THANK YOU CABE MEMBERS!

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Student Outcomes
Importance of PD & TLCs/PLCs

<table>
<thead>
<tr>
<th>Type of Training Components</th>
<th>Level of Knowledge</th>
<th>Level of Skill</th>
<th>Transfer One Year Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory &amp; Lecture</td>
<td>80%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Modeling &amp; Demos</td>
<td>90-95%</td>
<td>50%</td>
<td>5%</td>
</tr>
<tr>
<td>Practice &amp; Feedback</td>
<td>95-100%</td>
<td>80-90%</td>
<td>5%</td>
</tr>
<tr>
<td>Coaching &amp; PLCs/TLCs</td>
<td>95-100%</td>
<td>98-100%</td>
<td>75-95%</td>
</tr>
</tbody>
</table>


Coaching Is

- Focusing on only a few items at a time from the observation protocol that is used specifically for VOCABULARY (reading and writing in another session)
- Fidelity, frequency, and quality of implementation
- Formative assessment on student performance

(Calderón, 2006, pp. 10)

Why Vocabulary?

Before, During & After Students Read

- Vocabulary knowledge correlates with reading comprehension.
- Reading comprehension correlates with procedural and content knowledge.
- Content knowledge correlates with academic success.
- Comprehension depends on knowing between 90% and 95% of the words in text.
- Knowing words means explicit instruction, not just exposure. Students need 12 production opportunities to own a word.
**Do You Parse the Text?**

*parse |pärs|; analyze (a sentence) into its parts and describe their syntactic roles.*

We use “parsing” as a way to examine or analyze minutely the text that students are about to read to:

– Chunk the text to fit your class schedule
– Select words to teach (5-6 Tier 2 words/phrases)
– Find sentences or grammatical features to highlight
– Find reading strategies and reading skills to model for students to use
– Determine the types of assessments to use for each of those segments and language elements

**Tiers 3, 2 & 1**

Summary of Vocabulary for ELs

**TIER 3** Subject-specific words that label content discipline concepts, subjects, and topics. Infrequently used academic words.

**TIER 2** Information processing words that nest tier 3 words in long sentences, polysemous words, transition words, connectors; more sophisticated words for rich discussions and specificity in descriptions.

**TIER 1** Basic words ELs need to communicate, read and write. Those that should be taught.

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**Tier 3**

Academic Content, Specific or Technical Words

<table>
<thead>
<tr>
<th>Math</th>
<th>Science</th>
<th>Social Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Square root</td>
<td>Photosynthesis</td>
<td>Government</td>
</tr>
<tr>
<td>Rectangle</td>
<td>Germ</td>
<td>Bylaws</td>
</tr>
<tr>
<td>Radical numbers</td>
<td>Atom</td>
<td>Bailout</td>
</tr>
<tr>
<td>Circumference</td>
<td>Matter</td>
<td>Congressional</td>
</tr>
<tr>
<td>Pi square</td>
<td>Osmosis</td>
<td>Capital</td>
</tr>
<tr>
<td>Power</td>
<td>Power</td>
<td>Power</td>
</tr>
</tbody>
</table>

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Selecting Words to Teach

Key Criteria
- It is critical to the understanding of the concept.
- It would probably appear on a test.
- It is critically important to the discipline.
- It is critically important to this unit.
- You want to hear it in their Partner Summaries.
- You want to see it in their Exit Pass or in a writing assignment.

Climate Change Science Overview

Earth’s climate is changing in ways that affect our weather, oceans, snow, ice, ecosystems and society.

Natural causes alone, however, cannot explain all of these changes. Human activities which have been noted as contributing to climate change, are primarily due to the release of billions of tons of carbon dioxide (CO₂) and other heat-trapping gases, known as greenhouse gases, into the atmosphere every year. [1]

Climate changes will continue into the future. Accordingly, the more greenhouse gases we emit, the larger future climate changes will be.

Changes in the climate system affect our health, environment and economy. Fortunately, we can prepare for some of the impacts of climate change to reduce their negative effects on our well-being.

7-Steps for Preteaching Vocabulary

An Example for 2nd - 12th
1. Teacher says the word (or phrase) and asks students to repeat the word 3 times.
2. Teacher states the word in context from text.
3. Teacher provides the dictionary definition.
4. Teacher provides student-friendly definition.
5. Teacher highlights grammar, spelling, polysemy, etc.
6. Students engage in Teacher provided sentence starter or frame using the target vocabulary for 60 seconds.
7. Teacher informs students how/when to use the word in Peer Summaries, Exit Passes, or other writing assignments.

Daily Assessment and Writing

The ultimate proof at the end of each class, each subject, each week:

✓ Write one or two paragraphs summarizing what you learned about _____________ using as many Tier 2 and Tier 3 words as you have learned. Use appropriate connectors, transition words, or signal words. Use compound sentences or different types of clauses.
7-Step Flow
= 25 words a day per Day per Subject Area per 5 words
How many in a week? A school year?

Focus on Student Engagement
1. With the whole team, the teacher invents a class management/student interaction event to present to the coach. (3 minutes).
2. Teacher and Coach role-play the pre-conference. (2 – 3 minutes)
3. Coach invents data using one of the charts. (2 – 3 minutes)
4. Observer takes notes of the pre- and post-conference and gives feedback. (Feedback: 2 - 3 minutes)

ExC-ELL Lesson Components
1. Preteaching of Vocabulary
2. Teacher Think-Alouds
3. Student Peer Reading
4. Peer Summaries
5. Depth of Word Studies/Grammar
6. Class Debriefings/Discussions
7. Cooperative Learning Activities
8. Formulating Questions & Numbered Heads
9. Round Table Reviews
10. Pre-writing & Drafting
11. Revising/Editing
12. Reading Final Product
Carnegie Corporation of New York

Funded Empirical Testing of ExC-ELL

ExC-ELL – A professional development program for mainstream teachers of math, science, social studies, and language arts

5 years of empirical evidence.

NO OTHER program has undergone so much testing and refinement.

Showed great results in NYC, Kauai, Charlotte, Salt Lake City, Memphis

Now in state-wide Virginia

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Thank you!

May you and your students ExC-ELL!

Margarita & Hector

For scheduling, session specifics or customized institutes, please contact our VP, Shawn, at 704/340.7722 or shawnslakk@verizon.net

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Climate Change Science Overview

Modified from the United States Environmental Protection Agency for usage in this lesson.

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Earth’s Climate Is Changing

Data shows that the global average temperature increased by more than 1.3°F over the last century. [2] As a result, the average temperature in the Arctic rose by almost twice as much. [2] The buildup of greenhouse gases in our atmosphere and the warming of the planet are responsible for other changes, such as:

- Changing precipitation patterns [1][3]
- Increases in ocean temperatures, sea level, and acidity
- Melting of glaciers and sea ice [1]

The CO₂ that humans have added to the atmosphere has caused an increase in the atmospheric concentration of CO₂. The graph shown in Figure 2, page 3, called a Keeling Curve after the scientist who first developed it, represents the record of increased global atmospheric carbon dioxide concentration.

Natural Causes Alone Cannot Explain Recent Changes

Natural processes such as changes in the sun’s energy, shifts in ocean currents, and others affect Earth’s climate. However, they do not explain the warming that we have observed over the last half-century.[1]