

Expediting Comprehension for English Language Learners

Project ExC-ELL™

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Agenda

- Intro to ExC-ELL research
- Vocabulary Instruction
- Reading
- Writing
- Consolidating content, language and literacy
- Teachers' TLC

**The New York
Carnegie
Corporation Goal
for ExC-ELL
(2003-2008) is to:**



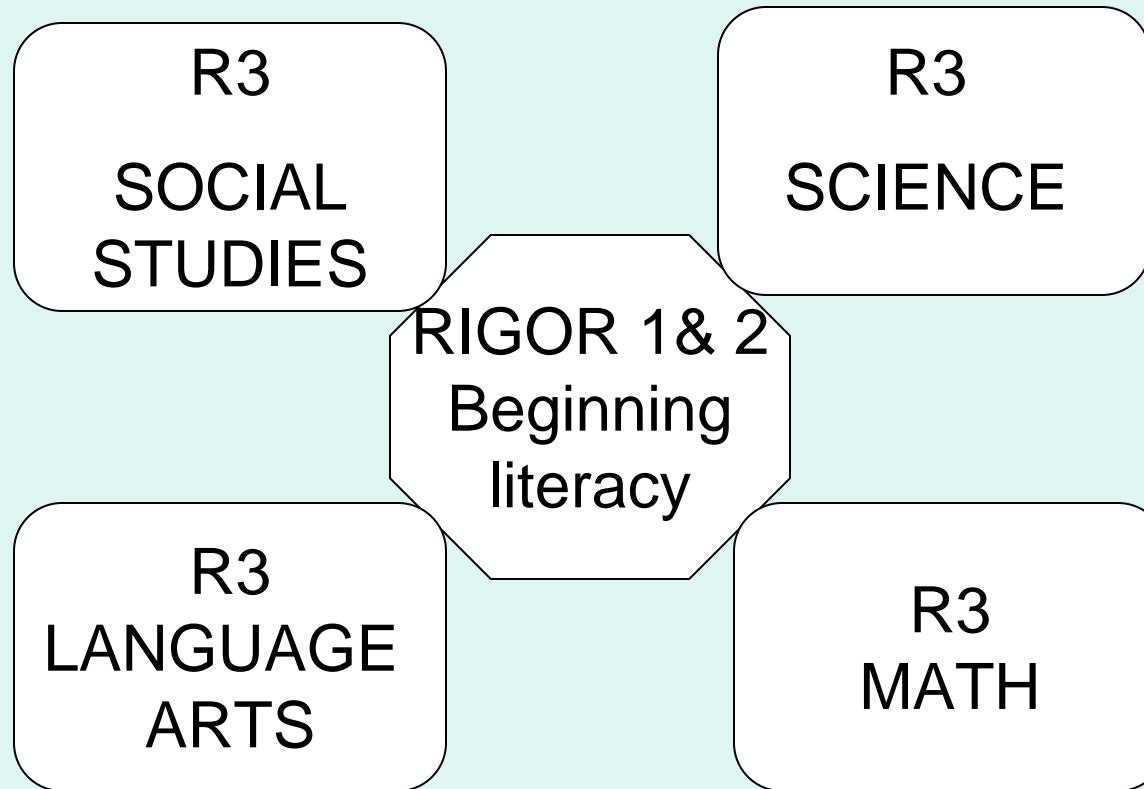
Collaboratively develop, implement, and refine a staff development program and instructional design for middle and high school teachers of English, science, and social studies who have English-language learners (ELLs) in their classrooms.

Target Population

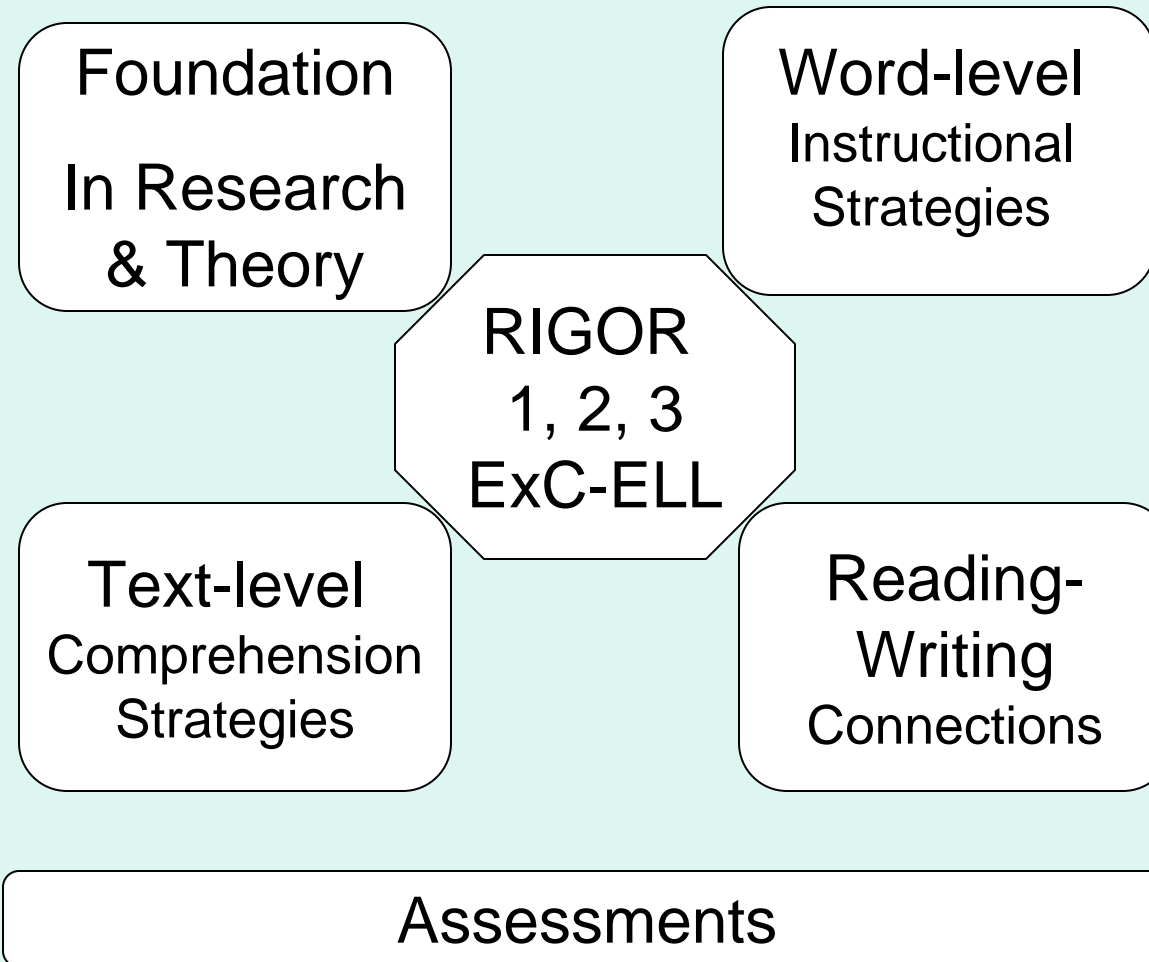
Teachers with diverse groups of students:

- Relatively recent newcomers in middle and high schools with or without schooling.
- **ELLs who have been in US schools for longer periods of time but are not making progress toward meeting high academic standards, reading below 4th grade level.**
- English-only students in these classrooms.

RIGOR - Reading Instructional Goals for Older Readers LEVELS 1, 2, AND 3



RIGOR - READING INSTRUCTIONAL GOALS FOR OLDER READERS LEVELS 1, 2, AND 3



The Lesson Structure for RIGOR[®] Levels 1 and 2 -- Pre-Literacy Skills.

1. Letter sound activities (Say it; Find it; Use it).
2. Words from Text (Say it; Use it; Spell it; Define it; Read it).
3. Meaning of Words from Text (Own it).
4. Strategic Reading with Decodable Text (Follow Along; Read it; Say it; Think it; Aha!)..
5. Prosody/Fluency (Read along; Feel it).

The Lesson Structure for RIGOR® Levels 1 and 2

6. Partner Reading (Partner reading; Partner summaries).
7. Partners or Team Cognitive Maps and Retell (Map it; Master it).
8. Random Calls (Prove it).
9. Writing from Reading (Write about it).
10. Assessments: Read it; Spell it; Define it; Match it; Write with it).



Focus for Content Teachers

Strategies to develop students'

- word knowledge
- basic reading skills (fluency)
- comprehension of classroom texts
- discussion skills
- grammatical knowledge
- spelling
- writing skills



Next Steps

-  **The Carnegie Phase 2 to test ExC-ELL Observation Protocol as a technology/handheld device**
-  **ExC-ELL randomized scientific study in New York City middle and high schools.**

Logitech Digital Pen



Pen Docking Station:

To store recorded data on the computer

Camera:

To record data as the user writes on the digital paper

Ink Pen:

To write observations on the digital paper

School	<input type="checkbox"/> MS319	<input type="checkbox"/> MS328	<input type="checkbox"/> ISLUPERON	<input type="checkbox"/> Other	Period Length	Language	Format	# Learners _____										
Grade	<input type="checkbox"/> PK	<input type="checkbox"/> K	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10	<input type="checkbox"/> 11	<input type="checkbox"/> 12	<input type="checkbox"/> Classroom	<input type="checkbox"/> 45	<input type="checkbox"/> English	<input type="checkbox"/> Teams
Teacher	_____														<input type="checkbox"/> TLC	<input type="checkbox"/> 90	<input type="checkbox"/> Spanish	<input type="checkbox"/> Traditional
Subject	_____														<input type="checkbox"/> Writing	<input type="checkbox"/> Other	<input type="checkbox"/> Other	

Class Set-up

Standard/Objective

Theme/Topic/Lesson

Wall Displays/Student Work/Posters



Observation Detail Report

SCHOOL: SCHOOL A
TEACHER: MS. JONES

GRADE: 7
COURSE TITLE: BIOLOGY
LENGTH OF PERIOD: 45 MIN.
LANGUAGE: ENG, SPA

OBSERVER: MARGARITA CALDERÓN
OBSERVATION TYPE: CLASSROOM OBS

COMPONENT: VOCABULARY TIME SPENT: 12 MIN

INDICATOR AVG SCORE: 2.5

STUDENT APPLICATION

TIER 1	STUDENTS			
	#1-ELL	#2-NON	#3-ELL	#4-NON
WORD1	2	3	1	4
WORD2	2	2	1	3
WORD3	1	2	3	2
TOTAL	5	7	5	9

TIER 2
WORD4 etc.
WORD5
WORD6
WORD7
WORD8

TOTAL

TIER 3
WORD9
WORD10

TOTAL

COMPONENT: ORACY TIME SPENT: 5 MIN

INDICATOR AVG SCORE

STUDENT APPLICATION

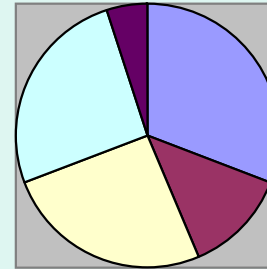
COMPONENT: READING TIME SPENT: 10 MIN

INDICATOR AVG SCORE

STUDENT APPLICATION

[etc., for WRITING, CONTEXT]

Time on Components



■ Vocab ■ Oracy ■ Reading ■ Writing ■ Context

Teacher Profile Summary Report

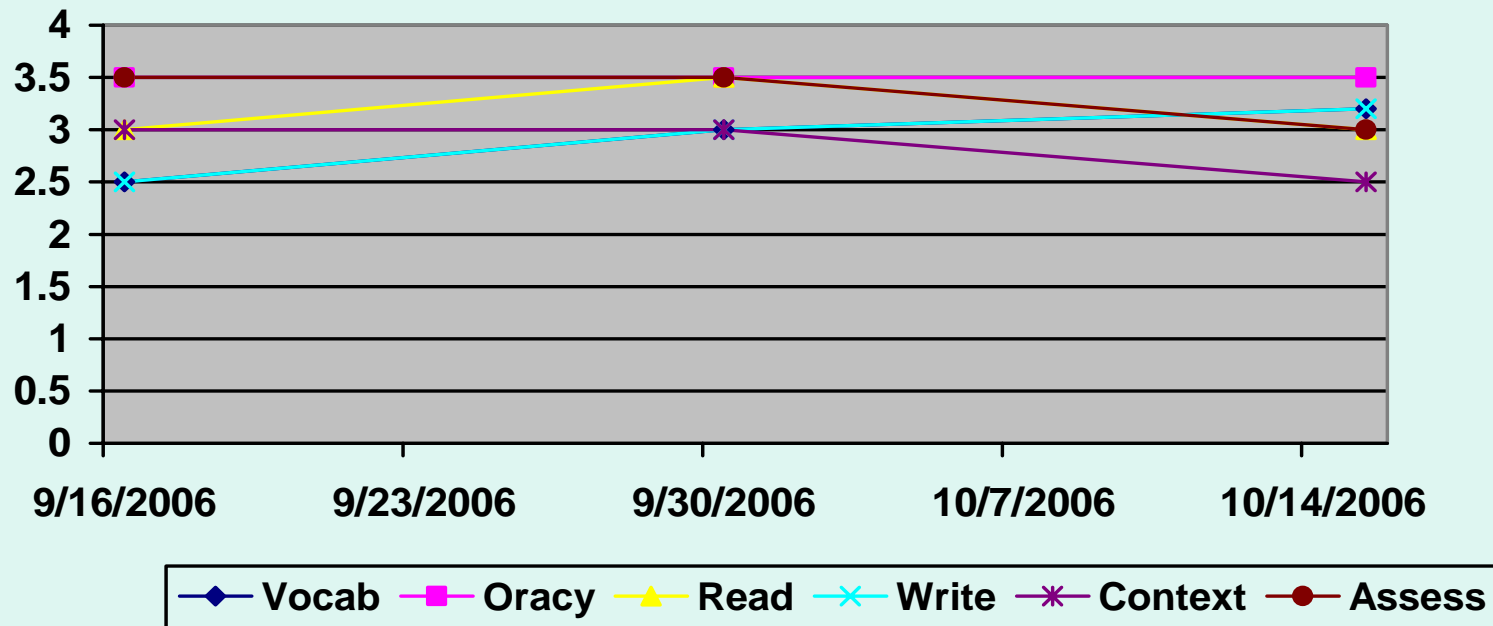
SCHOOL: SCHOOL A
TEACHER: MS. JONES

GRADE: 7
COURSE TITLE: EARTH SCI

OBSERVATIONS: 3

AVG COMPONENT SCORES and AVG TIME SPENT

OBS TYPE	DATE	VOCAB		ORACY		READ		WRITE		CONTEXT		ASSESS	
CLASSROOM OBS	9/16/06	2.5	11 min	3.5	10 min	3.0	12 min	2.5	12 min	3.0	1 min	3.5	N/A
CLASSROOM OBS	9/30/06	3.0	13 min	3.5	11 min	3.5	9 min	3.0	13 min	3.0	1 min	3.5	N/A
CLASSROOM OBS	10/15/06	3.2	12 min	3.5	11 min	3.0	16 min	3.2	14 min	2.5	1 min	3.0	N/A









ExC-ELL Observation Protocol®

Data Collection & Reports.

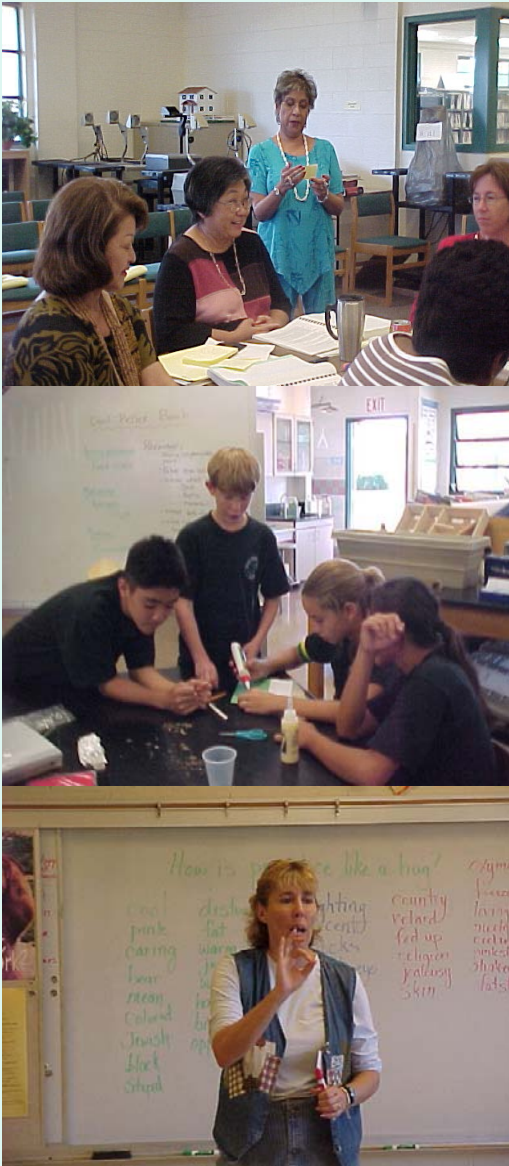
- Logitech Digital Pen
 - ✓ a pen that records the data as it is written down on digital paper
- ExC-ELL Observation Protocol ® Digital Form
 - ✓ 9-page digital paper form to note observations in the areas of Vocabulary, Oracy, Reading, Writing, Classroom Context and Assessment
- Reports
 - ✓ 6 types of reports can be created from the recorded data:
 - Observation Summary Report
 - Observation Detail Report
 - Teacher Profile Summary Report
 - Component Implementation Summary Report
 - Vocabulary Usage Report
 - Student Application Summary Report

EOP is used for:

-  By teachers for designing / developing their lessons.
-  By teachers for self-reflection.
-  By teachers for observing and documenting student performance.
-  By principals and supervisors for observing and coaching teachers.
-  By coaches to give concrete feedback to teachers.
-  By researchers to collect data on teacher and student growth and quality of implementation.

5-Day Institute

- All lesson components
- Demonstrations/modeling
- Practice of strategies
- Research-base/rationale
- Reflection and discussions
- Development of content lessons





Institute Follow-up



- Two-day refresher workshops, ongoing follow-up expert coaching and collegial activities in Teachers Learning Communities (TLCs).
- Trainers observe each teacher four times a year to collect implementation data and coach/help teachers.
- Site coordinators, coaches, and administrators are trained to support, observe/coach each teacher frequently.

Content Area Literacy Approaches

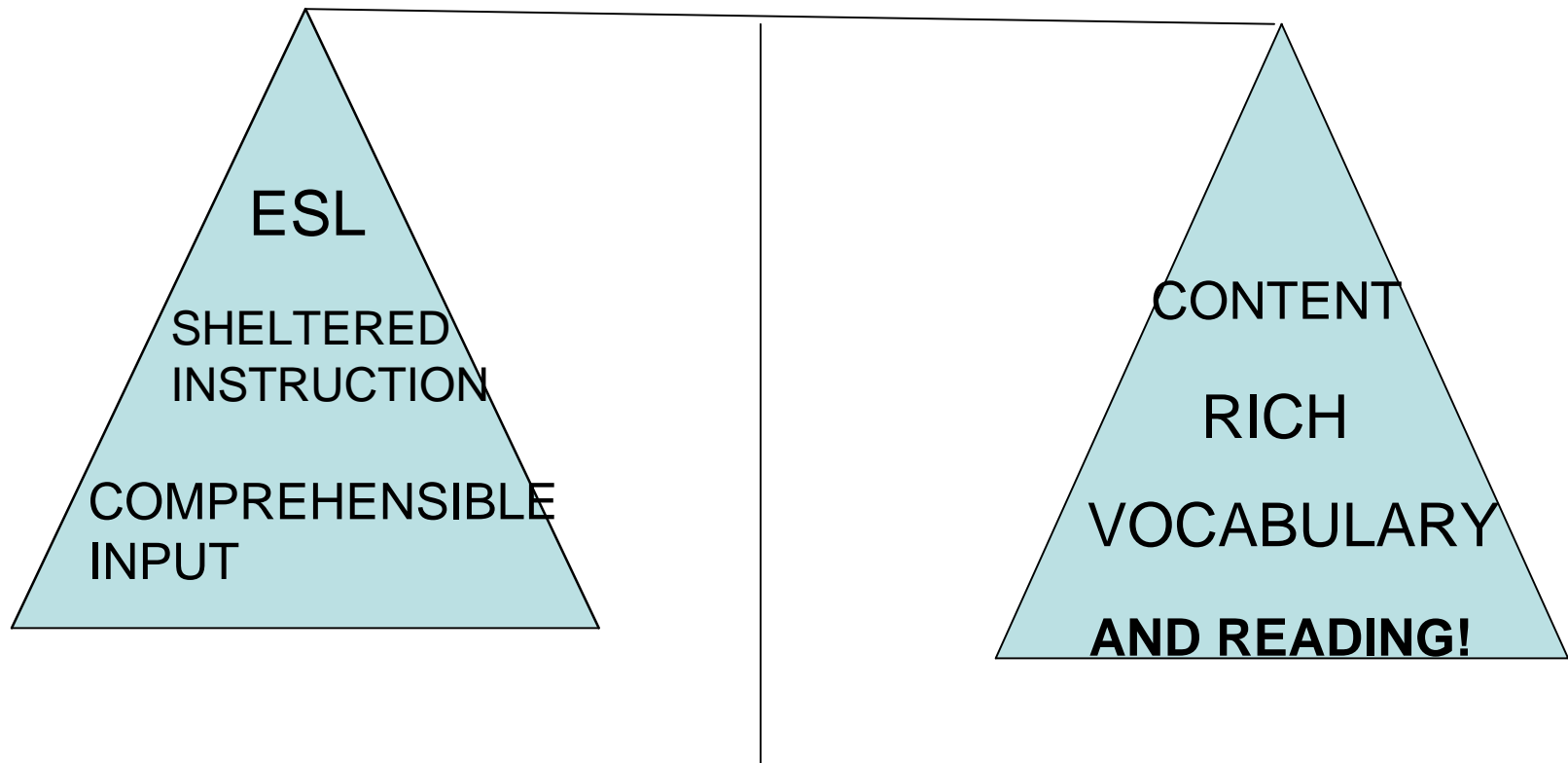
Without reading instruction from content area teachers:

- SURFACE COMPREHENSION--Literal comprehension; students read on their own and answer questions; questions are low-level.

With reading instruction from content area teachers:

- DEEP COMPREHENSION --Critical comprehension; students learn new vocabulary continuously; associate new readings with prior knowledge; add new knowledge, discuss ideas, interpret facts and information, and apply critical thinking skills to text.

Teachers of ELLs must balance comprehensible input
with rich challenging vocabulary!



1. Implicit practices:

- **Encouraging teacher-student talk.**
- **Silent reading and discussions.**

2. Explicit practices:

- **Word learning is the direct focus of the activity.**
- **Students and teachers are aware of this focus (semantic awareness).**
- **Takes place in didactic-interactional book reading, having vocabulary explicit targets.**

Teaching Vocabulary / Concepts

Why breadth and depth of vocabulary?



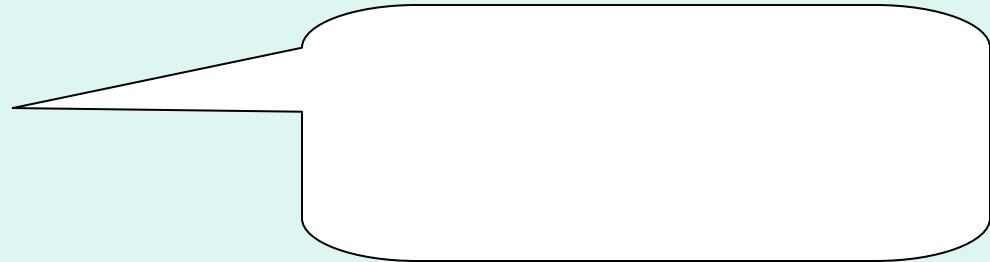
- Vocabulary knowledge correlates with comprehension.
- **Comprehension depends on knowing between 90% and 95% of the words in a text.**
- To overcome the vocabulary disadvantage, we need to teach vocabulary explicitly on a daily basis.
- **A high achieving 12th-grader has learned some 15 words a day, over 5000 words a year.**

Put Your Heads Together

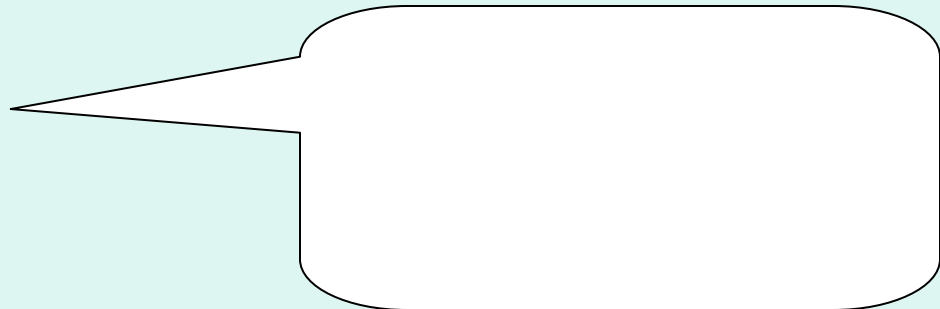
3 Key Concepts So Far:

IMPLICATIONS for our
text books and instruction:

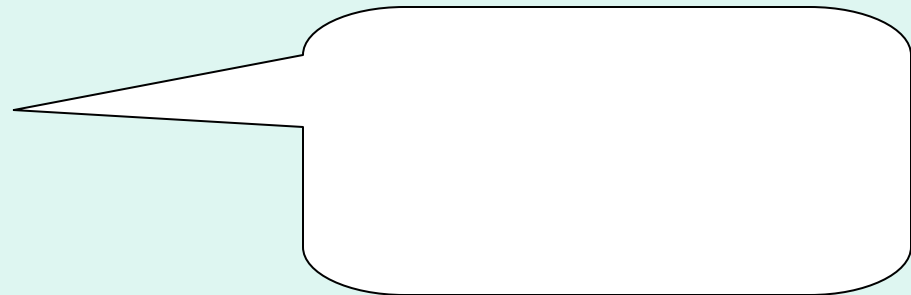
1.



2.



3.



STEP 1

SELECT VOCABULARY TO PRE-TEACH BEFORE PRESENTING CONTENT, TEACHER READ ALOUD, OR STUDENT READING OF ANY TEXT.

STEP 2

TEACH VOCABULARY USING 7 STEPS.

Vocabulary Tiers for ELLs

Tier 1

Simple
Words

run

fell

mad

good

Tier 2

More
Sophisticated

sprinted

stumbled

rage

firmly

Tier 3

Content Words

foreshadow (literature)

monarchy (history)

vacuole (sciences)

factor (math)

Tier 2 words can also include *polysemous words*

- ring
- table
- trunk
- prime
- round
- araña
- hoja
- botón
- bote
- llama

Types of Words

Tier 1

dog

house

find

nice

good

run

Tier 2

canine

abode

search/find

trunk

fabulous

sprint

Tier 3

predator

habitat

investigate

polysemous

beneficial

42 meanings
of *run*!

VOCABULARY TIERS (TEARS?) FOR ELLs

Polysemous words -- How many content applications?

PRIME

POWER

RADICAL

IMAGINARY

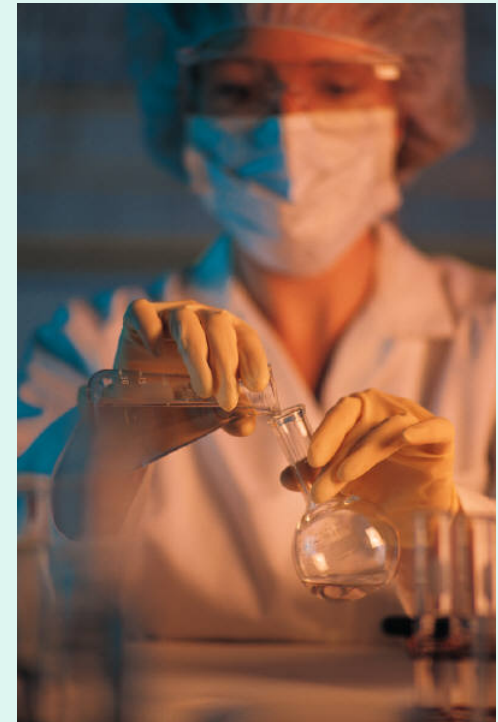
LEG

RIGHT

TREE

CELL

ROUND Margarita Calderon/JHU





Cognates

Tier 3



- Sum -- suma
- Complement -- complementar
- Perpendicular -- perpendicular
- Factor -- factor
- Equation -- ecuación
- Mathematics -- matemáticas
- Algebra -- algebra





False Cognates



- Library \neq libreria (bookstore)
- Exit \neq éxito (success)
- Attend a meeting \neq atender ...
(asistir a una junta)
- May I assist you?
(¿Le puedo atender?)

SELECTING WORDS TO TEACH

Activity -- Read the *Jumanji* text:

- 1. Select 2 Tier 1 words**
- 2. Select 2 Tier 2 words**
- 3. Select 2 Tier 3 words**

that you would pre-teach so that ELLs can understand the story.

JUMANJI

Adapted from a story

By CHRIS VAN ALLSBURG

“Now remember,” Mother said, “your father and I are bringing guests by after the opera, so please keep the house neat.”

“Quite so,” added Father, tucking his scarf inside his coat.

Mother then knelt and kissed both children goodbye.

When the front door closed, Judy and Peter giggled with delight. They took all the toys out of their toy chest and made a terrible mess. But their laughter slowly turned to silence till finally Peter slouched into a chair.

“You know what?” he said. “I’m really bored.”

PRE-TEACHING VOCABULARY

1. Teacher says the word.
2. Asks students to repeat the word 3 times.
3. Teacher states the word in context from the text.
4. Teacher provides the dictionary definition(s).
5. Explains meaning with student-friendly definitions.
6. Engages students in activities to develop word/concept knowledge.
7. Highlight grammar, spelling, polysemy, etc.

TEACHING CONCEPTS/VOCABULARY

1. Teacher says the word.
 2. Teacher states the word in context from the text.
 3. Teacher provides the dictionary definition(s).
 4. Explains meaning with student-friendly definitions.
 5. Asks students to repeat the word 3 times.
 6. Engages students in activities to develop word/concept knowledge.
 7. Students say the word again.
- **Weather can have a big effect on your life.**
 - **Say *effect* 3 times.**
 - **The result or consequence of something.**
 - **Influence, or the power to make something happen.**
 - **Two cups of coffee in the morning have a big effect on me -- I can't sleep at night!**
 - **What has had a big effect on your life recently?**
- TTYP**

TEACHING VOCABULARY

1. **Teacher selects the word and sentence from the text.**
 2. **Provides dictionary definition.**
 3. **Explains meaning with student-friendly definitions.**
 4. **Provides examples in contexts other than the one in the text.**
 5. **Asks students to repeat the word 3 times.**
 6. **Engages students in activities to develop word knowledge.**
 7. **Students say the word again.**
- **Over the course of hundreds of years, weather trends *affect* life on Earth in more dramatic ways.**
 - **[verb] To influence or change someone or something.**
 - **Jason's accident *affected* him badly.**
 - **[adjective] False and unnatural.**
 - **Jena's *affected* voice makes her sound like she's acting.**
 - **Use the word as a verb and as an adjective.**

TEACHING CONCEPTS/VOCABULARY

1. Teacher selects the word/concept from the text.
2. Gives dictionary definition to the students.
3. Explains meaning with student-friendly definitions or visuals.
4. Provides examples in contexts other than the one in the text.
5. Asks students to repeat the word 3 times.
6. Engages students in activities to develop word/concept knowledge.
7. Students say the word again.

- Antarctica is a very cold *continent*.
- Define the word *continent*. Point to Antarctica on the globe and indicate it is a continent.
- Name and point to the other continents.
- Ask students to say the word 3 times.
- Ask students to show you the continent they are currently in, as which continent their relatives have come from.
- Students say the word again.

For reviewing vocabulary

Questions, Reasons, Examples

- If you are walking in a dark room, you need to do it *cautiously*. Why? What are some other things that need to be done *cautiously*?
- Which of these things might be *extraordinary*? Why or why not?
 - a shirt that was comfortable, or a shirt that washed itself.
 - a plane landing on the school yard, or a plane landing at the airport?
 - a person who has a library card or a person who has read all the books in the library?

Making Choices

- If any of the things I say might make someone look *radiant*, say “You look *radiant*!” If not, don’t say anything.
 - winning a million dollars
 - getting a root canal
 - getting a hug from my favorite movie star
 - a day at the beach
 - cleaning your room.
- Applaud if you’d like to be described by the word: frank, awesome, impish, vain, stubborn, stern. And, tell why you feel that way.

Engagement with Text

Step 3: Teacher Read Aloud

Why Teacher Read Alouds in Secondary?

**M
O
D
E
L**

Fluency

**M
O
D
E
L**

Self-correction

Fix it strategies

Extend comprehension

Teach more words

A Change in Climate by Emily Sohn

From one day to the next, weather can have a big effect on your life. When it rains, you have to stay indoors or carry an umbrella. When it's cold, you have to bundle up.

Over the course of hundreds, thousands, and millions of years, weather trends affect life on Earth in more dramatic ways. Ice ages or long droughts, for example, can wipe out certain types of plants and animals. Although many species manage to survive such extreme, long-term climate shifts, their living conditions also change.



Does a change in the weather signal global climate change?

National Oceanic and Atmospheric Administration

There's lots of evidence of drastic changes in climate occurring in the distant past. Earth today may again be in the midst of such a climate change. In the last 100 years, studies show, global temperatures have risen an average of 0.6 degrees C.

That might not sound so bad. After all, what difference does half a degree make?

A growing number of studies suggest, however, that such an increase could have a big impact on life.

Biologists and ecologists are discovering, often by accident, that climate change is forcing some plants and animals into new habitats. Others are becoming extinct. Sometimes, scientists show up at a site they've studied for years, only to discover that the organisms they've been tracking are no longer there. What's more, it now looks like this redistribution of life on Earth is sometimes happening at an alarmingly fast pace.

"These little pieces of information are all warning signs that stuff is going on," says Erik Beever. He's a research ecologist with the United States Geological Survey in Corvallis, Ore. "Our world is changing more rapidly than we have observed in the recent past," he says.

From one day to the next, weather can have a big **effect** on your life. When it rains, you have to stay indoors or carry an umbrella. When it's cold, you have to **bundle up**.

Over the course of hundreds, thousands, and millions of years, weather **trends** affect life on Earth in more **dramatic** (**big, dramático**) ways. Ice ages or long **droughts**, for example, can wipe out certain types of plants and animals. Although many **species** manage to survive such extreme, long-term climate **shifts** (**changes**), their living conditions also change.

There's lots of evidence of drastic (**drásticos**, **dramatic**, **big**) changes in climate occurring (**ocurriendo**) in the distant (**distante**) past. Earth today may again be in the midst of such a climate change. In the last 100 years, studies show, global temperatures have risen an average of 0.6 degrees C. (**Celsius or centigrade / centigrado?**).

A growing number of studies suggest (**sugieren**), however, that such an increase (**more in number**) could have a big impact on life.

Tree line

One place to look for changes in plant and animal life that may be caused by a climate shift is in the mountains.

As the globe warms up, mountaintops get warmer, too. Trees start growing at higher altitudes than before. The tree line shifts upward.

In the Alps, a mountain range in Europe, records from the last 80 to 100 years show that plants have been working their way upward at a rate of about 4 meters every decade. Researchers from the University of Vienna found this trend in two-thirds of the sites they checked.



An Engleman spruce tree.
Rick Wallace,
United States Forest Service

In one recent study in Nevada, Beever discovered that a type of tree called the Engleman spruce had moved its habitat upslope a dramatic 650 feet in just 9 years. "The site at the lowest elevation went from 41 individuals to just six," he says. At higher elevations, numbers increased.

"When I first saw the results," Beever says, "I had a really hard time believing it because it's just too fast." Beever's analysis of the data suggests that global warming is mainly responsible for the shift. Studies in mountain ranges from New Zealand to Spain reveal similar trends.

Global Warming

What's causing today's increased temperatures?

Many scientists say that human activities, such as burning coal, oil, and other fossil fuels, are largely to blame. These activities release heat-trapping gases, such as carbon dioxide, into the atmosphere. The more these gases accumulate in the atmosphere, the hotter things get on Earth.



Burning fossil fuels produces carbon dioxide.

U.S. Environmental Protection Agency

affect






drought

effect

habitat

impact

Step 4 - Partner Reading

-  The teacher reads and models strategies.
-  Partner A reads the **first sentence**.
-  Partner B helps.
-  Partner B reads the **next sentence**. Partner A helps.
-  Partners continue until they finish reading the entire assigned section.

Step 5 -Debriefing

Whole class debriefing

- Students report on words and phrases they didn't understand; listed on their post-it notes.
- Clarification of unknown words and phrases.
- Students report on gist of paragraph.
- Clarification of overall meaning of the paragraph (initially; then larger chunks as appropriate).

Step 6 - Consolidation of Content, Language and Literacy

- **Whole-class concept / semantic maps**
- **Content Retell *using new vocabulary***
- **Silent reading**
- **Team discussions / open-ended questions**
- **Work with multiple meaning words,
affixes, spelling, pronunciation, fluency.**
- **Content-Related Writing**

APPLYING BLOOM'S TAXONOMY OF COGNITIVE PROCESS - 5

THINKING PROCESS	USEFUL VERBS	SAMPLE QUESTION STEMS	POTENTIAL ACTIVITIES AND PRODUCTS
S Y N T H E S I S	Create Invent Compose Predict Plan Construct Design Imagine Improve Propose Devise Formulate	Can you design a...to...? What is a possible solution to...? What would happen if...? If you had access to all resources, how would you deal with... How would you devise your own way to...? How many ways can you...? Can you create new and unusual uses for...? Can you develop a proposal which would...? How would you compose a song about...? Can you write a new recipe for a tasty dish?	<ul style="list-style-type: none"> • Invent a machine to do a specific task. • Design a building. • Create a new product. Give it a name and plan a marketing campaign. • Write about your feelings in relation to... • Write a TV show, play puppet show, role play, song, or pantomime • Design a record, book, or magazine cover for... • Devise a way to... • Create a language code. • Sell an idea to a billionaire. • Compose a rhythm or put new words to a know melody.











Numbered Heads Together







- Number off in your team from 1 to 4
- Listen to the question.
- Put your heads together and find the answer.
- Make sure everyone in your team knows the answer.
- Be prepared to answer when your number is called.

Step 7 - Writing

Writing Genre

-  Descriptive
-  Narrative
-  Persuasive
-  Poetry
-  Screen play
-  Short stories
-  Mystery novel
-  Marketing plan
-  Chronology
-  Technical

manuals

-  History textbooks
-  Math books
-  Science books
-  Web sites

Step 8 - Assessment

The purpose of authentic assessment is to

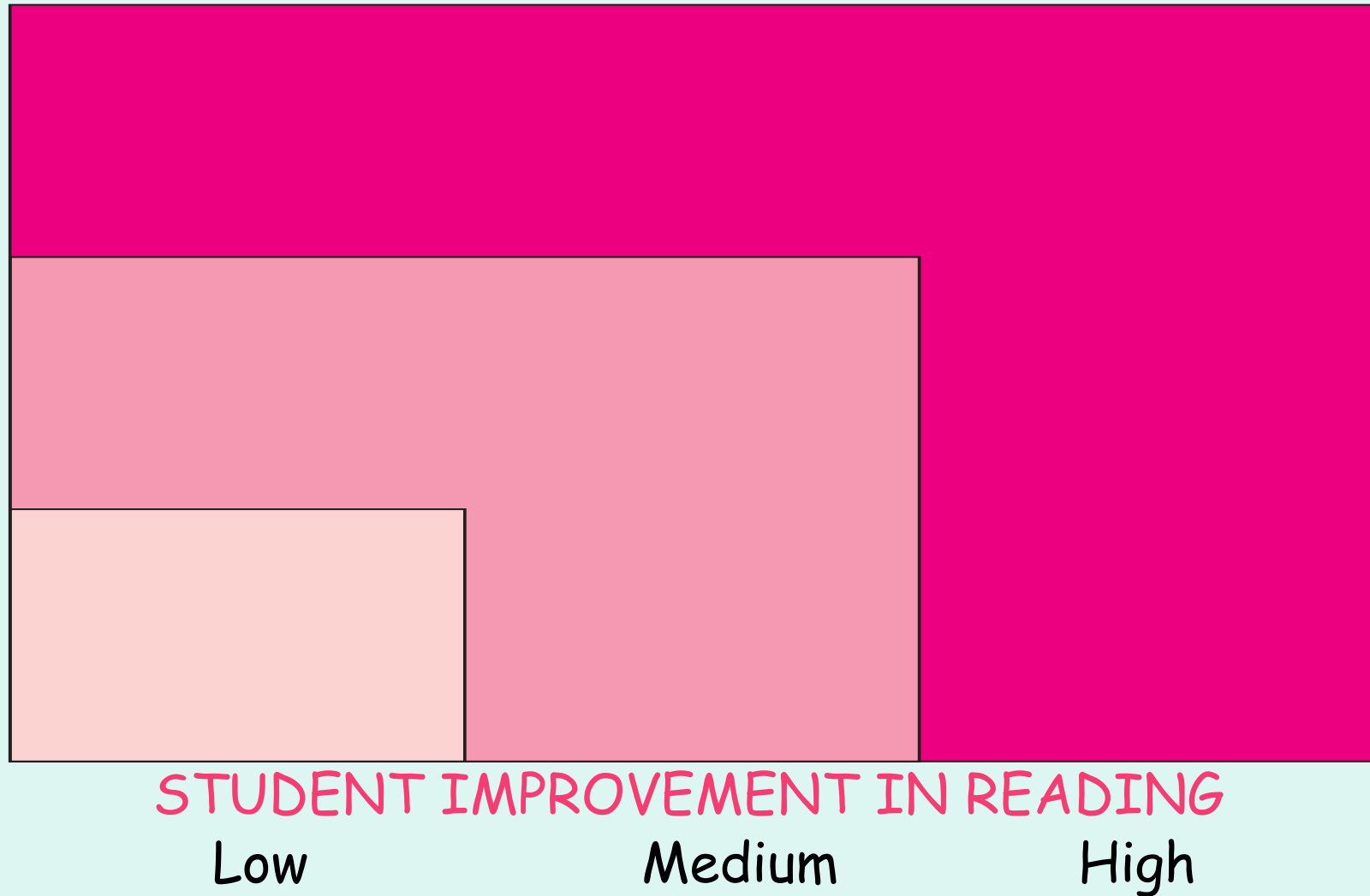
1. Focus on continuous student performance (authentic task).
2. Develop learner reflection.
3. Address the learning needs of the real world.
4. Identify areas for instructional improvement.

Step 9 - TLC



In Teachers Learning Communities (TLCs) where they can collaboratively and profoundly examine, question, develop, experiment, implement, evaluate, and create change.

Time Devoted to TLCs and Implementation of Reading Components



Step 10 -- Teacher Accomplishments in Teachers Learning Communities

Teachers can:

- Examine student performance data in the various content areas; literature, social studies, mathematics, or science.
- Analyze student progress against the content and performance standards in a timely manner.
- Identify student strengths and needs.

THANK YOU!

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