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THE SCIENCE OF READING

THE SCIENCE OF READING IS

...a systematically organized body of knowledge on a particular subject

The science of reading is
a collective body of
interdisciplinary research

Developmental psychology

Cognitive neuropsychology

Developmental linguistics

Educational intervention



THE MOST DANGEROUS PHRASE IN EDUCATION:

“we’ve always done it this way”

WHAT WE KNOW

Leadership Matters!

Leadership is only second to teaching as the highest correlation to student achievement

(2010)

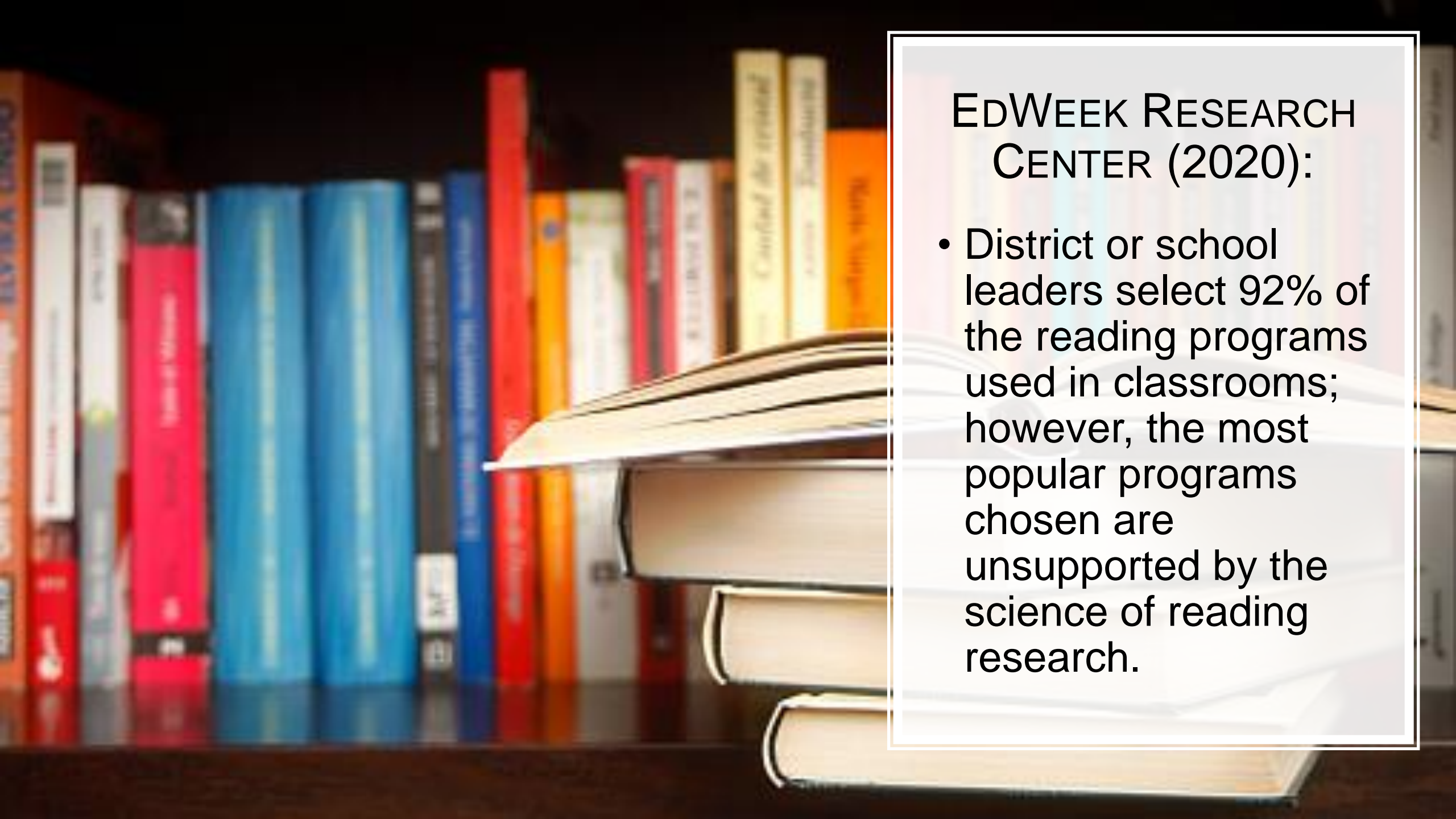
Leithwood, Louis, Anderson, & Wahlstrom, 2004

“One cannot give what one does not have”

Barber & Mourshed, 2007, p. 16

The purpose of leadership is the improvement of instruction

Leaders are lead learners



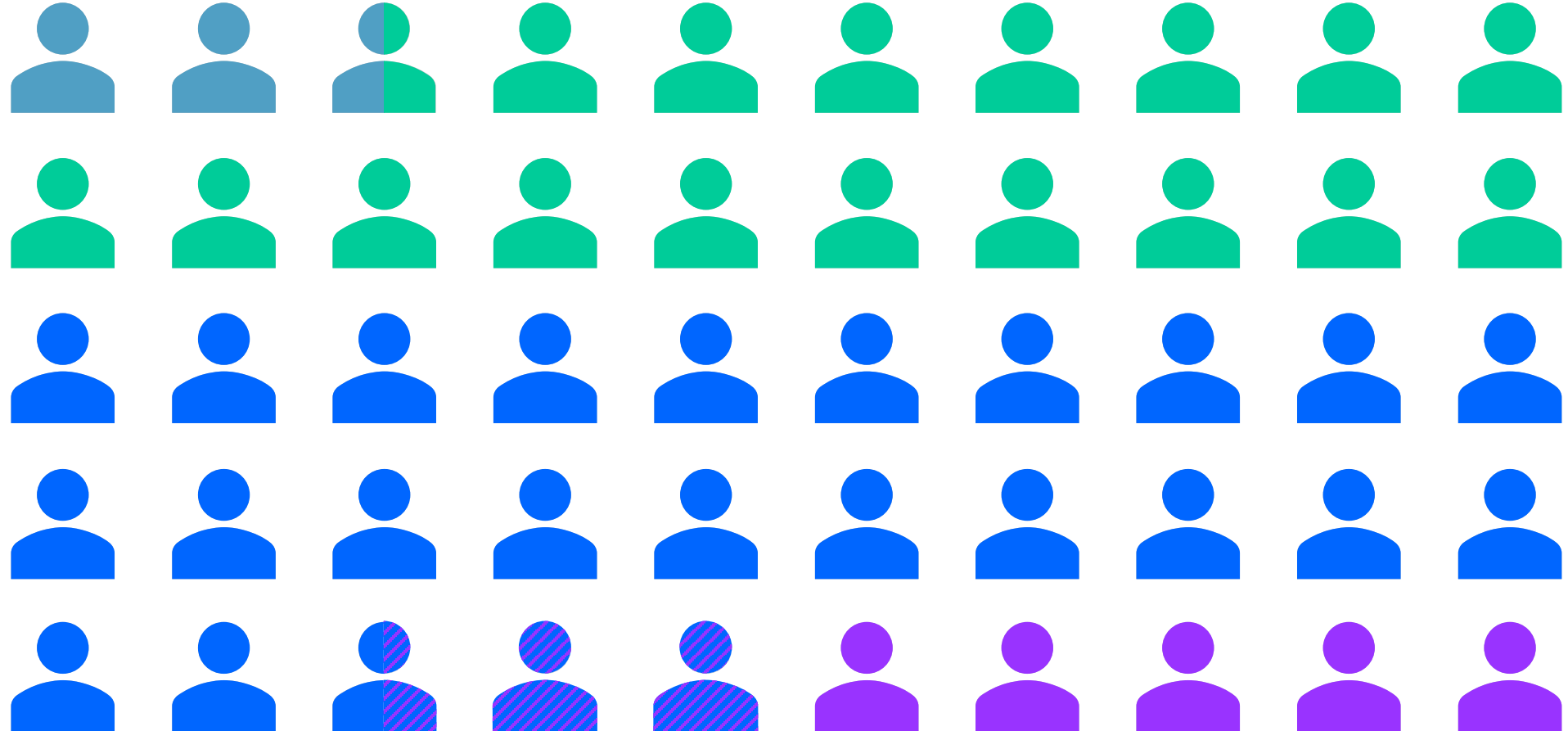
EDWEEK RESEARCH CENTER (2020):

- District or school leaders select 92% of the reading programs used in classrooms; however, the most popular programs chosen are unsupported by the science of reading research.

LEARNING TO READ

35% – mostly easy with some broad instruction

5% – feels effortless



45-50% –
requires explicit
instruction in
the structure of
the language

10-15% – very challenging and
needs intensive intervention

LEARNING TO READ IS NOT A NATURAL PROCESS

Learning to *speak* the language of one's culture by being immersed in that language is not like learning to *read*

2000 years vs 2000 days

Learning to *read* and to *spell* in a culturally invented written language requires instruction in how that language is structured

Unlike spoken language, reading has no specific genes to set up its circuitry or to dictate its development.



READING IS...

an interactive process in which the reader instantly translates symbols into sounds to form words (decoding) and connects the words to meaning (comprehension)



READING RESEARCH

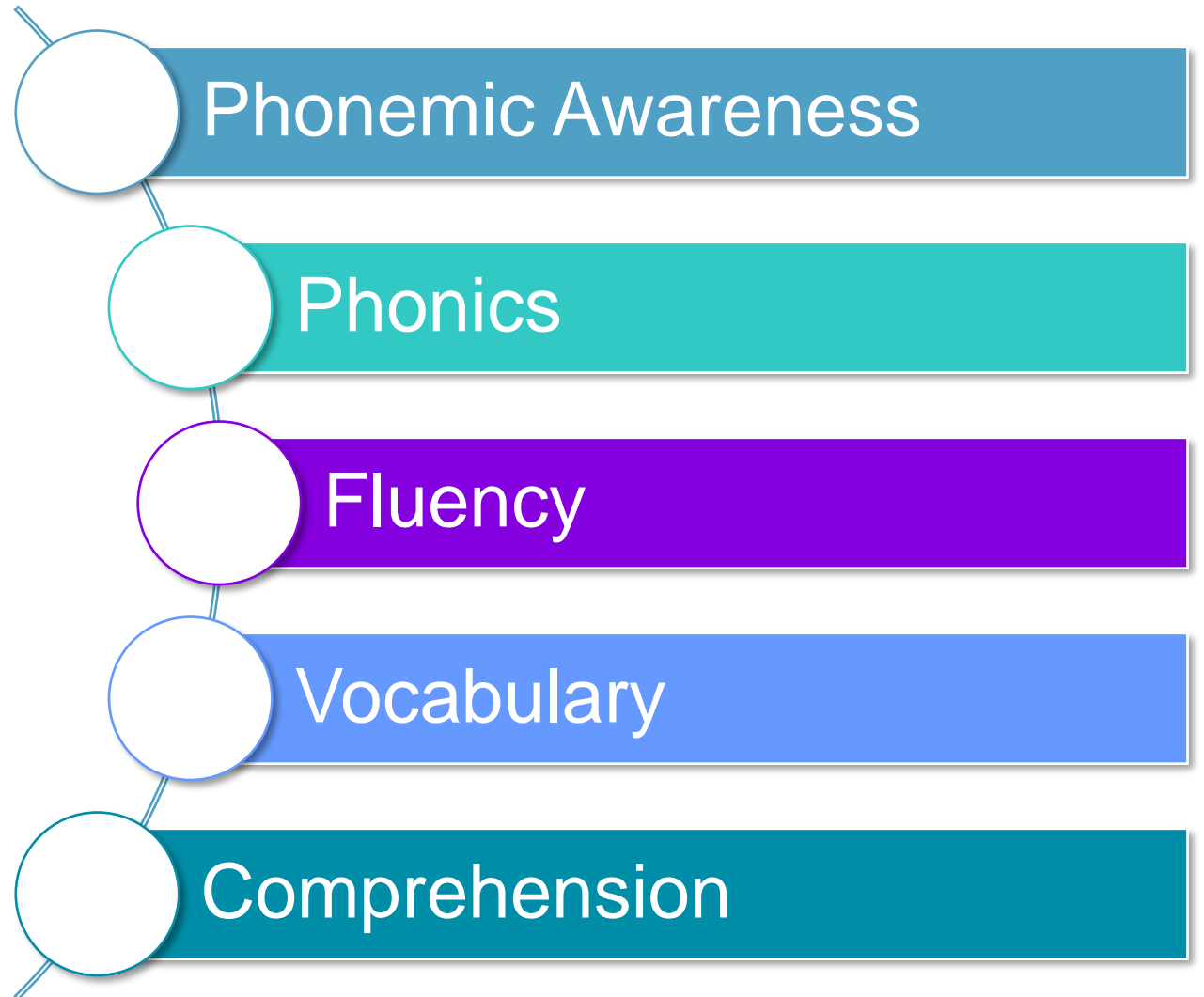
Teaching students how to decode words in comparison to other methods resulted in better reading and spelling ability in early primary, particularly for at-risk students (Adams, 1990)

Teaching phonics had the highest effect size in primary readers becoming skilled readers (Henbest & Apel, 2017)

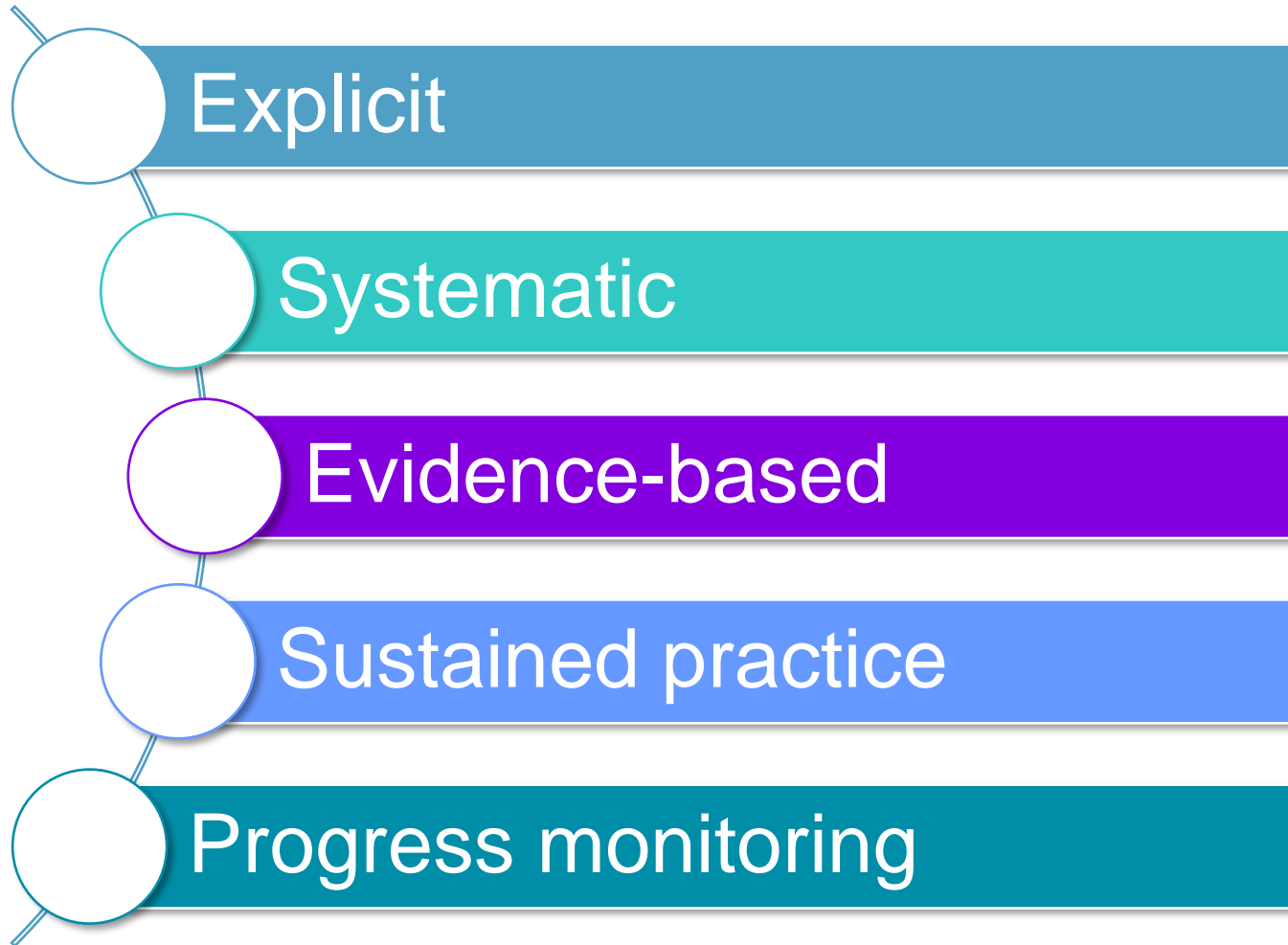
Teaching foundational decoding and comprehension skills is more effective than other reading instructional methods (Foorman et al., 2017)

THE 'WHAT': THE 5 AREAS OF INSTRUCTION

Metanalysis from the National Reading Panel (2000) found evidence to support a strong correlation between becoming a skilled reader and speller and receiving explicit and systematic instruction in five areas:

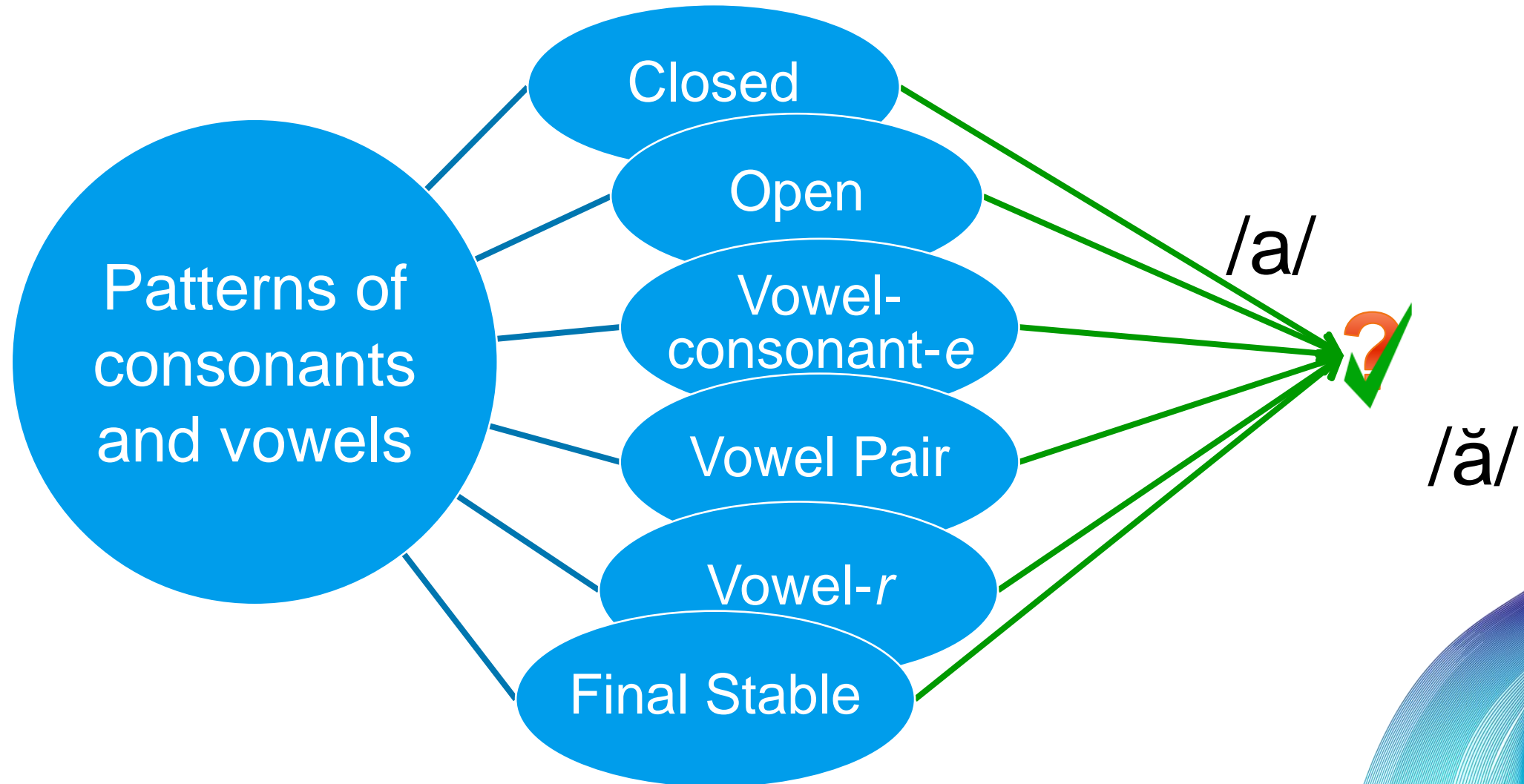


THE 'HOW' FOR TEACHING THE CURRICULUM:



NATIONAL
READING PANEL
(NRP)

SIX SYLLABLE TYPES



hat
mend
hip
got
mud

hăt
mënd
hĭp
gőt
mŭd

Closed Syllable

1
vowel

ends in 1+
consonant

short
vowel
sound

PRACTICE READING & SPELLING THIS PATTERN:

1. pit
2. nip
3. spin
4. pits
5. sat
6. spent
7. met
8. pots
9. luck

THEN MOVE TO CONNECTED TEXT:

- 1.The ants sit.
- 2.The bed is soft.
- 3.Dad sifts the sand in the flat pan.
- 4.Tom is on the drum.

Now let's move that closed syllable pattern into a multi-syllabic word:

trānsit



And then into an even longer word:

fantastic

And then we move students into reading connected text like this:

- The **fantastic** advances in public **transit** have been truly remarkable, providing people with a convenient and efficient way of getting from A to B.

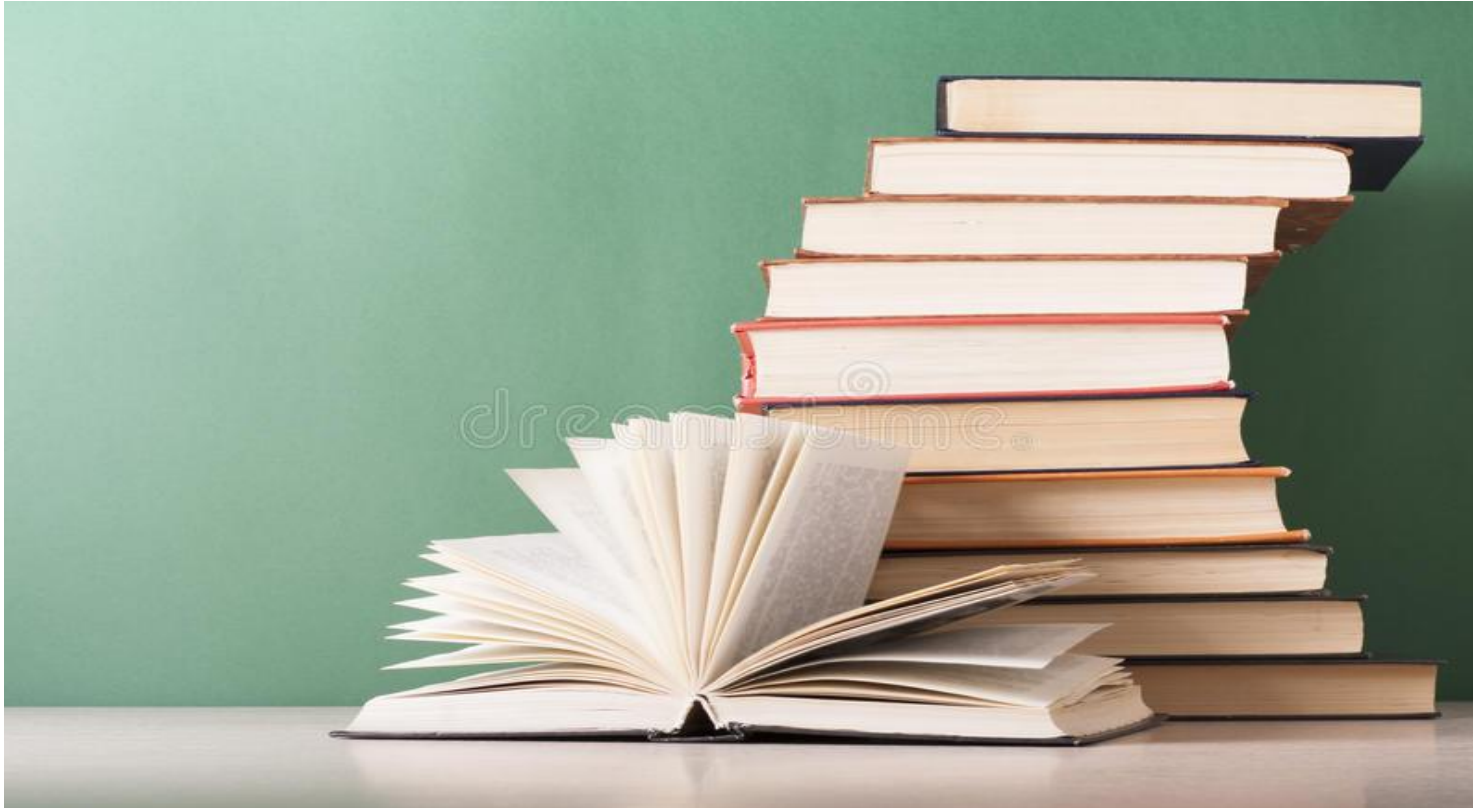
WHAT THE SCIENCE OF READING IS NOT...

- An ideology or philosophy
- A fad, trend, new idea, or pendulum swing
- A political agenda
- A one-size-fits-all method
- A program of instruction
- A single, specific component of instruction

SoR Defining Guide, 2021

We need to make sure we have thinking teachers in place that can be diagnostic and prescriptive in their day-to-day interactions with students.

LITERACY IS A HUMAN RIGHTS ISSUE



- 85% of juveniles who come into contact with the juvenile court system are functionally illiterate.
- 60% of all prison inmates are functionally illiterate
- **2/3 of students who cannot read proficiently by the end of 4th grade will end up in jail or on welfare.**

Where is your Window of Opportunity?

PreK-1st Grade

Prevention

Universal Screening
High Quality Tier I Instruction
Progress Monitoring
MTSS Instruction to Match Needs

Fewer Negative Consequences
Less Early Reading Failure
More Cost Effective

2nd-3rd Grade

Diagnosis & Treatment

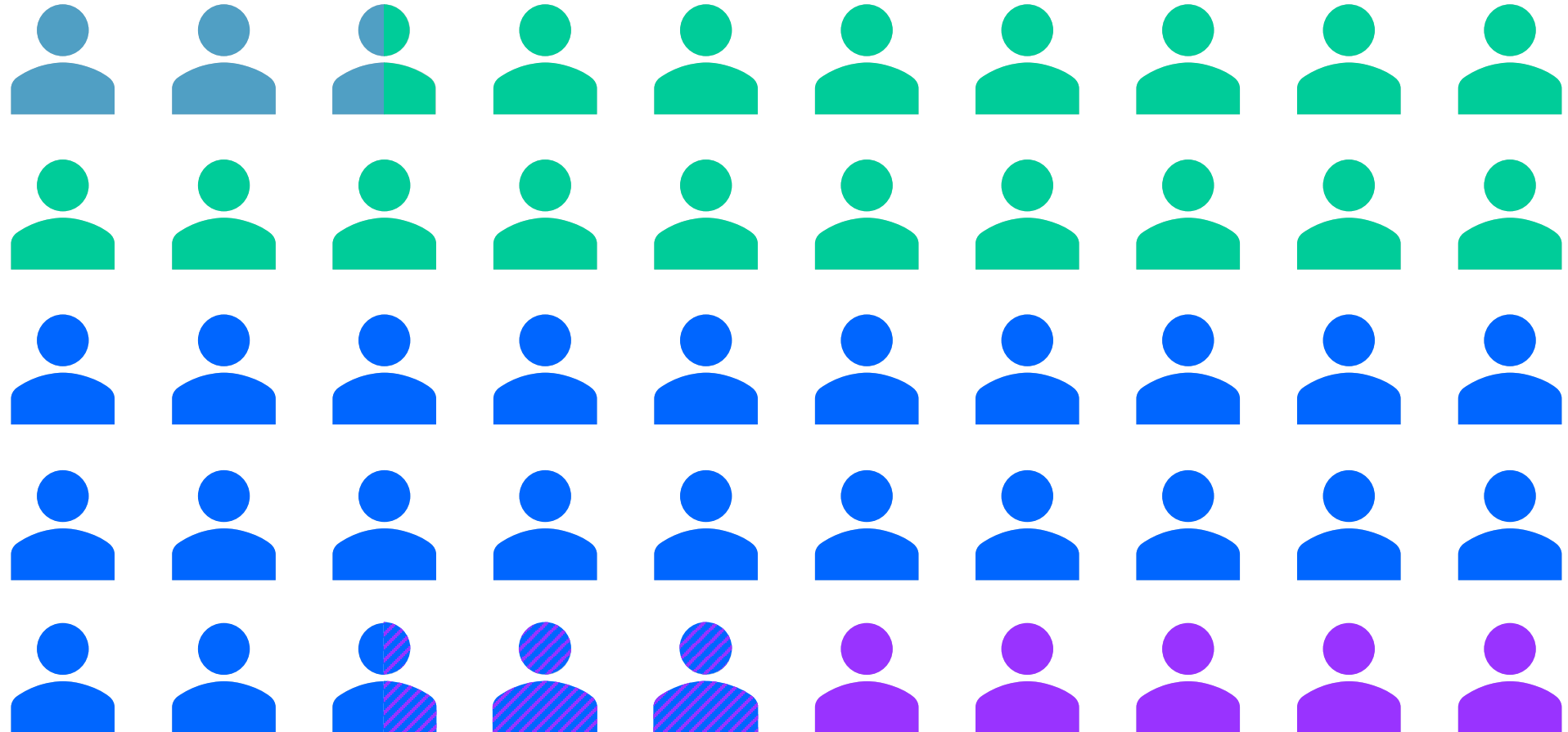
Assessment & Evaluation
Special Education
Intensive Intervention

More Negative Consequences
Delayed Reading Success
Less Cost-Effective

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DO THE BEST YOU
CAN UNTIL YOU
KNOW BETTER. THEN
WHEN YOU KNOW
BETTER. DO BETTER.

Maya Angelou



ADDITIONAL INFORMATION:



Resources to further your understanding of the Science of Reading:

Science of Reading Defining Guide, a free e-book

<https://www.thereadingleague.org/what-is-the-science-of-reading/defining-guide-ebook/>

Reading 101: A Guide to Teaching Reading and Writing

<https://www.readingrockets.org/teaching/reading101-course/welcome-reading-101>

The Reading Brain

<https://www.readingrockets.org/article/see-brain-see-brain-read-reading-instruction-changes-brain>

Structured Literacy: Applying the Science of Reading in the Classroom

lexialearning.com/resources/white-papers/structured-literacy-applying-science-reading-classroom-0

Explicit Instruction: Effective and Efficient Instruction

<https://explicitinstruction.org>

Curriculum Evaluation Tool

<https://www.thereadingleague.org/wp-content/uploads/2020/08/Curriculum-Evaluation-Tool-August-2020.pdf>

Reviews & Reports on Instructional Materials for English Language Arts Curriculum

<https://www.edreports.org/>

Suggested Books and Articles for Educators

<https://www.neuhaus.org/resources/suggested-books-and-articles/>

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THANK YOU

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