence-based  
instructional guidance to  
address our literacy  
crisis.

Q&A





Join us for our next webinar  
Wednesday, April 13, 1:00 PM

# Best Practices for Using SEL Data in MTSS

**REGISTER: [bit.ly/SEL-Data](https://bit.ly/SEL-Data)**



# Before you go...



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