

# Texts That Teach

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# Reader Fact # 1

- Proficient reading results from substantial amounts of reading.
  - \*1,200 hours of school time per year: In some classrooms, 4<sup>th</sup> graders read about 2% of this time



Alice

Abby

Alex

After one  
day of  
school  
(one  
penny=  
500 words  
of reading



Alex

Alice

Abby



After one  
week of  
school





After one  
month of  
school



After one  
year of  
school





Quarters =  
500 new  
words  
gained  
through  
reading





# NAEP 2013 Grade 4 (Reading)



■ Below Basic   ■ Basic   ■ Advanced/Proficient

# Reader Fact #2

- The vast majority of American students can recognize most of the words in a grade-level text....eventually.



# Accuracy on NAEP Oral Reading

	<b>100—98%</b>	<b>97—95%</b>	<b>94—90%</b>	<b>&lt;90%</b>
1992	41	51	5	2
2002	76	15	5	2

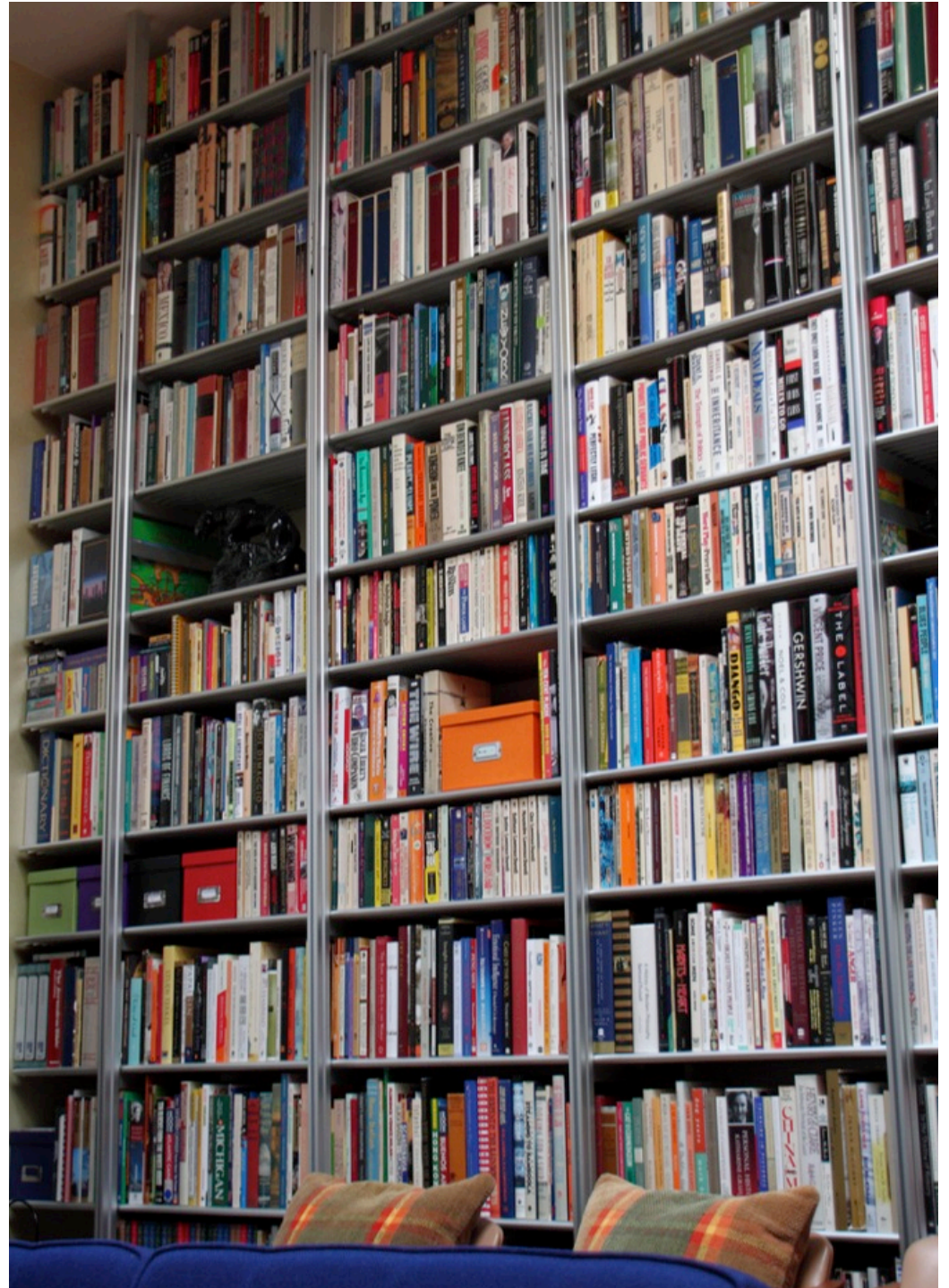


# DIBELS Data For 4th Graders (CCSS-level Texts)

<b>Percentile</b>	<b>Rate</b>	<b>Accuracy</b>	<b>Comprehension</b>
10	80	95	21
30	109	97	32
50	128	98	41
70	147	99	50
90	176	100	67
99	212	100	94

# Text Fact #1

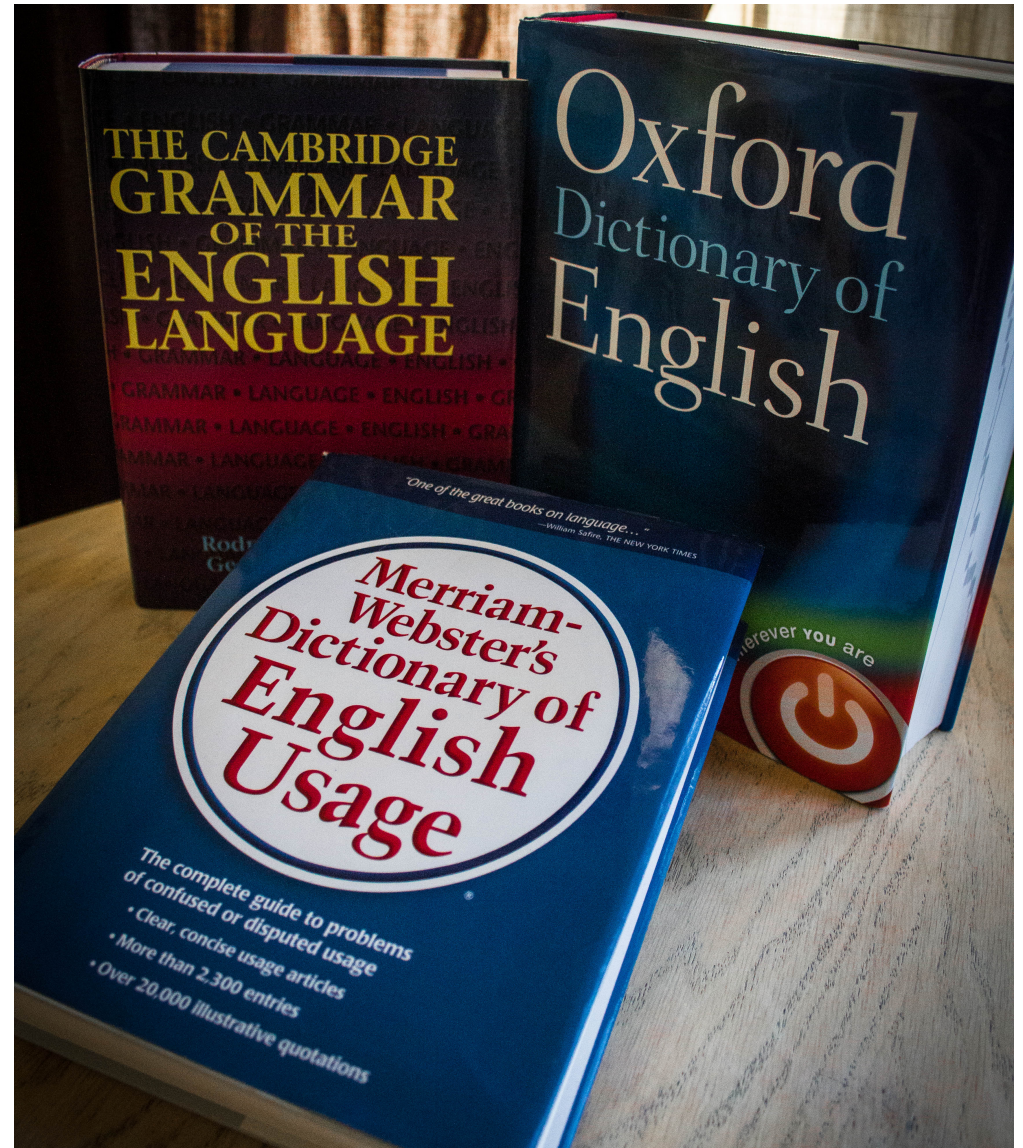
Texts are where human beings store knowledge. Reading texts is about acquiring knowledge.





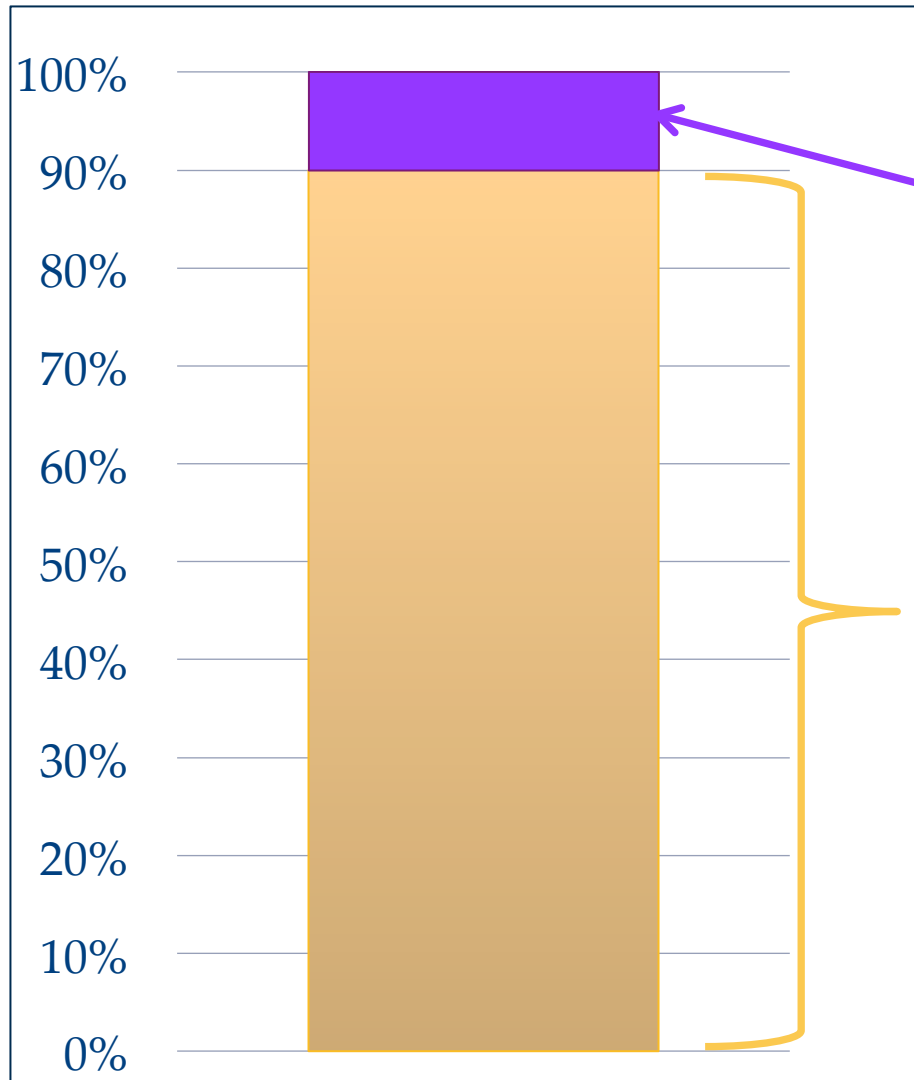
# Text Fact #2

Of the many words in written English, a small group of words does the heavy lifting in texts. If readers are not automatic with these words, reading text is tedious.





# Distribution of Words in Written English



**10% “Unique” or “Complex” Vocabulary**  
(300,000+ words—all of which occur less than once per 100,000 words of text)

**“Core” vocabulary consists of 4,000 word families (e.g., help, helps, helping, helped, helper but not helpless, helpful)**

1<sup>st</sup> 1,000: *the to separate*

2<sup>nd</sup> 1,000: *length to compare*

3<sup>rd</sup> 1,000: *gate to moral*

4<sup>th</sup> 1,000: *whale to relate*

[http://textproject.org/assets/library/resources/WordZones\\_4000-simple-word-families.pdf](http://textproject.org/assets/library/resources/WordZones_4000-simple-word-families.pdf)

# Text Fact #3

Of the numerous features that contribute to text complexity,

- vocabulary is the most powerful and the one most amenable to instruction.
- syntax is the easiest to measure (and manipulate) but not as predictive of comprehension or as amenable to instruction as vocabulary.

Using Reader & Text  
Facts To Select Texts  
For Challenged  
Readers



# Text Selection #1:

- Texts that contain engaging and enduring content.

# Text Selection #2

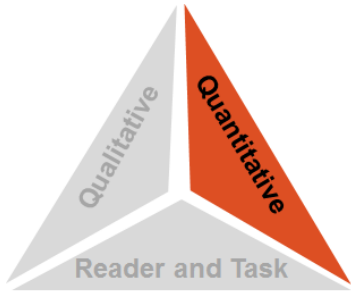
- Texts that provide ample opportunity to build automaticity with the 4,000 most-frequent words.

# Text Selection #3

- Texts that become progressively more complex because of the knowledge/vocabulary in them, not simply sentence length.

But first a break to  
understand readability

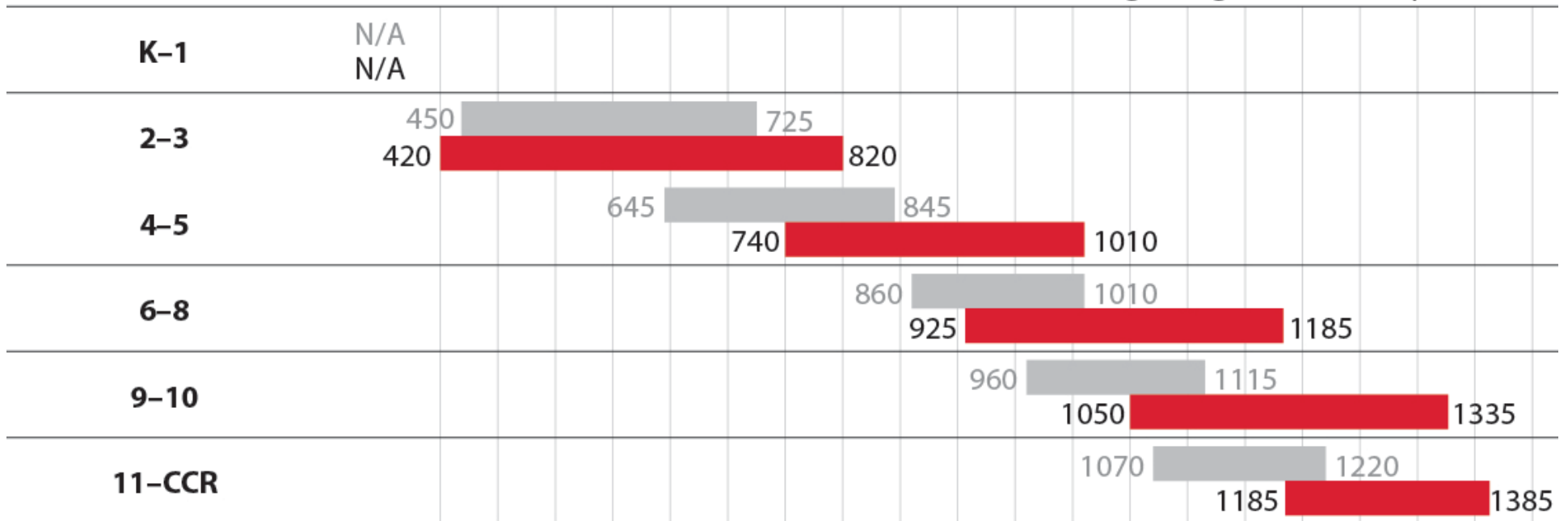




# The CCSS Staircase of Text Complexity

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 21<sup>st</sup> 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.

- Lexile = An algorithm based on Mean Sentence Length (MSL) and Mean Log Word Frequency (MLWF)
- Lexile and Sentence Length:  $r = .94$
- Lexile and Word Frequency:  $r = -.54$

# Original Text: *Loss of Bees*

When we think of bees, we think of pesky, buzzing insects that sting us and ruin outdoor gatherings. We might wonder: how badly can we possibly need bees? The truth is bees are an incredibly important part of our ecosystems on earth—no matter how annoying they may be to humans. Unfortunately bees have been disappearing around the world for some time now, and their mass disappearance continues to present new problems around the planet.

According to Reuters news source, scientific researchers have been trying desperately for the past 15 years to understand why honeybees around the world are dying off at frightening high rates. Over 1 million bee colonies disappear every year, never to return, Reuters reporters noted in 2012.

Kevin Hackett, the national program leader for the U.S. Department of Agriculture (USDA)'s bee and pollination program, called the massive honeybee disappearance “the biggest general threat to our food supply.”

How could something so small be so important to us as humans? Bees are used to pollinate many crops, for instance a large portion of California's almond crop, which relies heavily on bee pollination. Bees are also essential for the pollination of apple and citrus fruit crops. Without the pollination by bees, these plants are unable to survive.

# Syntax: 3 changes

When we think of bees, we think of pesky, buzzing insects that sting us and ruin outdoor gatherings. We might wonder: how badly can we possibly need bees? The truth is bees are an incredibly important part of our ecosystem on earth-no matter how annoying they may be to humans. Unfortunately, bees have been disappearing around the world for some time now. Their mass disappearance continues to present new problems around the planet.

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# Syntax: 6 changes

When we think of bees, we think of pesky, buzzing insects that sting us. **They** ruin outdoor gatherings. We might wonder: how badly can we possibly need bees? The truth is: **very much**. **B**ees are an incredibly important part of our ecosystem on earth-no matter how annoying they may be to humans. Unfortunately, bees have been disappearing around the world for some time now. **T**heir mass disappearance continues to present new problems around the planet.

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# Vocabulary—3 changes

When we think of bees, we think of pesky, buzzing insects that sting us and ruin outdoor gatherings. We might wonder: how badly can we possibly need bees? The truth is bees are a very important part of our ecosystem on earth—no matter how annoying they may be to humans. Unfortunately, bees have been disappearing around the world for some time now. Their mass disappearance continues to present new problems around the planet.

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# Vocabulary—6 changes

When we think of bees, we think of pesky, buzzing insects that sting us and ruin outdoor gatherings. We might wonder: how badly can we possibly need bees? The truth is bees are a very important part of our ecosystem on earth-no matter how much they bother humans. Unfortunately, bees have been disappearing around the world for some time now. Their mass disappearance continues to present new problems around the planet.

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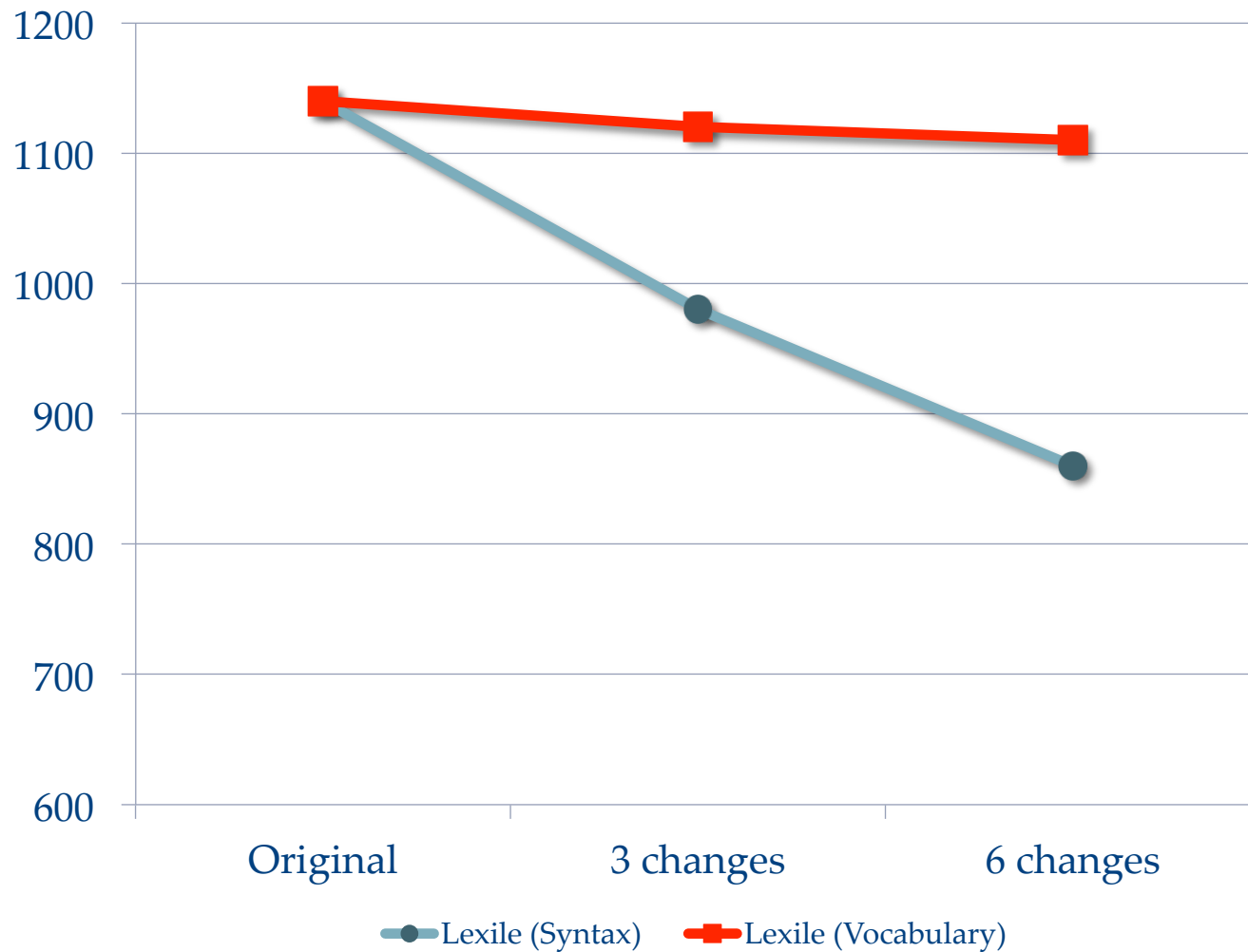
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# Lexiles: Changes from Manipulations



What this means for  
typical texts

# 300L

Mom, dad, and **cub** are in a pride.

Mom and dad can rest on grass. **Cub** can jump and **jab** and run. **Cub** can **nap**.

The pride can help **cub**. Mom can **lick cub**. **Cub** will look for mom to get milk.

Quick! Quick! Run fast and hunt. What luck will they have?

The hunt was the best.

It fed mom, dad, and **cub**.



# 600L

The members of the **Elm** Street Kids' Club were feeling **glum**.

Our **clubhouse** is falling down and our **piggybank** is empty, **Meg** said.

"I know how we can make some money," said **Matthew**.  
Let's sell **lemonade**.

Danny said, I bet it we can sell about 30 to 40 cups each day for a week, we'll make enough money to fix our **clubhouse**.  
Let's keep track of our sales.

# 900L

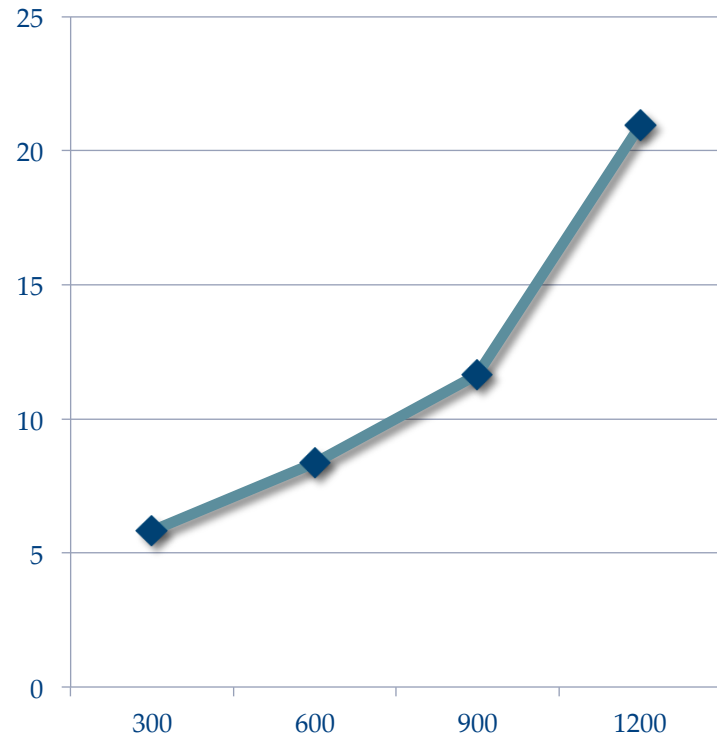
On family room carpet, beaded **moccasins** waited for **Jenna's** feet. She **shucked** off a **sneaker** and slipped on a **moccasin** that long before had danced with grandma **Wolfe**. Jenna knew where to find her fourth row. May I borrow enough **jingles** to make a row? Jenna asked, not wanting to take so many that Grandma **Wolfe's** dress would lose its voice. You may grandma said with a hug. Now **Jenna's** dress could sing. Every night that week, **Jenna** helped Grandma **Wolfe** sew on **jingles** and bring together the dance **regalia**. Every night Jenna practiced her **bounce** steps.

# 1200L

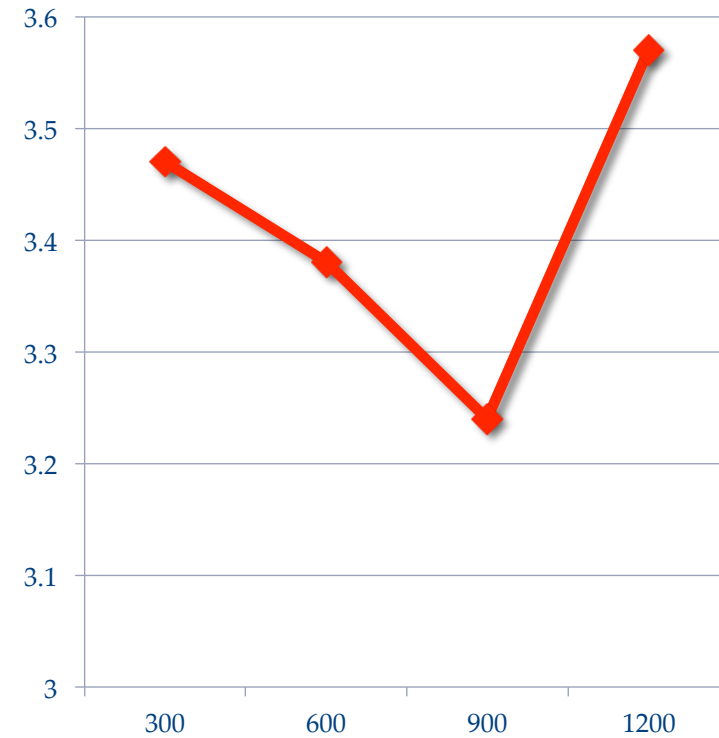
**Gregor** then turned to look out the window at the dull weather. Drops of rain could be heard hitting the **pane**, which made him feel quite sad. “How about if I sleep a little bit longer and forget all this nonsense”, he thought, but that was something he was unable to do because he was used to sleeping on his right, and in his present state couldn’t get into that position.

# Typical Texts

## Sentence Length



## Word Frequency





Now back to the  
main event:  
Creating texts that  
teach

(not merely hit a readability target)

# Text Selection Criteria:

- Texts that contain engaging and enduring content.
- Texts that provide ample opportunity to build automaticity with the 4,000 most-frequent words.
- Texts that become progressively more complex because of the knowledge/vocabulary in them, not simply sentence length.

# 300 Lexiles

The fox sleeps when the sun is out. It looks for food a night.  
It likes to eat small animals like mice. It might eat trash  
people leave outside. In winter, it keeps some food in its **den**.  
Small animals are harder to find at that time.

When a red fox is born, it cannot see. It cannot walk or hear.  
The mother fox must take care of her baby.

# 600 Lexiles

Fish can be found in fresh water or ocean water. A sea star lives only in the ocean, usually in the sand or rocks at the bottom of the sea. A fish uses its tail to move through the water. But a sea star moves in a different way. Most sea stars have five arms, which give them a star shape. The bottom of each arm has hundreds of little tubes.

# 900 Lexiles

Another kind of science looks inside a person's body. For example, scientists want to know how much oxygen is in the blood, because if the blood oxygen is low the body will become tired and will not work the way it should. A runner with low blood oxygen will lose energy and may not be able to finish a race.

Science can also make sports equipment safer. A swimmer will use special swim **goggles** to keep her eyes safe. A runner will use shoes that are specially made to let her go far without hurting her feet. A ball player will use a special **helmet** to keep his head safe during a game.

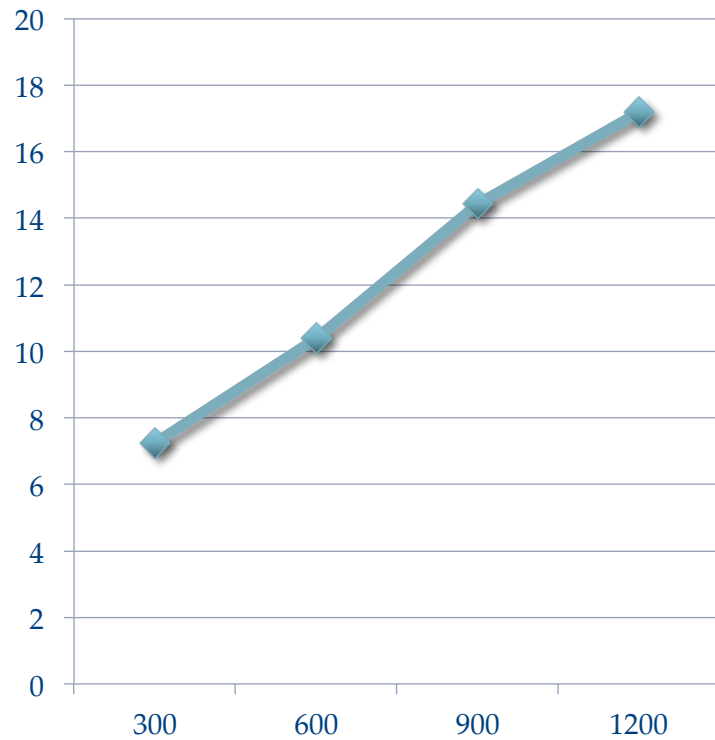


# 1200 Lexiles

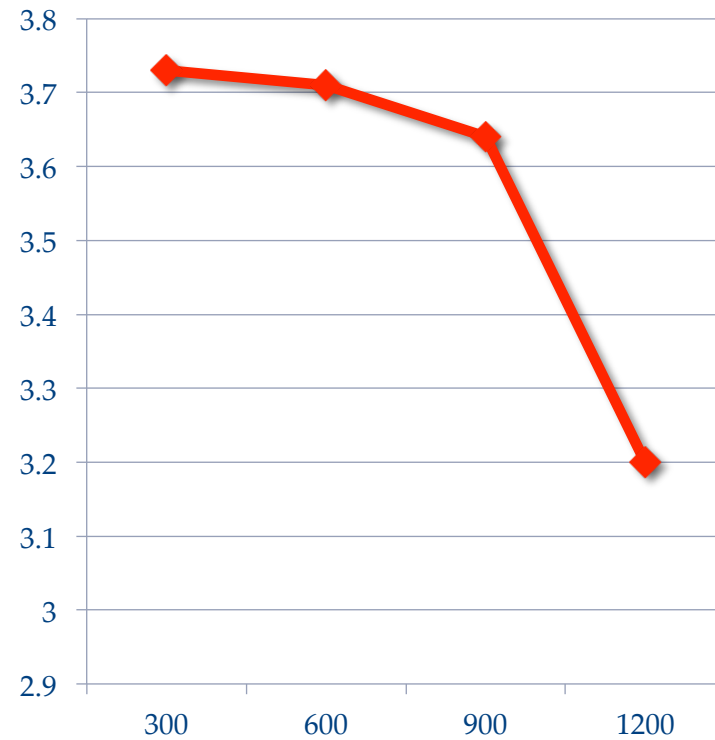
**Bonsai** is time-consuming because tree growth must be closely controlled, which requires an artistic eye, a steady hand, and a patient **disposition**. Prized trees are formed by selective leaf trimming and careful wiring or **clamping** of branches and trunks. They are in exact proportion to full-grown trees. They also have a natural **asymmetry** that does not make the grower's **manipulations** apparent to the viewer.

# Texts That Teach

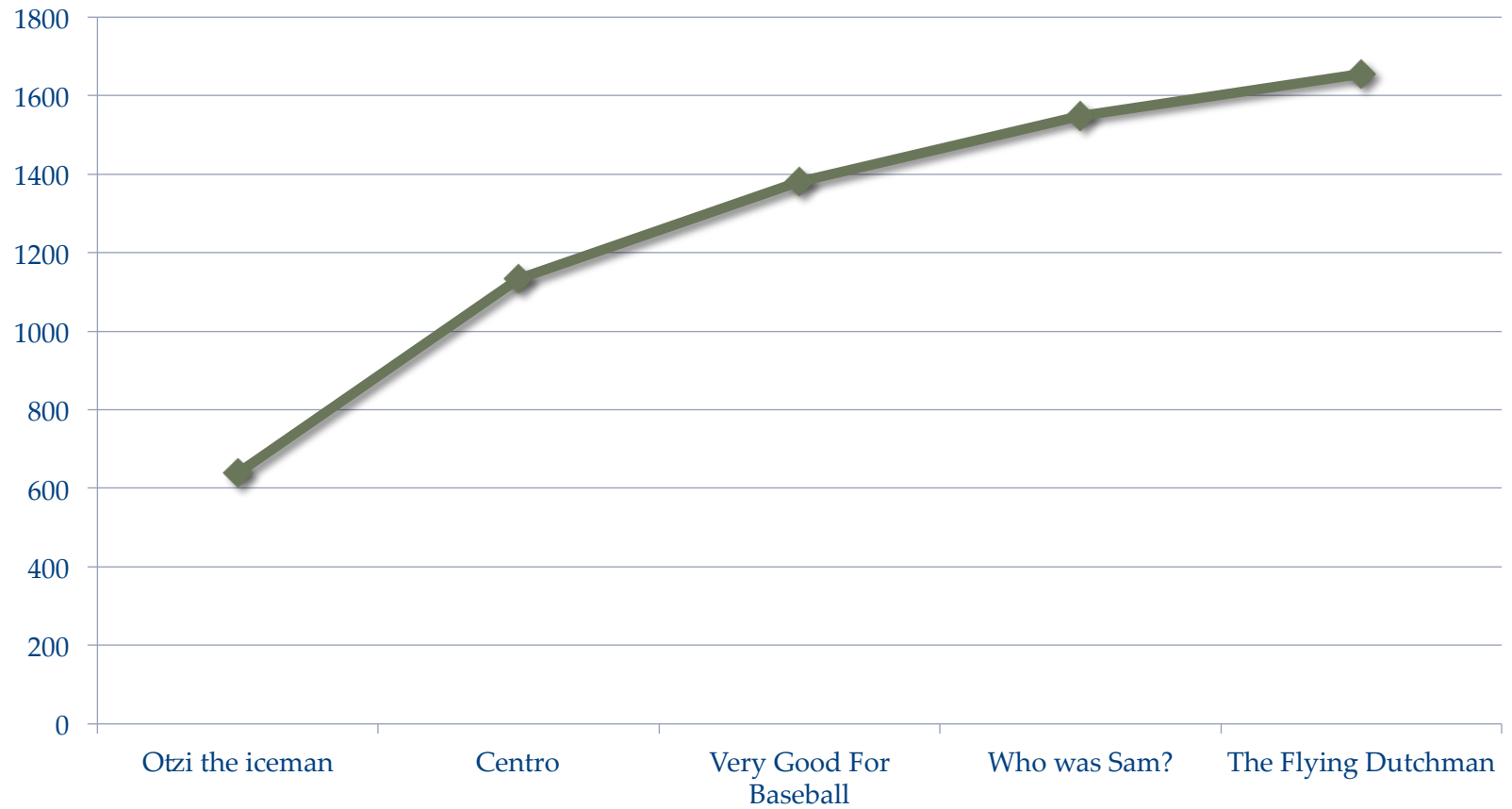
## Sentence Length



## Word Frequency



# Word Count of Texts That Teach



# What's been taught?

- Knowledge
- Opportunities for increased automaticity with the 4,000 most-frequent words
- Vocabulary that matters (as well as experience with increasingly more complex sentences)

**Questions & queries:**  
**info@textproject.org**

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**www.textproject.org**

