

Vocabulary: The Key to Unlocking Knowledge

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TextProject**



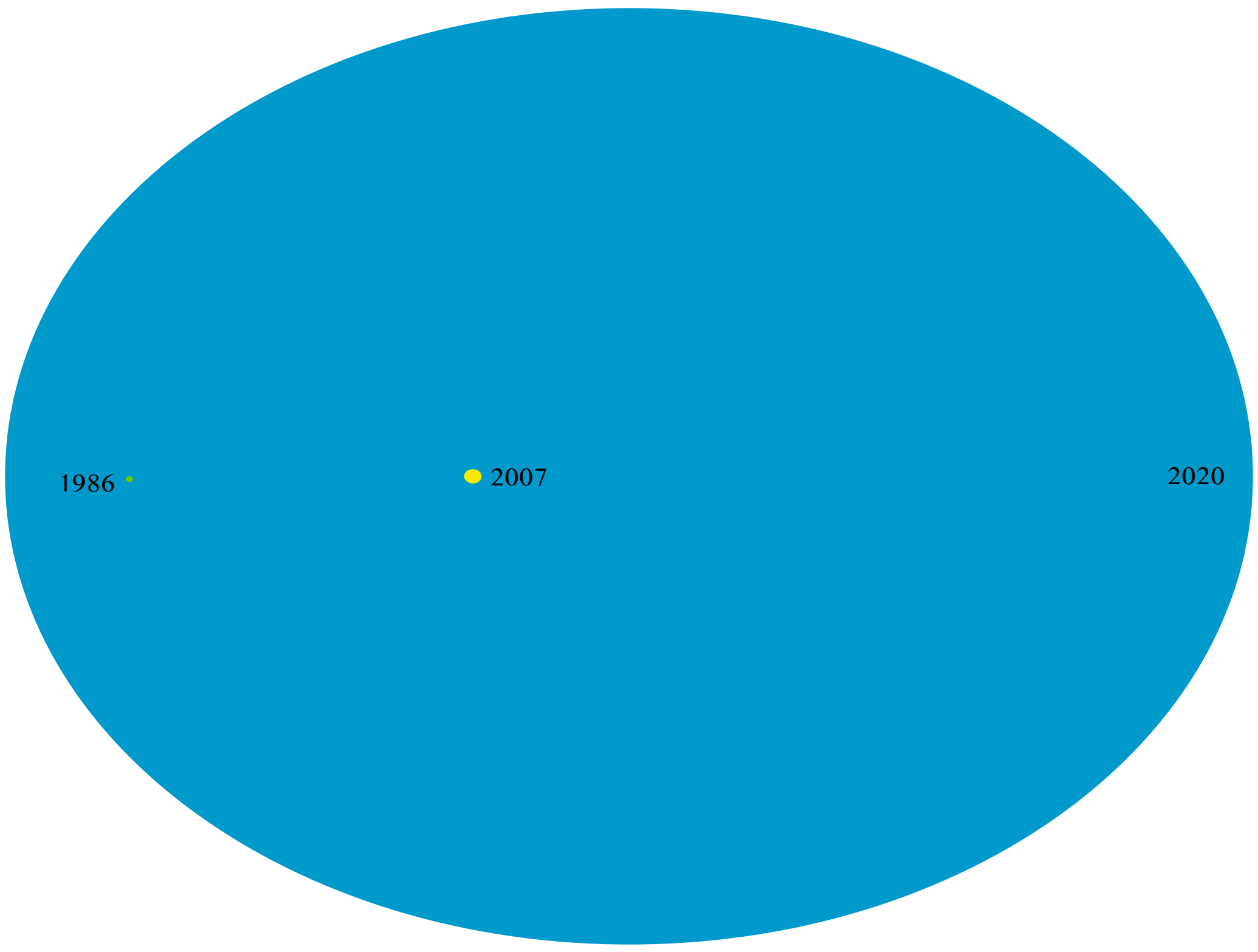
GPS

- **Humankind's knowledge is stored in text. We read to learn—both stories and information.**

- Words are the labels for concepts that underlie knowledge. 2,500 word families account for the majority of words in texts.

- They represent major bodies of knowledge & the primary English linguistic systems.

- Students who depend on schools to become highly literate need ELA instruction that focuses on knowledge, including how English works.



1986

● 2007

2020



CHAPTER 9

Different Labels But the Same Concepts

English Learners

Example 1: "I'm going to catch a crab today," yelled Sailor Paul. Soon his nets were full and taut, and Paul hauled them up on the deck. "Get away, sifly squid," scolded Sailor Paul. "Don't sprawl on my yawl!" (Sailor Paul and the Crabs, Paulson, 2000)

Example 2: The children are drawing pictures. Ann draws a green lawn. What's on the lawn? A little deer or a fawn is on the lawn. Ben draws a pile of yellow straw. What is in the straw? A fawn lies in the straw. (Drawing Pictures, Hebert, 2019)

In the United States as we approach a new decade—2020—about 10% of our students enter school speaking native languages other than English (McFarland et al., 2018). English learners (ELs) may not have English labels for concepts, but they do have labels for concepts in their native languages. In the usual materials and approaches of English/Language Arts, ELs are asked to learn to read words for which most young children do not have associated meanings in their native language, such as *taut* and *yawl* in Example 1. Instructional demands such as those represented by the first excerpted text can intensify the challenge for ELs. Example 2 illustrates a text where students' knowledge of activities (e.g., drawing) and aspects of nature (e.g., animals, growing things) are the foundation for learning new concepts such as *fawn* and *lawn*.

Additionally, evidence points to strengths of ELs, such as their acuity in attending to the sounds of language, which often are not recognized in schools. This chapter develops a perspective in which strengths that ELs bring to language learning are the foundation for the design of learning experiences for those students and in which





a b c d e f g h i j k l m n o p q r s t u v w x y z

Collectors collect things.

Collectors collect things...



Some people collect stamps.



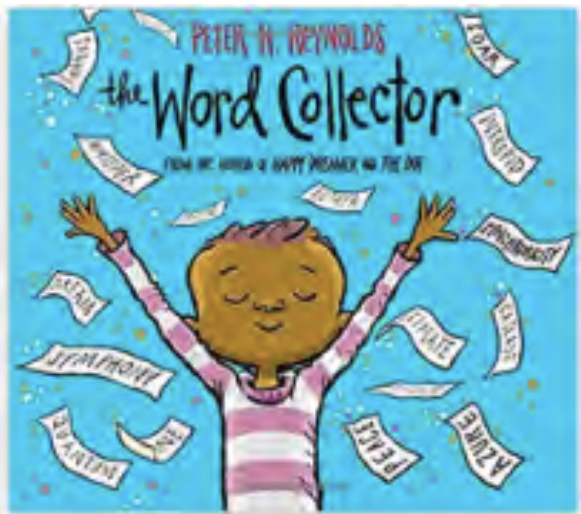
Some people collect coins.



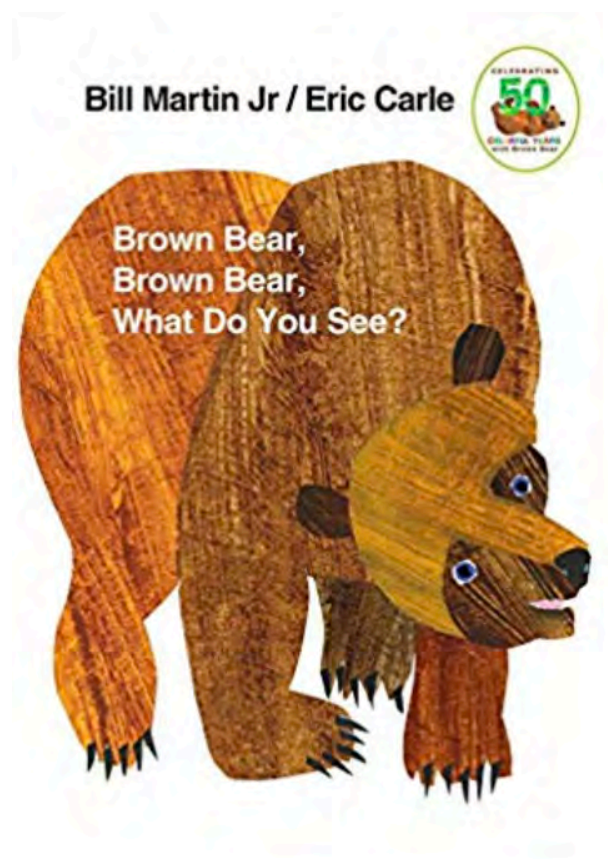
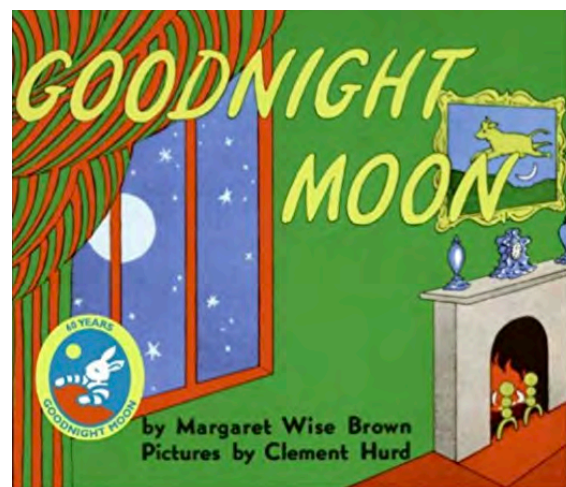
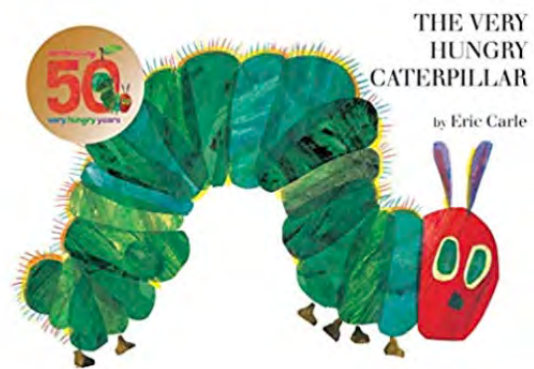
Others collect rocks.



Some collect art.

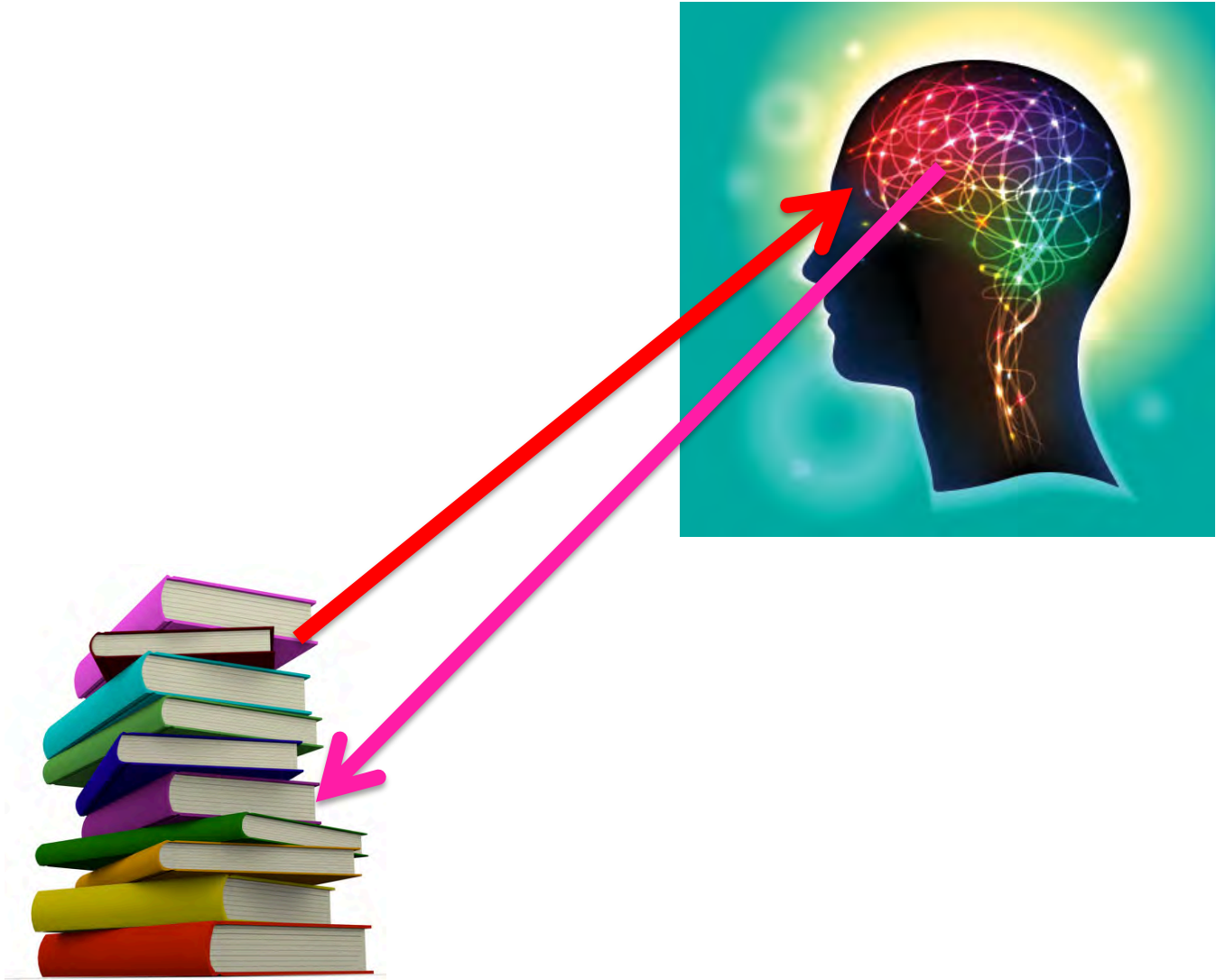












GPS

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Vocabulary and Knowledge

elderly
frequent
locate
considerable
delighted
identify favorable
damaged
enjoyable

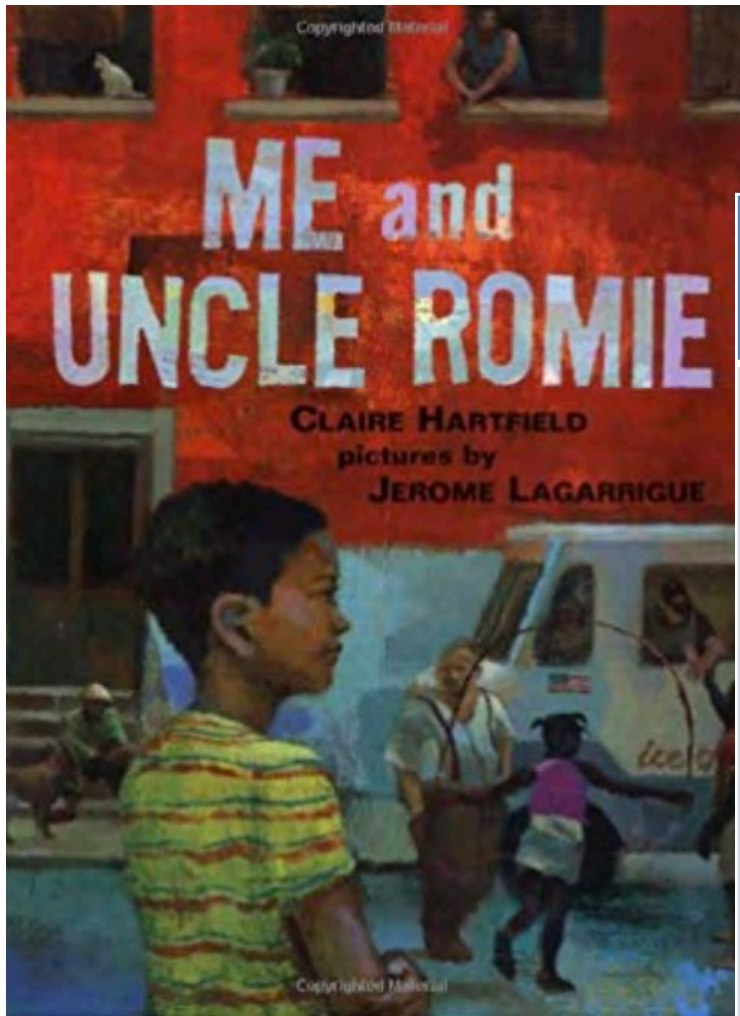
know
broken old
big
good fun find
often
happy



Oxford English Dictionary

- 282,500 root or head words
- 326,000 derivatives & phrases
- 47,150 obsolete words

Typical Choices



Houghton Mifflin Harcourt
(Baumann et al. (2014))

ruined
feast
model
concerned
schedule
yanked
streak
smeared
glorious
studio

Scott Foresman
(Afflerbach et al., 2013)

ruined
feast
cardboard
fierce
flights
pitcher
treasure
stoops

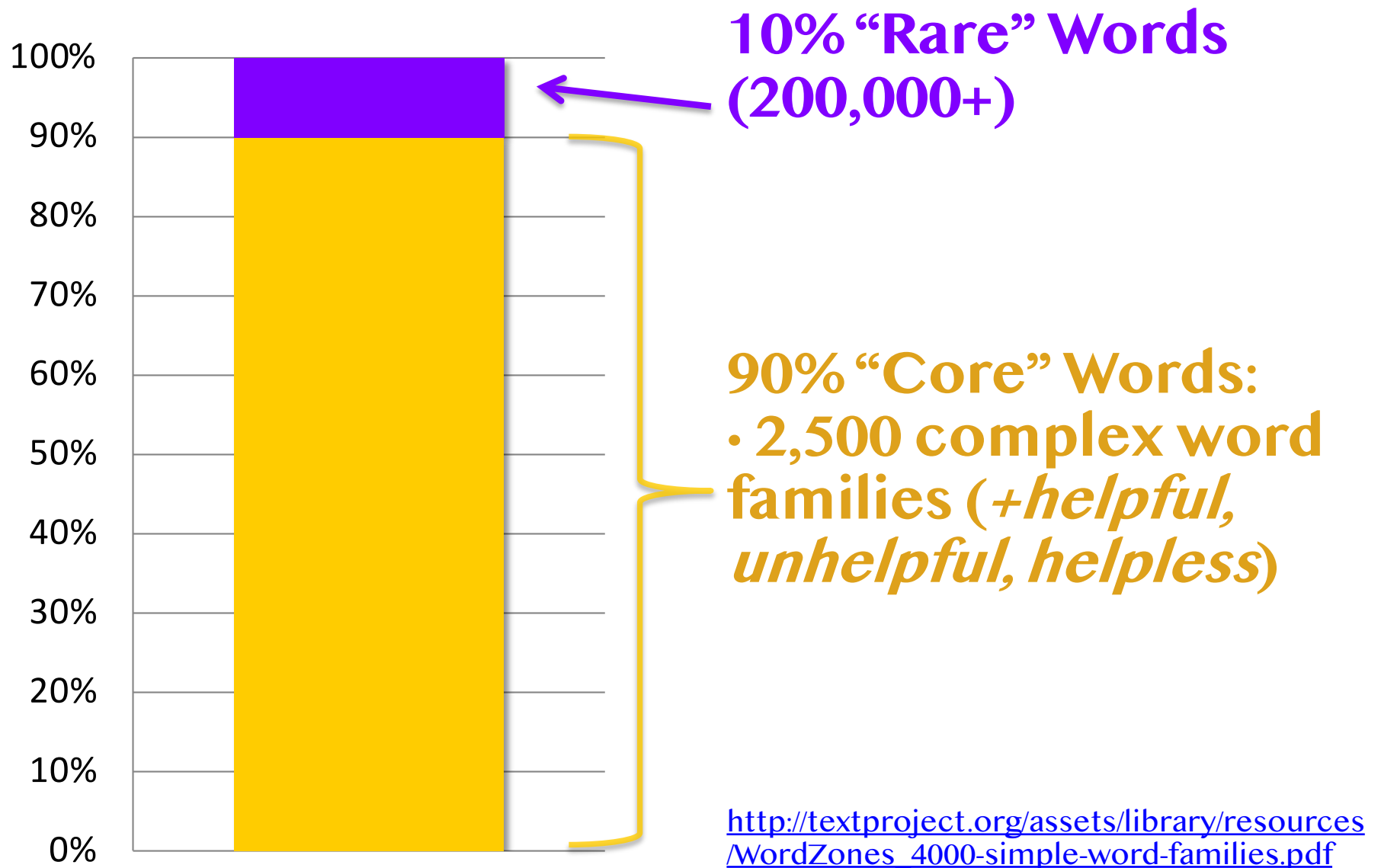
A photograph of a library bookshelf filled with books. The shelves are densely packed with books of various colors and sizes. A semi-transparent white rectangular box is overlaid in the center of the image, containing the text "10,000 texts" in a blue, sans-serif font. The background shows the metal shelving units and the spines of many books, some with visible titles like "THE WIRE" and "DIANGO".

10,000 texts

The Word Zone Profiler

Word	Word Length	Predicted times in a million words of text)	Age of Acquisition U	Complex Morphological Family	Mean Concreteness Rating
ruined	6	13	7.16	34.6445	2.96
feast	5	13	7.81	15.8756	4.3

Distribution of words in written English

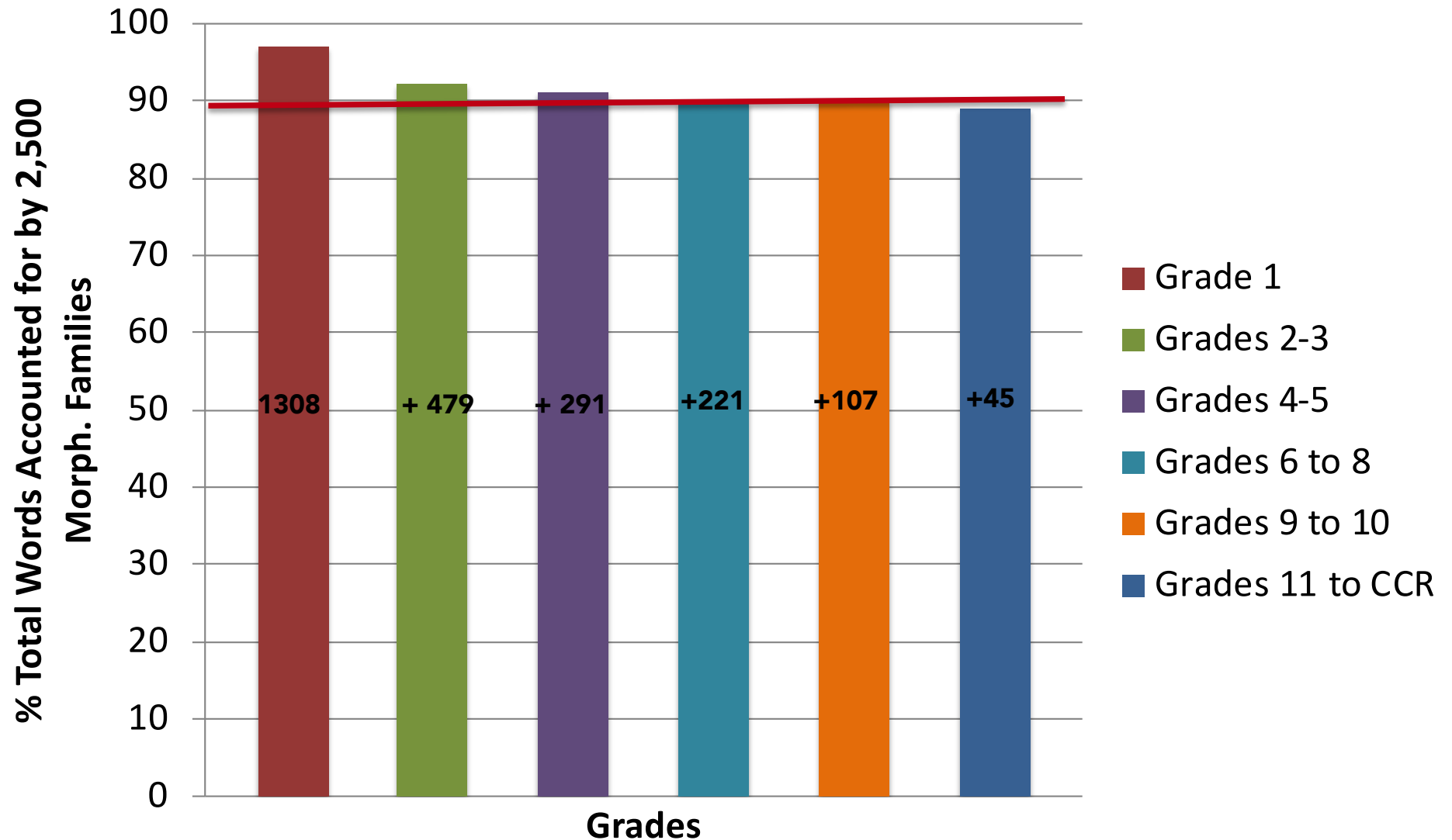


Common Core Exemplars



Analysis of a Million Word Corpus

(Exemplars from Common Core State Standards)



Examples of the Words in the Core Vocabulary

	words
1st 100	the, by, no, through, must
101-300	long, great, put, last, family
301-1,000	power, north, story, strong, answer
1,001-1,500	valley, imagine, motion, nearby, importance
1,501-2,000	character, responsible, design, presence, trail
2001-2,500	mixture, discovery, civilization, attitude, assume

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- Students who depend on schools to become highly literate need ELA instruction that focuses on knowledge, including how English works.

1. Topic Knowledge

Jobs

- mayor
- boss
- principal

Health & Human Body

- muscles
- ill
- germs

Places & Dwellings

- market
- ceiling
- curtains

Machines

- tools
- motor
- technology

Animals

- mammals
- frog
- dragon

2. MORPHOLOGICAL KNOWLEDGE



2. Morphological Knowledge

GREEK/ LATIN

Technical words
New words by com-
pounding: graph, para-
graph (s), photograph (s),
telegraph

ROMANCE

Most literacy and academic words
New Words through derivations:
separate, separates, separating, separ-
ated, separation, separately, separable

ANGLO-SAXON

Common, everyday, down-to-earth words
New words through compounding:
field (s), airfield (s), battlefield (s), cornfield (s)

3. Multiple Meanings

A triangle is a **shape**. A circle and a square are **shapes**, too.

Regular exercise helps people get in better **shape**.

In fact, an idea took **shape** in the jackal's mind right away.

GPS

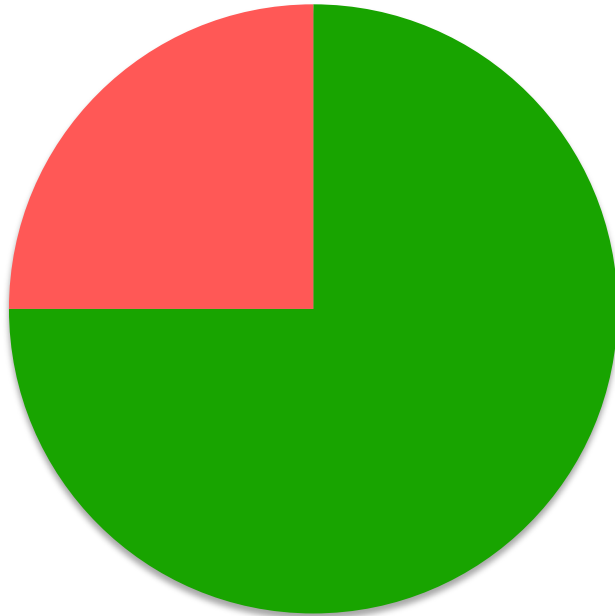
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I. Building students' knowledge through texts

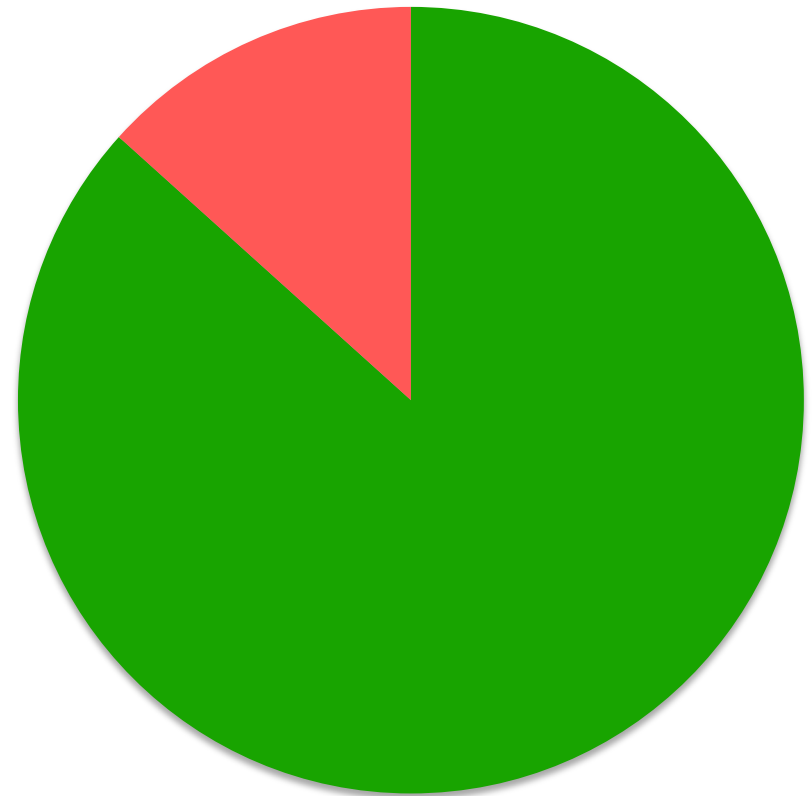
Time spent reading

Reading Instruction (1970s to late 1980s)

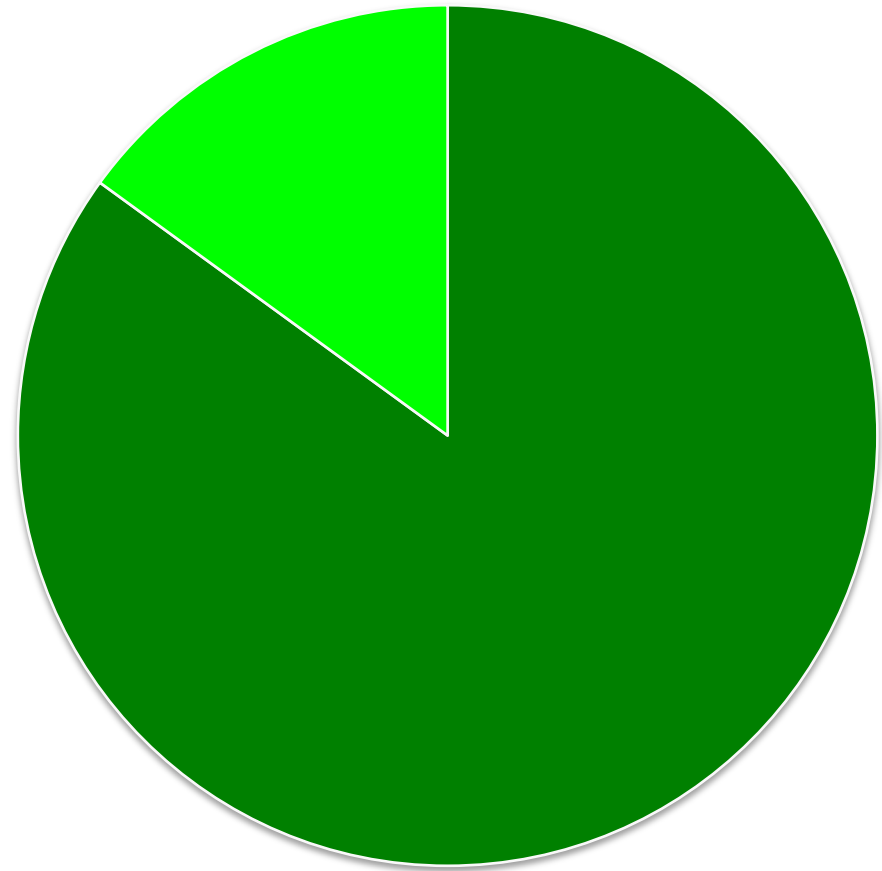


■ Instruction ■ Time Spent reading

Reading Instruction (late 1990s -)

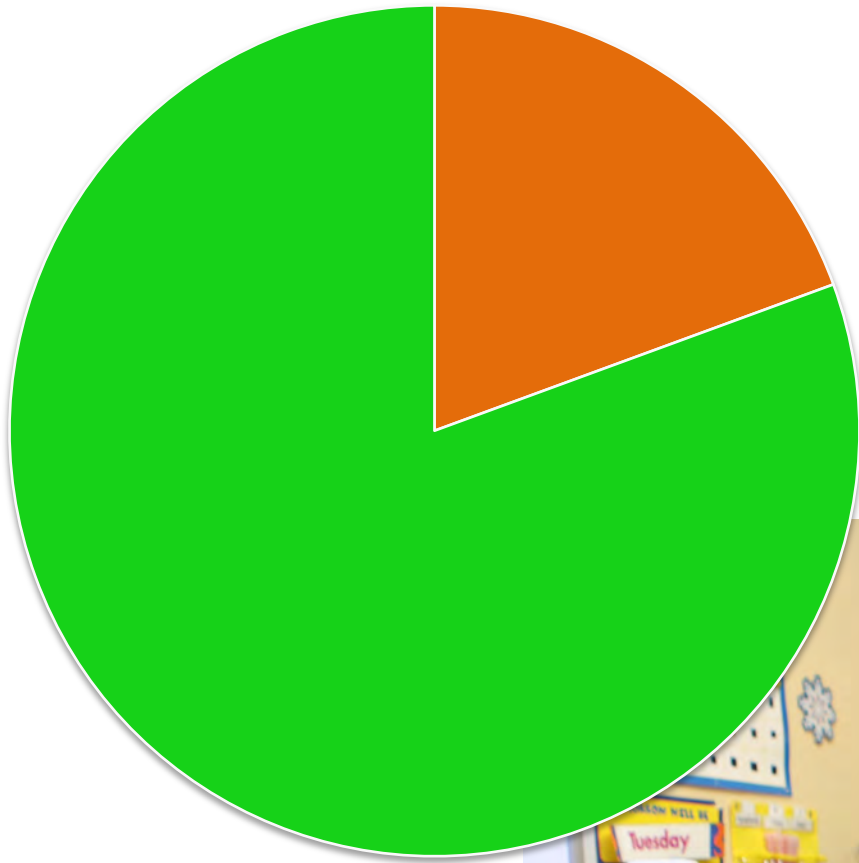


■ Instruction ■ Time Spent reading



■ Other activities ■ Reading

Swanson, Wanzek, McCulley, Stillman-Spisask, Vaughn, Simmons, Fogarty, & Hairrell, 2015.



■ Silent Reading

■ Listening, Following Along to Oral Reading





1. Building students' knowledge through texts—but not just any texts

Texts of a *Typical* Literacy Program*

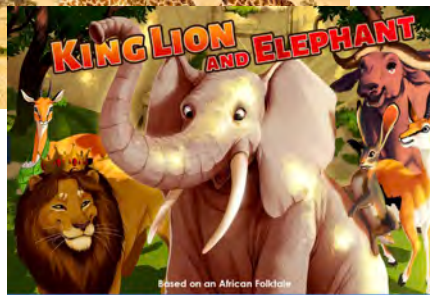
[Grade 2]



*Texts from Leveled Literacy Intervention, Heinemann

Texts of a *Knowledge Literacy Program**

[Grade 2]



*Texts from W.O.R.D., Scholastic

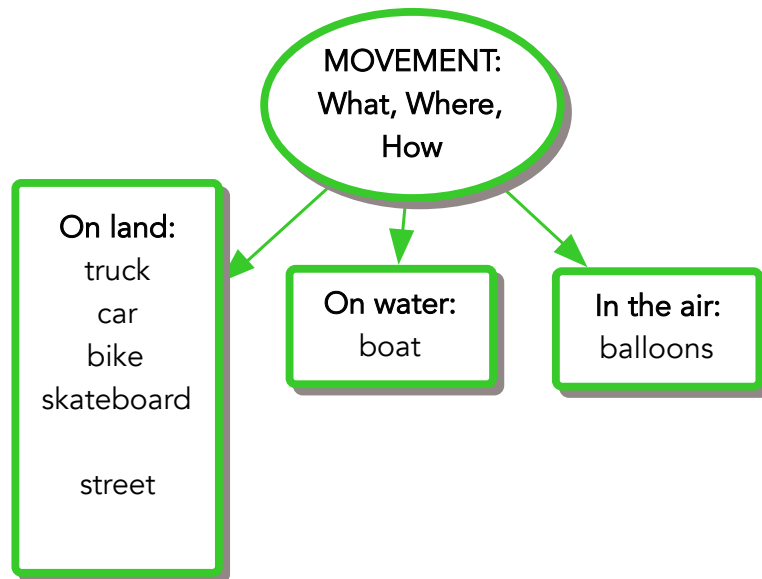
Comparison of Two Text Types

(# of words in each: 11,400)

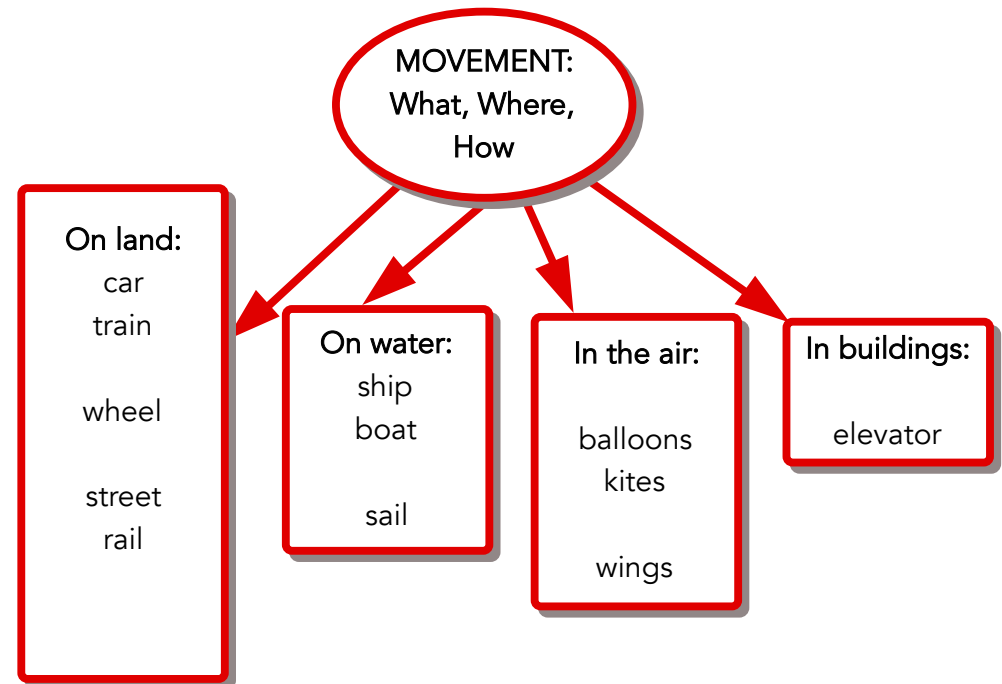
	Typical	Knowledge-Based
# unique words	1,718	1,332
# word families with more than one family member	225	501
% words outside 2,500 Word Families	6%	4%

Size of Critical Semantic Clusters (words with 3+ repetitions)

Typical Program

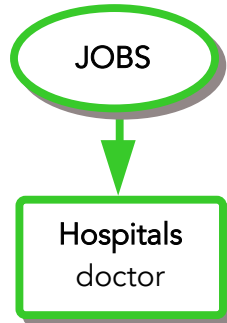


Knowledge-Based Program

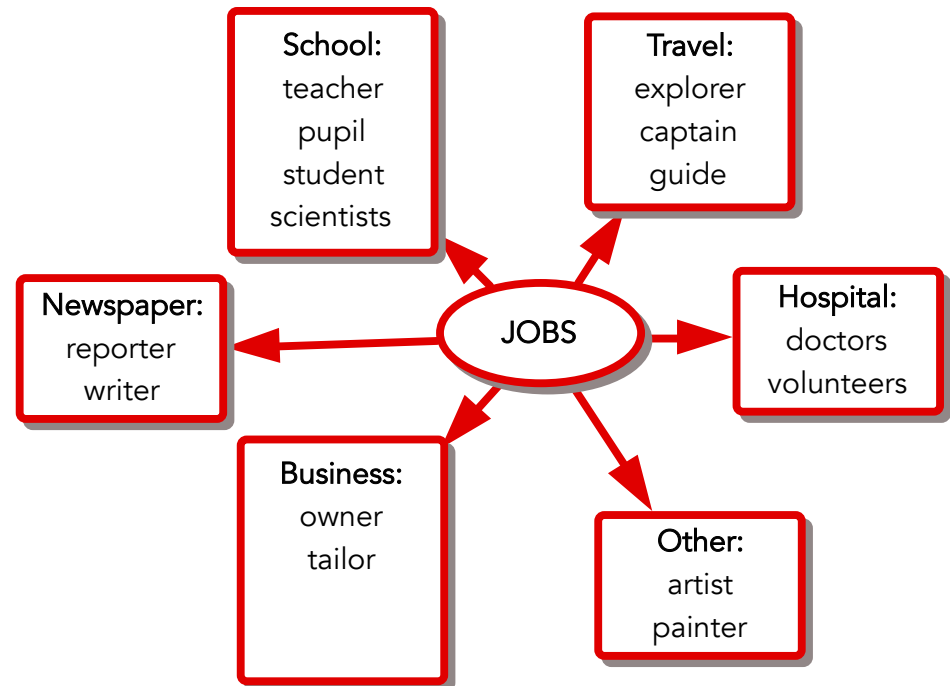


Size of Critical Semantic Clusters (words with 3+ repetitions)

Typical Program



Knowledge-Based Program





Transportation—

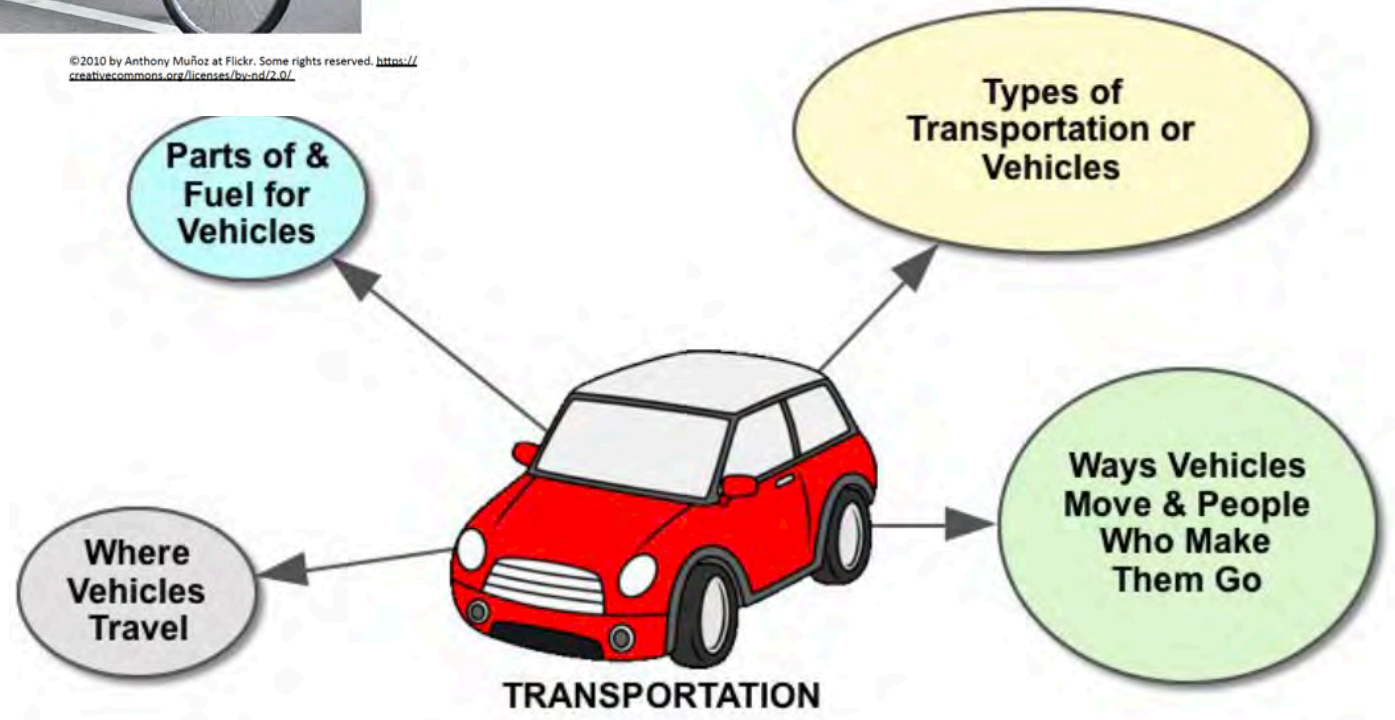
Types of Transportation or Vehicles



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TextProject provides sets of pictures for core vocabulary





bus
(bus)

jet (jet)



Photo: Fat Albert, the support aircraft for the US Navy Blue Angels flight demonstration team. August, 2005. Released into public domain by the United States Navy (Blue Angels).

truck

(truck)

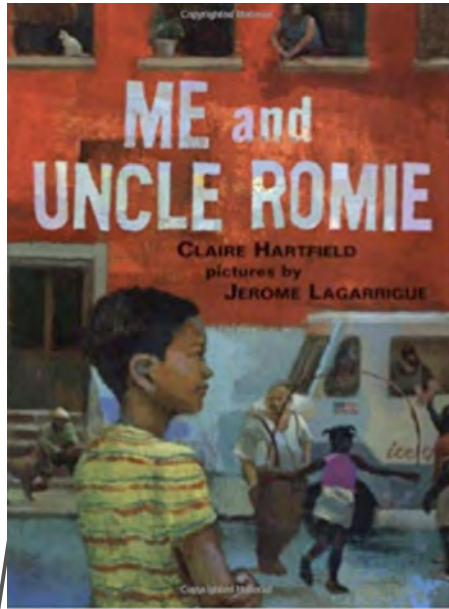




van
(van)



2. Lessons on How Words Work

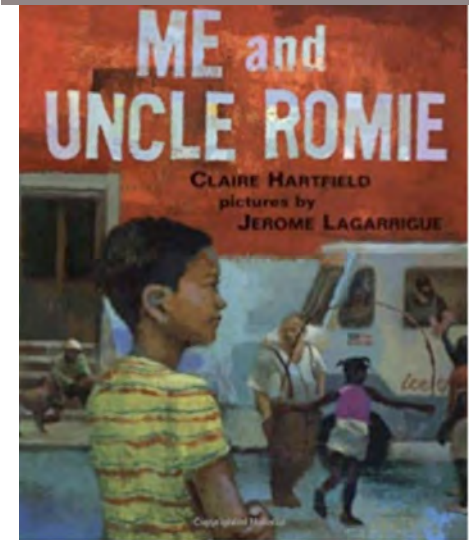


Me and Uncle Romie:
compound words

- skyscrapers
- workroom
- cardboard
- underground
 - doorway
 - stickball
- bald-headed
- home run

- photographers
- subway

- train schedule
- fire escapes
- pepper jelly
- fierce-eyed
- postcards



Me and Uncle Romie:
Places

- avenue
- ferry
- hydrant
- stoops
- bleachers
- platform
- skyscrapers
- studio
- neighborhood
- underground

- Penn Station
- Harlem
- Statue of Liberty
- Carolina
- Caribbean
- Chicago

3. Conversations About Vocabulary & Students' Capacity with it



Grade 1*

It was a cold, snowy day. Abby had *invited* two friends over to play the card game, Go Fish. Abby's little brother, Tim, had never played and wanted to learn.

"I'll *explain* during this game," said Abby.

Abby showed Tim the cards in her hand, which had *different numbers* on them. Abby explained that she needed to get all four cards with the same numbers.

Abby's friend Jen asked Abby if she had any tens. None of Abby's cards had tens on them. She *replied* "Go fish," which meant Jen had to draw a card from the *deck*. Now it was Abby's turn

*Texts from DIBELS, End-of-year

Grade 3

I have a new friend at school. She can't walk so she uses a wheelchair to get around. She comes to school in a special van that can transport four people who use wheelchairs. The van brings my friend and another boy to school. My friend is in third grade with me and the boy is a fourth grader.

I like to watch my friend get in and out of the van. The driver pushes a button and part of the van floor lowers to the driveway to form a ramp. My friend just wheels up the ramp and goes inside. After she is inside, the driver pushes the button and the ramp puts itself away.

Grade 5

Every day, tourists flock to see special places around the world. One place that is special because it is so old is the site of the ruins of an ancient city in Mexico.

The **Mayan** people built this ancient city more than one thousand years ago. The site covers four square miles. The structures that were left behind show that this community was once **thriving**. Many scientists have come to this location and tried to solve the mysteries of the city. They have **excavated** the ruins and carefully restored as much as they could.

One question that is still unanswered is why there are two styles of **architecture** in the city.

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