

# Part 5: Fluency

RAPID Initiative

Department of Education

2023-2024 School Year



# Part 5 Objectives

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- ✓ Identify the components fluency
- ✓ Review key research findings on fluency
- ✓ Learn how to assess fluency
- ✓ Identify instructional activities for building fluency



# What is Fluency?

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**Fluency** is the ability to translate print to speech accurately and automatically

**Accuracy** - correct

**Rate** – appropriate speed

**Prosody** - expression

# Scarborough's Reading Rope

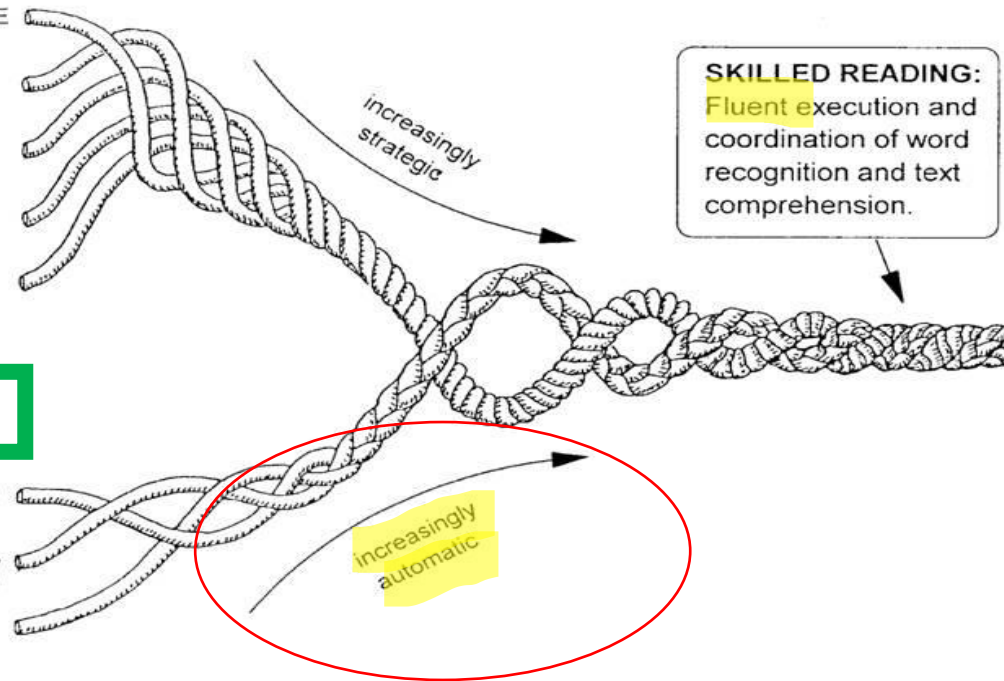
## THE MANY STRANDS THAT ARE WOVEN INTO SKILLED READING

### LANGUAGE COMPREHENSION

- BACKGROUND KNOWLEDGE (facts, concepts, etc.)
- VOCABULARY (breadth, precision, links, etc.)
- LANGUAGE STRUCTURES (syntax, semantics, etc.)
- VERBAL REASONING (inference, metaphor, etc.)
- LITERACY KNOWLEDGE (print concepts, genres, etc.)

### WORD RECOGNITION

- PHONOLOGICAL AWARENESS (syllables, phonemes, etc.)
- DECODING (alphabetic principle, spelling-sound correspondences)
- SIGHT RECOGNITION (of familiar words)**



**SKILLED READING:**  
Fluent execution and coordination of word recognition and text comprehension.

# Research Findings on Fluency



There is a strong correlation between ORF scores and comprehension.  
(Fuchs et. al. SSR 2001)



Repeated oral reading with feedback can improve reading fluency. (NRP, 2000)



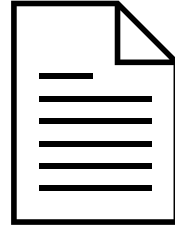
When teachers modeled fluent reading of a text prior to having students read it, it produced higher effects. (Lee & Yoon, 2023)

ABC

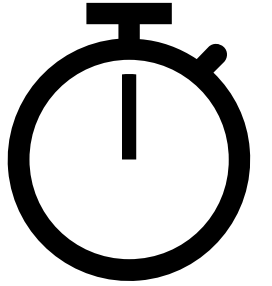
After 3<sup>rd</sup> grade, students rarely catch-up regarding reading fluency.  
(Birsh, 2011 - Pressley, Gaskins, & Fingeret, 2006; Torgesen, 2003)

# Assessing Rate - ORF

- Choose a grade level passage



- Time the student's oral reading for 1 minute and note any errors made (deletions, words read incorrectly and not self-corrected, provide word after 3 seconds)



- Take the **total # of words read** minus the **# of errors**. This equals **words read correctly per minute**

*3<sup>rd</sup> Grader Mid-Year Example: 90 words – 6 errors = 84 WCPM*

# Fluency Norms \*words read correctly in 1 minute

*Aim for 50<sup>th</sup>% to the 75<sup>th</sup>%*

Grade	%ile	Fall WCPM*	Winter WCPM*	Spring WCPM*
<b>1</b>	90		97	116
	75		59	91
	50		29	60
	25		16	34
	10		9	18
<b>2</b>	90	111	131	148
	75	84	109	124
	50	50	84	100
	25	36	59	72
	10	23	35	43
<b>3</b>	90	134	161	166
	75	104	137	139
	50	83	97	112
	25	59	79	91
	10	40	62	63

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# Assessing Accuracy

- To calculate accuracy, take the **total number of words read correctly** and **divide it by the total number of words read** (e.g. 105 words correct / 110 total words read)
- Then multiply that decimal by 100 to give you a percentage of words read correctly
  - $(\text{words read correctly} / \text{words read}) \times 100 = \% \text{ accurate}$
  - For example, 105 words correct out of 110 is 95% accuracy rate

Aim for 95% accuracy for adequate comprehension



# Student Example

## Church Pears

The church on our street has a big parking lot. On a patch of grass at one end is a pear tree. The church lot and its tree are our playground. (12)  
Most days there are no cars in the lot. On those days, my brother and I ride our bikes around and around. But our favorite thing is to climb the church pear tree. We have climbed that tree a hundred times. (26)  
In the summer we help ourselves to the green pears. They never taste like the sliced pears that come in a can or the ones our mother buys at the store. They always taste sour. My brother spits on his pears. Then he wipes them on his shirt before taking a bite. I just eat mine as is. (31)  
We used to bring the green pears home, but we don't anymore. The last time we brought some home Mom threw them in the garbage. Mom says the pears are sprayed with bug poison, and if we eat them we'll get sick. But we have eaten plenty and never gotten a tummy ache. (43)  
We never eat the pears we find on the ground. Once I picked one up and found it covered with tiny ants. Sometimes we throw the fallen pears in high arcs across the lot, trying to see who can throw the furthest. (55)  
(66)  
(72)  
(82)  
(95)  
(106)  
(118)  
(130)  
(141)  
(151)  
(162)  
(175)  
(183)  
(195)  
(205)  
(216)  
(225)

- 2<sup>nd</sup> grade passage in the Fall
- Noted any errors
- Timed it for one minute

## Rate:

- 72 total words read in a minute
- 3 errors
- **69 words correct per minute**

## Accuracy:

- 72 words read
- 3 errors
- $72 - 3 = 69$
- $(69 / 72) \times 100 = 95\%$

Total words read 72 Total errors 3 Total words correct 69

# Interpreting ORF Scores

## Rate:

- ✓ 72 total words read in a minute
- ✓ 3 errors
- ✓ **69** words per minute
- ✓ between 50-75<sup>th</sup>% on benchmark

## Accuracy:

○  $(69/72) \times 100 = 95\%$

This student's ORF was over the 50<sup>th</sup> % with 95% accuracy

Grade	%ile	Fall WCPM*	Winter WCPM*	Spring WCPM*
1	90		97	116
	75		59	91
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3	90	134	161	166
	75	104	137	139
	50	83	97	112
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# Using ORF to Identify At-Risk Students

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- Students who fall below the 50<sup>th</sup>% will require additional assessment (such as a phonics survey) to identify the cause of poor fluency
- To read words accurately and automatically, students need:
  - ✓ **phonemic awareness**
  - ✓ **phonics knowledge**
  - ✓ **ability to decode multisyllabic words (morphological awareness)**
- This facilitates the **orthographic mapping** process, transforming an unfamiliar word into one that is instantly recognized



# Assessing Prosody

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1. Student placed vocal emphasis on appropriate words.
2. Student's voice tone rose and fell at appropriate points in the text.
3. Student's inflection reflected the punctuation in the text (e.g., voice tone rose near the end of a question).
4. In narrative text with dialogue, student used appropriate vocal tone to represent characters' mental states, such as excitement, sadness, fear, or confidence.
5. Student used punctuation to pause appropriately at phrase boundaries.
6. Student used prepositional phrases to pause appropriately at phrase boundaries.
7. Student used subject–verb divisions to pause appropriately at phrase boundaries.
8. Student used conjunctions to pause appropriately at phrase boundaries.

(Hudson et al., 2005)



# Reasons for Poor Fluency

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- ✓ Weak phonemic awareness
- ✓ Weak phonics skills
- ✓ ADHD/Executive Functioning
- ✓ Slow processing speed/RAN
- ✓ Working Memory issues



# Activities that Develop Fluency

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Guided Oral  
Reading

Repeated Oral  
Readings

Paired Reading

Echo Reading

Choral Reading

Reader's Theater



# Guided Oral Reading

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- Listen to the student read orally
- Provide immediate corrective feedback
  1. Point to error: tap
  2. Ask eliciting question: *What sound is this?*
  3. If the student does not know, provide the sound. *This shows /a/.*
  4. Prompt student to blend again. *Try again.*
  5. If student reads it incorrectly again, model and have the student echo: *Watch me read it - taaap. Now you try.*
  6. If it is a multisyllabic word, you can prompt the student to remove an affix (jumping) or use the vowels to help divide the word into syllables (mascot).



# Word Level Fluency

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Introduce words with the same phonetic component or words that are visually similar, read repeatedly

when	when	who	which
who	when	when	which
when	who	which	when

## 1 Minute Fluency Drill

side ripe tame name gave rope time nine take  
rope time nine take side ripe tame name gave  
ripe tame name gave rope time nine take side  
time nine take side ripe tame name gave rope



# Phrase Level Fluency

- Use words in phrases using connector words such as *the, and, of, in, at, up, but, over, out* (Birsh, 2011)

the dog ran

on the desk

at the park

up the stairs

## Fry Instant Phrases

The words in these phrases come from Dr. Edward Fry's Instant Word List (High Frequency Words). According to Fry, the first 300 words in the list represent about 67% of all the words students encounter in their reading.

- Fry Instant Phrases

### First 100 Words/Phrases

The people

A long time

Now is the time

Write it down

We were here

An angry cat

By the water

Have you seen it?

May I go first?

Who will make it?

Could you go?

Write your name.

# Sentence Level

- Have students draw lines to “scoop” the phrases
  1. The dog will run into the water to get the swan.
  2. Jill felt sad when she lost the wallet in the wash.
  3. Can ducks swim in swamps or do they like fresh water?
- Reread the sentence several times to work on prosody:  
*(intonation, phrasing, adhering to punctuation)*
- Sentence Pyramids
  - The dog
  - The tan dog
  - The tan dog ran.
  - The tan dog ran to Mom.

# Repeated Readings

**Materials:** Two copies of an appropriate short text per student of about 50-200 words (controlled or uncontrolled); one for student and one for teacher

1. Sit with the student in a quiet spot.
2. **First Read:** provide any word not read within 5 seconds; discuss unknown vocabulary words and general meaning of the text
3. **2<sup>nd</sup> - 4<sup>th</sup> Read:** student reads the text 3-4 times
4. You may choose to have the student come back to the text on a different day and reread it until meeting a certain WCPM goal.



# Partner Reading (1 of 2)

## Procedure:

1. Rank students using ORF data from highest to lowest
2. Partner students by grouping a less fluent student with a more fluent student



Student 1	Student 10
Student 2	Student 11
Student 3	Student 12
Student 4	Student 13
Student 5	Student 14
Student 6	Student 15
Student 7	Student 16
Student 8	Student 17
Student 9	Student 18

Strongest	Student 1
	Student 2
	Student 3
	Student 4
	Student 5
	Student 6
	Student 7
	Student 8
	Student 9
	Student 10
	Student 11
	Student 12
	Student 13
	Student 14
	Student 15
	Student 16
	Student 17
Weakest	Student 18



# Partner Reading (2 of 2)

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- The partners take turns reading a text on the less fluent student's level (Partner 2); may be a text that has already been read with the whole class
- Partner 1 (strong reader) reads first for 1-5 minutes, depending on age  
(Note: K students can use this procedure for word reading)
- Partner 2 goes back to where partner 1 started reading and reads again for 1-5 minutes.
- Listening partner supports the reading partner with word solving and error correction

# Echo Reading

- Teacher reads aloud a sentence or paragraph
- Students read the same sentence or paragraph immediately after
- Use with beginning readers or older less confident readers



# Choral Reading

- Teacher and students read aloud together using a shared text
- Text can be controlled or uncontrolled
- Use poems, short texts, picture books, nonfiction
- Clearly post text and track while reading
- Teacher begins by reading it aloud while students follow along silently
- Students join teacher in repeated readings; can read in unison or cloze (leave out words and students read)



# Reader's Theater



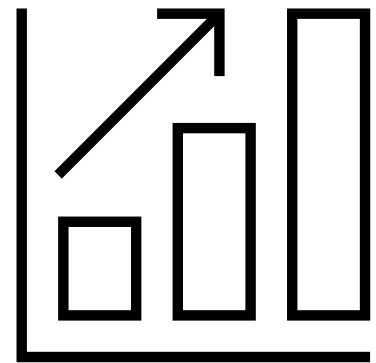
- Students are presented with a common script to practice and perform
- There is no memorization, sets, or costumes, so students must convey meaning and emotion through fluent expressive reading
- After introducing a text, students can sit in a circle and take turns reading a line (this allows students to get an equal amount of reading time and must change their voices to match the various characters and feelings)
- Assign parts for students to practice for several days
- Students perform their script for the class



# Monitoring Growth

Fuchs et al. (1993) suggested that on average, the following are reasonable expectations for improvement among average, poor, and disabled readers:

- **First grade:** 2–3 words per week increase in CWPM
- **Second grade:** 2.5–3.5 words per week increase in CWPM
- **Third grade:** 1–3 words per week increase in CWPM





# Chat Check



What is one fluency activity you want to try with your students?

**Q & A**





# References

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- *The National Reading Panel Report*, 2000.
- Birsh, Judith. *Multisensory Teaching of Basic Language Skills*. Baltimore, Brookes Publishing, 2011.
- Burns, M. K., Karich, A. C., Maki, K. E., Anderson, A., Pulles, S. M., Ittner, A., Helman, L. (2014). *Identifying class wide problems in reading with screening data*. *Journal of Evidence-Based Practices for Schools*, 14, 186–204.

# Part 6: Vocabulary

RAPID Initiative

Department of Education

2023-2024 School Year



# Part 6 Objectives

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- ✓ Examine the research on vocabulary instruction
- ✓ Identify types and tiers of vocabulary
- ✓ Explore effective practices for instruction
- ✓ Identify the characteristics of “robust” instruction

# What is Vocabulary?

It is the knowledge of words and word meanings. This includes both expressive (words produced) and receptive (words heard) vocabulary.



# Scarborough's Reading Rope

## THE MANY STRANDS THAT ARE WOVEN INTO SKILLED READING

### LANGUAGE COMPREHENSION

BACKGROUND KNOWLEDGE  
(facts, concepts, etc.)

VOCABULARY  
(breadth, precision, links, etc.)

LANGUAGE STRUCTURES  
(syntax, semantics, etc.)

VERBAL REASONING  
(inference, metaphor, etc.)

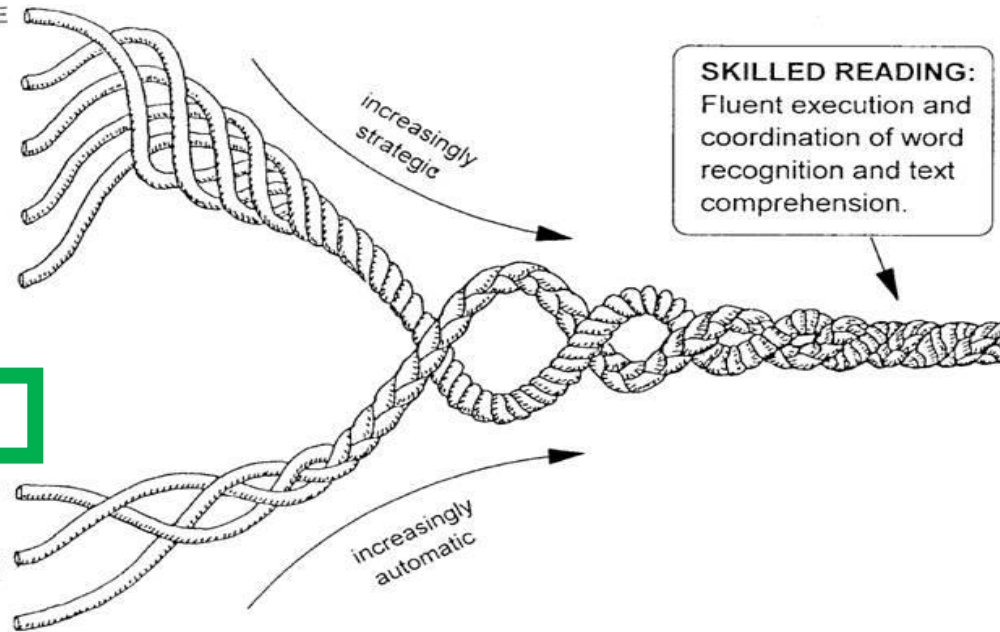
LITERACY KNOWLEDGE  
(print concepts, genres, etc.)

### WORD RECOGNITION

PHONOLOGICAL AWARENESS  
(syllables, phonemes, etc.)

DECODING (alphabetic principle,  
spelling-sound correspondences)

SIGHT RECOGNITION  
(of familiar words)



**SKILLED READING:**  
Fluent execution and  
coordination of word  
recognition and text  
comprehension.

# Why Teach Vocabulary?

## Simple View of Reading

(Gough & Tunmer, 1986)



## Scarborough's Reading Rope

(Dr. Hollis Scarborough, 2001)

- Word Recognition**
- Phonological Awareness
  - Decoding/Phonics
  - Sight Recognition

&

- Language Comprehension**
- Background knowledge
  - Vocabulary
  - Language Structures
  - Verbal Reasoning
  - Literacy Knowledge





# Research Findings



Vocabulary is strongly related to comprehension. (NRP, 2000)



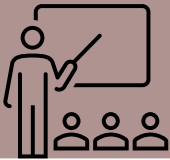
Kindergarten vocabulary knowledge predicts second-grade reading comprehension. (Roth, et al, 2002)



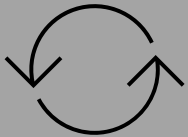
2nd grade listening comp. predicts 7<sup>th</sup> grade reading comp. (Lervag et al, 2018)



Students learn vocabulary implicitly and explicitly. (NRP, 2000)



A variety of instructional methods should be used. (NRP, 2000)



Students require repeated exposures to words for long-term retention (NRP, 2000)



# The Vocabulary Divide

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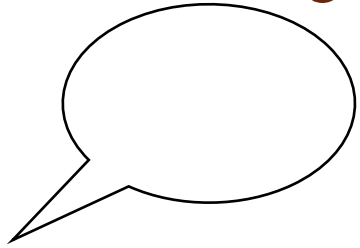
From *Bringing Words to Life*, Beck, McKeown, Kucan, 2013

- By age 3, there is strong evidence of a vocabulary gap for children of different socioeconomic groups (Hart & Risley, 1995)
- 1<sup>st</sup> grade children from higher socioeconomic groups know about twice as many words as those from lower socioeconomic (Graves, Brunetti, & Slater, 1982; Graves & Slater, 1987)
- Once established, differences in vocabulary knowledge remain (Biemiller, 2001; Hart & Risley, 1995; Juel, Biancarosa, Coker, & Defes, 2003)
- Studies that examined robust [vocabulary] instruction have shown it to be effective (Beck et al., 1992; McKeown, Beck, Omanson, & Perfetti, 1983; McKeown, Beck, Omanson, & Pople, 1985)



# Types of Vocabulary

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**Expressive Vocabulary** – words said or produced

**Receptive Vocabulary** – words heard and understood



- Listening – words students understand when hearing
- Reading – words students can read and understand
- Speaking – words students use in their oral language
- Writing – words students can use correctly in their writing



# Vocabulary Tiers

(Beck, McKeown, & Kucan, 2002)

- **Tier 1** – Everyday common vocabulary words (*book, car, table*)
- **Tier 2** – Words commonly found in written language across all disciplines; not as common in oral language (*perceive, related, deceptive*)
- **Tier 3** – Domain specific words (*parallelogram, metamorphic*)

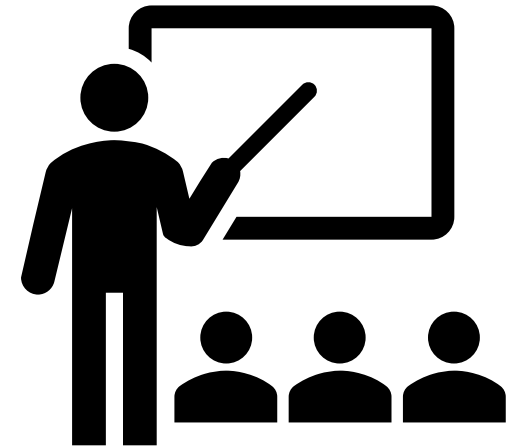
# Implicit vs. Explicit Instruction

## Implicit:

- Exposed to words incidentally
- Learned through listening to others speak, being read to, reading independently

## Explicit:

- Direct teaching of specific words
- Use a variety of techniques
- Repeated exposure and review



# Implicit Learning

- Use thoughtful vocabulary with your students that will expand their vocabularies
  - “big or small” vs. “gigantic or miniscule”
  - Embed new words into your oral language “Some snake bites can be fatal, which means deadly.”
- Read to students daily and discuss vocabulary as it comes up in the story
- Encourage parents to read to their children
- Encourage word curiosity on your classroom



# Explicit Instruction

- **Target Tier 2 Words** (i.e. academic vocabulary) – high utility words found across a variety of domains; the words are uncommon in spoken language but common in written language

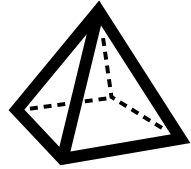
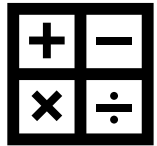
**fortunate, deliberate, mention**

- Choose words from class texts, read aloud, shared readings
- Find more easily understood synonyms to explain:
  - ✓ fortunate: lucky
  - ✓ deliberate: on purpose
  - ✓ mention: tell

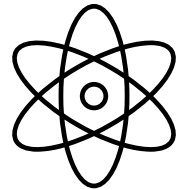


# Tier 3 Words

- Target Tier 3 Words in content (i.e. social studies, science, math)



**senator, asteroid, circumference**



- Teach words necessary for understanding the topic
- Teach words in context – avoid teaching lists of words for students to memorize





# Teach Morphology

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**Morpheme:** smallest meaningful unit of a word

- **Base word:** a word that can stand on its own **view**
- **Prefix:** an affix at the beginning of a word **preview**
- **Suffix:** an affix at the end of a word **previewing**
- **Root:** the main part of a word that usually cannot stand on its own **construct**



# Morphology Teaching Tips (1 of 4)

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Spelling is consistent but pronunciation is not, so  
refer to affixes by spelling

jumped  
smelled  
hunted

prepaid  
prevent



# Morphology Teaching Tips (2 of 4)

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Study morphological families

helping  
helpless  
helper  
unhelpful

image  
imagine  
reimagine  
imagination



# Morphology Teaching Tips (3 of 4)

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Use word sums

un + help + ful + ness

unhelpfulness



# Morphology Teaching Tips (4 of 4)

In grade 2 and up, teach spelling changes when adding suffixes

1. biking      bikes

2. swimming      jobbless

3. happiness      flyying      monkeys

# Integrate Learning

“**Vocabulary** learning is facilitated when **spellings** accompany **pronunciations** and **meanings** of new words to activate OM (orthographic mapping).

Teaching students the strategy of **pronouncing novel words aloud as they read** text activates OM and helps them build their vocabularies.

Because spelling-sound connections are retained in memory, they impact the processing of phonological constituents and phonological memory for words.”

(Ehri, 2014)

# Vocabulary Instruction



Explicit

Thought  
Provoking

Engaging

Multiple  
exposures



# Explicit Vocabulary Routine

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1. Read  
Text to  
Students

2. Introduce  
a word

3. Students  
read by  
syllable

4. Provide  
student-  
friendly  
definition

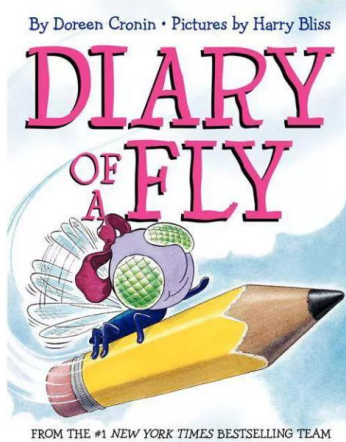
5. Use in  
examples

6. Check for  
understanding



# Example

Read Text  
to Students



Introduce  
Word

- ✓ Show it: observe
- ✓ Teach pronunciation by syllable & sound: ob – serve
- ✓ Ask students to say and write it: observe observation
- ✓ Discuss usage: verb/noun

Friendly  
Definition

**Observe:**

to look at  
closely

The child observes the ants.

Examples



Check for  
understanding

Give a thumbs up  
if you would need  
to “observe”:

- Doing a science experiment.
- Taking a nap.

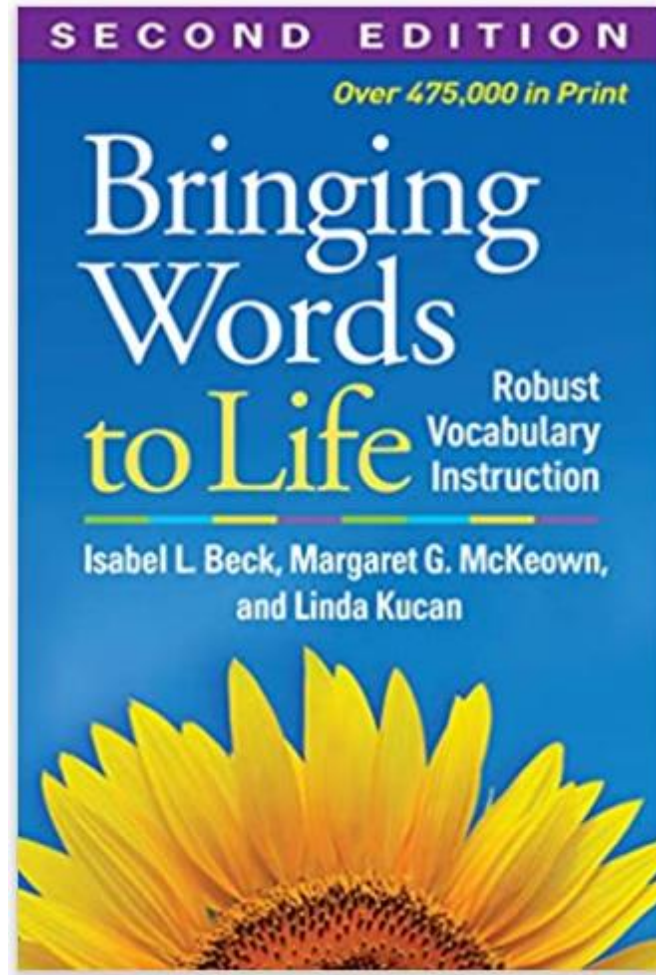


# Additional Activities

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- **Questions:** *Could an earthquake be considered a disaster? Which of these could cause a disaster?*
- Ask students to relate the words to a **personal experience:** *Describe a time when you saw or read about a disaster.*
- **Making choices:** *If I'm describing a disaster give a thumbs up and say, "disaster":*
  - ✓ A town gets flooded
  - ✓ Playing catch with a friend
  - ✓ A campfire gets out of control
- **Student created examples:** *With your partner, brainstorm a list of disasters.*

# Learn More...



Isabel L. Beck, Margaret G.  
McKeown, and Linda Kucan

# Chat Check

- Should instruction focus on tier 1, 2, or 3 words?
- What is a characteristic of explicit vocabulary instruction?



Q & A



# References

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- Beck, Isabel, McKeown, Margaret, and Kucan, Linda. *Bringing Words to Life*. New York, 2013.
- Birsh, Judith. *Multisensory Teaching of Basic Language Skills*. Baltimore, Brookes Publishing, 2011.
- Henry, Marcia. *Unlocking Literacy*. Baltimore, Brookes Publishing, 2010.