

Strategically Enhancing ELL Access to the Language Demands of College and Career-Ready Standards

Part 1

June 2014



THE CENTER ON
**STANDARDS &
ASSESSMENT
IMPLEMENTATION**

WestEd  CRESST



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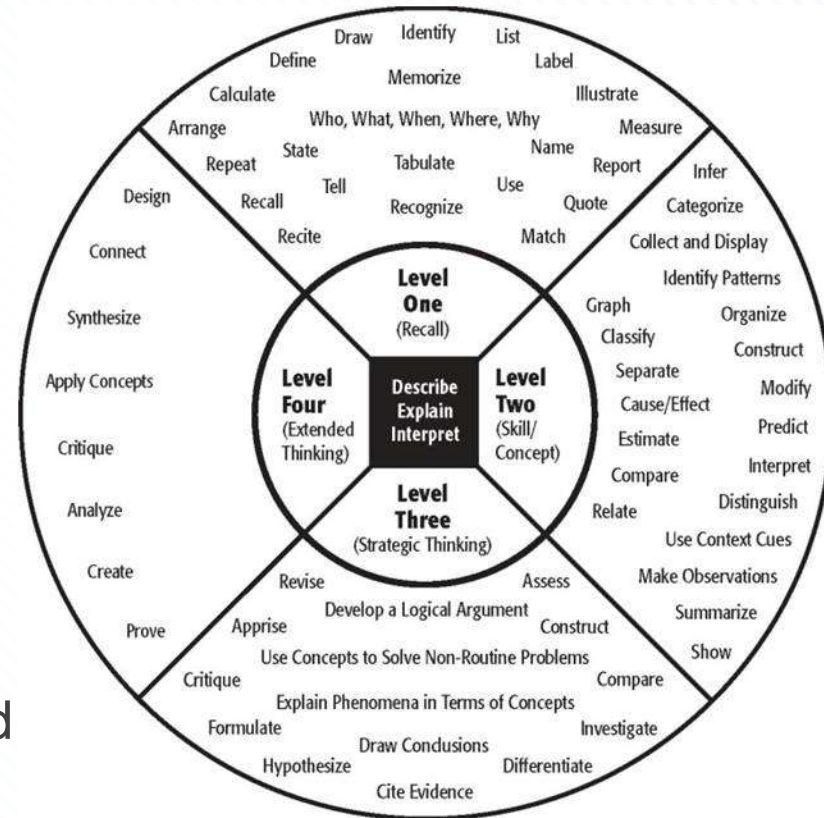
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WHY IMPROVE
TEACHER
PROFESSIONAL
DEVELOPMENT ON THE
LANGUAGE OF
CONTENT STANDARDS?

Increased accountability for deeper, more meaningful, and cognitively challenging instruction

More challenging standards

- New CCR standards contain deeper emphases on critical thinking, problem solving, and communication than found in most states' previous content standards.
- The new content standards contain additional emphases on DOK levels 3 and 4, requiring students to draw conclusions, cite evidence, explain, and/or revise (DOK Level 3) or to analyze, critique, synthesize, and/or connect (DOK Level 4) (Yuan & Le, 2012)



Depth of Knowledge Chart
(Webb, Alt, Ely, & Vesperman, 2005)

Much More Complex Language Demands at DOK4

SAMPLE PROBLEM

Your class and your teacher are going on a field trip. There are three possible choices for the field trip: an aquarium, a science museum, or a zoo. Your teacher asked students to write down their first and second choices. In this task, you will determine where the class should go on the field trip based on the survey results and the cost per student.

- This is a map of your school and the three different field trip locations.
- **Here's how students voted, first and second choice**
- Here are costs --in time, fees, transportation costs
- Analyze, recommend, justify

Shift in Thinking Around Instruction of the Language for Each Content Area

- Language is the medium through which student content-area knowledge, skills, and abilities are learned and assessed.
- Thus, as content-area rigor increases, so too do the language demands placed on students.
- *As a result, learning the language of each content area becomes an essential part of learning each content area.*

ALL students need guidance and support with the language needed for MP activities: formulate questions, model, explore, and express content understanding.

Name Nao mi

Lesson 2.4
Enrich

COMMON CORE STANDARD CC.2.NE.1
Understand place value.

Find the Number

Read the clue. Find the number.

1. A number is 4 hundreds more than 142. What is the number?
542

2. A number is 2 hundreds more than 355. What is the number?
555

3. A number is 3 tens more than 249. What is the number?
279


4. A number is 7 tens more than 624. What is the number?
 ||: |||||
 694

5. A number is 8 ones more than 331. What is the number?
339

6. A number is 4 hundreds more than 399. What is the number?
799

7. A number is 2 tens more than 923. What is the number?
943

8. A number is 6 ones more than 772. What is the number?
778

 **Writing and Reasoning** How did you find the answer to Exercise 8?

I just NEW

Explain what you did.



How best to prepare students for college- and career-readiness?

- What are our schools offering?

A decontextualized, “mile-wide/inch-deep” curriculum

Or

a deep-dive into learning?



With the CCSS, there are Higher Demands for Similar Content than with Previous Standards...

Topic: Number—Numerical Reasoning		
	Massachusetts	Hong Kong
Item	<p>Maria is thinking of a number. The clues for her number are shown below:</p> <ul style="list-style-type: none"> • It is a multiple of 5. • It is an even number • It is less than 18. <p>Which of these could be Maria's number? a. 5 b. 20 c. 8 d. 10</p>	<p>Fill in the boxes with the correct numbers.</p> $ \begin{array}{r} \square 7 \\ 6 \overline{) \square 8 2} \\ \underline{5 \square} \\ \square 2 \\ \underline{4 2} \end{array} $ <p>NOTE: This item is from an alternate form of the test and is not included in Exhibits 3 or 6.</p>
Item Format	Multiple choice	Short closed constructed-response
Computational Difficulty	Low (two-digit numbers)	High (three-digit by one-digit long division)
Cognitive Complexity	Level 2 (requires identifying the number that satisfies three conditions and an understanding of "multiple," "even," and "less than")	Level 3 (requires an in-depth understanding of the division algorithm and significant reasoning skills (6 × <u>a</u> 7 = <u>b</u> 8 2 and <u>a</u> × 6 = 5 <u> </u>).
Comments		<p>Solution: 17 × 6 = 102, 27 × 6 = 162, 37 × 6 = 222, 47 × 6 = 282, but 4 × 6 cannot be 5 <u> </u>. However, 97 × 6 is 582 and 9 × 6 = 54. Alternatively, students might start with the lower box having to be a 4 since there is no remainder and then work backward to fill in the numbers</p>

The CCSS also Have a Much Sharper Focus

Exhibit 13. Number: Estimation

Massachusetts	Hong Kong
<p>Brianna bought 4 shirts. Each shirt cost \$8.95. Which estimate is closest to the total cost of the shirts that Brianna bought?</p> <p>a. \$32 b. \$38 c. \$38 d. \$40</p>	<p>The Hong Kong test includes no estimation items.</p>

Exhibit 34. Patterns, Relations and Algebra—Patterns


Massachusetts	Hong Kong
<p>Ms. Mackey wrote the number pattern below using the rule "subtract 8."</p> <p>187, 179, 171, __?__, 155, 147, 139</p> <p>What is the missing number in Ms. Mackey's pattern?</p> <p>a. 163 b. 168 c. 170 d. 177</p>	<p>The Hong Kong test includes no algebra pattern items.</p>
<p>Zoey is using bananas and oranges to make the pattern shown below. The rule for her pattern is ABBB.</p>  <p>Zoey will follow the rule for her pattern a total of 4 times.</p> <p>How many oranges will Zoey use in all? Show or explain how you got your answer?</p>	

Exhibit 35. Patterns, Relations and Algebra—Number Sentences

Massachusetts	Hong Kong
<p>Which number sentence is true?</p> <p><input type="radio"/> A $5 + 0 = 5 \times 1$</p> <p><input type="radio"/> B $5 + 1 = 5 \times 1$</p> <p><input type="radio"/> C $5 + 0 = 5 \times 0$</p> <p><input type="radio"/> D $5 + 1 = 5 \times 0$</p>	<p>The Hong Kong test includes no algebra number sentence items.</p>
<p>Candace wrote the number sentence below.</p> $15 \div 3 = \square$ <p>Which of these is another way to write Candace's number sentence?</p> <p><input type="radio"/> A $15 + \square = 3$</p> <p><input type="radio"/> B $15 \times \square = 3$</p> <p><input type="radio"/> C $3 + \square = 15$</p> <p><input type="radio"/> D $3 \times \square = 15$</p>	

Strategically Preparing for Summative Assessments

Trend found in TIMSS scores—omitting some topics on the test and going deeper on others during instruction was correlated to higher achievement.

- **A tale of two students who score equally**
 - Student A gets half the points because every question is a coin flip.
 - Student B gets half the points because s/he answers **80% of the major work correctly** and 20% of the other work correctly

Both students score the same...but **Student B is far better prepared for the next grade.**

How to Strategically Prepare ELLs for Increased Language Demands?

Provide Lessons/Activities which . . .

1. Emphasize use of language in context
2. Connect with central concepts of content
3. Connect with standards for practice
4. Emphasize ELL interaction with other students
5. Provide avenues for broader modes of communication
6. Include educative/formative assessment

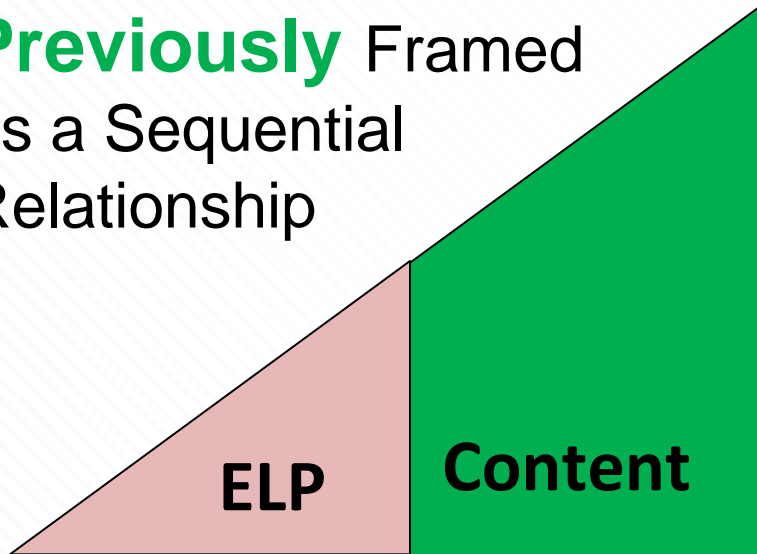


CONTEXT-ORIENTED LANGUAGE

1. Lessons and activities emphasize use of language forms and functions in context

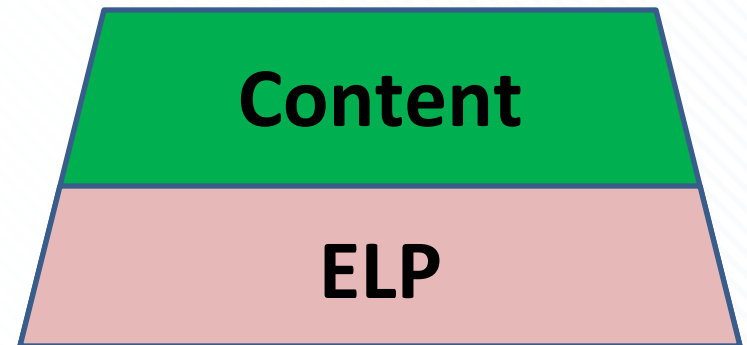
Language Proficiency Had Been Configured as a Bridge to First Cross Before Approaching Content

Previously Framed as a Sequential Relationship



ELP standards and instruction provided a foundation from which to approach content standards

Now Framed as a Parallel Relationship



ELP standards and instruction reflect the language expectations contained in content standards

ELL need more support than decontextualized vocabulary and grammar



Due to his grammar mistake, Wilbur found a position. It just wasn't the one he wanted.

Unpack Content Area Language Demands Using Text Analysis Approaches – Learn the Language of Schooling

Mary Schleppegrell, Univ. of Michigan

Increase student reading comprehension, content-area understanding, and expository writing ability by examining . . .

- What a text is about
- How a text is organized
- How the author's perspective is built into text



Schleppegrell Example: Analyze how definitions and explanations are constructed

Cells divide in two steps. First, the nucleus of the cell divides, and then the cytoplasm divides.

Mitosis is the process in which the nucleus divides to form two identical nuclei. Each new nucleus is also identical to the original nucleus.

Mitosis is described as a series of phases or steps. The steps are named prophase, metaphase, anaphase, and telophase. ...

Schleppegrell Example: Focus on “Connectors” in Language

Enlightenment Ideas Influence American Colonists

Although a war had begun, the American colonists still debated their attachment to Great Britain. A growing number, *however*, favored independence. They heard the persuasive arguments of colonial leaders such as Patrick Henry, John Adams, and Benjamin Franklin. These leaders used Enlightenment ideas to justify independence. The colonists had asked for the same political rights as people in Britain, they said, *but* the king had stubbornly refused. *Therefore*, the colonists were justified in rebelling against a tyrant who had broken the social contract.

Schleppegrell Example: Unpack Multiple Modalities in Mathematics

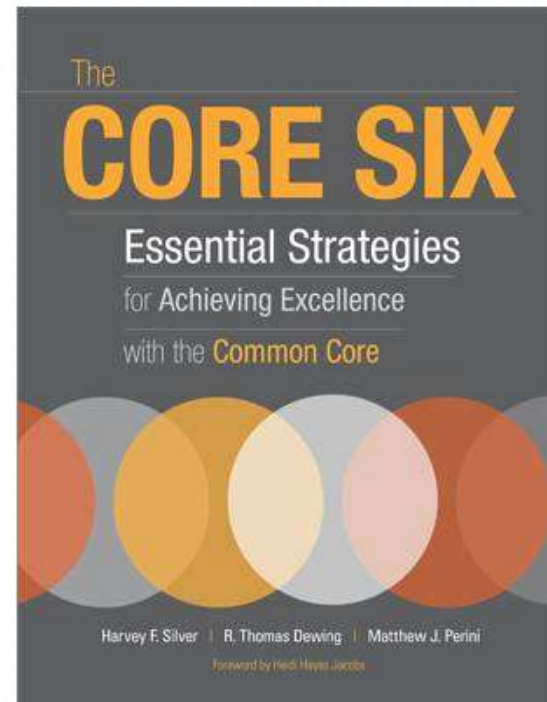
- Math symbols : $a^2 + (a + 2)^2 = 340$
- Spoken language : “...and then you’ve got to add on the ‘a’ squareds because of the brackets and the squareds, add up the ‘a’ squareds so you get two ‘a’ squareds plus your four ‘a’”
- Written language : *The sum of the squares of two consecutive positive even integers is 340*

(O’Halloran, 2000:384; 2003:196)

Use the *Core Six* Strategies to Unpack Text

The Core Six include:

- Reading for Meaning
- Compare & Contrast
- Inductive Learning
- Circle of Knowledge
- Write to Learn
- Vocabulary's CODE



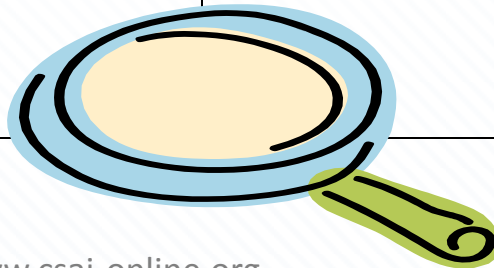
The Core Six: Essential Strategies for Achieving Excellence with the Common Core. (2012). By *Harvey F. Silver, R. Thomas Dewing, & Matthew J. Perini*

Top Hat Organizers – *The Core Six*

Similarities

Differences

Differences





Beth put her square on the table.

Soon, it was time for the judge to look at all the squares. Beth was so excited! She jumped up when the judge got close.

Read • Think • Write How is a square different than a rectangle?



Beth bumped the table. Her gold square fell to the floor and broke. Beth was so sad. She picked up the two pieces and put them on the table.

Read • Think • Write What shape are the two pieces?



CENTRALIZED
2. Lessons and activities connect with core ideas and concepts in curriculum

Dramatically Higher Expectations



	ELA	Math
DOK1	25%	24%
DOK2	38%	40%
DOK3	26%	25%
DOK4	11%	11%

*Example based Smarter Balanced Specifications/Elementary Grades

Courtesy: Herman (2013)

Increased Rigor Is Due to Added Cognitive *and* Academic Language Complexity



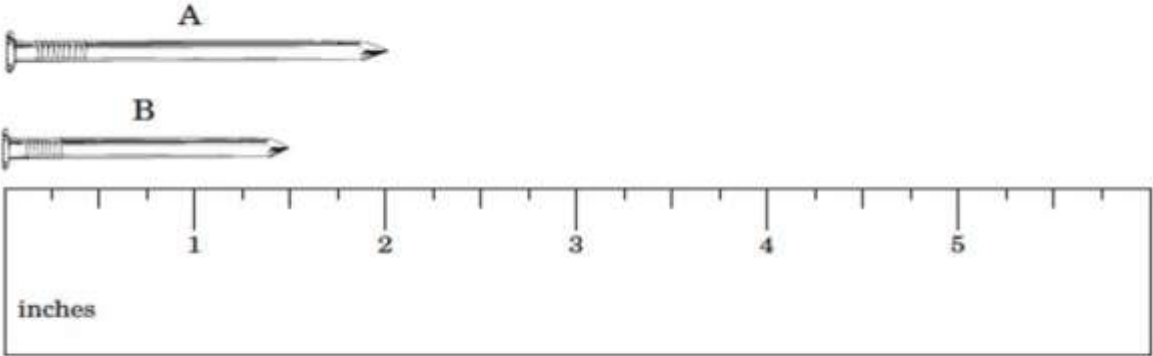
**Academic Language
Complexity**

Curriculum

**DOK and Cognitive
Complexity**

Simple Language Demands at DOK1 Math – Recall, **Draw, Define, List, Label** . . .

Look at the length of nails A and B.



The diagram shows two nails, A and B, positioned above a ruler. Nail A is longer than Nail B. The ruler is marked in inches from 0 to 5. Nail A starts at the 0 mark and ends at the 2 mark. Nail B starts at the 0 mark and ends at the 1 1/2 mark.

How much longer is nail A than nail B?

- A. $\frac{1}{2}$ inch
- B. $1\frac{1}{2}$ inches
- C. $3\frac{1}{2}$ inches

Courtesy: Herman (2013)

Language Demands Increase Slightly at DOK2 Math - Simple Application

These cards are placed in a bag.



What is the probability Lauren will pick a card with a sum greater than 15?

$$\frac{1}{6}$$

(A)

$$\frac{1}{5}$$

(B)

$$\frac{3}{6}$$

(C)

$$\frac{2}{4}$$

















(D)

Courtesy: Herman (2013)

At DOK3, ELL Need to Use Language to Draw Conclusions, Cite Evidence, Explain, Revise . . .



Look at the drawing. The numbers alongside each column and row are the total of the values of the symbols within each column and row. What number should replace the question mark?

				28
				30
				20
				16
?	19	20	30	

(Webb et al., 2005)

Courtesy: Herman (2013)

Much More Complex Language Demands at DOK4

Your class and your teacher are going on a field trip. There are three possible choices for the field trip: an aquarium, a science museum, or a zoo. Your teacher asked students to write down their first and second choices. In this task, you will determine where the class should go on the field trip based on the survey results and the cost per student.

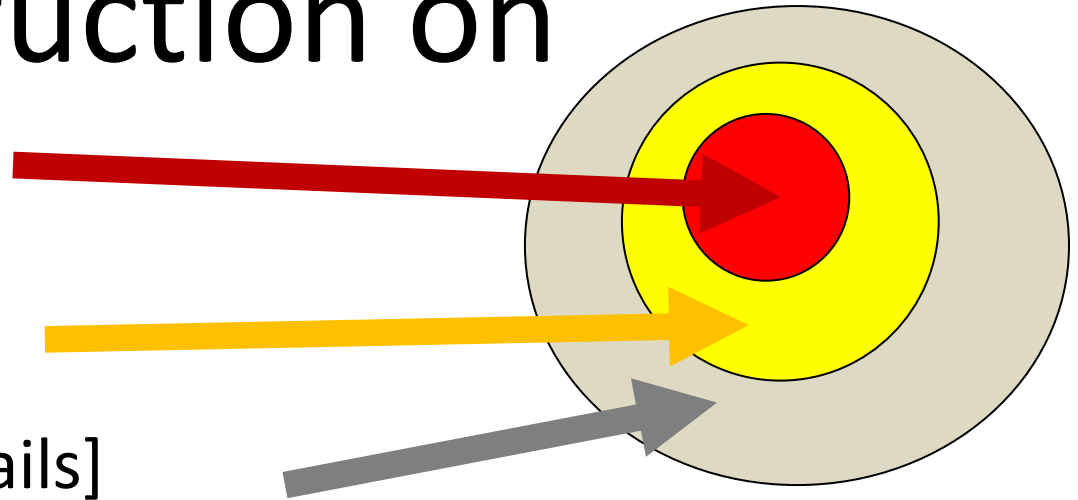
- This is a map of your school and the three different field trip locations.
- **Here's how students voted, first and second choice**
- Here are costs --in time, fees, transportation costs

Analyze, recommend, justify

“Water up” the Curriculum (Edwin Ellis)

Focus instruction on

- **Core Ideas**
- Critical details
- [vs. Clarifying details]



Similar to Backwards Design, first stage:

- **What is essential to know and be able to do?**
- What is important to know and do?
- What is nice to know? What is worth being familiar with?

Content Preview (August, 2011)

- 1. Focus students on important ideas in upcoming text by asking guiding questions**
 - specific to the text or use imagination and think beyond the text.
- 2. Build background knowledge related to the text**
 - short video clips, visuals, readings in English or in L1 and questions that draw on students' background and/or connect to related texts/topics.
- 3. Pre-teach content obligatory vocabulary**
 - Tier II (general academic terms) or Tier III (high frequency domain-specific terms)
- 4. Create oral summary of text , then create written summary**

Schleppegrell Example: Examining the Language of the Content Area

Look at pages 26-31. Think about how the characters feel in the story. With your partner find the exact words that show how the children in the audience and Officer Buckle feel after Gloria arrives.

THE CHILDREN (p 26-31)

OFFICER BUCKLE (p 31)

The children sat up and stared. Their eyes popped. The kids marked. They clapped their hands and cheered. Some of them lapped until they cried.	He started He grinned. He was lots of experience. He was surprised. Officer Buckle thought of his best safety tip ever. Officer Buckle was shocked.
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Key Ideas to Consider

- What the CCSS allows us to do is to use language to explore and deepen understanding about the content.
- We need to bring greater dimensionality to our instruction rather than simplifying it.
- We need to engage students in how language works in real complex texts.

Lily Wong-Fillmore: Analyze “Juicy” Sentences Found in Complex Text

A different way to think about text complexity...

- Each day select text to amplify as part of instructional conversations.
- Choose text that has complex structure but also that holds the essence of your lesson/activity, or some really pivotal information.

Butterfly unit classroom
(7 minutes) Example:

<http://vimeo.com/47315992>

CRAFTING POWER SENTENCES			
	The boy	went up	the stairs.
	Dependent Clause	Verb Choice	Adjective/Description
excited	With a gleam in his eyes, the boy	raced up	to the top of the staircase.
reluctant, sad	Head bowed, the boy sighed and	dragged himself up	the long staircase.
scared, sneaky	With a nervous glance up, the timid boy	creeped up	the dark and shadowed stairs.
happy, carefree	While humming a silly tune, the boy	bounced up	the stairs.
angry	With a scowl on his face, the boy	stomped up	each step of the staircase.

Secondary teacher example of juicy sentence type of lesson
<http://indulgy.com/post/cW48ibBa1/good-lesson-for-making-juicy-sentences>

Content teachers will need support in how to teach literacy. One approach is the three-part lesson architecture

PREPARING LEARNERS

- Activate prior relevant knowledge
- Focus attention to concepts to be developed
- Introduce vocabulary in context

INTERACTING WITH TEXT



- Deconstruct text, focus on understanding on a chunk
- Reconnect chunk to whole text
- Establish connections between ideas within text

EXTENDING UNDERSTANDING

- Connect ideas learned to other ideas outside the text
- Apply newly gained knowledge to novel situations or problem-solving
- Create or recreate based on new understandings

Task 1

Task 2

Task 3

Task 4

Task 5

Task 6

Task 7

Task 8

Task 9

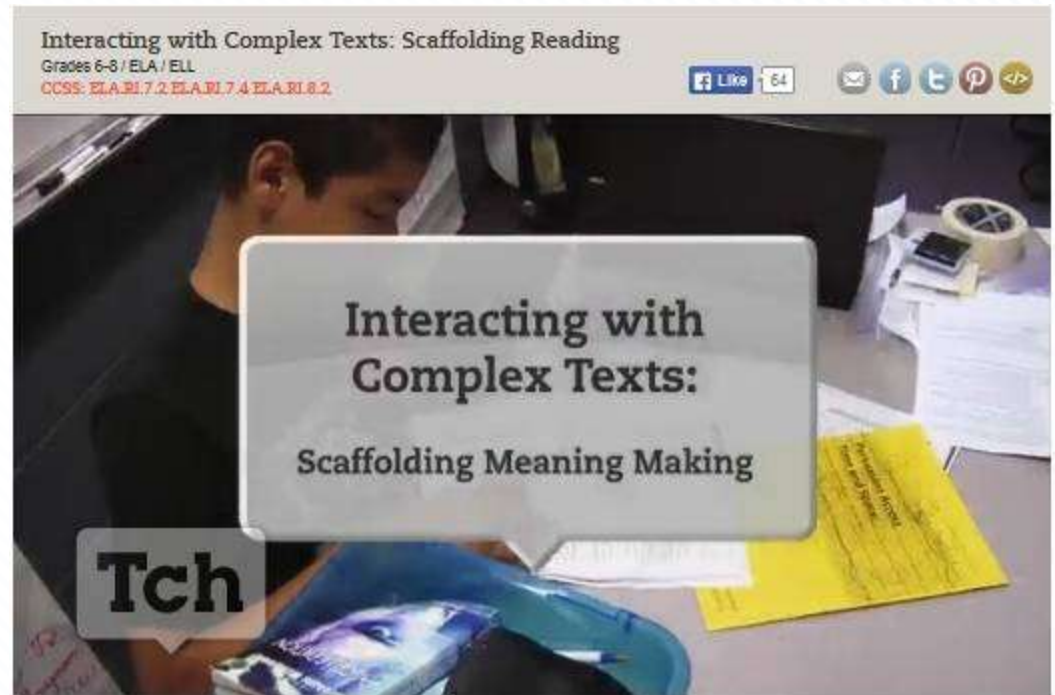
(Walqui, 2007 as cited in the appendix of Bunch, Kibler, & Pimetel, 2013)

Understanding Language Instructional Units

<https://www.teachingchannel.org/blog/2013/10/25/video-playlist-ell-instruction/>

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**Interacting with
Complex Texts:
Scaffolding Reading**
Grades 6-8 / ELA / ELL
CCSS: ELA.RI.7.2
ELA.RI.7.4 ELA.RI.8.



Understanding Language Instructional Units

<https://www.teachingchannel.org/blog/2013/10/25/video-playlist-ell-instruction/>

**Extending Understanding:
Vocabulary Development**
Grades 6-8 / ELA / ELL
CCSS: ELA.RI.7.6 ELA.RI.8.6

