## Vocabulary Instruction



Foundations
Golorado Reading First

## Starting Out...

NAEP National Assessment of Educational Progress (1998)

## 30\% of the 60\%


$\square$ Can read at start of school
$\square$ Find leaming to read fairlyeasy
$\square$ Find learning to read chälenging

- Experience extreme diffialties


## What's Vocabulary?


expressive
print
"My teacher said the school has tough new standards and I need to improve my vocabulary. What's 'vocabulary'?"

## Vocabulary Knowledge

Learning, as a language based activity, is fundamentally and profoundly dependent on vocabulary knowledge.

Learners must have access to the meanings of words that teachers, or their surrogates (e.g., other adults, books, films, etc.), use to guide them into contemplating known concepts in novel ways (i.e., to learn something new).

## The Importance of Vocabulary

- The importance of vocabulary knowledge to school success, in general, and reading comprehension, in particular, is widely documented.

Becker, 1977; Anderson \& Nagy, 1991

- Matthew Effect, "The rich get richer and the poor get poorer."


## Closing the Achievement Gap

It is now well accepted that the chief cause of the achievement gap between socioeconomic groups is a language gap.
-E.D. Hirsch 2003

## Effective Instruction

Key ingredients of successful vocabulary development involves the teaching of specific words AND providing direct instruction in word learning strategies.

## Reading and the Brain

Inferior frontal
(Meaning of the
text and schema)
(word analysis)
anterior

posterior

I cdnuolt blveiee that I cluod aulacity uesdnatnrd what I was rdanieg. The phaonmneal pweor of the hmuan mnid, aoccdrnig to a rscheearch at Cmabrigde Uinervtisy, it dseno't mtaetr in what oerdr the Itteres in a word are, the olny iproamtant tihng is that the frsit and Isat Itteer be in the rghit pclae. The rset can be a taotl mses and you can still raed it whotuit a pboerlm. This is bcuseae the huamn mnid deos not raed ervey Iteter by istlef, but the word as a wlohe.
Azanmig huh?

## Stages of Reading Development

| PREALPHABETIC <br> or PRELITERATE | STOP | Pre-k |
| :---: | :---: | :---: |
| PARTIAL or EARLY <br> ALPHABETIC | cat fog <br> pet bin | Late k to <br> early grade 1 |
| FULL or LATE <br> ALPHABETIC | street rake <br> sang turn | Late grade 1 to <br> early grade 2 |
| CONSOLIDATED <br> ALPHABETIC or <br> ORTHOGRAPHIC | un-re-li-a-ble | Late grade 2 |

## The Vocabulary Gap

## Understanding the Language Gap

- High knowledge 3rd graders have vocabularies equal to low performing 12th graders.
- Top high school seniors know 4 times the words of lower performing classmates.
- 1st grade students from high SES groups know about twice as many words as lower SES students.
- Students need to learn an estimated 4000-5000 new words each year.


## Meaningful Differences

| Actual Differences in Quantities of Words Heard |  |
| :--- | :--- |
| In a typical hour, the average child would hear: |  |
| Welfare: | 616 words |
| Working Class: | 1,251 words |
| Professional: | 2,153 words |
| Actual Differences in Quality of Words Heard |  |
| Welfare: | 5 affirmations, 11 prohibitions |
| Working Class: | 12 affirmations, 7 prohibitions |
| Professional: | 32 affirmations, 5 prohibitions |

Hart \& Risley 1995, 2002

## Meaningful Differences

|  | Words <br> heard <br> per hour | Words <br> heard in <br> a 100-hour <br> week | Words <br> heard in <br> a 5,200 <br> hour year | 4 years |
| :---: | :---: | :---: | :---: | :---: |
| Welfare | 616 | 62,000 | 3 million | 13 million |
| Working <br> Class | 1,251 | 125,000 | 6 million | 26 million |
| Professional | 2,153 | 215,000 | 11 million | 45 million |

## How Many Words Do People Know?

There are roughly 88,700 word families used in books up to $12^{\text {th }}$ grade.

About half the words we read are the 107 words of highest frequency. Another 5,000 words account for the next 45\%, so that 95\% of the text we read consists of about 5,100 different words (Adams, 1990).

## How Many Words Do People Know?

- 300-500 words per year can reasonably be taught through direct instruction (8-10 words per week, 50 weeks per year).
- Most of these new words learned must come from context (Sternberg, 1987).
- ELL students rely more heavily on direct instruction.


## Partner activity: <br> The GAP keeps getting bigger!!

- Discuss how this information may influence your instructional decisions.
- How can schools help to close this the gap?


## Ways Words Are Learned

## Importance of Independent Reading

Research has shown that children who read even
ten minutes a day outside of school experience
substantially higher rates of vocabulary growth
between second and fifth grade than children who
do little or no reading.

## Variation in the Amount of Independent Reading

| Percentile <br> Rank | Minutes Per Day |  | Words Read Per Year |  |
| ---: | ---: | ---: | ---: | ---: |
| 98 | 65.0 | 67.3 | $4,358,000$ | $4,733,000$ |
| 90 | 21.2 | 33.4 | $1,823,000$ | $2,357,000$ |
| 80 | 14.2 | 24.6 | $1,146,000$ | $1,697,000$ |
| 70 | 9.6 | 16.9 | 622,000 | $1,168,000$ |
| 60 | 6.5 | 13.1 | 432,000 | 722,000 |
| 50 | 4.6 | 9.2 | 282,000 | 601,000 |
| 40 | 3.2 | 6.2 | 200,000 | 421,000 |
| 30 | 1.8 | 4.3 | 106,000 | 251,000 |
| 20 | 0.7 | 2.4 | 21,000 | 134,000 |
| 10 | 0.1 | 1.0 | 8,000 | 51,000 |
| 2 | 0 | 0 | 0 | 8,000 |

## Vocabulary affects comprehension

- Vocabulary knowledge is directly related to comprehension
- Decoding is NOT enough, you must understand meaning to comprehend text
- Fluent word recognition affects comprehension


## What is needed for us to understand this?

- One farad is a very large capacitance. In many applications the most convenient units of capacitance are microfarad and the picofarad. For any capacitor in vacuum the capacitance C depends only on the shapes, dimensions and separation of the conductors that make up the capacitor. If the conductor shapes are more complex than those of the parallel-plate capacitor, the expression for capacitance is more complicated.


## Vocabulary is NOT just...

- Teaching Dolch words
- Teaching decoding
- Guessing the meaning of a word in a sentence
- But rather...a robust approach that is direct, thought-provoking, playful, and interactive.


## Words are learned...

Rarity and variety of words found in children's books is greater than that found in adult conversation!

So read, read, read!!!!!
More words are learned through reading than from spoken language.

## Partner Share

Who motivated you to read?

- How did they do it?
- Was there a particular situation that motivated you?


## Words are learned...

- Explicit instruction
- Constructing definitions
- Analyzing word structure
- Exploring word relationships
- Multiple exposures and examples
- High reading volume


## Words are learned... Indirect learning of vocabulary

- Listening to stories

Active participation better than passive

- High student response rate
- Teacher Talk


## Activity- Think, Pair, Share

- How have you learned new words?
- Are there any words you learned incorrectly? Why?



## Least Effective Strategies

- copying definitions
- writing sentences
- memorizing definitions from a vocabulary study sheet
- asking students to use context for unknown words when there is little contextual support


## Most Effective Strategies

- using simple conceptual maps
- teaching specific context clues
- selecting Tier II words to teach
- increasing independent reading
- directly teaching word learning strategies
- connecting new concepts/meanings to existing knowledge base


## Impact of Direct Vocabulary Instruction



## Vocabulary instruction

- Before reading
- Pre-teach essential words (Tier II)
- During reading
- Repeated exposure to words
- Incidental learning
- Interacting with rich text
- After reading
- Enhance vocabulary through connections (graphic organizers, active involvement with words...)
- Create a system to encourage ongoing utilization


## Isabel Beck's Three Tier Module

for choosing vocabulary words from text.

Low Frequency Words...may need for specific passages/themes, but not generally needed nor high frequency

Words to Teach
High Frequency words necessary for
understanding
High Utility GENERALIZABLE
High Frequency words necessary
understanding
High Utility GENERALIZABLE
High Frequency words necessary f
understanding
High Utility GENERALIZABLE

Known, Common words
Connected with prior knowledge Very important for ELL and students with limited experiences

## 

 when
## Partner Activity- Tier 1,2,3 Sort

- Which words would you choose to pre-teach? Why?
-Lorita practiced her cartwheels in gymnastics class.
-A caterpillar changes into a pupa before becoming a butterfly


## Your Turn

## Create a group of 2 or 3

- From the following slide, choose 3 vocabulary words to fit in each Tier... 1,2,3
- Be prepared to share your thought process.
- Are we all in agreement?
- Why or What?
- What does a teacher's instructional decision depend on?

| scurry | reign | feast |
| :--- | :--- | :--- |
| happy | huntsman | moon |
| delighted | work | amusing |
| convince | little | marsh |
| burrow | impatient | warm |
| noble | clock | shawl |
| exhausted | hear | glider |
| bright | story | reluctant |
| ship | thicket | angry |
| appropriate | timid | continent |

## Two Types of <br> Vocabulary Instruction

$\checkmark$ Word Learning Strategies
$\checkmark$ Teaching Specific Words

## Vocabulary Instruction



## Steps in Explicit Strategy Instruction

- Direct explanation
- Modeling
- Guided practice
- Feedback
- Application


## Word-Learning Strategies Commonly Taught

## - Context clues

- Word structure
- Syntactic clues


## Context Clues: When I see a word I don't know I'm going to...

The deer would be able to eat all they wanted in the meadow, for there was an abundance of grass.

- Would the deer be able to eat all they wanted?
- How much grass must be in the meadow?
- So, what do you think abundance means?
"Lots"..."Enough for everyone"
- Yes, abundance means enough for everyone.
(Adapted from Beck, Mckeown, Kucan)


## Context Clues: When I see a word I don't know I'm going to...

- When the lamp feel over and crashed on the floor, my sister screamed, my friend started running in the hall, and the dog started barking. My dad hollered, "What's all that commotion?"
- What are some things that are happening?
- ...So, what do you think commotion means?
- Yes, commotion means...
(Adapted from Beck, Mckeown, Kucan)
Colorado Reading First


## Word Association:

- Which word goes with abundance? Feast or snack? Why or why not?
- Have you ever...? Helps students understand that they have a place for the word in their vocabularies.
- Describe a time when you might have been a part of a commotion.
- Idea Completions:
- There was an abundance of food on the table because...
- When might you...
- How might you...
- Why might you...


## Structural Analysis

(adapted from Anderson \& Nagy, 1992)

- Children encounter the word "unfruitful" in text
- Here's a word I haven't seen before. The first think l'll do is see whether there are any parts I know root, prefix, suffix. Ok I see I can divide it into
- "un" which means not,
- "fruit", and
- "ful" which means full of


## Word syntax - multiple meanings

- Definition of word as it's used in passage
- Present
- I got a present today.
- Newspapers write about the present.
- I present you with an award.
- Cold
- I put on my sweatshirt because I was cold. After my trip I got a cold.


## Teaching Specific Words

- Preparation
- Select Tier 1,2,3 words
- Instruct on Tier 2 words
- Model decoding strategies
- Teach student friendly definitions
- Model context clues in text...connections
- Integrate multiple exposures
- Follow-up and continual review


## Preparation

The enormous wolf howled for joy. It was winter season and he was hungry. As a terrified mouse huddled under a nearby bush, he could hear the wolf sniffing the air as he prowled nearby. The fearless mouse was curious about what the ferocious wolf was going to do next.

## Select Tier 1,2,3, words

Tier 1 -
Tier 2 -
Tier 3 -

## Tier 2- I do it. We do it. You do it Explicit instruction

- Touch the word (or some cue)
- This word is enormous
- Say it with me enormous
- What word everyone..... (enormous)
- Enormous means very large.
- What does enormous mean? (very large)
- What's another way of saying very large? (enormous)
- Tell your partner something in this room that is enormous.
- Use in a sentence. (I think...)


## Using the following words...

Brilliant
Ferocious

- Reluctant
- Admire


## Tier 2- I do it. We do it. You do it Explicit instruction - Your turn

Touch the word (or some cue)
This word is ...Response

- Say it with me ...Response
- What word everyone..... Response
... means ...
- What does ... mean?
- What's another way of saying ...?
- Tell your partner...
- Use in a sentence. (I think...)


## Correction procedure

$\square$ Always leave your students with the correct response!!!

- See, hear, say and possibly write
- Tell: That word is enormous
- Ask: What word?
- Repeat: Enormous means. (very large)
- Check: What does enormous mean?


## Examples and non-examples

Students say or gesture...Yes or No
Teacher asks...Why or Why Not?

- Ask questions:
- Would an ant be enormous? What would it be?
- Is a rocket ship always enormous?
- The building was enormous. Was it very big or small?
- To see the top of the tree, I had to lean my head way back and look up and up and up. Was the tree enormous or colorful?


## Examples and Non-examples

Students say or gesture... Yes or No Teachers Ask...Why or Why Not?

Show pictures of examples and non examples

- This is a famous tower in Paris, France.
- Is it enormous? Why or why not?
- Show us enormous arms



## Teach Examples and non-examples

Ask question: Yes, No, and Why or Why Not
If your best friend came over to play would you feel delighted?"

- "If your best friend was sick would you feel delighted?"


## Expanding meanings

- Elaborate on words that have many meanings
- Season has different meanings. In our story it means time of year.
- Can you think of other meanings for the word season? (spice)
- Tell your partner what season means.


## The Four Peas of Vocabulary

- Provide opportunities for reading wide and reading volume with accountability.
- Pre-view the text to determine which words to teach.
- Pre-teach meaningful words and phrases.
- Provide direct instruction and multiple exposures of the vocabulary in reading, writing, listening and speaking.


## Deepening children's understanding of words

- Goal 1 is to enhance children's understanding or definition of the word
- Goal 2 is to deepen children's understanding of how the word relates to other known words
- In other words, to build file labels for their mental filing cabinet of words
- Goal 3 is to help children use the new words in oral and written language
- Goal 4 is to build motivation and excitement for independent word study and monitor their use.


## $1^{\text {st }}$ Goal: enhance definition of a word

 Making Definitions (Aacivity 45, Moats)- A darkroom is a room for developing photographs that has very dim, special light and running water.
- To plunder is to rob or pillage, usually by an invading or conquering group.


## Gan@ adapted from Lively, August, Carlo \& Snow, 2003

Charades

- Act Out A Target Word's Meaning
- Word Bee
- Work together to define the target word and present definition to classmates
- Word substitution
- Team mates replace a target word in a sentence with another word that means the same thing
- Word guess
- Guess the word with fewest clues possible


## $2^{\text {nd }}$ Goal: build categorical knowledge

## Categorizing Words <br> (Activity \#4, Moats)

Sort the words into categories and subcategories.
Can you show or represent your categorical knowledge in a "mind map" or graphic organizer?
Reflect: What did you need to know to accomplish the task?
(Note for K-2, you may wish to use picture cards or objects or allow students to draw a response in an organizer)

## Word Sort Activity

- Pass out the word in the envelope to your group.
- Read your word and group yourselves in some way according to the words they have.
- After grouping yourselves, discuss why you grouped yourselves the way you did.
- Sit down and write out how they might organize these words in writing using some type of graphic representation.
- Share!


## Semantic Feature Analysis

| term | animal | mammal | fur |
| :--- | :---: | :---: | :---: |
| dog | + | + | + |
| cat | + | + | + |
| snake | + | - | - |

## Venn Diagram



## Further deepen understanding of meaning of word and how it relates to other words

Antonyms and Scaling (Activiy $¥ 8$, ,oats)

- Gradable antonyms: tiny----enormous
- Complementary antonyms: dead----alive
- Gradable antonyms lend themselves to scaling of terms to show degrees of an attribute.
putrid foul stinky unpleasant scented fragrant intoxicating


## Vocabulary Instructional Example

Analogies

Colorado Reading Etrst

## Mapping and graphic organizers

- Especially helpful for ELLs
- Show relationships between words
- Supports schema- understanding of the concept of the word
- 1- Determine the tool
- 2- Present topic through visual tool
- Introduce relationship using map or chart
- Use map or chart to set purpose for reading
- Guide students to confirm predictions made on chart or clarify their understanding
- Review and integrate after reading
- Use chart as a tool to guide summary of the content


## $3^{\text {rd }}$ Goal: get children to use new words in oral and written language

 Snow, 2003

- The sun was brilliant this afternoon.
- I came in from recess grudgingly.
- Because of the smile on his face I knew he must have been delighted that I came.


## Teaching vocabulary all day long

- Informational text is useful (Duke, 2000)
- Content-area vocabulary
. Science text
- Offers more prefix and suffix words
- Offers repetition
- May offer hands-on learning of vocabulary in an authentic and meaningful context


## Suggested activities

- Word wall
- Prefix/suffix/base word trees
- Vocabulary definition posters
- Game- Words of the week... Keep visual tallies of use of words during class
- Bingo
- Matching



## Indicator's of Effective Instruction

Are the words for the selection posted with yes
student friendly definitions?
Is a word wall present in the classroom? yes
Is the word wall and posted vocabulary yes accessible for student use?

Are word learning strategies posted?
yes
no

Does the teacher reference posted resources?
yes

## Observing Instruction~ Introduction of Words

- Does the teacher use a DIRECT INSTRUCTION method to introduction new words? (Teach, Model, Practice, and Apply)
- Are the words chosen appropriate for instruction~Tier II?
- Does the teacher provide a variety of scaffolded examples to allow students to interact with the words?
- Does the teacher allow for whole group, active participation when interacting with the words?
- Is evidence of use of the language arts transparency apparent?
- Are students given activities for concept mapping?
- Do students show evidence of 'understanding' when interacting with the words?
- Does teacher assess word knowledge acquisition?


## How to Teach Words: A Seven-Step Process

1. Directly Teach It and Show It
2. Students Restate It and Act It Out
3. Students Picture It/ Draw It
4. Students and Teacher Use It
5. Students Discuss It
6. Students Review It
7. Teacher Monitors It and Utilizes Word Walls

The greatest danger for most of us is not that on aim is too high and we miss it, but that it is too low and we reach it.

