

Utah Core Standards

# Understanding Text Complexity

# The Crisis

- Complexity of texts  $\neq$  college and career readiness:
  - High school textbooks have *declined* in all subject areas over several decades
  - Average length of sentences in K-8 textbooks has *declined* from 20 to 14 words
  - Vocabulary demands have *declined*, e.g., 8<sup>th</sup> grade textbooks = former 5<sup>th</sup> grade texts; 12<sup>th</sup> grade anthologies = former 7<sup>th</sup> grade texts
- Complexity of college and careers texts has remained steady or increased, resulting in a huge gap (350L+)

# Creating a lexile level

- 125 word slice
  - Sentence length
  - Difficulty of vocabulary
  - <http://www.youtube.com/watch?v=fr0jQzrDafw>



The Lexile<sup>®</sup> Framework for Reading

Grade Band	Old Lexile Ranges	New Aligned Ranges
K-1	N/A	N/A
2-3	450-725	450-790
4-5	645-845	770-980
6-8	860-1010	955-1155
9-10	960-1115	1080-1305
11-12	1070-1220	1215-1355

*Caveat: Not valid for drama or poetry...it's an algorithm, and therefore, fallible.*

# Why is it important?

- ⌘ Too many students are reading at too low a level: <50% of graduates can read sufficiently complex texts
- ⌘ The complexity of what students can read is greatest predictor of success in college

(ACT study)

# What studies have been done?

- Confirm and extend the preliminary research in Appendix A.
- Test and validate quantitative measures of text complexity and difficulty (led by Chuck Perfetti, U of Pitt)
- In particular, assessed the capabilities of six quantitative metrics to predict text difficulty for students on standardized tests:
  - ATOS - ATOS<sup>®</sup> (Renaissance Learning)
  - DRP - Degrees of Reading Power<sup>®</sup> (Questar)
  - FK - Flesch Kincaid<sup>®</sup>
  - Lexile - Lexile Framework<sup>®</sup> (MetaMetrics)
  - SR - Source Rater<sup>©</sup> (Educational Testing Service)
  - RM- Pearson Reading Maturity Metric<sup>©</sup> (Pearson Education)

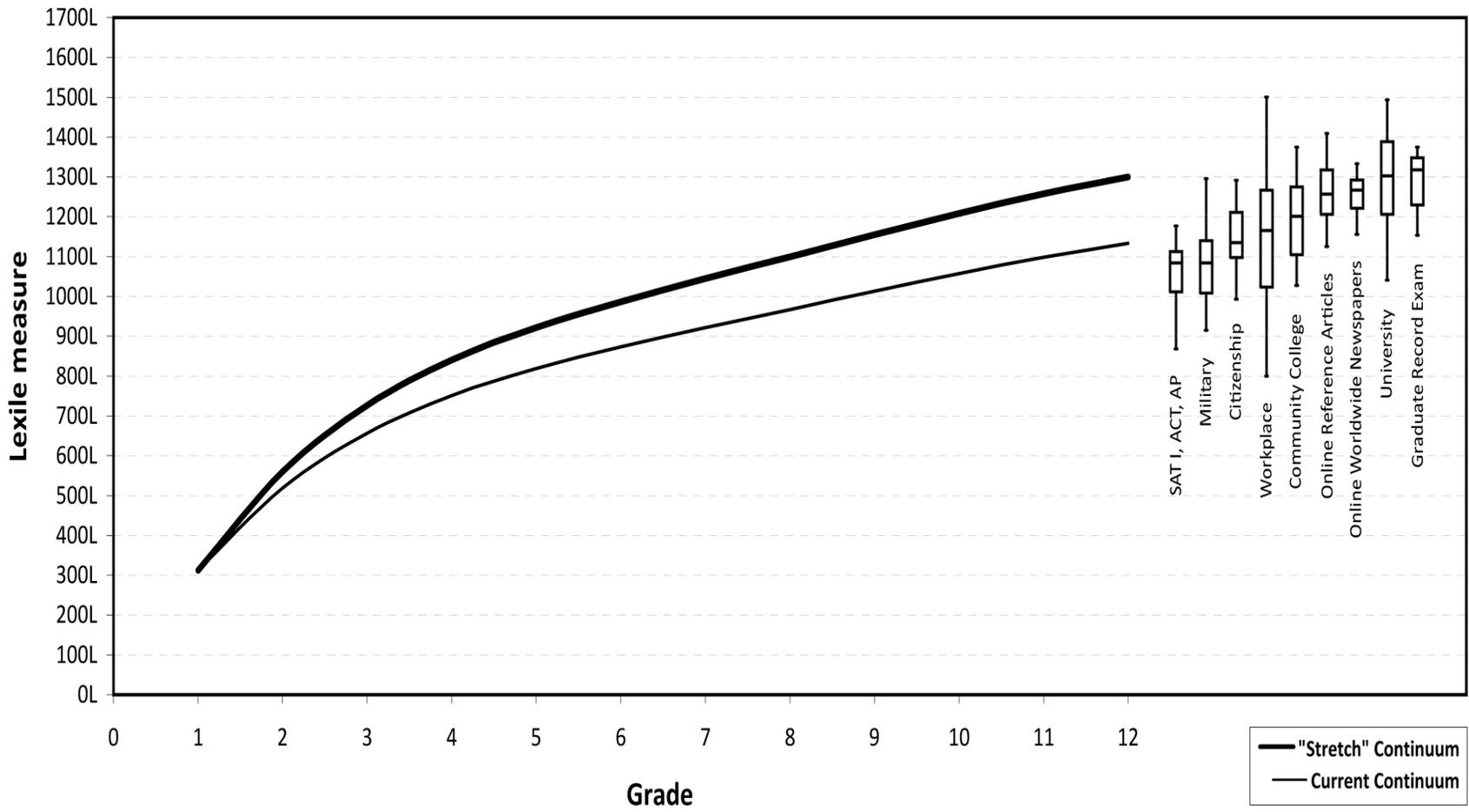
# Results of research studies

- All the metrics were reliably, and often highly, correlated with how students perform with texts on tests (No measure was better than any other in predicting text difficulty for students)
- All measures were equally good when situating informational texts on the scale (less so with respect to narrative fiction)
- No measure can yet rate drama and poetry
- Six measures now share a common scale of text complexity that aligns to college and career readiness

# Common Scale

**Common Scale for Band Level Text Difficulty Ranges**

Common Core Bands:	Text Analyzer Tools					
	ATOS	DRP	FK	Lexile	SR	RM
<b>2nd-3rd</b>	2.75-5.14	42-54	1.98-5.34	420-820	0.05 – 2.48	3.53 - 6.13
<b>4th-5th</b>	4.97-7.03	52-60	4.51-7.73	740-1010	0.84 – 5.75	5.42 - 7.92
<b>6th-8th</b>	7.00-9.98	57-67	6.51-10.34	925-1185	4.11 – 10.66	7.04 - 9.57
<b>9th-10th</b>	9.67-12.01	62-72	8.32-12.12	1050-1335	9.02 – 13.93	8.41 - 10.81
<b>11th-CCR</b>	11.20-14.10	67-74	10.34-14.2	1185-1385	12.30 – 14.50	9.57 - 12



# What are the measures?

⌘ Quantitative measures are proxies for semantic and syntactic complexity:

- Word difficulty (frequency, length)
- Sentence length and syntax

⌘ Qualitative measures complement quantitative measures:

- Purpose
- Language conventionality and clarity
- Text structures
- Knowledge demands

# To be aware:

- Quantitative and qualitative measures are at once useful and imperfect.
- Quantitative measures are less valid for certain kinds of texts (poetry, drama, K-1 texts) but for all others can place most texts in a complexity band reliably.
- Qualitative measures are on a continuum (not grade/band specific) and most useful working in conjunction with quantitative measures.

# General rules

- Use any one of the quantitative analyzer tools to place text into a complexity band level.
- For decisions about whether to place a text at the upper, lower, or middle of a band, use qualitative analysis.
- For drama and poetry, use qualitative measures.

# Grade band text complexity

## Kindergartners:

## Grade 1 students:

## Grade 2 students:

### Range of Reading and Level of Text Complexity

- |  |   |  |
|--|---|--|
| <p>10. Actively engage in group reading activities with purpose and understanding.</p> | <p>10. With prompting and support, read prose and poetry of appropriate complexity for grade 1.</p> | <p>10. By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> |
|--|---|--|

## Grade 3

## Grade 4:

## Grade 5:

### Range of Reading and Level of Text Complexity

- |  |  |  |
|--|--|--|
| <p>10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.</p> | <p>10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, <b>with scaffolding as needed at the high end of the range.</b></p> | <p>10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.</p> |
|--|--|--|

## Grade 6 students:

## Grade 7 students:

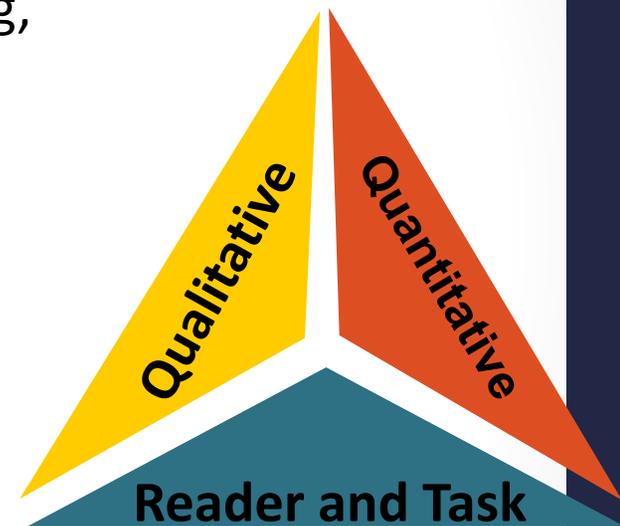
## Grade 8 students:

### Range of Reading and Level of Text Complexity

- |  |  |   |
|--|--|---|
| <p>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.</p> | <p>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.</p> | <p>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.</p> |
|--|--|---|

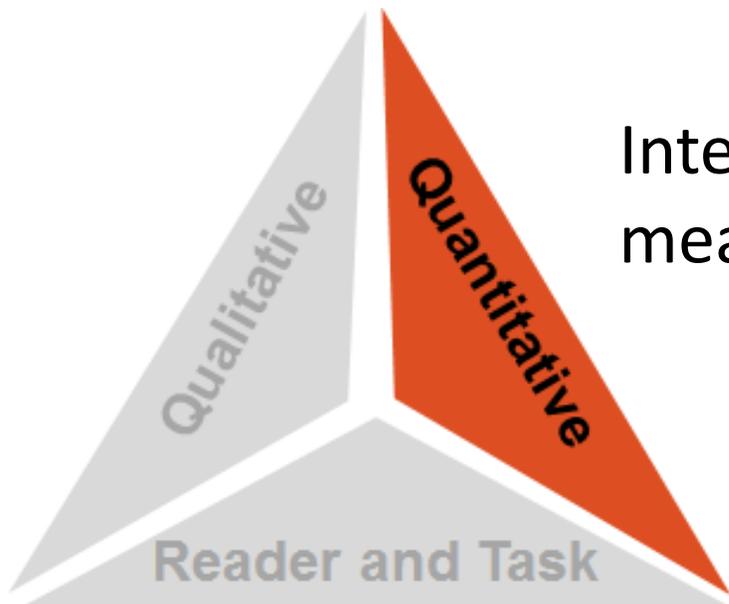
# Definition of text complexity

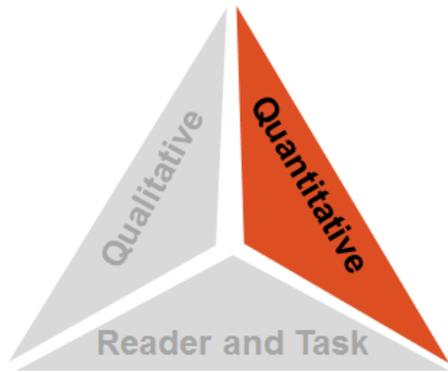
1. **Quantitative measures** – readability and other scores of text complexity often best measured by computer software.
2. **Qualitative measures** – levels of meaning, structure, language conventionality and clarity, and knowledge demands often best measured by an attentive human reader.
3. **Reader and Task considerations** – background knowledge of reader, motivation, interests, and complexity generated by tasks assigned often best made by educators employing their professional judgment.



## Grade Band Ranges Chart

Internet databases for quantitative measures (Lexile level)





Text Complexity Grade Bands	Suggested Lexile Range
K-1	100L – 500L*
2-3	450L – 790L
4-5	770L – 980L
6-8	955L – 1155L
9-10	1080L – 1305L
11-CCR	1215L – 1355L

The screenshot shows the Lexile Analyzer website interface. At the top left is the Lexile logo and the text "The Lexile® Framework for Reading Matching readers with texts". On the right, there are navigation links: Home | My Reading List | Store | Register | Login. Below this is a search bar with the text "Click Book Search", "Title or Author", and a "Search" button. A note below the search bar says "Put an exact title or author in quotes (example: 'The Moon')." The main navigation bar includes "About Lexile Measures", "Using Lexile Measures", "Tools", "Research", and "Professional Development". The main content area has a search bar with "Enter Lexile", "Select Interests", "Search Results", and "Reading List". Below this, it says "Results per page: 20" and "Sorting: Search Relevance". A section titled "Found 5 books" lists three books:

- To Kill A Mockingbird** by Lee, Harper. Lexile: 870L. Pages: 291. Summary: THE UNCONDITIONED AND UNCONDITIONAL WISDOM OF CHILDREN IS SHOWN TO BE SUPERIOR IN THIS STORY OF...
- Story Behind Harper Lee's To...** by Giddens-White, Bryon. Lexile: 1050L. Pages: 56. Ages: 8 to 12. Series: ISSUES IN Literature Soc.
- Story Behind Harper Lee's To...** by Giddens-White, Bryon. Lexile: 1050L. Pages: 56.

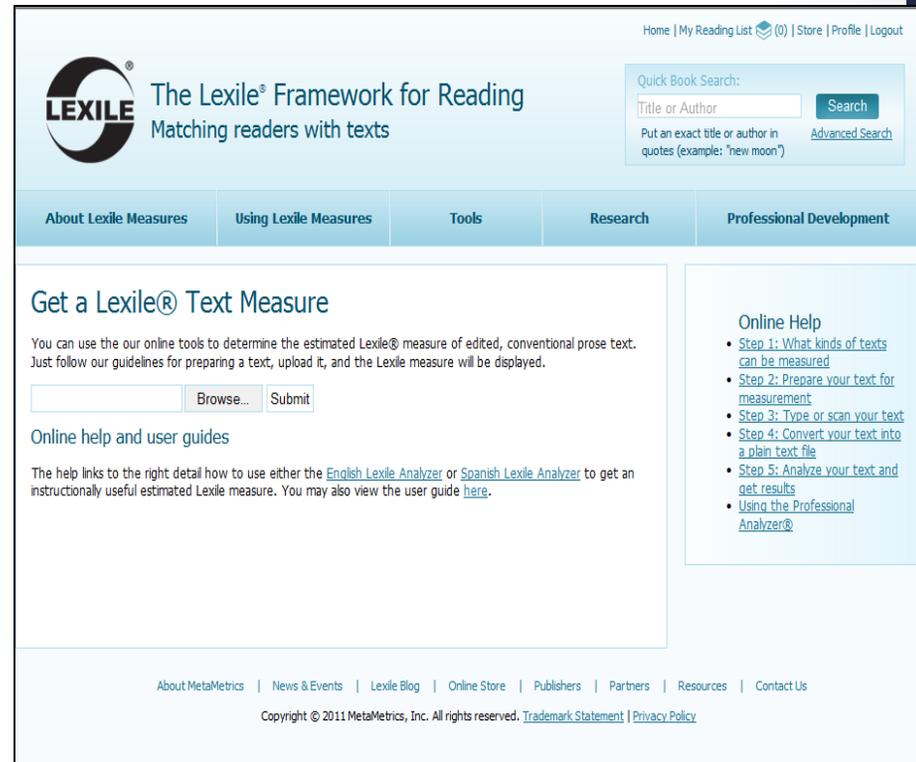
Each book entry includes a small image of the book cover and buttons for "ADD TO MY Reading List", "FIND IN A LIBRARY WorldCat", and "BUY FROM Barnes & Noble". On the right side of the interface, there is a "Look up a Book" section with a search bar and fields for Title, Author, Keywords, ISBN, Publisher, Series, Copyright, and Language (set to English). Below this is a "Refine your results" section with a note: "For more information see the user guide." and a slider for "Age(s): 0 to Adult".

Lexile Analyzer:  
[www.lexile.com/findabook/](http://www.lexile.com/findabook/)

# Not in the database?

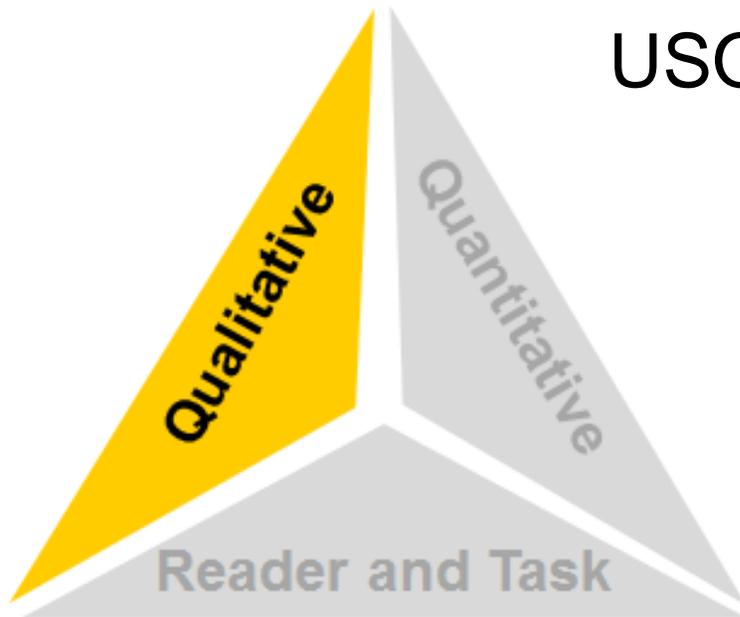
<http://www.lexile.com/analyzer/>

- Registration is required (free)  
<http://www.lexile.com/account/register/>
- Allows user to receive an “estimated” Lexile score
- Accommodates texts up to 1000 words in length
- Texts of any length can be evaluated using the Professional Lexile Analyzer—educators can upgrade to this tool for free by requesting access  
<http://www.lexile.com/account/profile/access/>



The screenshot displays the Lexile website's main interface. At the top, the Lexile logo is accompanied by the text 'The Lexile® Framework for Reading Matching readers with texts'. A navigation menu includes links for 'Home', 'My Reading List (0)', 'Store', 'Profile', and 'Logout'. A search bar is present with a 'Search' button and a link to 'Advanced Search'. Below the navigation, there are tabs for 'About Lexile Measures', 'Using Lexile Measures', 'Tools', 'Research', and 'Professional Development'. The main content area features a section titled 'Get a Lexile® Text Measure' with a brief description and a 'Browse...' button. To the right, an 'Online Help' section lists five steps for using the tool. The footer contains various links and a copyright notice for MetaMetrics, Inc.

# USOE Text Complexity Rubric





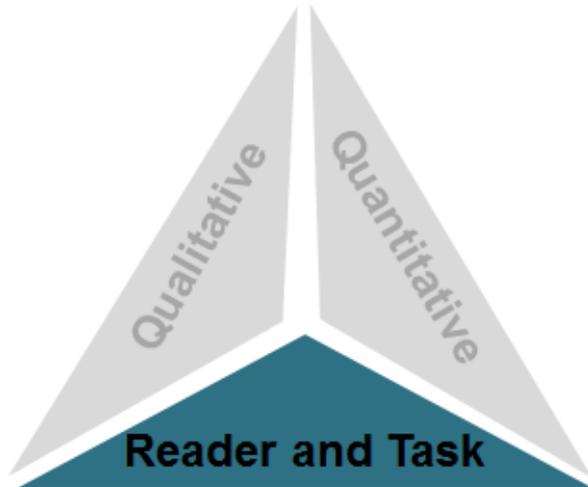
The rubric for literary text and the rubric for informational text allow educators to evaluate the important elements of text that are often missed by computer software that tends to focus on more easily measured factors.

*The educator is critical here.*



Because these factors represent a continuum rather than discrete stages or levels, numeric values are not associated with these rubrics. Instead, three points along each continuum are identified: high, middle, and low:

- **Levels of Purpose** *What will the reader gain from reading this text?*
- **Structure** *How is the text designed to support the reader in accessing the purpose?*
- **Language Conventionalilty and Clarity** *How does language effect accessibility?*
- **Knowledge Demands** *What does the student need to know to access the text?*

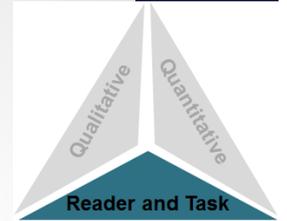


## Questions for Professional Reflection

# Reader and Task Considerations Resources

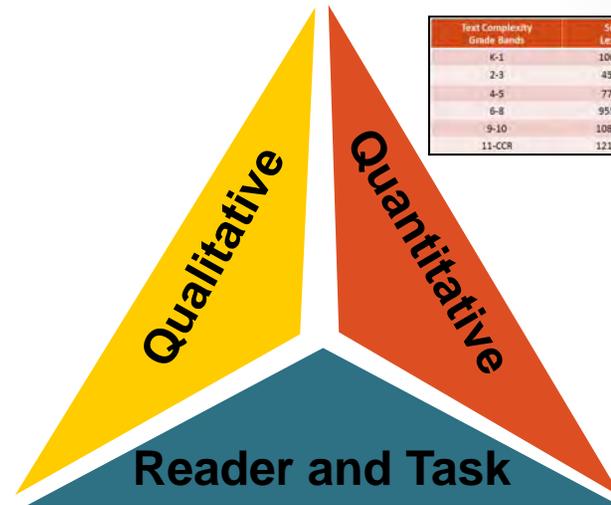
The questions provided in this resource are meant to spur teacher thought and reflection upon the text, students, and any tasks associated with the text.

Thinking Skills  
Reading Skills  
Motivation and Engagement  
Prior Knowledge and Experience  
Content or Theme Concerns



# The Process

1. Determine the quantitative measures of the text.
2. Analyze the qualitative measures of the text.
3. Reflect upon the reader and task considerations.
4. Recommend placement in the appropriate text complexity band.



Text Complexity Grade Bands	Suggested Lexile Range	Suggested ATDS Book Level Range**
K-1	100L-500L*	1.0-2.5
2-3	450L-790L	2.0-4.0
4-5	770L-980L	3.0-5.7
6-8	955L-1155L	4.0-8.0
9-10	1080L-1305L	4.6-10.0
11-CCR	1215L-1355L	4.8-12.0

# Important Discoveries

- The text complexity analysis process gives us a method for becoming more purposeful in their text selection.
- The process helps us at all grade levels to be confident in our content knowledge and ability to read and analyze a text before they teach it.
- The process encourages us to engage in meaningful discussions about text with colleagues.

# In the end...

“The use of qualitative and quantitative measures to assess text complexity is balanced in the Standards’ model by the expectation that educators will employ professional judgment to match texts to particular students and tasks.”

*Appendix A*