The Vocabulary Gap: Increasing Word Knowledge Through Explicit Teaching

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The Urgency of Vocabulary Instruction

Children with the lowest vocabularies know 2000 fewer words than their average peers by the end of second grade. In order for K-2 children with low vocabularies to catch up with their grade level peers, they must acquire vocabulary at an accelerated rate.

Intentional Teaching of Vocabulary

• In primary grades, intentional teaching of vocabulary through oral sources, ensuring coverage of about 4000 root words by the end of second grade
• In later elementary grades, continued emphasis on vocabulary development, adding 500-750 new words each year, additional idioms, and increased fluency with derived words

Staircase of Core Vocabulary

At the foundational level, texts contain a high percentage of familiar words with consistent and common phonological and orthographic patterns and root words.

As texts become more complex, vocabulary is used in figurative, idiomatic, and unusual ways, which require the reader to understand the multiple meanings of words in order to comprehend the deeper meaning within the text.

What Makes a Text Hard?

• Familiar words used in unfamiliar contexts
• Words used as figurative language or idioms
• Words with multiple meanings
• Words used as different parts of speech
• Academic or specialized vocabulary

Building Vocabulary Knowledge Through Explicit Teaching of Important Words

In order to meet the demands of the CCSS, schools must design a systematic vocabulary program. We can’t leave vocabulary acquisition to chance!
Standards 4-6: Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

5. Determine understanding of figurative language, word relationships, and nuances in word meanings.

6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career-readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

CCSS on Vocabulary

• Research suggests that if students are going to grasp and retain words and comprehend complex text, they need incremental, repeated exposure in a variety of contexts to the words they are trying to learn.

• When students make multiple connections between a new word and their own experiences, they develop a nuanced and flexible understanding of the word they learning.

A Systematic and Sequential Process for Teaching Vocabulary

In order for students to read complex texts, teachers must provide explicit vocabulary instruction daily with opportunities to use the words in meaningful and diverse contexts. The first step in vocabulary instruction is to develop a systematic and research-based process for selecting words for instruction.

First, Identify Words for Vocabulary Instruction

Three Questions to Guide Our Discussion:
1) What should we consider when selecting words?
2) What are the most common words acquired by mature speakers and readers at a particular grade?
3) How can teachers design a systematic vocabulary instructional approach based on research?

Considerations When Selecting Words

• Representative - Is the word essential for understanding the text?
• Repeatable – Will the word be used again in this text or in this course?
• Transportable – Can the word be used in other content areas?
• Contextual Analysis – Can the student arrive at the meaning through context?
• Structural Analysis- Can the student arrive at the meaning through structure?
• Cognitive Load – How many words are reasonable to teach?

From Fisher, Frey, & Lapp. 2009. In a Reading State of Mind: Brain Research, Teacher Modeling, and Comprehension Instruction. IRA.

And More Considerations . . .

• Which words should we teach for a particular lesson?
• Are there words we could skip for direct instruction?
• What do the students already know about related concepts?
• How deeply do students need to examine each word?
• What do we want students to know about each word?
• How much time should we spend on each word?
• What are the best strategies to teach each word (e.g., semantic mapping, feature analysis, concept mapping)?
And a Few Final Thoughts

• Is understanding the word important to understanding the selection?
• Does this word represent a specific concept students definitely need to know?
• Are students able to use context or structural-analysis skills to discover the word's meaning?
• Can working with this word be useful in furthering students’ context, structural analysis, or dictionary skills?
• How useful is this word outside of the reading selection currently being taught?

Research-Based Resources
That Can Help Us

What are common words acquired by mature speakers and readers at a particular grade level?

Research-Based Lists

Fry’s 1,000 Instant Words (Fry & Kress, 2007). The 1,000 most frequent words
Dale’s list of 3,000 Words (Chall & Dale, 1995). 3,000 words that most 4th graders know
Beck, McKeown, and Kucan (2002). Words for Tier 1, Tier 2, and Tier 3 instruction. Tier 2 words are used for vocabulary instruction.
Biemiller’s Words Worth Teaching in Kindergarten-Grade Two and in Grades Three-Six (Biemiller, 2009). One list of about 2,000 words and one of about 4,000 words.
Coxhead’s Academic Word (Coxhead, 2000). 570 word families that occur reasonably frequently over a range of academic texts.
Hiebert’s Word Zones: 5,586/3,913 Words grouped into four word zones: 300, 500, 1000, and 2000 words. The 4,000 most frequent word families
http://www.textproject.org/library/resources

Classification of Words

• Easy – Meanings known by 80% or more of children, does not require instruction
• High Priority – Meanings known by 40-79% of children, best words for instruction
• Difficult – Meanings known by fewer than 40% of children, appropriate for instruction in later years


Biemiller’s Words Worth Teaching

Closing the Vocabulary Gap Before the End of Second Grade

Biemiller research found that vocabulary knowledge could be classified into three categories. He identified 1600 high priority root word meanings that should be taught between Kindergarten and second grade.

Three-Tiered System for Learning Words

<table>
<thead>
<tr>
<th>Tier 1 Words</th>
<th>Tier 2 Words</th>
<th>Tier 3 Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic words that don’t require instruction (e.g., friend, run)</td>
<td>High-frequency, high-utility words for mature language users (e.g., redundant, justify)</td>
<td>Low-frequency words usually found in content areas (e.g., ecosystem, separation of powers)</td>
</tr>
</tbody>
</table>

**Vaca & Vaca Word Classifications**

- **General Words**
  - Common to everyday language and have meanings that are widely known (similar to Tier 1 words)

- **Specialized Words**
  - Words used more frequently in print than in speech and often possess multiple meanings that are changed by the context (similar to Tier 2 words)

- **Technical Words**
  - Words that are specific to an academic content and have a precise meaning (similar to Tier 3 words)


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**So, what does this mean for instruction?**

1. Provide Explicit Vocabulary Lessons
2. Include Vocabulary Instruction in Writing About Reading
3. Include Vocabulary in Book Orientations
4. Use Theme Sets for Multiple Exposure to Vocabulary
5. Include Oral Language Phase with Interactive Read Alouds

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**Vocabulary Development**

- Research suggests that if students are going to grasp and retain words and comprehend text, they need incremental, repeated exposure in a variety of contexts to the words they are trying to learn.

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**How Can Teachers Design a Systematic Vocabulary Instructional Program?**

- Where would instruction occur within the framework?
- What words should be taught?
- What strategies should be taught?
- How would vocabulary knowledge be assessed?

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**Where to Address Vocabulary**

- During Interactive Read Aloud
- During Word Study/Vocabulary Component
- During Writing About Reading

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**Teach Vocabulary Within Guided Reading**

- Before, during, and after reading:
  - Before: Predict vocabulary meanings during book orientation and record predictions on vocabulary anchor chart; include new words in book orientation
  - During: Pay attention to vocabulary words within text, identify words for follow-up discussion
  - After: Discuss vocabulary meanings and revise anchor chart for precision; record vocabulary in Reading Log, such as definition, examples, and symbols (Vocabulary Section)
Teach Vocabulary During Text Discussion

- Use specific vocabulary in complete sentences
- Use sentence stems that describe the meaning of the word
- Ask questions that include the vocabulary in the question
- Retell the story in correct sequence
- Use language signals to explain, sequence, describe, compare, contrast, and summarize information

In Summary...

- Expand vocabulary knowledge – beginning with common, everyday ‘grade-level’ words and build connections from those words.
- Create a network of word knowledge – multiple meanings, multiple parts of speech, synonyms, words parts, idioms, phrases.

Book Orientation as a Scaffold for Introducing New Vocabulary

The teacher must understand the theme (big idea) of the book and be able to scaffold the reader in using his/her background knowledge to construct new learning. As the student looks through the pages, the teacher exposes the child to new vocabulary, while simultaneously prompting the child to use known words for crosschecking language and visual information.

Using Writing for Developing Vocabulary Knowledge

Collecting Words in Reading Log

Predicting Word Meanings from Reading
Comparing Poetic and Ordinary Words

<table>
<thead>
<tr>
<th>Poetic</th>
<th>Ordinary</th>
</tr>
</thead>
<tbody>
<tr>
<td>When the sun rises</td>
<td>When the sun rises</td>
</tr>
<tr>
<td>paints the dawn sky</td>
<td>paints the dawn sky</td>
</tr>
<tr>
<td>with its gold</td>
<td>with its gold</td>
</tr>
<tr>
<td>Hawk sail on</td>
<td>The hawk flies</td>
</tr>
<tr>
<td>waves of light in the sunset</td>
<td>waves of light in the sunset</td>
</tr>
<tr>
<td>The fog comes</td>
<td>The fog comes</td>
</tr>
<tr>
<td>on little cat feet</td>
<td>on little cat feet</td>
</tr>
</tbody>
</table>

Using Sentence Stems

- My feet remind me of Christmas, because the homes had stockings on their fireplaces. The people had a Christmas tree. It was a time when they decorated (or) ate things (or) danced and sang. The house was a lot of fun.

Transitional Words and Phrases

Associated with Types of Texts

See, for example, page 46 in Apprenticeship in Literacy (2nd ed)

Examples of Language Frames

- We are reading this piece because ____________
- When I think about this piece, I am reminded of ____________
- I need to know more about ____________ because ____________
- I noticed this piece is organized like ____________
- The author’s words show me that ____________

Examples of Language Frames for Literature Discussion Groups

Apprenticeship in Literacy (2nd ed), p. 186

Strategy Frames

- Initially, I was confused about the word ____________, but I looked at ____________ and that helped me figure it out.
- When I come to a word I don’t know, I can ____________.
- I reread this page to check on ____________.
- The author obviously thinks this is important because he ____________.
Compare and Contrast Frame

_______ and ________ are the same because they ________. Both _________ and _________ have similar ________. Both also have ________ as well as _________. One way they are different is ________. Although they share ________, only _______ is the _______est.

Description Frame

A _______ is a type of _______. It is made up of _________ and looks like _________. Some _______ have _________ such as _________. For example, _________ has several characteristics. One characteristic is _________. Another characteristic is _________, which is important because _________.

Sequence Frame

Here is how a _______ is made. First, _________. Next, _________. Then _________. Finally, _________.

On (date) ________ happened. Prior to that _______ was _________. Then, _________. After that _________. In the end, _________.

Language Frames for Argumentation

- Making a Claim
  - I observed _______ when ________.
  - I compared _______ and ________.
  - I noticed _______ when ________.
  - The effect of _______ on ________ is ________.

- Providing Evidence
  - The evidence I use to support _______ is ________.
  - I know that _______ is ________ because ________.
  - Based on _______, I think ________ is ________.
  - Based upon ________, my hypothesis is ________.

Language Frames for Argumentation

- Asking for Evidence
  - I have a question about ________.
  - Does _______ have more ________?
  - What causes _______ to _________?
  - Can you show me where you found the information about ________?

- Offering a counter claim
  - I disagree with ________ because ________.
  - The reason I believe _______ is ________.
  - The facts that support my idea are ________.
  - In my opinion _________.
  - One difference between my idea and yours is ________.

Academic Prompts and Questions

Apprenticeship in Literacy (2nd ed).
Pp 184-185
A Few Examples of Academic Prompts and Questions

- Questioning
  - What do you think the story means?
  - Where can we find the answer to this?
  - This seems a little confusing. What facts from the text can we use to clarify what the author means?

- Summarizing
  - What is your opinion of this passage?
  - How would you summarize this story?
  - Let’s combine the main points into the big idea.

Working With Words in Small Groups

- Concept Sorts – Sort words written on cards according to attributes or characteristics.
- Semantic Feature Analysis – Classify words according to relationships between concepts and determine whether particular attributes are a feature of the word.
- Text Impressions – Use a list of vocabulary from the text to write a paragraph that links all the words together.
- Analogies – Forming relationships between words and the commonality of the relationship.

See www.ualr.edu/literacy

Concept and Vocabulary Development Literacy Task Cards

Example of 2nd grade Concept Map

General Advice for Planning Instruction

- Teach a minimum of two new words a day from research-based lists (mostly Tier 2 words)
- Use sentence stems and language phrases to scaffold oral conversation.
- Explain the word meaning and create opportunities for students to use the word in conversation.
- Create and refer to vocabulary anchor charts.
- Teach strategies for solving words.
- Have children collect words for Vocabulary Section of Reading Log.
- Keep a record of student vocabulary words.
- Embed vocabulary instruction in Writing About Reading.
- Use theme sets for multiple exposure to words.

See www.ualr.edu/literacy

Teacher Resources Link
Vocabulary Lessons K-8
Literary and Expository Texts
In the story, commotion were all barking at all of the aunts and uncles and cousins where at their house and dogs. In the book, on Christmas day, Santa brought. Christmas in the Country, R.11.2.7, R.11.2.8, W.7.2.5; 3

**Vocabulary Words**

Stellaluna

**Summary**

Knocked from her mother's side entrance by an attacking owl, Stellaluna lands instead in a bird nest. This adaptation takes this side world in her own turns up a story about when she is adopted by the occupants of the nest and adapts to their peculiar bird habits. Two pages of notes at the end of the story provide factual information about bats. "Delightful and informational but never didactic; a mandated delight." — Anna Reviews

**Author:** Cynthia Rylant

**Language:** English

**Copyright:** 1993

**Book Tape:** Fiction/ Age Range 5 and up

**Vocabulary Words**

- Knoc
- Knocked
- Mother's
- Side
- Entrance
- Attacking
- Owl
- Nest
- Adopted
- Occupants
- Peculiar
- Bird
- Facts
- Informational
- Delightful
- Didactic

**Guided Reading**

- Students read several books at their instructional level in the themed set.
- Students engage in book talk about these books with teacher scaffolding.
- Students write in their log using vocabulary from the text.
- Teacher scaffolds students to extend their vocabulary using sentence frames and language starters.

**Text Maps for Teaching Structure**

- Teacher introduces the text map for organizing the content information across the text set.
- Teacher explains transition words that will be used to compare, contrast, and link ideas within the text map.
- Teacher and students engage in a shared writing that uses transitional words, phrases, and specialized vocabulary to represent the text message.
- Teacher scaffolds student to reread the message while fading in and out of the reading, as needed, to promote student independence.

**Compare and Contrast Frame**

______ and _______ are the same because they_______. Both_______ and _______ have similar_______. Both also have______ as well as_______. One way they are different is_______. Another difference is_______. Although they share_______, only_______ is the______-est.
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Sequence Frame

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On (date) _______ happened. Prior to that _______ was _______. Then, _______. After that _______. In the end, _______.

Procedures for Teaching New Word

- Label and Define: Assign a label and short meaning to an unfamiliar term.
- Contextualize: Read the new word in text.
- Provide Example: Connect to something familiar.
- Elaborate on Attributes: Discuss how the word is similar or different to something else.
- Provide Strategy: Articulate strategy for figuring out the meaning of the word.

Example of Explicit Vocabulary Instruction

- **Word:** several (adjective)
- **Contextualize the Word:** Several of the students went home sick.
- **Definition:** The word several means a number that is more than three.
- **Use in Other Contexts:** I collected several rocks during recess. Several of my friends were at the swimming pool.
- **Word Game:** Which number means several? Two or four?
- **Reinforcement:** What is the word that means a number more than three?
- **Word Work:** In the Vocabulary section of your Reading Response Log, write the word several. Draw a picture showing several rocks collected at recess OR several friends swimming at the pool. Write about your picture using the word several.

In Summary. . .

- Vocabulary instruction should be meaningful, contextually bound, and based on what children already know.
- The goal is to create a network of word knowledge – multiple meanings, multiple parts of speech, synonyms, words parts, idioms, phrases.
- Teachers create the conditions for children to notice words in spoken and written language and to use these words across multiple settings.
<table>
<thead>
<tr>
<th><strong>K-4 Vocabulary Instruction</strong> – Instructional Sequence to use after a Read Aloud (from Bringing Words to Life)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title:</strong> A Chair For My Mother</td>
</tr>
<tr>
<td><strong>Author:</strong> Vera Williams</td>
</tr>
<tr>
<td><strong>DRA Level:</strong></td>
</tr>
<tr>
<td><strong>Word Count:</strong></td>
</tr>
<tr>
<td><strong>Contextualize the Word:</strong> Tell how it was used in the story, reread the sentence.</td>
</tr>
<tr>
<td><strong>Say word together:</strong> Puts word into the child's phonological processor.</td>
</tr>
<tr>
<td><strong>Student friendly definition:</strong> Define in own words, pair with example.</td>
</tr>
<tr>
<td><strong>Use in other contexts:</strong> Examples in contexts other than one in the story.</td>
</tr>
<tr>
<td><strong>Engage students:</strong> Students interact with target words</td>
</tr>
<tr>
<td><strong>Word Game:</strong> What are some things someone might do to earn a tip? Do you think these workers might earn tips? Taxi driver? Waiter? Teacher? A maid/ house cleaner? A hotel bellman? A lawyer? A doctor? etc...</td>
</tr>
<tr>
<td><strong>Say word together:</strong> Students repeat the word again to reinforce phonological processor.</td>
</tr>
<tr>
<td><strong>What is the word that means ________?</strong></td>
</tr>
</tbody>
</table>

In the book, Mama empties out the change from tips in her purse for the little girl to count. Say the word, tips. In this story a tip is money given to someone who does a job for you. She tipped the waitress $5.00 for her good service. **Word Game:** What are some things someone might do to earn a tip? Do you think these workers might earn tips? Taxi driver? Waiter? Teacher? A maid/ house cleaner? A hotel bellman? A lawyer? A doctor? etc...

In the book, Mama says that whenever she gets a good bargain on something she will buy it. Say the word, bargain. A bargain is when you buy something for a lower price than usual. The sweater was a real bargain at $10.00. **Word Game:** Which is the better bargain? Shirt for $2.50 or $2.75? Candy bar for $1.25 or .99? A book for $5.00 or $7.25? **What is the word that means sold for a lower price than usual?**

In the story, Mama puts all her savings into a jar. Say the word, savings. Savings means to money we keep. (Money we don't spend!) All of my savings go into the bank. **Word Game:** Turn to your neighbor and tell them if you have savings. What did you do to earn the money? Where do you keep your savings? **What is the word that means money we don't spend?**

**Use all the words together:** All words taught during the lesson are brought together by relating words, one context for all the words, or same format. Review words from previous weeks. *Make an anchor chart on the wall with this weeks words to help your review all of them.*