

Why Text Complexity Matters

Elfrieda H. Hiebert

TextProject &

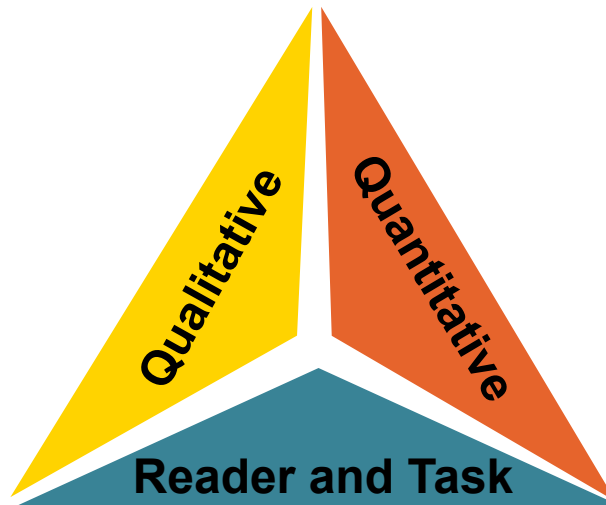
University of California, Santa Cruz

Standard 10: Range, Quality, & Complexity of Student Reading

Grade 6 students:	Grade 7 students:	Grade 8 students:
Range of Reading and Level of Text Complexity		
10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6–8 text complexity band independently and proficiently.

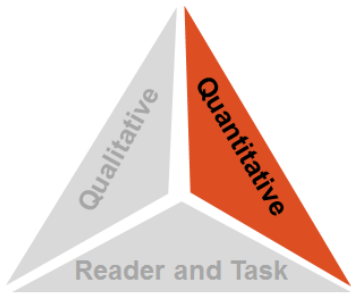
Measuring Text Complexity

Text features
measured by
an attentive
human reader



Quantitative
features typically
measured by
computer software

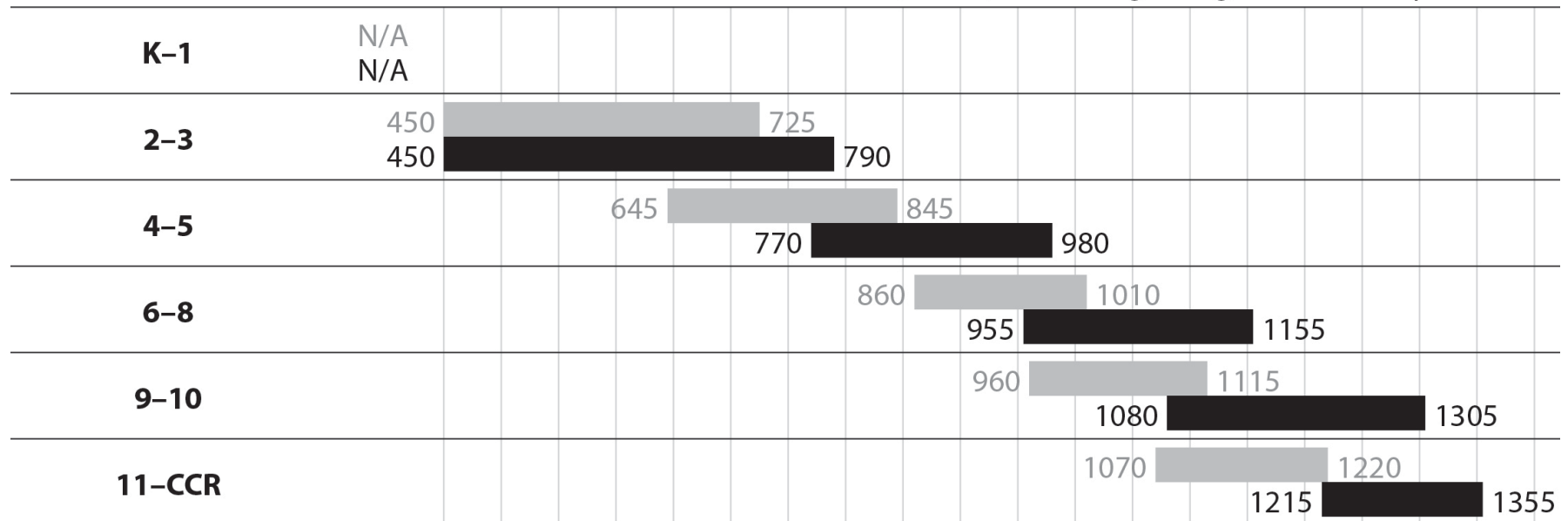
Such assessments are best made by
teachers employing their professional
knowledge of their students and the
subject.



The CCSS Staircase of Text Complexity

Text Complexity Grade
Band in the Standards

Old Lexile Ranges
Lexile Ranges Aligned to CCR Expectations



Hiebert, E.H. (October, 2010). *Anchoring Text Difficulty for the 21st Century: A Comparison of the Exemplars from the National Assessment of Educational Assessment and the Common Core State Standards* (Reading Research Report 10.02). Santa Cruz, CA: TextProject, Inc.

Challenges

- Mismatch of readers and texts: Many students can recognize words (i.e., two-thirds of an age cohort that fails to attain proficient levels on the National Assessment of Educational Progress). These students are slow and, increasingly, disengaged in reading. They have been given difficult texts from the get-go.
- Vocabulary instruction occurs primarily in narrative texts and the rare words in narrative texts are unlike the rare words of informational texts.

Solution 1:

- Create texts that ensure that students are receiving the foundation that they need in becoming automatic with core vocabulary core content.

Grade-3: Core Reading Text 1

Ruby stood and recited slowly: I had a nice pet, Who I never met, Because it always stayed behind me. And I'm sure it was a cat, too. Ruby smiled at the back of Angela's head. Someone whispered. Ruby sat down. What a coincidence, murmured Miss Hart.

Grade-3: Core Reading Text 2

Mrs. Morrow wrote Tuesday, October 10th on the chalkboard in her best cursive.

Mrs. Morrow led her class into the gym. There was the real author! She was testing Mr. Chickerella's microphone and getting ready for the assembly. Arthur was setting up chairs for the teachers. Eddie checked out the author from head to foot.

Grade-3: Core Reading Text3

These students in an American classroom start their day by saying the Pledge of Allegiance.

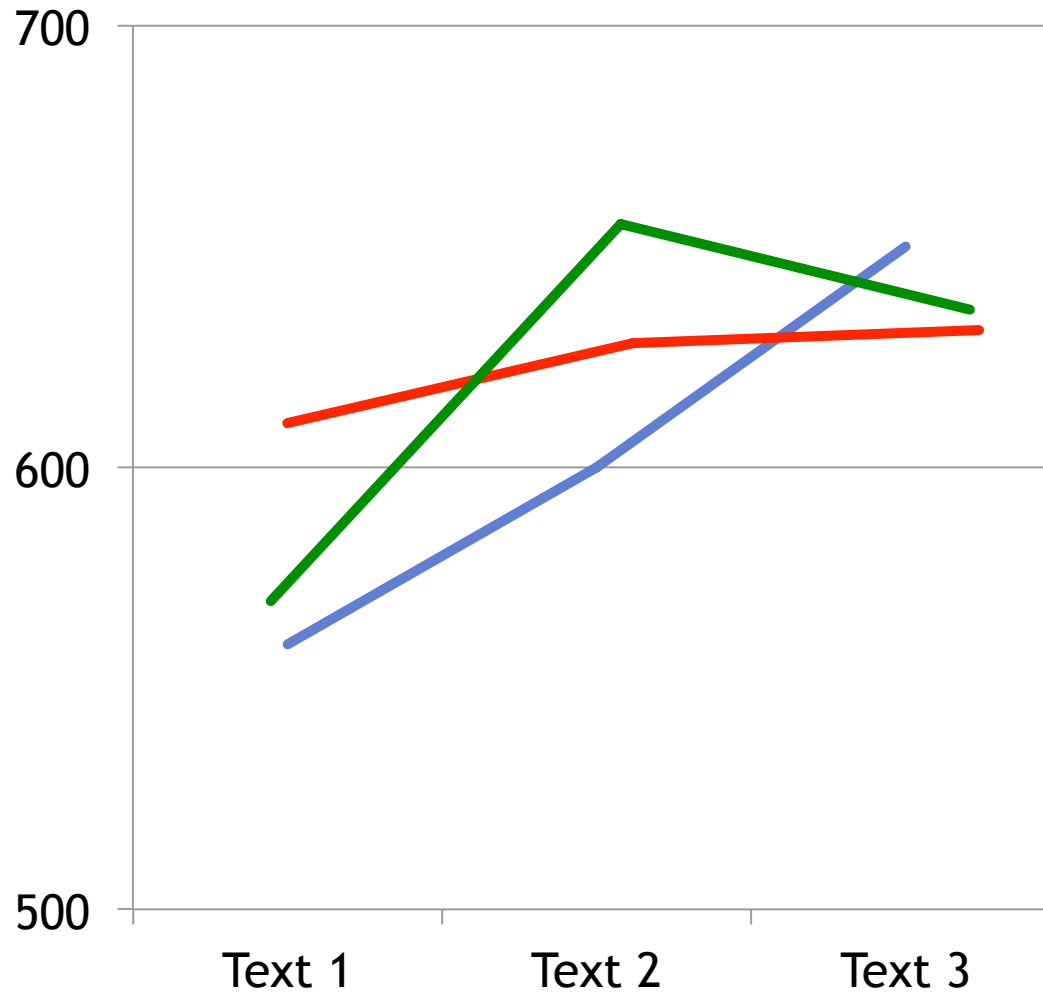
A long time ago, a German man started a new kind of school. He thought that small children should grow like flowers in a garden. He called his school kindergarten. The word means children's garden in German.

Grade 3 Texts:

Lexiles

Sentence Length

Vocabulary



Middle-Grade Intervention Text 1

In 1997, Dr. Paul Sereno led a dig. He took 18 scientists with him. They went to Africa. They went to Niger. The Tourareg tribe helped. The Tourareg live in Niger. They know their land. They know it best. They made the dig possible.

The dig was a success. They had a fantastic find.

Middle-Grade Intervention Text 2

Prince Lance is at a ball. He sits on the edge of his chair and plays with its fringe. He will not budge.

Prince Lance is shy. He has a scheme to not dance.

Then, Madge glances at him.

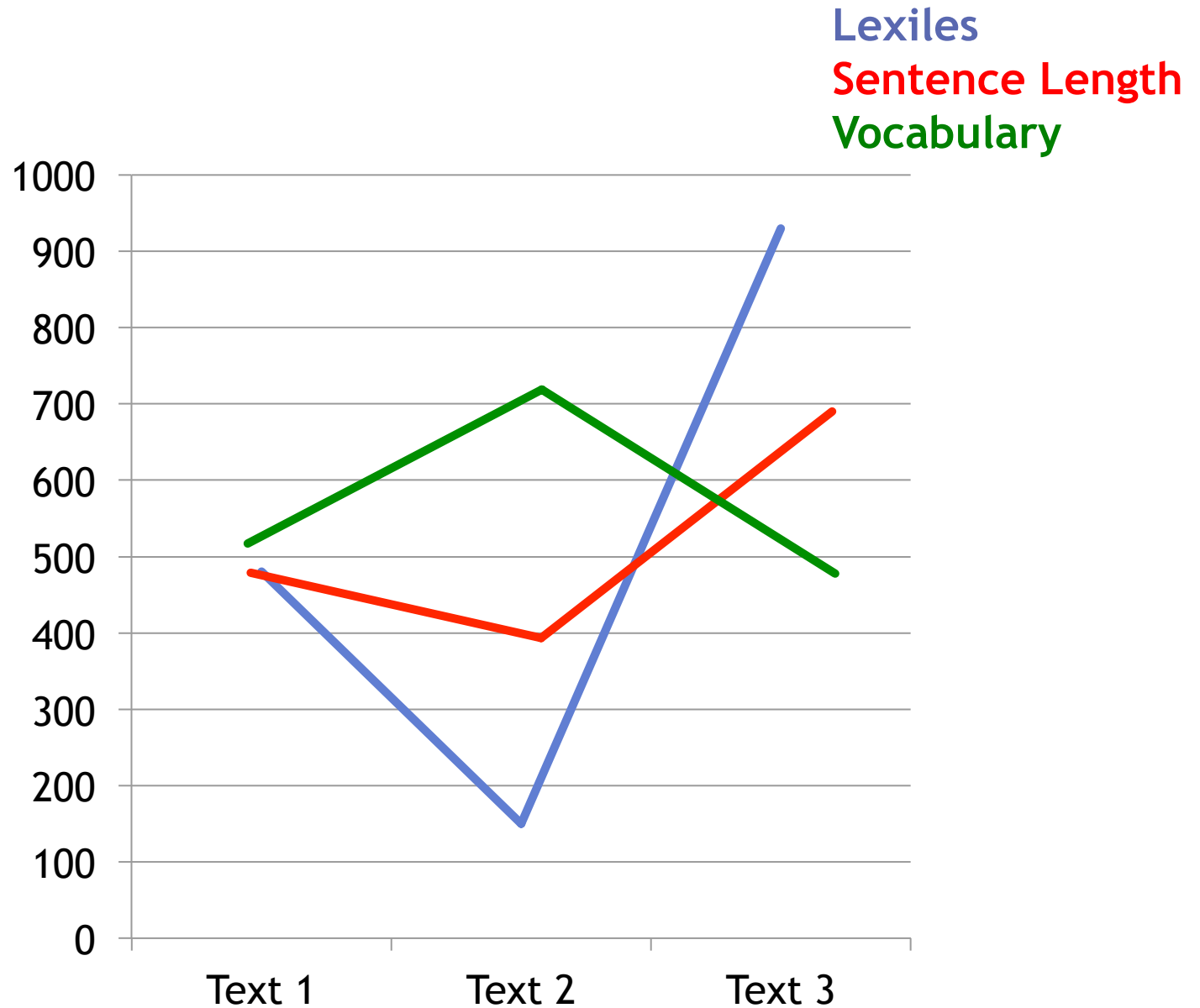
I am Madge, she says, Is there a chance that you might dance with me?

Middle-Grade Intervention Text 3

Monster trucks have been around for more than 30 years. At first, some people called them **chrome crushers** because the drivers drove them over cars and crushed the cars flat. Later, some drivers decided they would like to have flat races over a straight track. So, in 1987, they formed the Monster Truck Racing Association

Fast Track Reading (2001). *Drag, Dirt, and Other Racing*. Columbus, OH: Wright Group/McGraw-Hill.

Middle-Grade Intervention Texts:



Digital readability formulas (Lexiles) reflect syntax, not vocabulary.

	Lexile	Sentence Length	Word Frequency
Henry & Mudge (First Book) (Gr. 2-3)	460	7.98	3.65
Black Ship (Gr. 6-8)	1050	17.75	3.65

Bending close to look at it, everyone could see the words
"To the fairest" traced on its side.

(Black Ship)

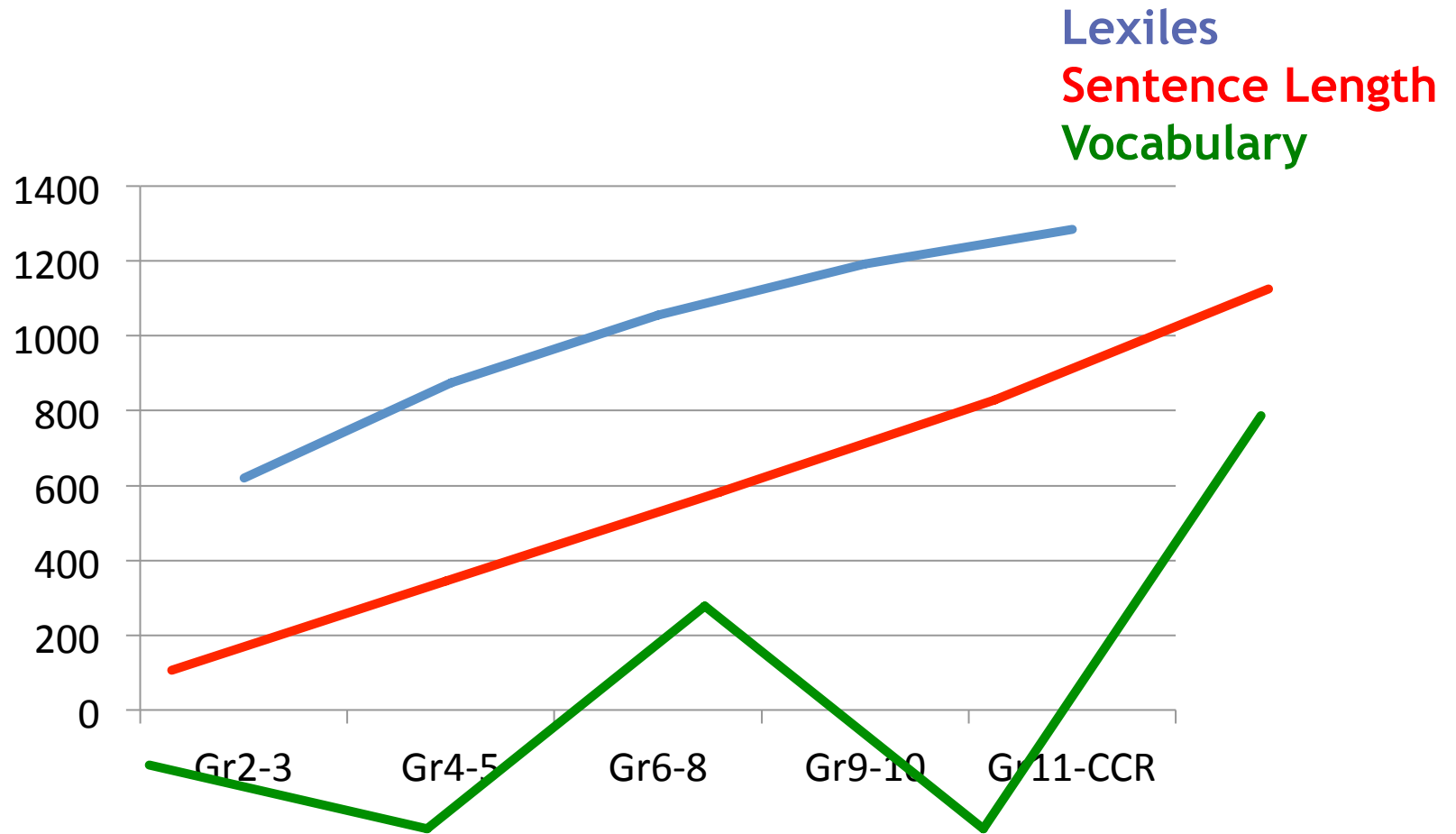
Then he found Mudge. Mudge had floppy ears, not
pointed. And Mudge had straight fur, not curly.

(Henry & Mudge, First Book)

Correlations of Lexiles

- Database consisted of 1,525 texts.
 - Texts were distributed across 4 Lexile groups, with genre (Narrative & Expository) distributed almost evenly across the sample
 - Texts were distributed across 4 lengths (50-200, 201-500, 500-1,000, 1001-2000)
 - Texts were obtained from 7 sources: assessment, beginning reading programs, core content, core reading, CCSS exemplars, literature, magazines
- Lexile and Syntax: 0.939
- Lexile and Vocabulary: -0.529

Common Core State Standards Exemplars



It was small wonder, then, that he suddenly flung down his brush on the floor. He said "Bother!" and "O blow!" and also "Hang spring-cleaning!" ~~and~~ Then he bolted out of the house without even waiting to put on his coat. Something up above was calling him imperiously. He made for the steep little tunnel which answered in his case to the gaveled carriage-drive owned by animals whose residences are nearer to the sun and air. So he scraped and scratched and scrabbled and scrooged. Then he scrooged again and scrabbled and scratched and scraped. He worked busily with his little paws and muttering to himself, "Up we go! Up we go!" At last, pop! His snout came out into the sunlight ~~and he~~. He found himself rolling in the warm grass of a great meadow.

sentences);
Replaced
and with
Then he
(forming 2
sentences);
eliminated
and (forming
2 sentences)

Middle 360
to end (7.13/3.70)
of
Grade 1

The Mole had been working very hard all the morning. He was spring cleaning his little home. First ~~with brooms, then with~~ he used brooms and dusters; then. Then he got on ladders and steps and chairs, with a brush and a pail of whitewash. He had dust in his throat and eyes ~~and~~. He had splashes of whitewash all over his black fur ~~and~~. He had an aching back and weary arms. Spring was moving in the air above ~~and~~. It was moving in the earth below and around him. It penetrated even his dark and lowly little house with its spirit of divine discontent and longing. It was small wonder, then, that he suddenly flung down his brush on the floor. He said "Bother!" ~~and~~ "O blow!" ~~and also~~ "Hang spring-cleaning!" Then he bolted out of the house ~~without even waiting~~. He did not even wait to put on his coat. Something up above was calling him imperiously. He made for the steep little tunnel ~~which~~. It answered in his case to the

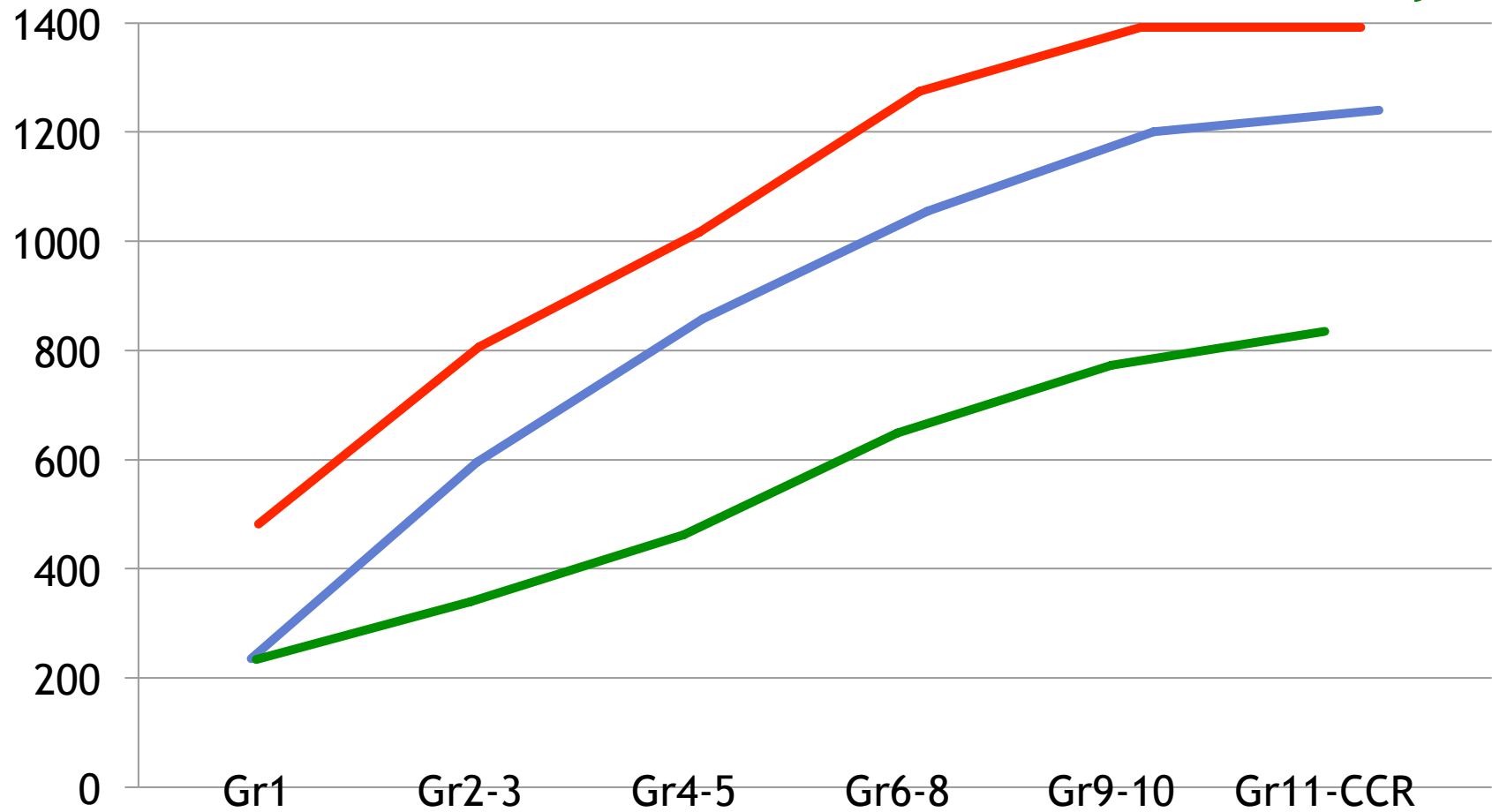
Same as for
grade band
2-3 above
plus: 12
sentences
made out of
6 by adding
pronouns,
simple verbs
(used, had,
got, moving,
did not,
have): and

Reading Plus Texts

Lexiles

Sentence Length

Vocabulary



Reading Plus passage (G4-5)

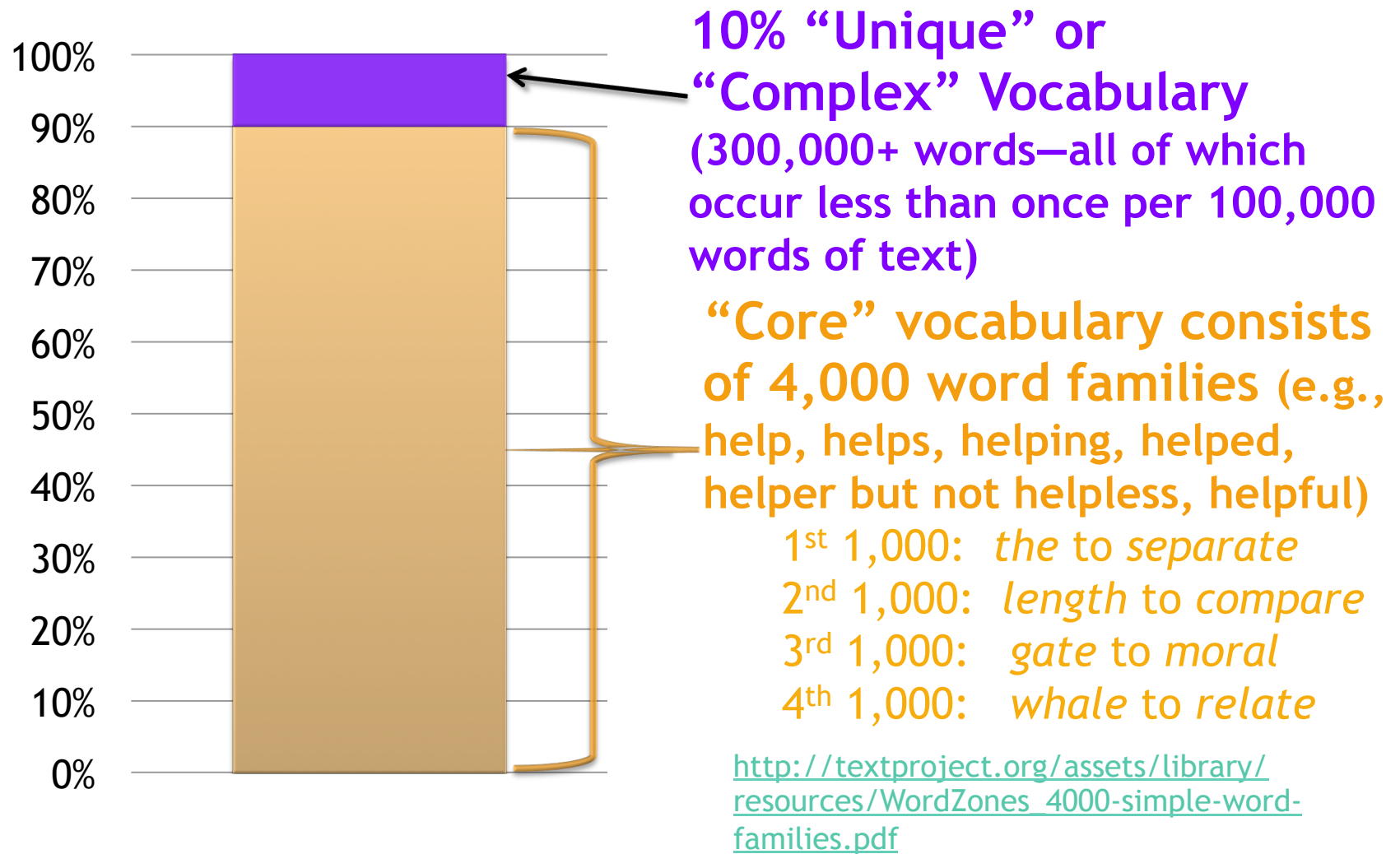
Run faster and throw harder! Science can help people who play sports get better at what they do. Science can help a runner go faster and can help a swimmer move more quickly through the water. It can help a ball player hit and throw the ball harder. It can also help people stay safe as they play.

Reading Plus Passage (G4-5)

Sports such as golf, tennis, and soccer have been around for a very long time. For example, golf started in Scotland in the 1400s, when people hit a stone with a stick on a sand dune or a field. Golf soon became so popular that it was a threat to the safety of the country!

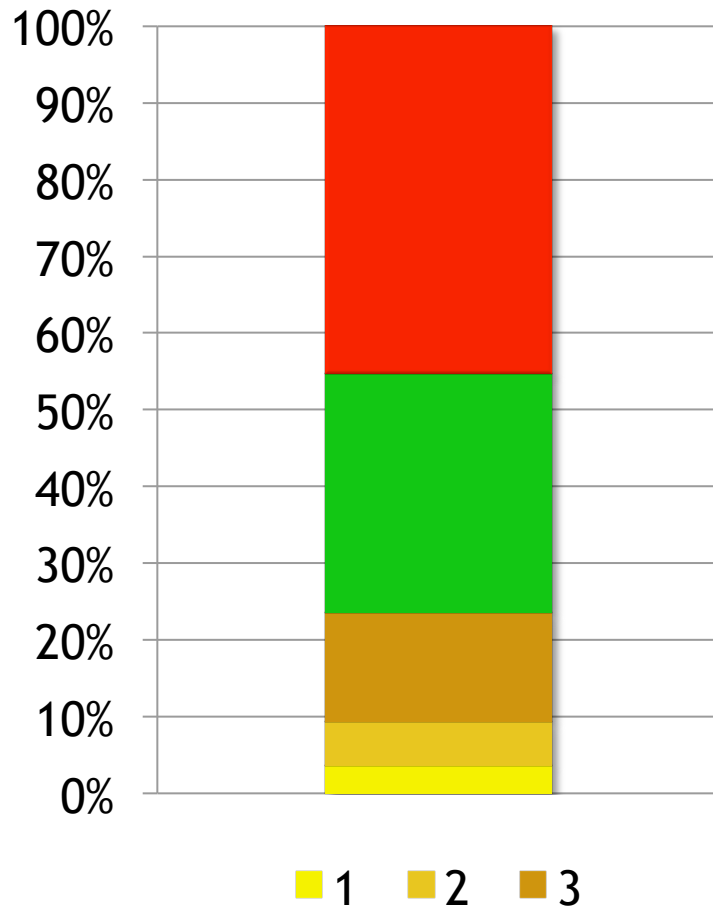
Solution 2:

Supporting Students in Developing a Strong Vocabulary

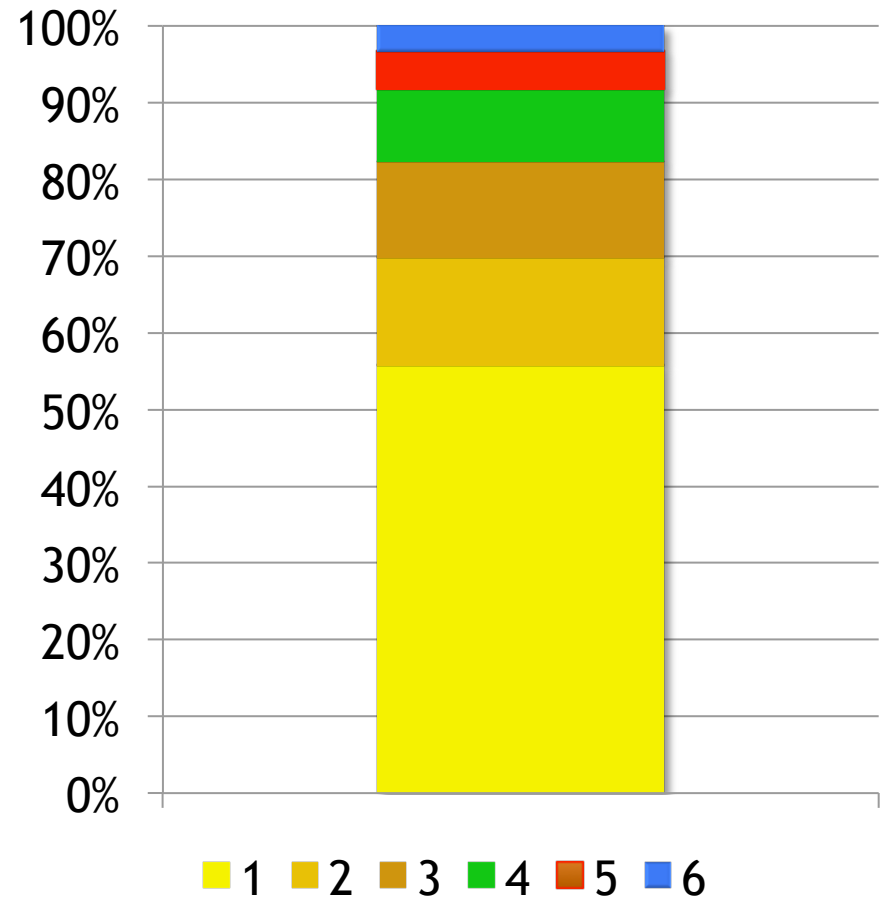


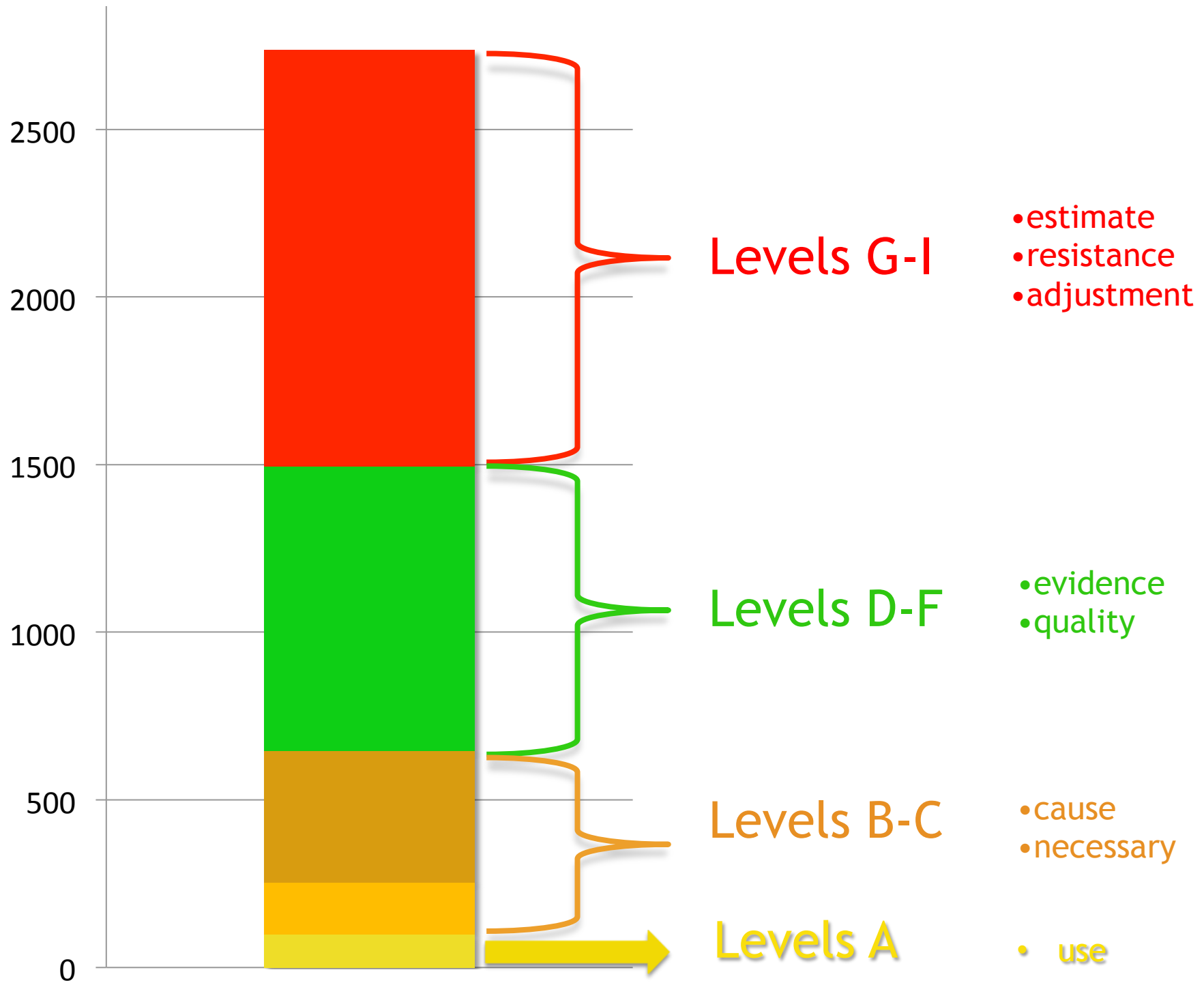
The 4,000 Simple Word Families

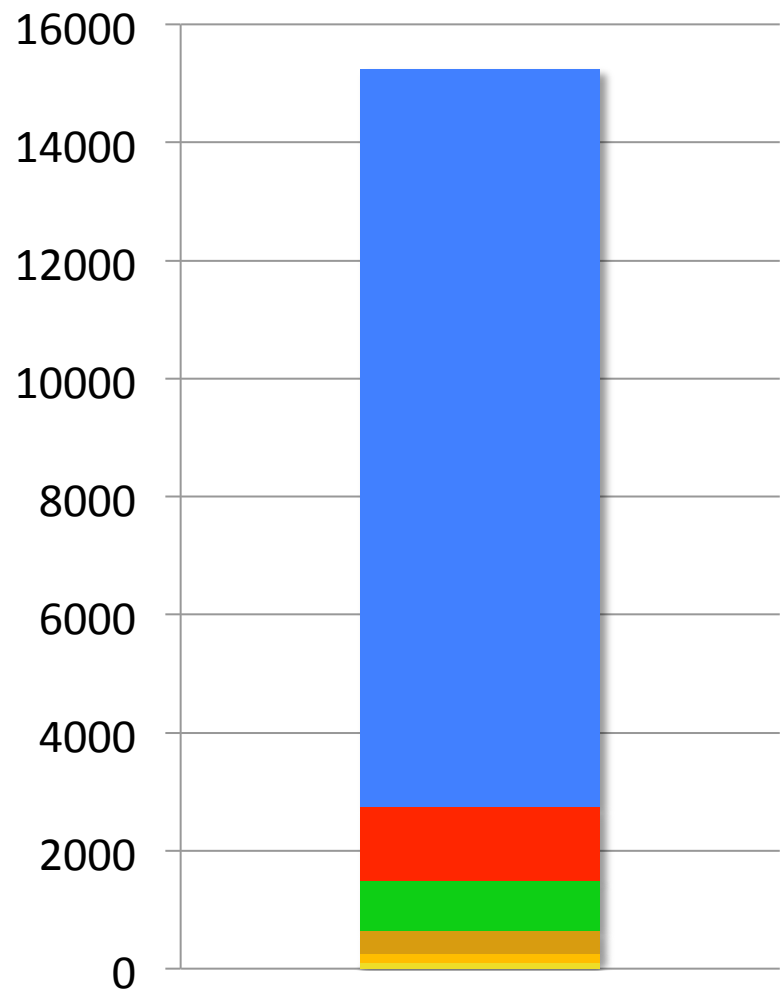
Root Words



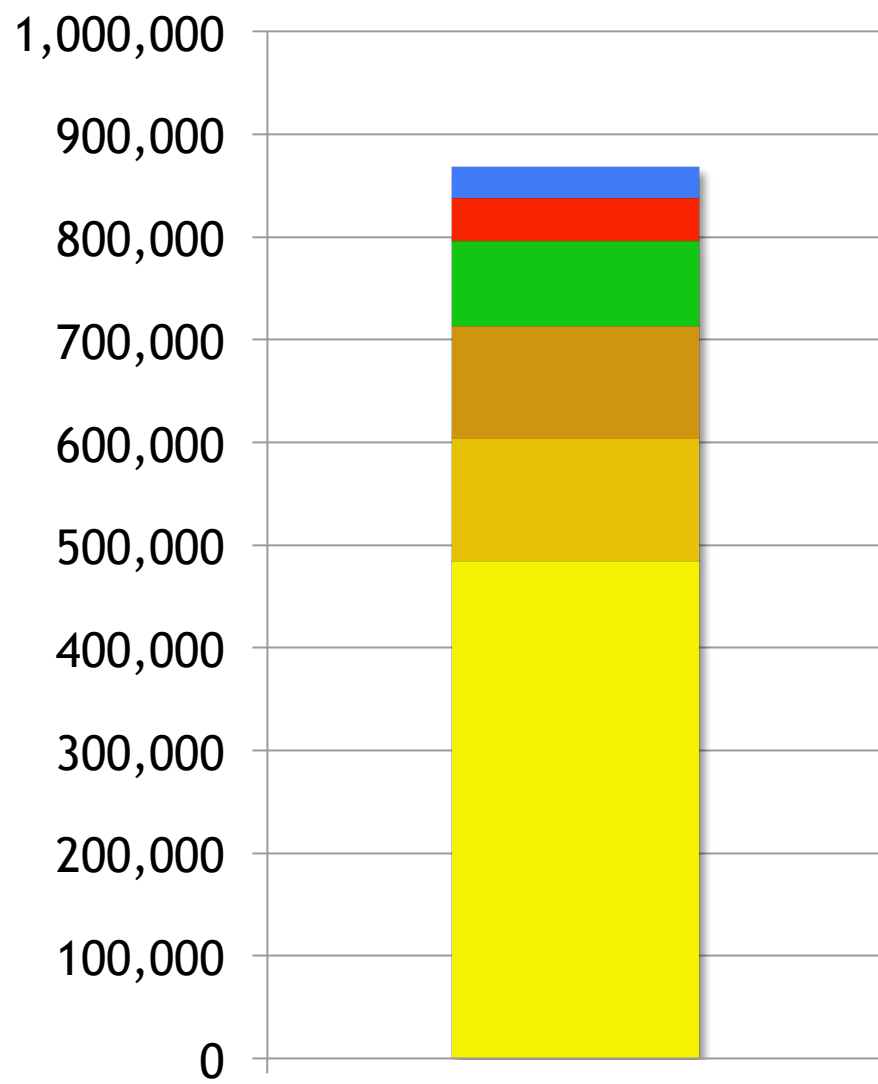
Total Words

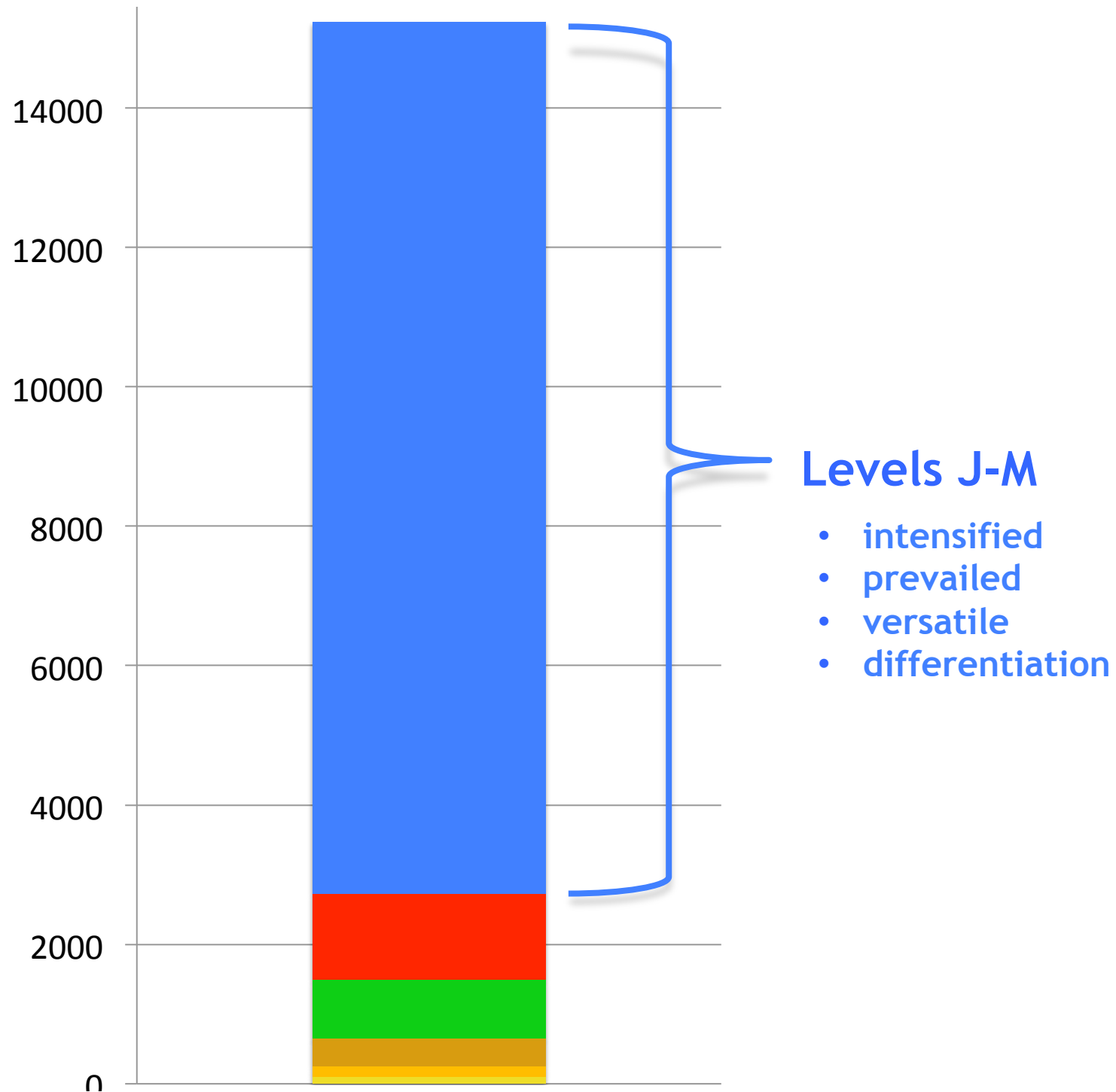






1 2 3 4 5 6





12 levels: 200 words each

- In a band where there are more than 200 words, how do you pick?
 - Size of morphological family
 - Structural pattern: Multisyllabic words create some of the greatest problems for American students.
 - Presence in academic vocabulary: both general and content domains

And, once you pick vocabulary, how do you teach?

- Use in sentences (including the use of members of the word family)
- Read, read, read—and ensure that target words appear in texts (not algorithmically but reasonably)



This should help you learn this word.
Press Go On to continue.

cause



En Español
causa



A cause is the reason something happens. A cause brings about an effect or result. The cause of the fire was a candle that tipped over. There are many causes of pollution.

Word Family

causes

caused

causing

Word In Use

Getting up late was the cause for my missing the bus.

The snowstorm caused the road to be closed for three days.



Level C: *cause*

One of the first people to have the idea that ice may have **caused** this was a man named Bernard Kuhn.

The amounts of gases in our air can also make the earth colder. Some scientists believe that the tall mountains helped **cause** the ice ages. When rain falls, it washes away the dirt on big mountains. The gases that were trapped under the dirt go into the air. The gases can block the light and heat from the sun. And that could make it colder.

Oddly enough, even a blast of heat can **cause** the earth to get cold. When a volcano explodes, it blows ash and smoke into the sky. The ash and smoke block the sunlight. The earth gets darker. It also gets colder. Smoke that lasts for months could spread a long way. This can **cause** an ice age to begin.



This should help you learn this word.
Press Go On to continue.

estimate En Español
estimar 

To estimate is to guess carefully or calculate. We estimate when we have some information but not definite facts. We are estimating a person's age or height by just looking at them. A flight's estimated arrival time is when it is expected to land if there are no delays.

*Word Family***estimates** **estimating** **estimated***Word In Use*

The coach estimates the team will need three buses to travel to the game.

We are estimating we will arrive about 20 minutes late because of the traffic.



Level G: *estimate*

What are the advantages of purchasing a hybrid car? For one thing a hybrid is economical. The hybrid's smaller and lighter engine and its electric power supply make for a much better use of fuel. It is **estimated** that a hybrid can get up to 55-60 miles per gallon in city driving. It is also **estimated** that it provides a whopping 20-30 more miles per gallon than a standard car! In fact, one hybrid on the road today can go about 700 miles on a single tank of gasoline and, given the upward direction of gasoline prices, a hybrid car could take a big bite out of a driver's gasoline bills.

Upcoming Events



24 April 2013

Key Shifts in Assessment and Instruction Related to CCSS-ELA

Dr. Karen K. Wixson, University of North Carolina at Greensboro

1—2pm, Pacific Daylight Time

Registration is now open! <https://www4.gotomeeting.com/register/751883535>



30 May 2013

Informational Text and the CCSS: Pitfalls and Potential

Dr. Nell K. Duke, University of Michigan

1—2pm, Pacific Daylight Time

More information, including how to register, will be available soon.



20 June 2013

Quantitative Measurement of Text Complexity

Elfrieda H. Hiebert, TextProject & the University of California, Santa Cruz

Please note that the date for this webinar has been changed to June 20, 2013.

2—3pm, Pacific Daylight Time (5—6pm Eastern)

Registration is now open! <https://www4.gotomeeting.com/register/916300207>

Common Core State Standards Webinar Series

CCSS

Webinar Series

TextProject presents **FREE** webinar series on the Common Core State Standards.

Previous Events



27 February 2013

CCSS and Education Policy

Timothy Shanahan, University of Illinois at Chicago

Dr. Shanahan identifies tasks which states and districts must undertake to successfully implement the English/Language Arts Common Core standards.



25 January 2013

Research and the Common Core: Can the Romance Survive?

Dr. P. David Pearson, University of California, Berkeley

This presentation considers the research foundations of the Common Core State Standards, especially as it pertains to comprehension.

Recordings of past webinars are available at TextProject's YouTube channel.



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TextProject aims to bring beginning and struggling readers to high levels of literacy through a variety of strategies and tools, particularly the texts used for reading instruction.

TextProject Topics



Common Core State Standards

[More topics](#)

FYI for Kids! New from TextProject

A collection of engaging magazine articles designed to enhance the Common Core classroom's reading repertoire. Take a look at topics offered in *FYI for Kids!*

Student Resources

TextProject provides free, downloadable sets of texts that fill specific needs:



Stop the summer slump



"Read to learn" while learning to read



Increase meaningful, text-based discussions



A magazine based reading program

Teacher Resources

TextProject helps teachers with evidence-based lessons and lists. Free downloads.



Use everyday words to teach new words



Use pictures to teach complex words

WORD LISTS

Be informed about vocabulary

Read-Aloud Favorites

Increase student knowledge through read-alouds

Professional Development Resources

TextProject provides resources for teacher education.

Keep up with the latest reading research



Learn core ideas about complex text

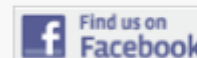
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