

# Purpose

Understand why we use  
Science of Reading as  
our foundational  
philosophy





# **The Science of Reading**

**Body of research that  
investigates how children  
learn to read and what  
instructional approaches are  
most effective**

# The Science of Reading

**Reading is  
essential**



**Reading must  
be taught**



**All children are  
capable of  
reading**



# Reading is Essential



What was your own reading journey?

How hard was it to learn to read?


What was your reading identity growing up?

How did that feeling impact you in other aspects of your life?






# Reading is Essential



Children  
must read  
to learn



Adults  
must read  
to live

# Reading is Essential



**28%** of Oregon 4th graders were at or above grade level in reading



**56%** of Oregon 4th graders were at or above “Basic” in reading

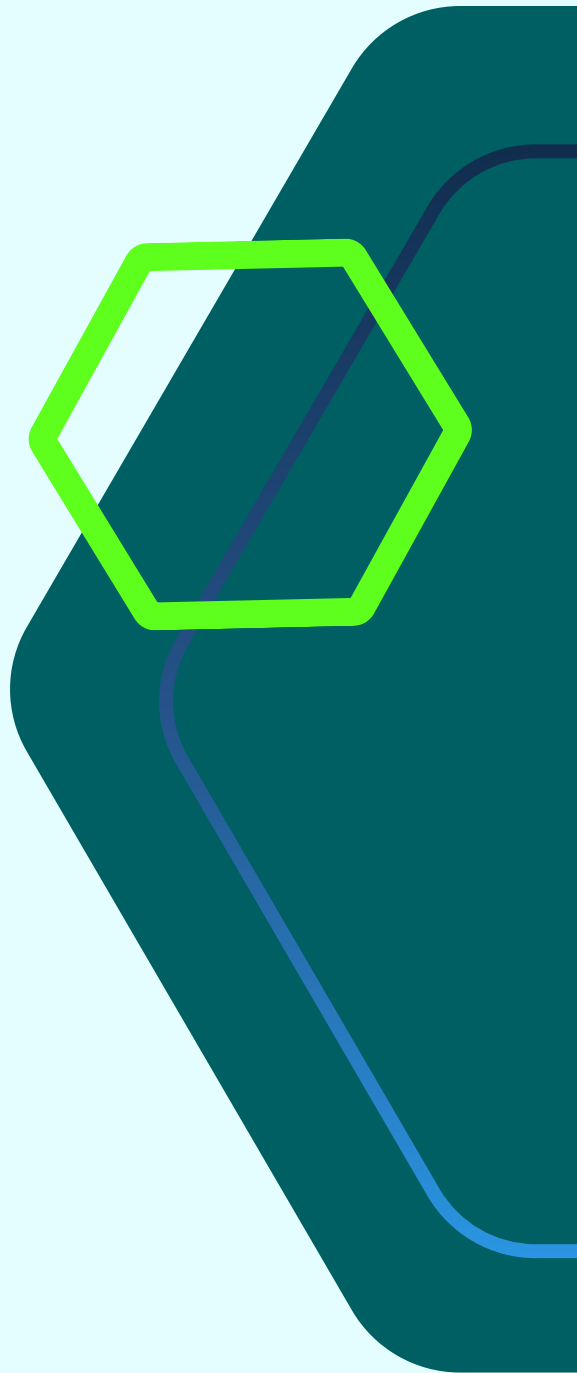


**16%** of Oregon 4th graders were below “Basic” in reading

# Reading is Essential



72% of Oregon 4th graders are not reading on grade level



# Reading is Essential



**This number has been statistically  
the same since 1998**





# Reading is Essential



Children who are not  
proficient readers in 3rd  
grade are 4x more likely to  
not graduate high school



# Reading is Essential

Students who drop out  
of high school are 63%  
more likely to be  
incarcerated than those  
who earn a four-year  
degree



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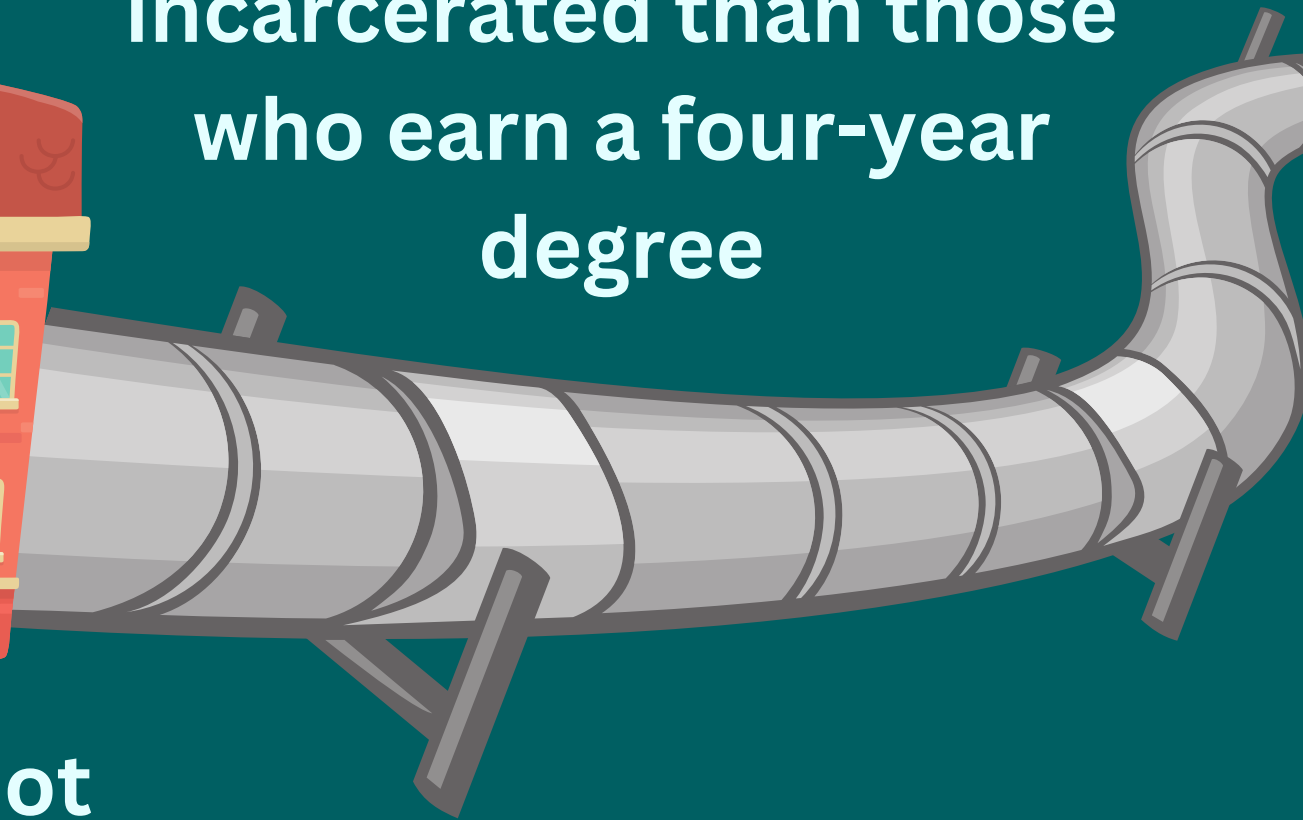


# Reading is Essential

Students who drop out  
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Children who are not  
proficient readers in 3rd  
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not graduate high school



70% of  
incarcerated  
adults cannot  
read above a 4th  
grade level



# Reading must be taught

## Simple View of Reading





# Simple View of Reading

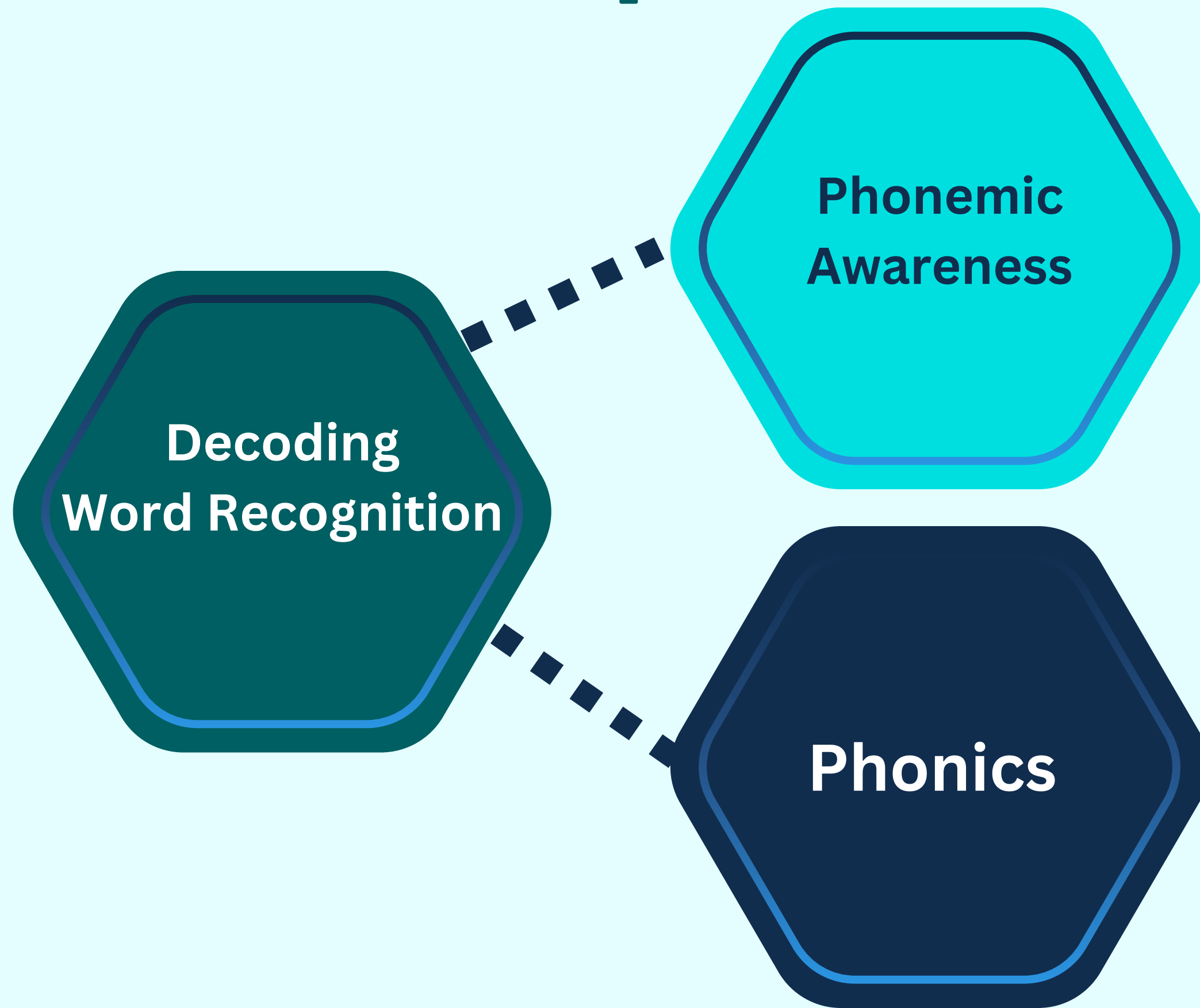
Σας ευχαριστώ



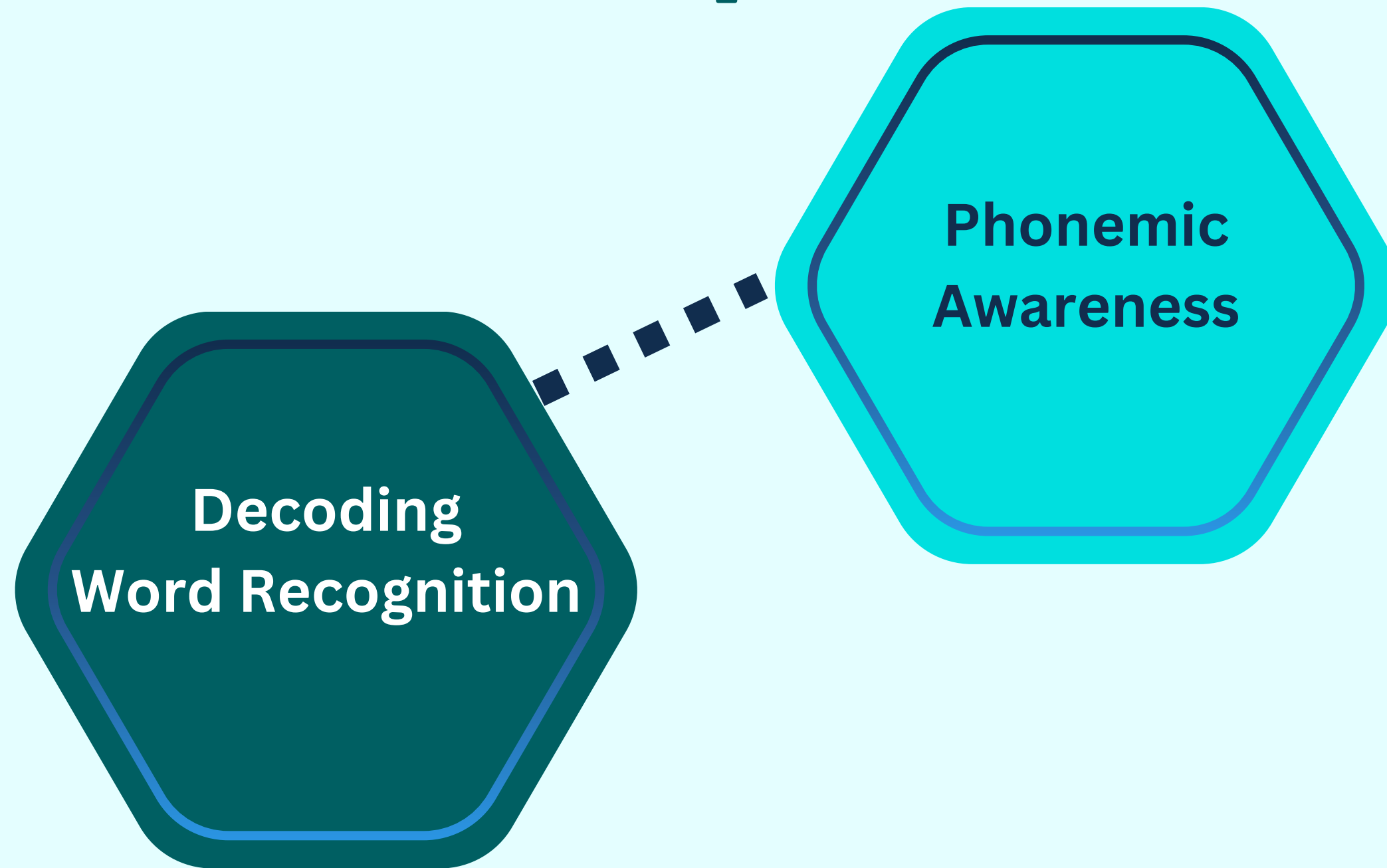
**Decoding  
Word Recognition**

- When we do not have decoding skills, letters and groups of letters hold no meaning
- While we might be able to memorize this exact phrase, we would not be able to generalize

# Simple View of Reading

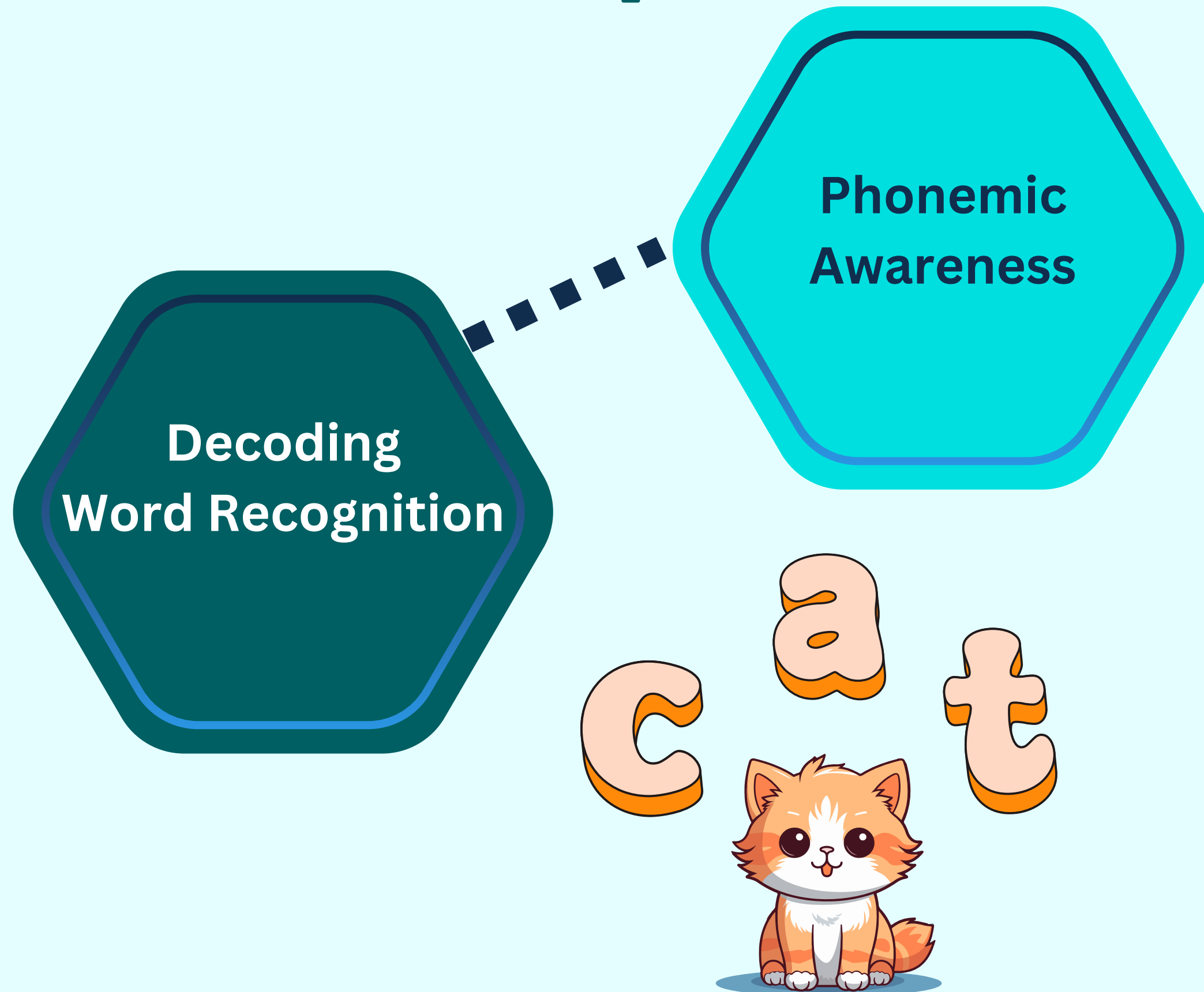


# Simple View of Reading



- Knowledge that speech is composed of syllables and phonemes
- Speech is innate
- Reading is not

# Simple View of Reading



- Spoken language does not require a knowledge of phonemes
- Learning to read changes the representation of speech

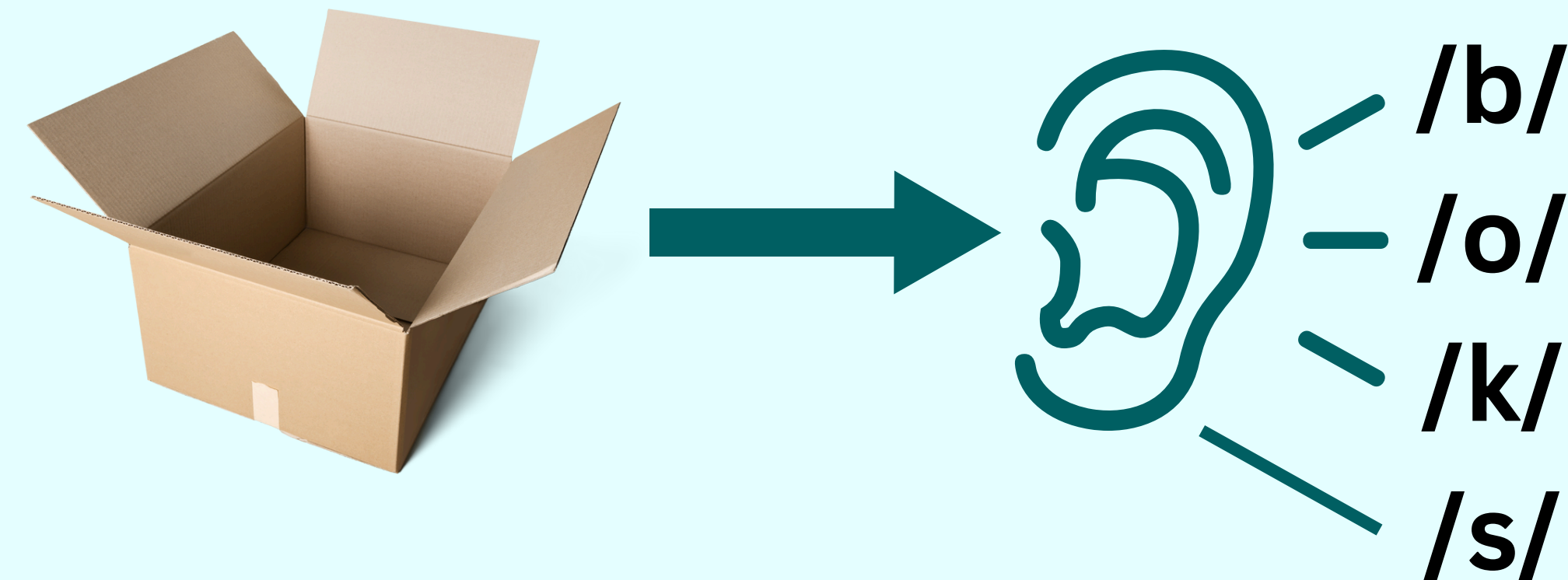


# Simple View of Reading

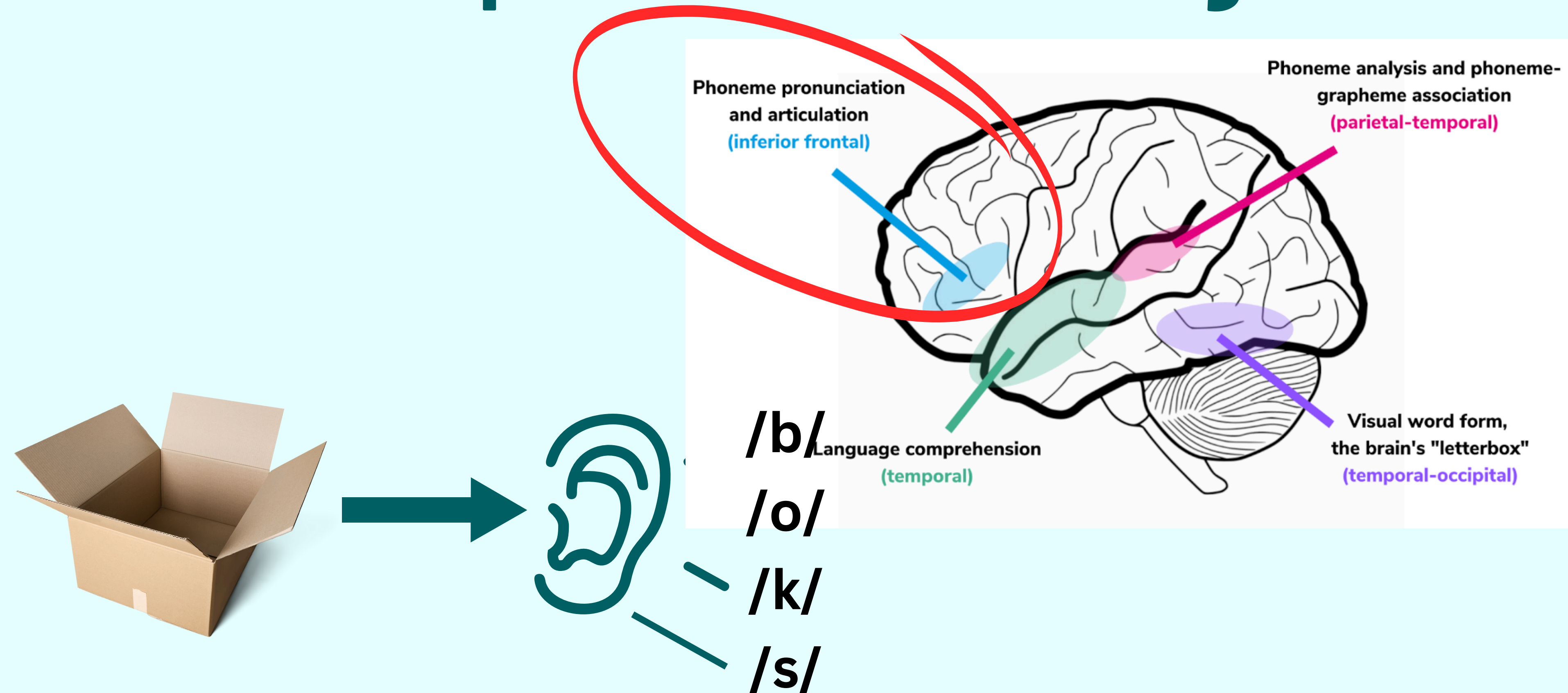
**We must build a  
brain that can  
read**



**Circuits for reading  
have to be built**



# Simple View of Reading

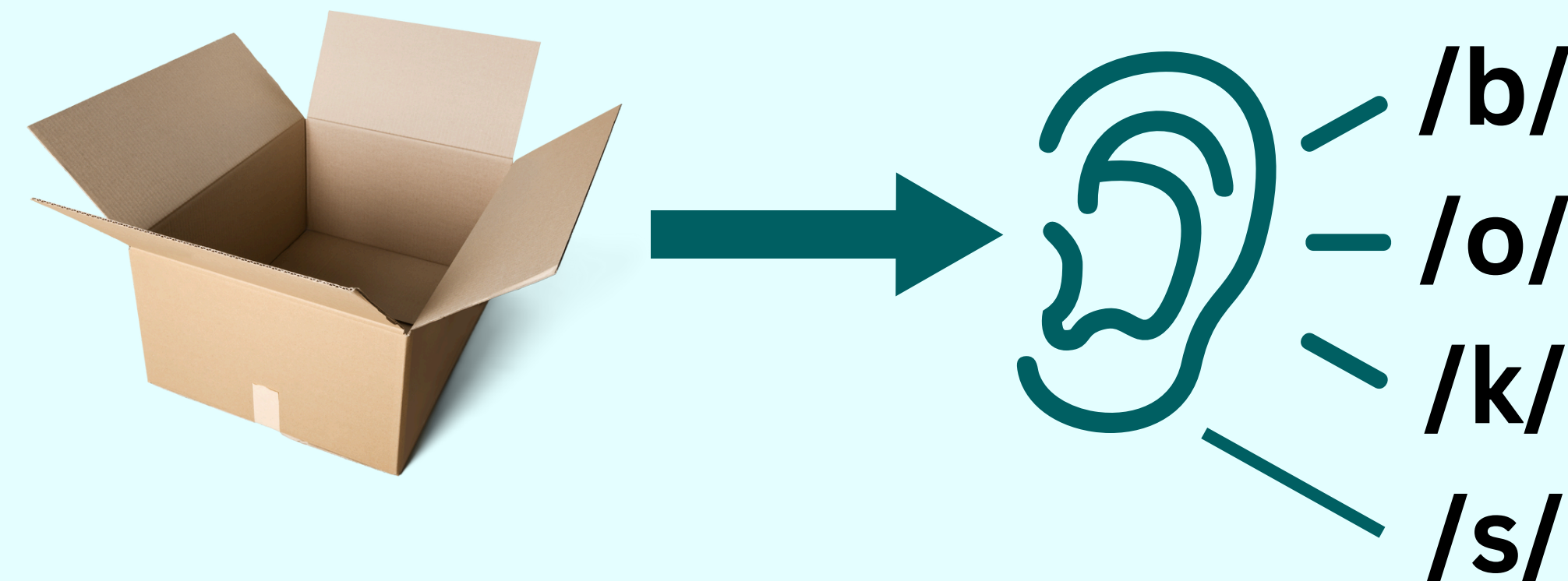


# Simple View of Reading

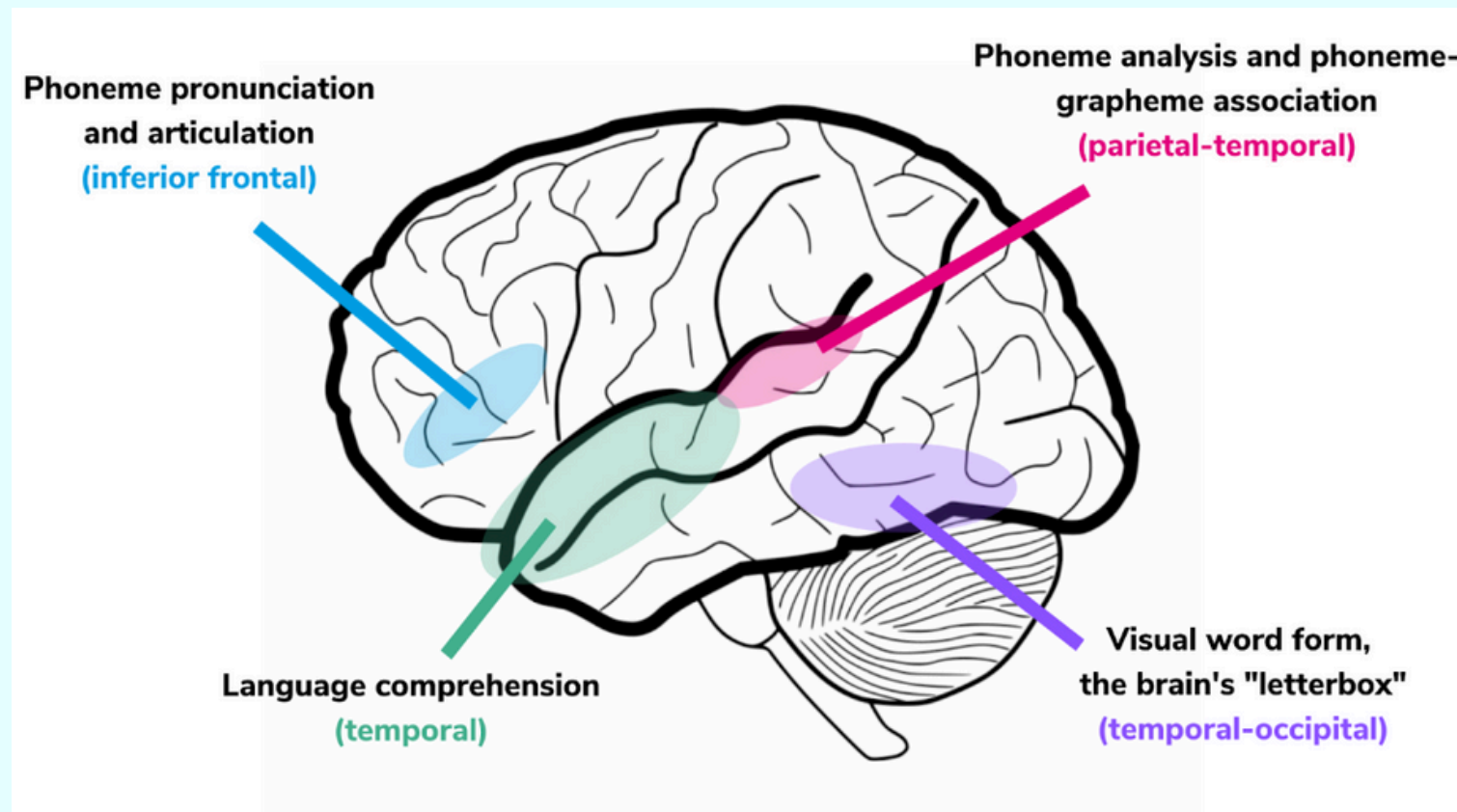
Learning to read changes the way that speech is processed in the brain

After learning to read, our brains automatically break up speech sound into phonemes

After learning to read, activation levels in the superior temporal region are increased when children listen to spoken language



# Simple View of Reading



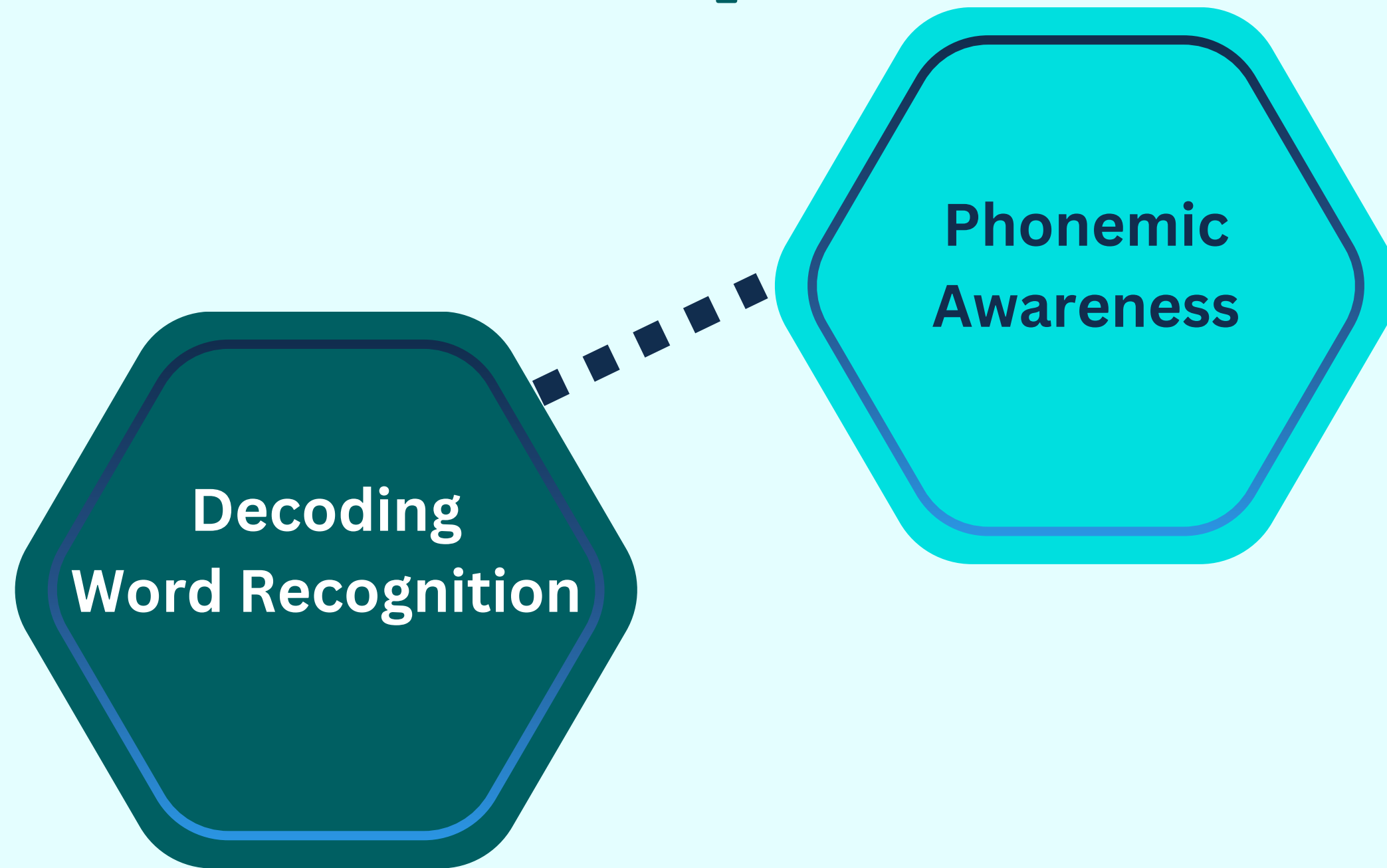
**How to  
strengthen:**

**Word games  
Singing  
Rhyming  
Blending**

**Segmenting  
Auditory Practice**

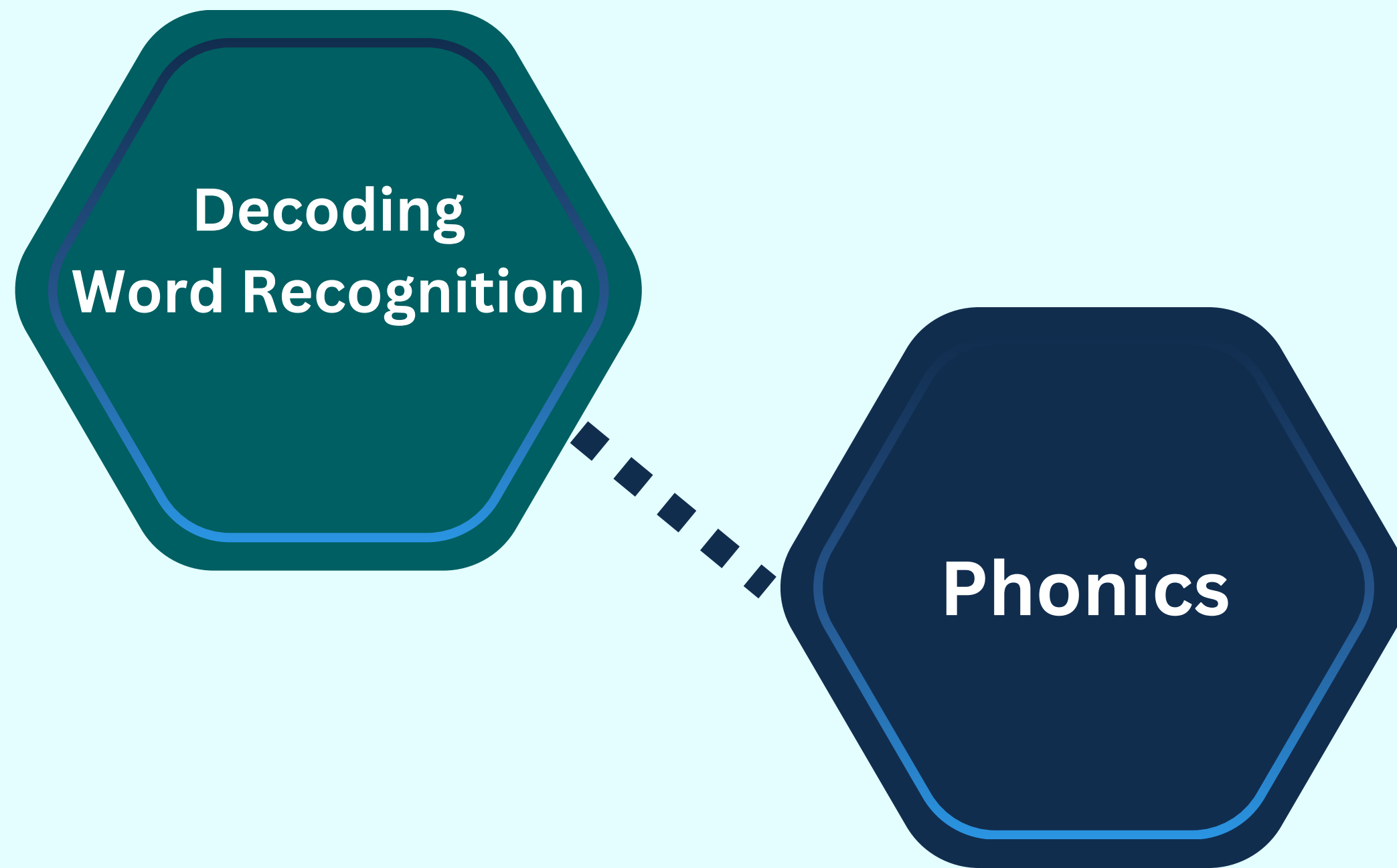


# Simple View of Reading



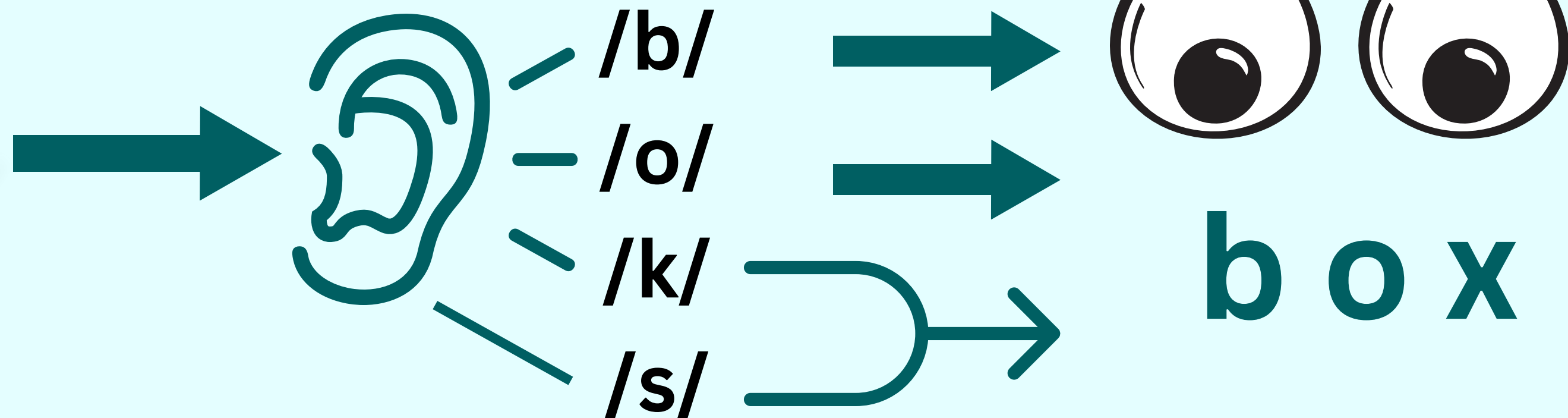
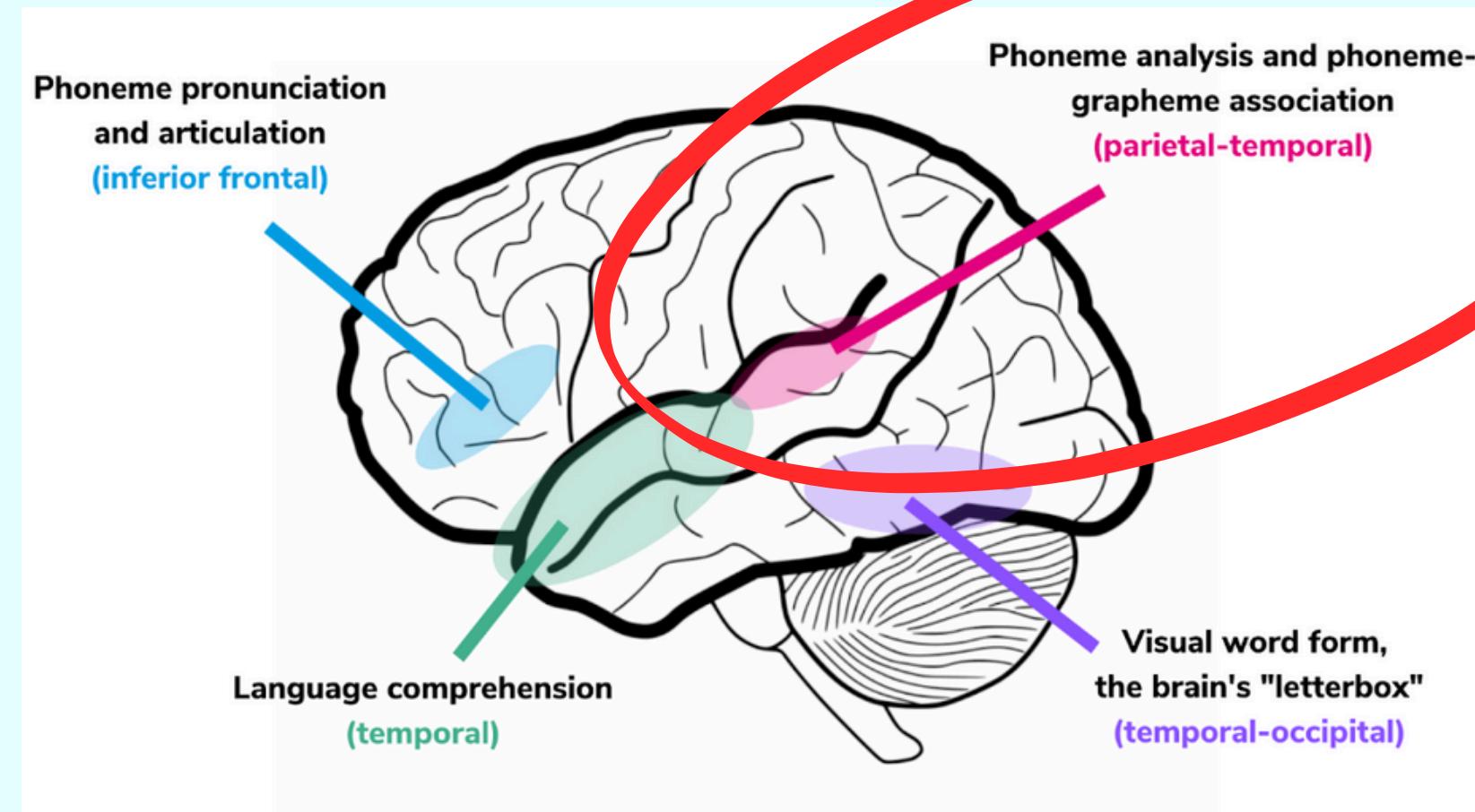
- **Phonemic awareness does not end after students know their sounds**
- **Becomes dependent on knowledge of phonics and spelling**

# Simple View of Reading

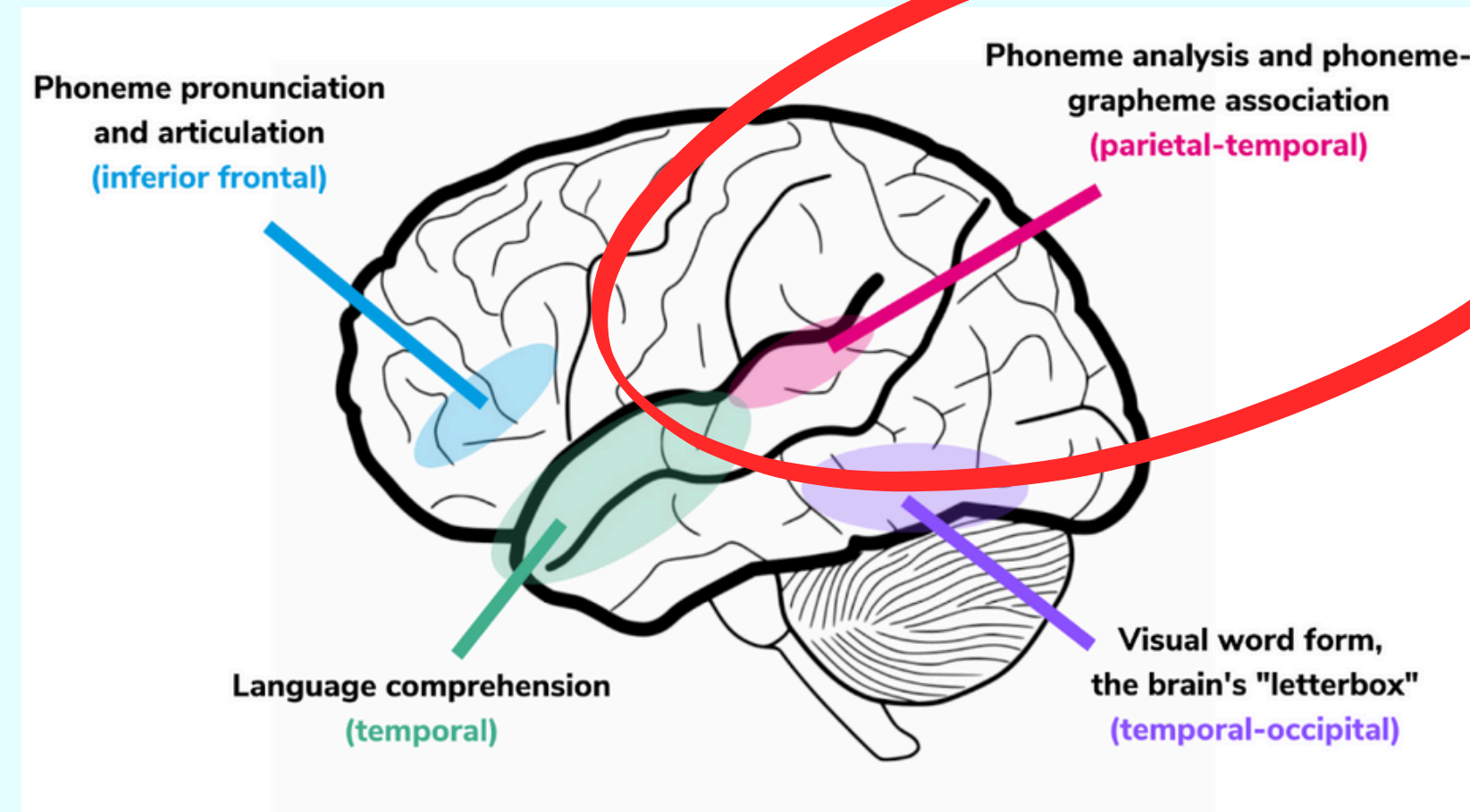


**Knowing the  
relationship between  
sounds and letters**

# Simple View of Reading



# Simple View of Reading



A note about “b” and “d” and mirror writing



# Why Kids Write Their Letters Backwards



Share



A B C D E F G H



TECH

R

Watch on  YouTube









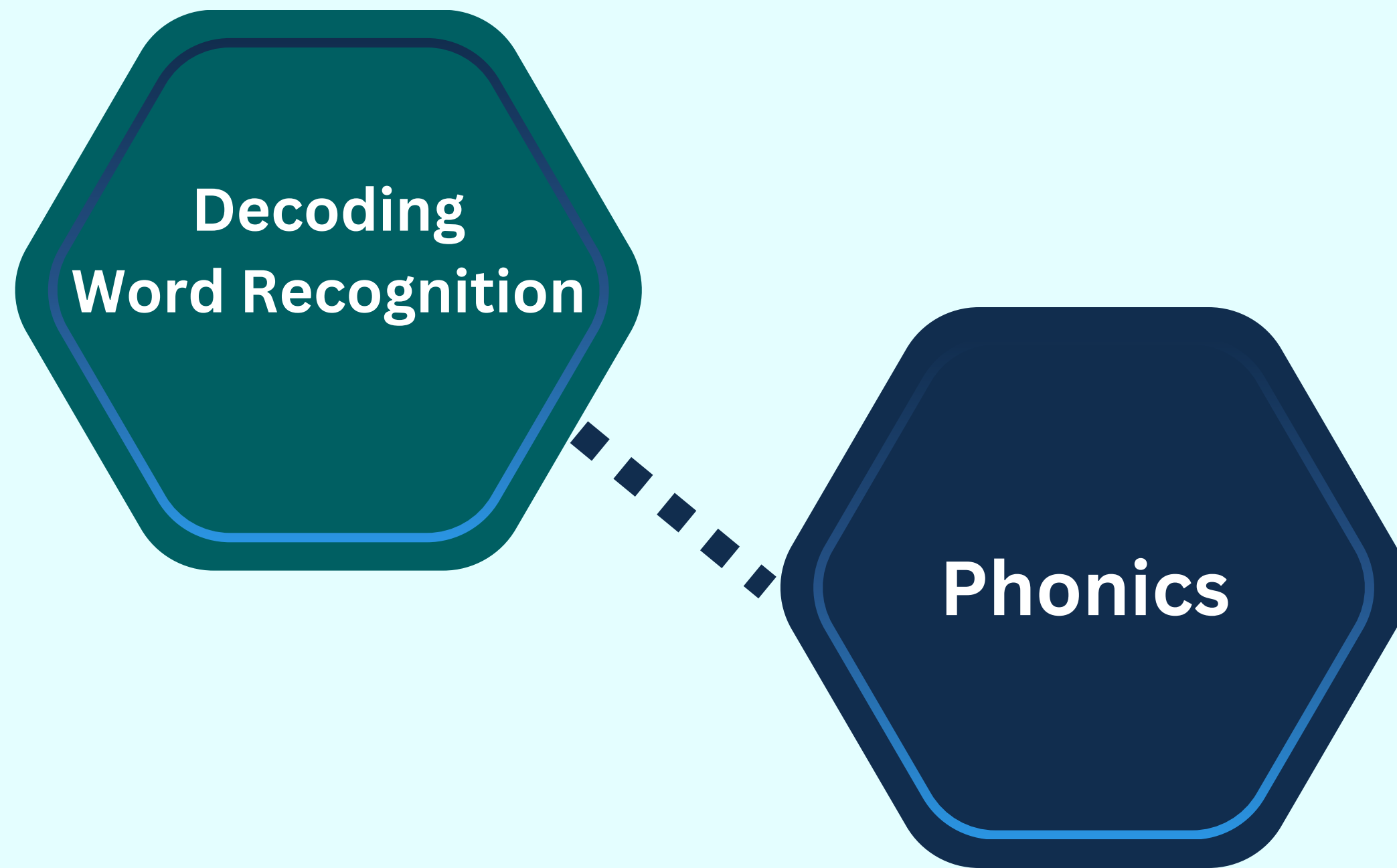




h

o

# Simple View of Reading



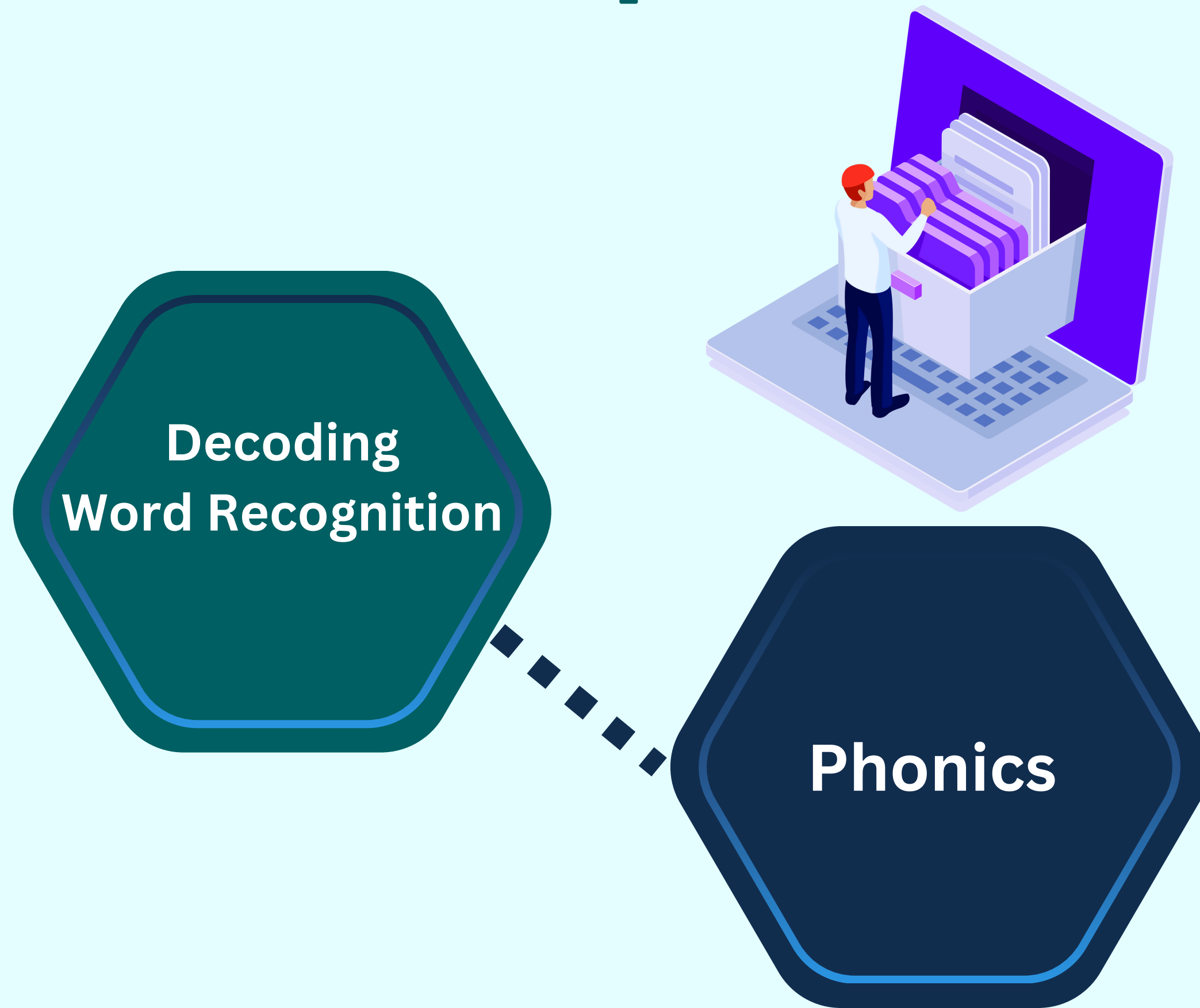
**Knowing the  
relationship between  
sounds and letters**

**English has a deep  
orthography**

# Simple View of Reading

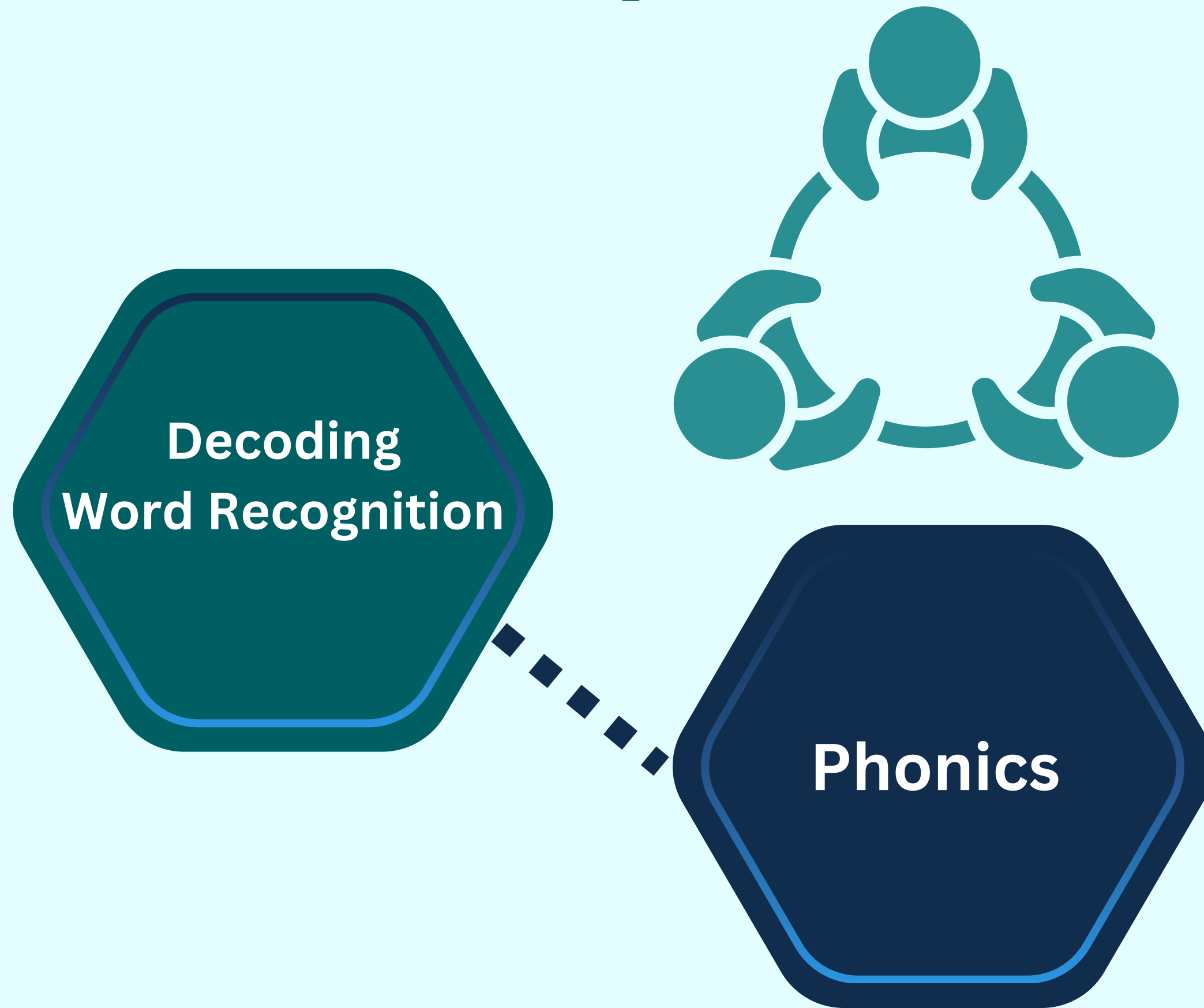
Video

# Simple View of Reading



- 86% of words have regular spellings or are regular except one sound exception
- Our job is to set up an efficient orthographic filing system

# Simple View of Reading



- **High quality phonics instruction can often make the biggest difference for struggling readers**
- **1:1 and small group is the best way to teach it!**



# Simple View of Reading

**How to teach**



**Decoding  
Word Recognition**

**Phonics**

**Systematic**

- Consistent instructional routines

**Sequential**

- From easiest to hardest
- Foundational skills are taught to support higher level skills

**Explicit**

- Skills are modeled and practiced to mastery and automaticity

# Simple View of Reading

## Systematic

- Consistent instructional routines

## Working Memory

- Interrupted by uncertainty, randomness, and confusion

## Long Term Memory

- Interrupted by inconsistency and irregularity

### Cognitive Load Theory

Intrinsic Load  
(complexity of  
new information)

Germane Load  
(linking new info  
with current info)

Extraneous Load  
(unnecessary and  
distracting info)

# Reading must be taught

## Simple View of Reading

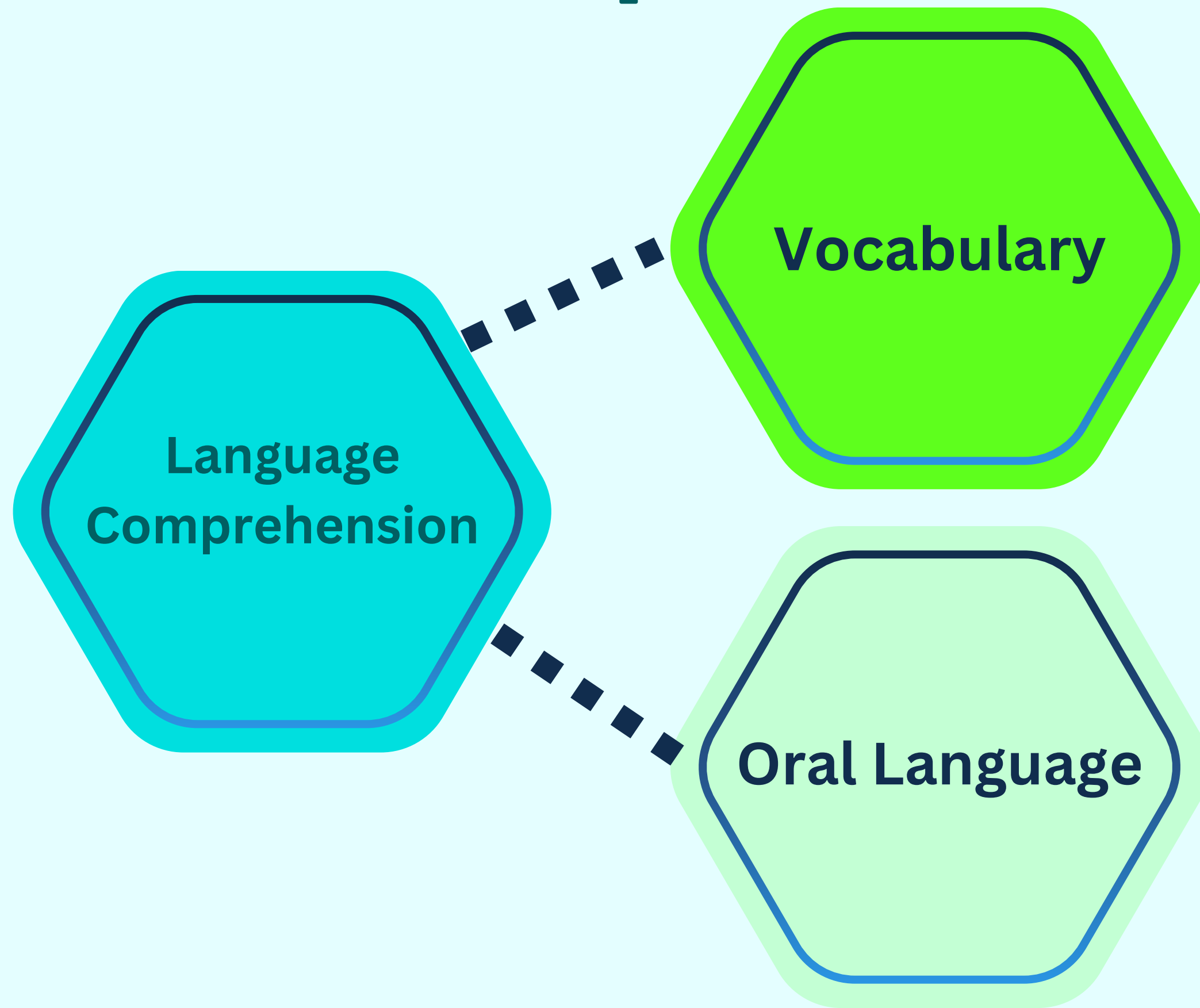


# Simple View of Reading

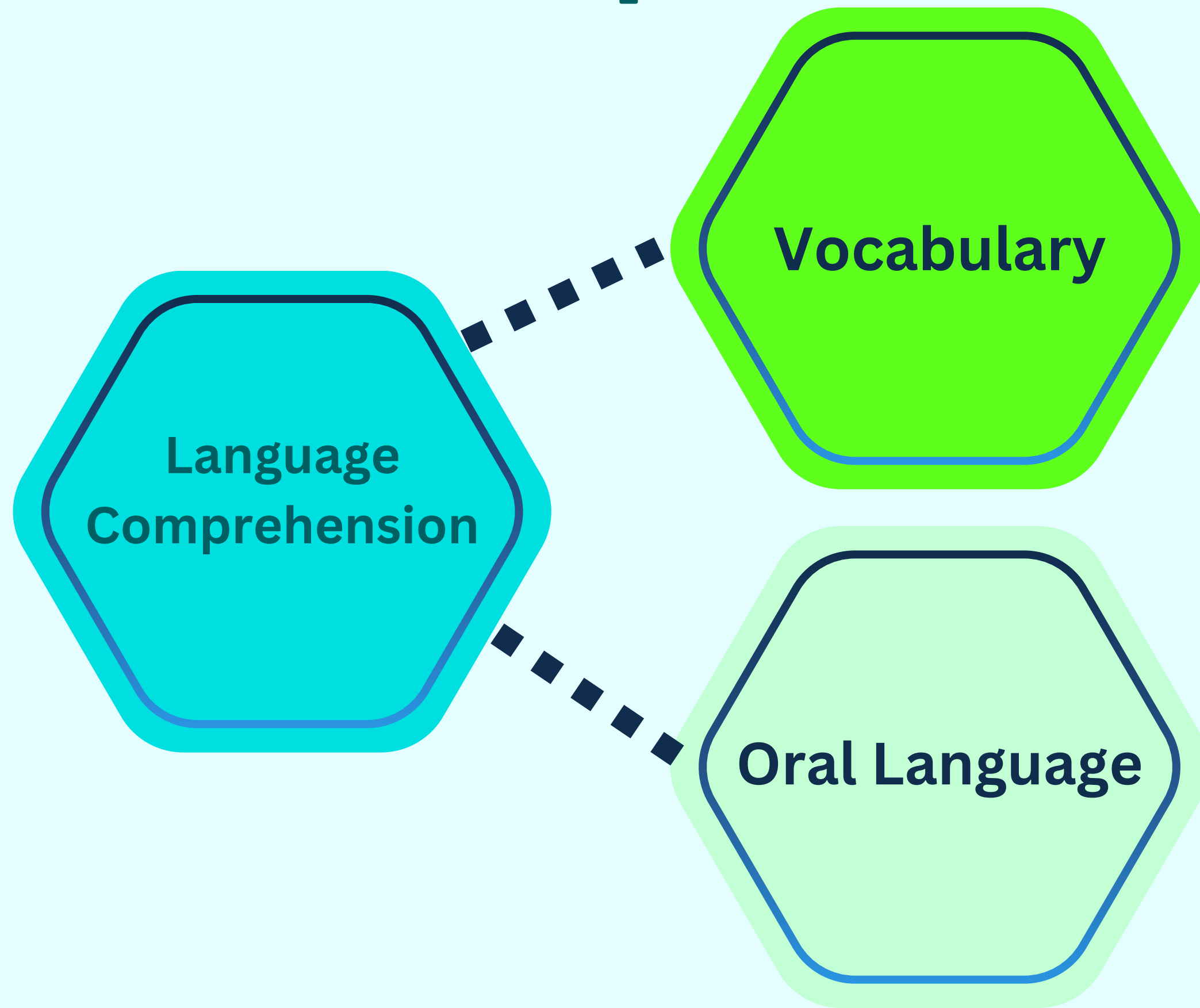
The snables tramped the  
mengs to the dwip. The  
dwip fropped. The mengs  
clambled a sib boogle. The  
snables gicked and  
gicked.



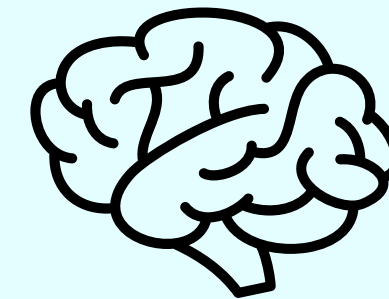
# Simple View of Reading



# Simple View of Reading



car  
cap  
call  
can  
cap  
cab  
pat  
sat  
mat



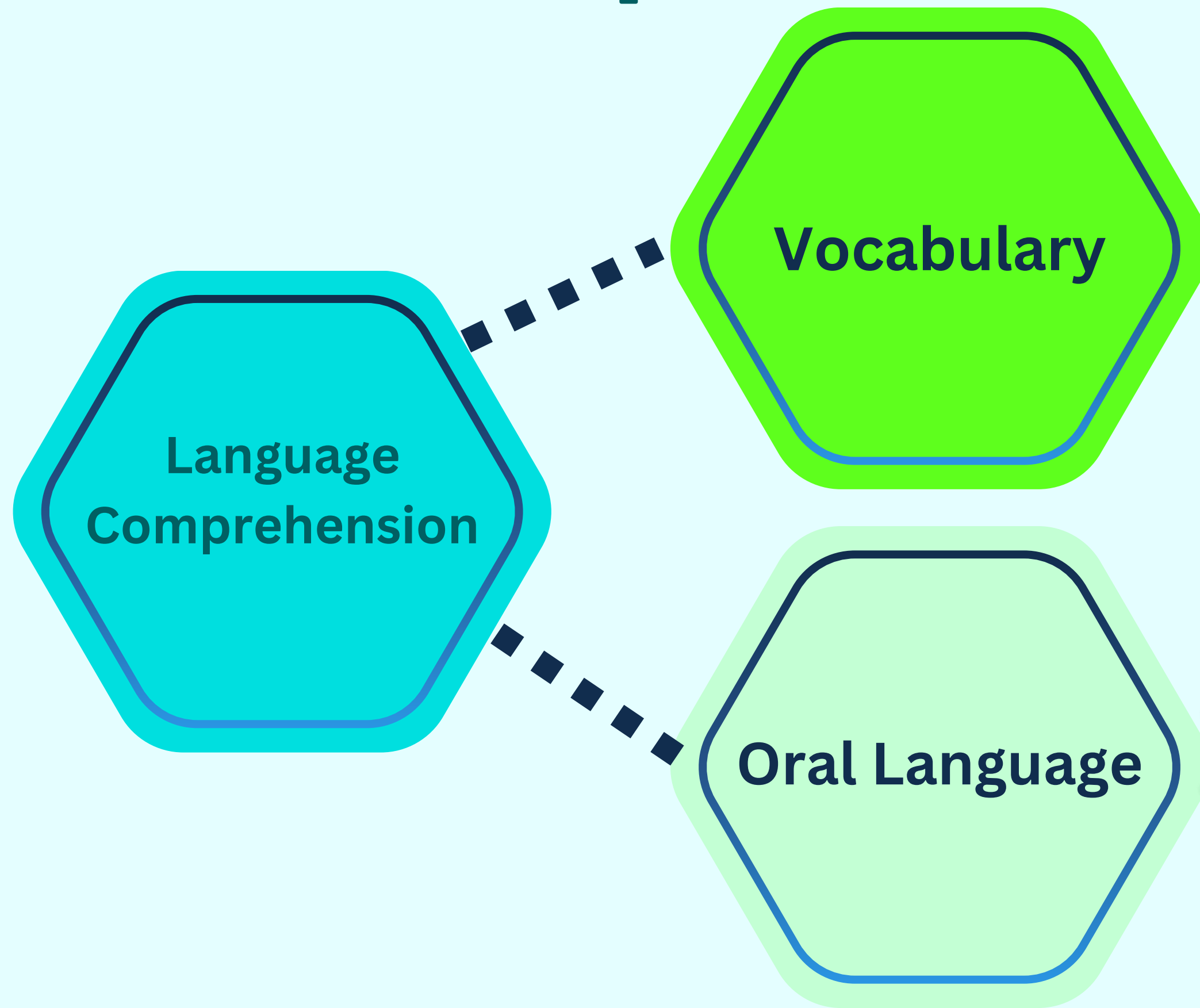
cat

kitty  
feline  
litter box  
pet  
kitten  
nap

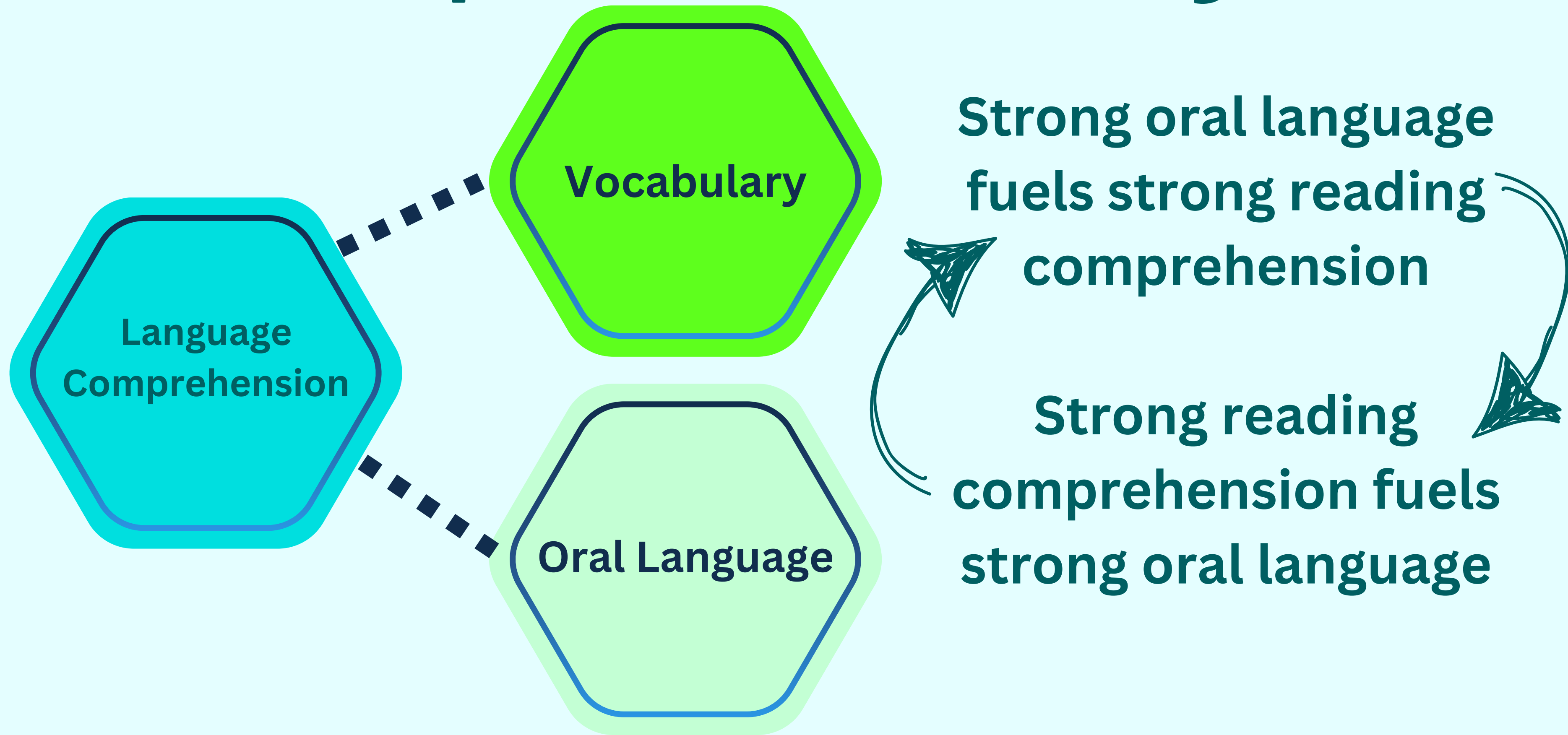




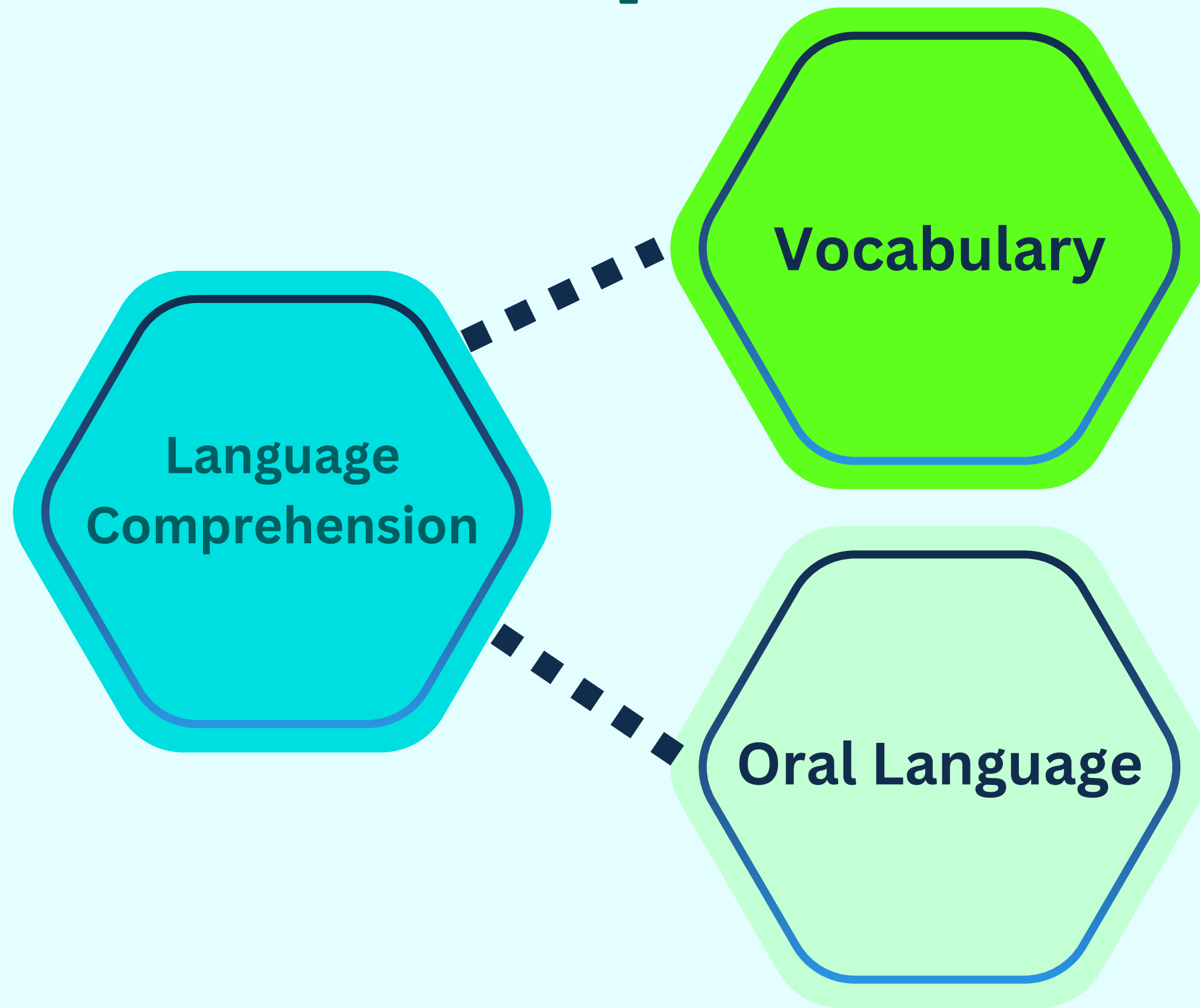
# Simple View of Reading



# Simple View of Reading



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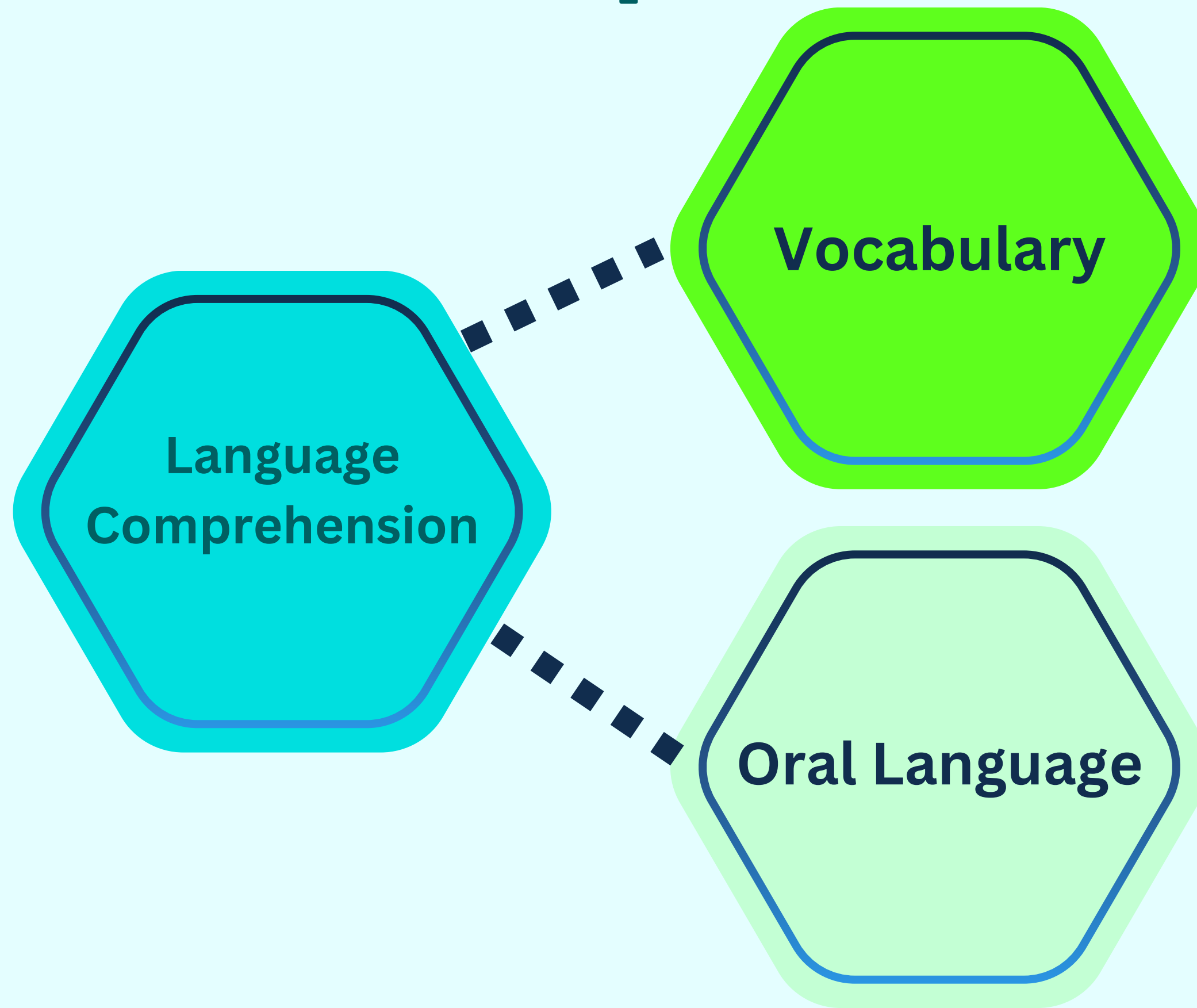


Written language typically has richer vocabulary and semantics than spoken language



In the light of the moon a little egg lay on a leaf.

# Simple View of Reading



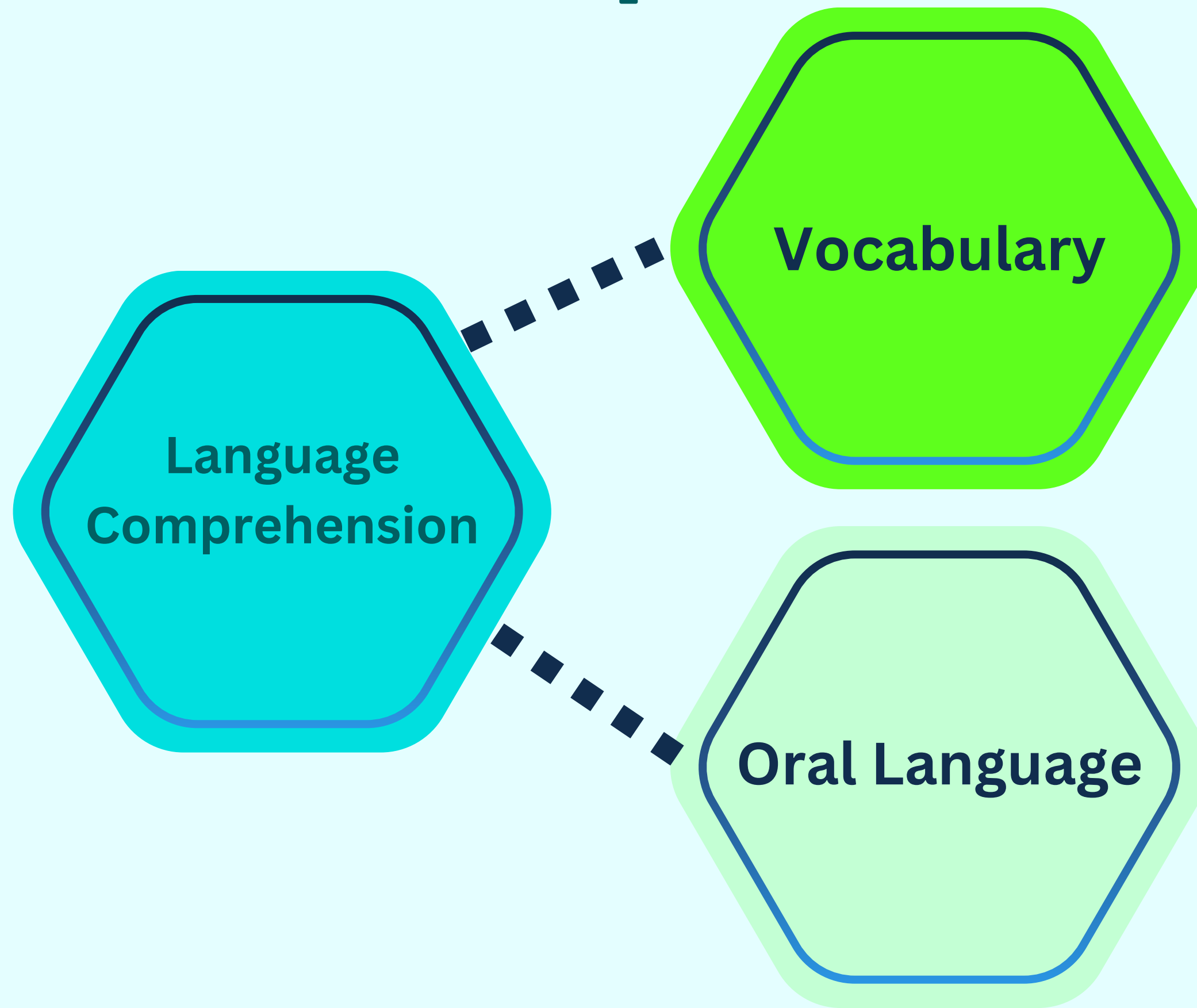
**Written language typically has richer vocabulary and semantics than spoken language**

In her attic bedroom Margaret Murry, wrapped in an old **patchwork** quilt, sat on the foot of her bed and watched the trees tossing in the **frenzied lashing** of the wind. Behind the trees clouds **scudded frantically** across the sky. Every few moments the moon ripped through them, creating **wraith-like** shadows that raced along the ground.

-A Wrinkle in Time



# Simple View of Reading

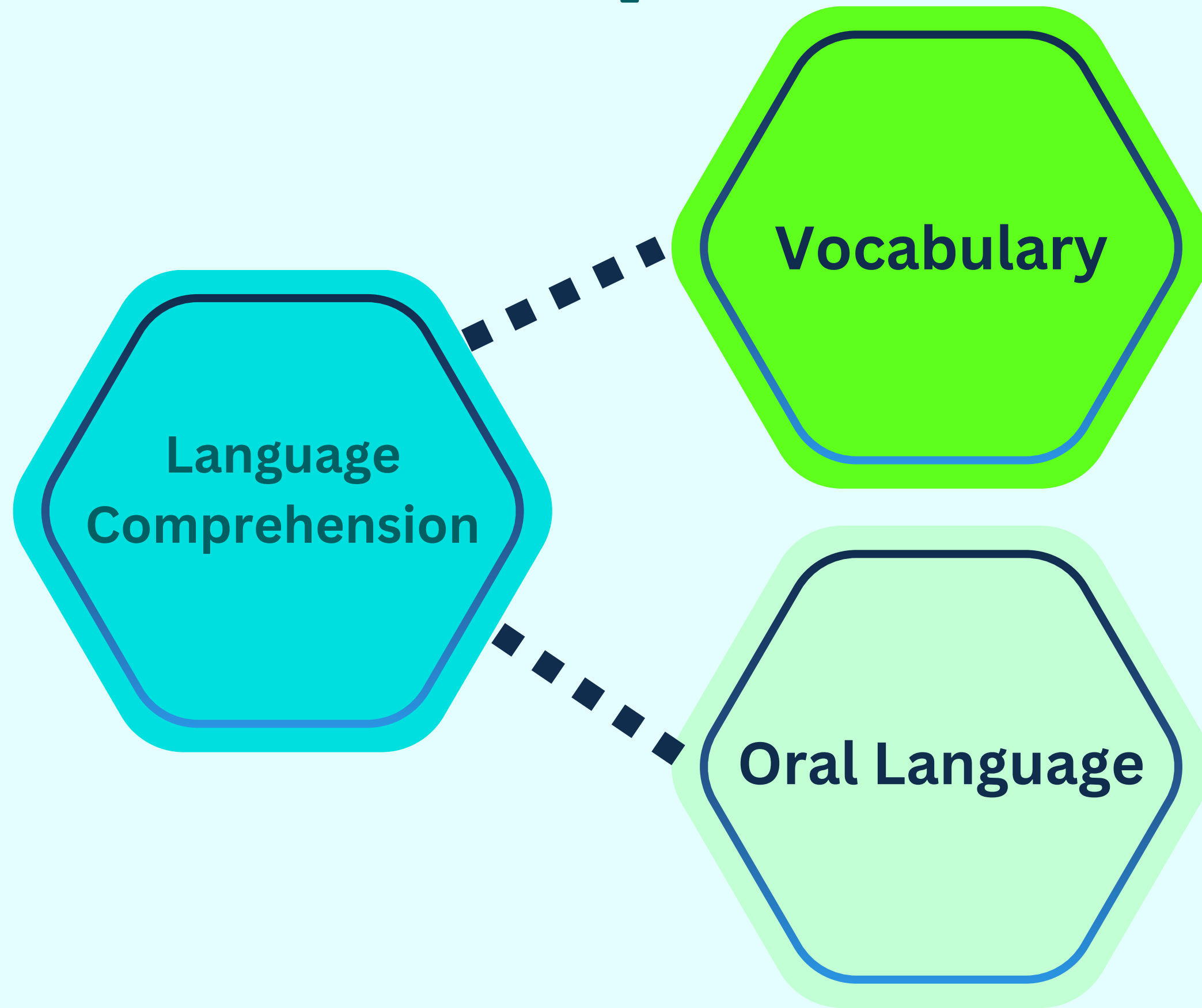


Written language typically has richer vocabulary and semantics than spoken language

But being read to is not enough

You must say and use the word to log it

# Simple View of Reading



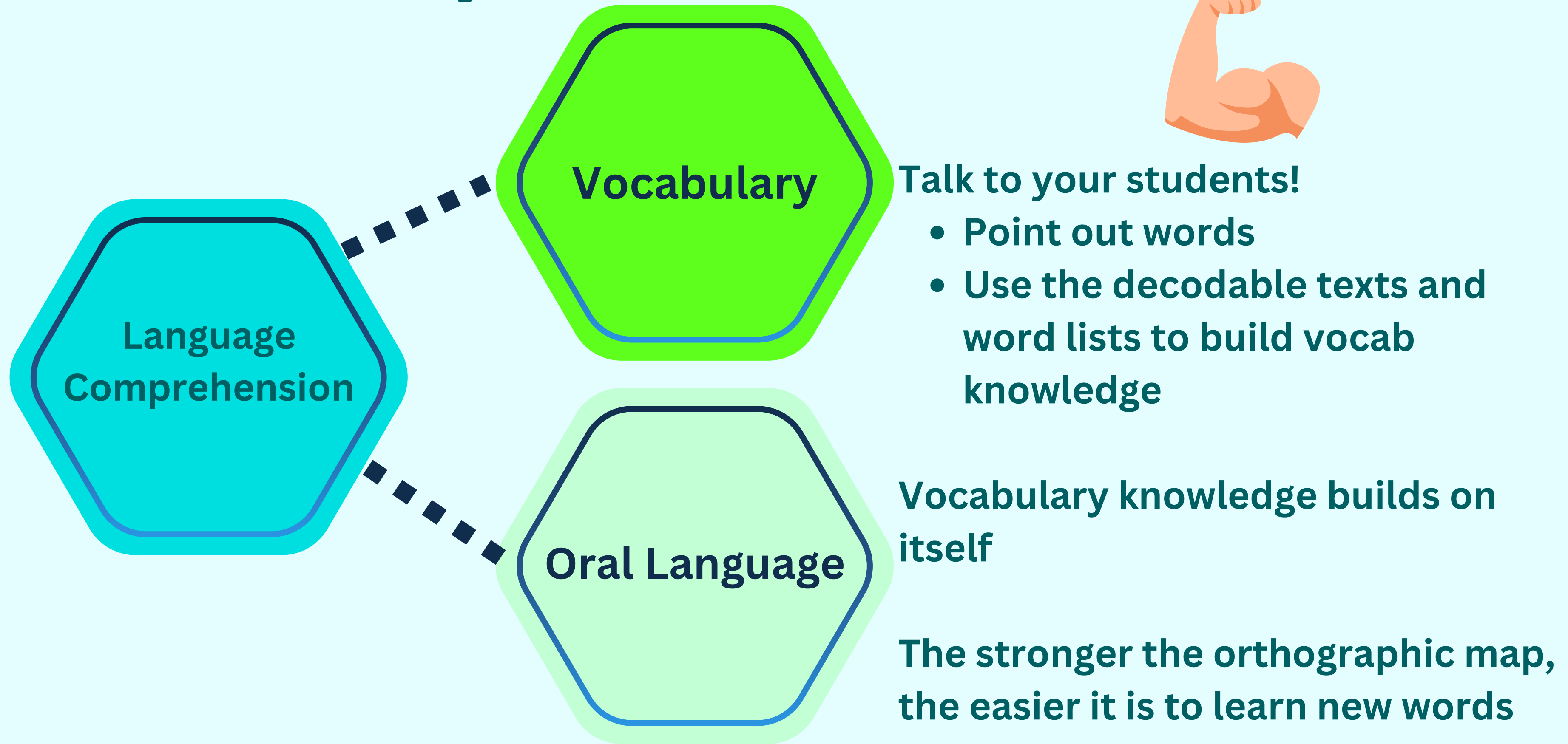
**Offer SEMANTIC connections**

**Frog - Leap - Pond**

**Pay attention to common words that kids are likely to see a lot!**



# Simple View of Reading



# Simple View of Reading

## Fluency



# The Science of Reading

**Reading is  
essential**



**Reading must  
be taught**

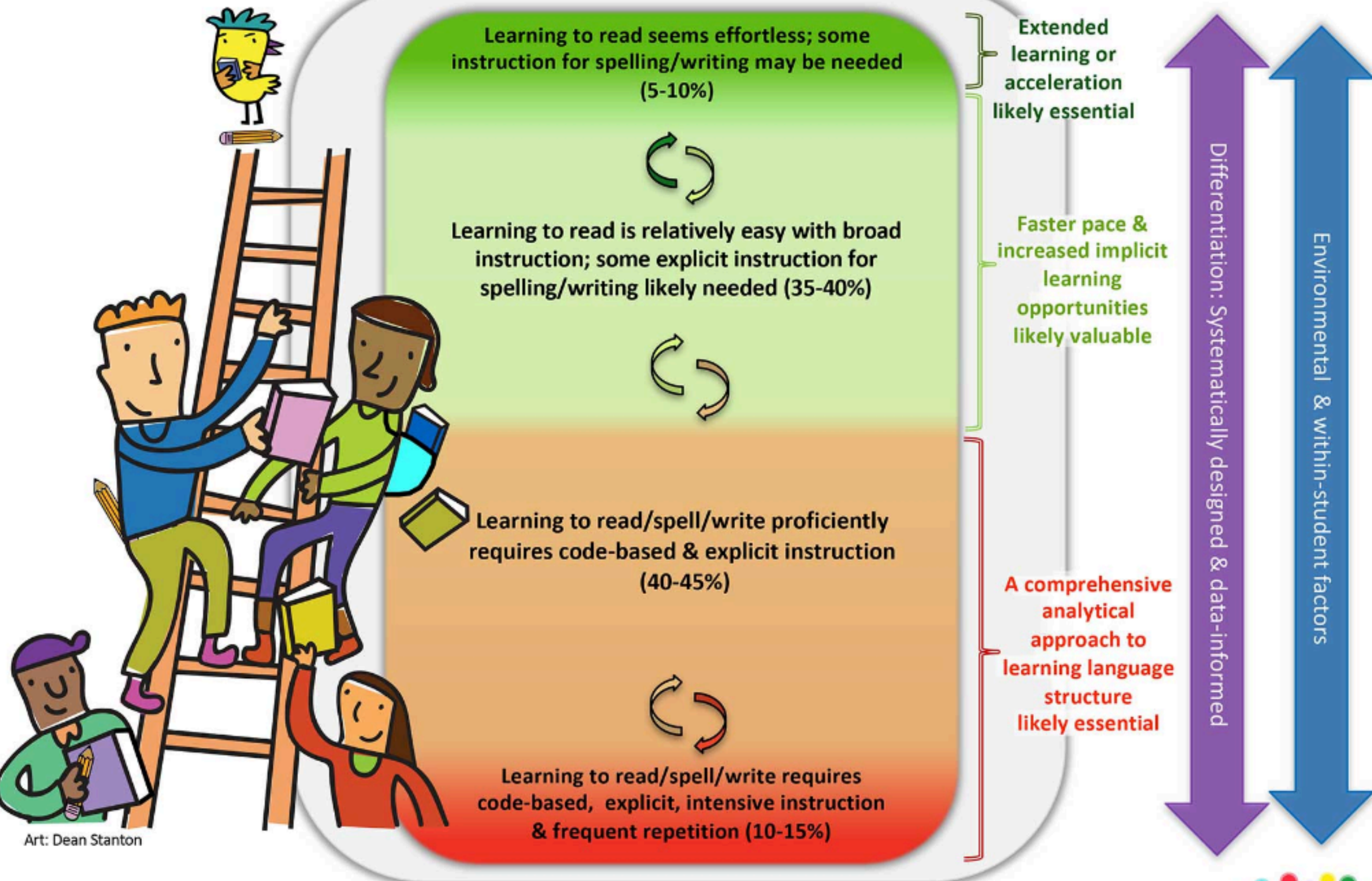



**All children are  
capable of  
reading**





# The Ladder of Reading & Writing





COULD YOU  
PLEASE  
SHOVEL THE  
RAMP?

ALL THESE OTHER  
KIDS ARE WAITING TO  
USE THE STAIRS.  
WHEN I GET THROUGH  
SHOVELING THEM OFF,  
THEN I WILL CLEAR  
THE RAMP FOR YOU.

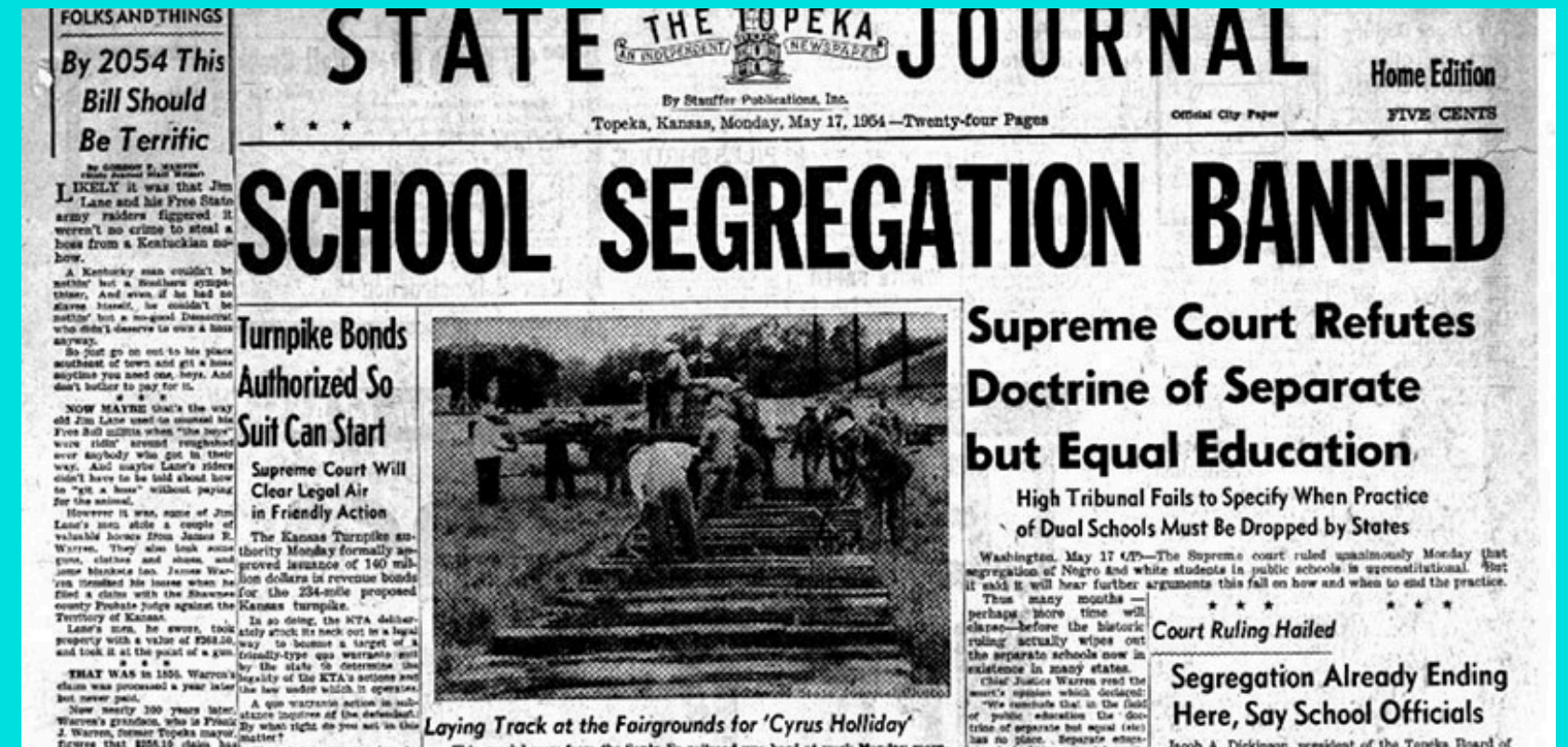
BUT IF  
YOU SHOVEL THE  
RAMP, WE CAN  
ALL GET IN!



# All children can learn to read

Black educators have long advocated for structured literacy.

Prior to desegregation, many Black educators used structured literacy to support children. In recent years, many Black educational leaders have pushed back against curriculum and models that did not include structured literacy. They were often ignored.





# All children can learn to read

Parent advocates and dyslexia experts have long argued that structured literacy should be taught in all schools.

Not everyone who struggles to read has dyslexia...

...but everyone who struggles to read benefits from structured literacy.



# At your table, share...

Something I am thinking differently about is...

I wonder...

Something I will take away from today is...

**Partner A shares**

**Partner B says:**

**What I heard you say was...**

**Tell me more about...**

**Switch!**