Building a vocabulary foundation for comprehension: Big words for little kids

Captivate
Enthusiastic
Soar
mesmerize
awe

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What we’ve known for a long time

- Vocabulary knowledge is a powerful predictor of reading comprehension.
- By 4th grade, many children experience a slump in reading comprehension caused by below-grade vocabulary.
And more recently . . .

- Evidence of how strongly early vocabulary relates to later literacy
- Growing awareness of individual differences—and how they stick around
Specifically --
Studies have shown

- Vocabulary size in kindergarten predicts reading comprehension in the intermediate and middle school years. (Snow)

- Orally-tested vocabulary at the end of 1st grade predicts reading comprehension 10 years later. (Cunningham & Stanovich)
What’s the message?

Students are “doomed” in kindergarten

But—isn’t that what school should address?

So let’s look at:

• what goes on in school vocabulary
• why it doesn’t change this relationship
What is vocabulary instruction in the early grades?

In practice “vocabulary” often means
• sight word instruction
  give, have, were

OR quick meaning for a word found in text:
  “Enormous—that means it’s big”
  . . . but no follow-up
What’s vocabulary in later grades?

Dictionary look-up: All students assigned to find definition of each word

Then write a sentence using that word
Why does vocabulary instruction look like this?

Assumptions:

- Vocabulary is learned from context
- Mentioning = Learning
- Word meaning = Definition
Instruction won’t work . . .

If it’s not consistent with what we know about how vocabulary is acquired.
Principles of vocabulary acquisition

1. Vocabulary knowledge is a network of connected concepts

2. Vocabulary is learned from context—BUT . . .

3. Learning is incremental
1. Vocabulary knowledge is a network of connected concepts

What is the significance of that?

You don’t have a dictionary in your head.
Vocabulary/network, cont.

Can a tyrant be a miser?
...tale of a 4th grade thinker

Vocabulary knowledge as network of connected concepts: consequences for instruction

TO BE DISCUSSED

Nashville, TN 2008
2. Vocabulary is learned from context—BUT . . .

The richest context for learning new words is immediate oral language

(Picture of a boy and a girl talking to each other.)
Children learn everyday words easily

- The words of oral language are repeated with great frequency
  - 95% from top 5,000 words

- Oral context is redundant
  - gesture
  - voice intonation
  - surrounding physical context reinforce word meanings
As Children Reach School Age

Everyday oral contexts cease to be a rich source for vocabulary growth

Fewer and fewer unfamiliar words are found in speech
What’s left as unfamiliar words are “hard” words

<table>
<thead>
<tr>
<th>Source</th>
<th>Hard words per 1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-school books</td>
<td>16.3</td>
</tr>
<tr>
<td>Adult conversation</td>
<td>17.3</td>
</tr>
<tr>
<td>Prime-time television shows</td>
<td>22.3</td>
</tr>
<tr>
<td>Children’s books</td>
<td>30.9</td>
</tr>
<tr>
<td>Adult books</td>
<td>52.7</td>
</tr>
<tr>
<td>Newspapers</td>
<td>68.3</td>
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</tbody>
</table>

From Hayes & Ahrens

Nashville, TN 2008
Cautions on Learning from Context

- oral vs. written
- wide reading
- individual differences
- not all contexts are created equal
Use of Context

High ability readers are better able to use context clues to gain meaning:  
54% vs. 40%

Even high ability readers in a situation with strong context support don’t always get the meaning:  
82% vs. 69%

(McKeown, 1985)
Ella watched as Nora got smaller and smaller and finally _______.

“This town will be the death of us,” Brian said _______.

Freddie looked at his team members and thought that each looked more _______ than the next.

It had been a long hike, with very steep cliffs on the way up. It was John’s first experience mountain climbing, and he felt __________.
3. Learning is incremental

A word is not learned the first time it is encountered.

A learner needs:

• various facets of information about a word
• practice in use of a word
• to integrate a word into existing knowledge
Ella watched as Nora got smaller and smaller and finally vanished.

What do you know? Is vanished:

• more like disappear or go away?
• is it complete (might she be microscopic?)
• always gradual?
• unexpected?
• deliberate?
• restricted to people?
Given all that—what matters for kids learning words?

Exposure: number of words children heard at home (Hart & Risley)

- Dramatic differences by age 3
- Related to literacy in school at age 9
Beyond Exposure

Children whose language developed most productively took part in conversational interaction--listening and responding.

(Picture of a mother talking to her daughter.)
Vocabulary Instruction Can Play an Important Role

-- it needs to start early!

(Picture of a Man talking to his son who is saying industrious.)

industrious
Instruction, Yes, But Which Words?

Surprisingly little attention

Selection in most studies: “words judged unfamiliar.”

Careful selection is important because we can’t teach all words.

→ Word Tiers
Choosing Words to Teach: Three Tiers

Starting point: words in the language have different levels of utility.

Tier One:

- the most basic words
- *clock, baby, happy*
- rarely require instruction in school
Choosing Words to Teach: Three Tiers cont...

Tier Three:

- words whose frequency of use is quite low, often limited to specific domains
- *isotope, lathe, peninsula*
- probably best learned when needed in a content area
Choosing Words to Teach: Three Tiers cont...

Tier Two:

• high-utility words for mature language users

• *crucial, nuisance, deplete*

• of general utility, found across domains

• more characteristic of written language
Word Tier-anny: Where do these fall?

coincidence  oboe
forlorn  hostile
floor  corner
triumphant  colonial
happy  break
piano  pinnacle
Tier 2 Words are

• not common to children’s oral language

• refined labels for concepts children know

  crucial = important
  nuisance = pest
  deplete = use it up
Why Tier 2 Words?

These are the words literate language users need for comprehending texts that express new ideas.

In other words: They provide entrée into the world of texts.
Words need not be learned in a prescribed order

The only prerequisite: you have to be able to explain a word in terms the learner knows

- inseparable
- reluctant
- delicate
- envious
- remarkable

Words taught at ___ level??
Why such words in kindergarten?

“From that day on, Jessica and her rescuer were inseparable friends.”
(An Extraordinary Egg, Leo Lionni)

“Lisa was reluctant to leave without Corduroy, but her mother insisted.”
(A Pocket for Corduroy, Don Freeman)

“His fingers were so delicate, . . . they could hardly feel any pain.”
(Dr. De Soto, William Steig)
Can children handle these words?

YES!

Anecdotal evidence:

- saturated
- a’sgusting
- Precarious

- Research evidence
  - Beck & McKeown (2007)
The specific research questions

• To what extent can instruction increase young children’s knowledge of the meanings of sophisticated words (Study 1)?

• Are there differential results for varying amounts of instruction (Study 2)?
Findings

• In comparison to control children, K & 1st grade children learned a significant number of target words.

• Words that were given more instruction showed more than twice the gains.
Why teach sophisticated words to young students?

• Provides opportunity to meet or master such words

• Earlier-acquired word meanings are more readily accessed in later life

• Provides a “down payment” on the language children will meet in books
What if children don’t know Tier 1 words?

Listen to the kids—find out what they know!

Talk to kids.

Give them lots of language to think and play with!
Talkative families engaged in added talk beyond necessities of everyday life.

Parents involved their children in a reciprocity of everyday interactions.

*What we need in school are talkative classrooms!*
“Clear your desks.”

“What do I mean when I say clear your desks—what does a clear desk look like?”

“What about a clear sky—what’s that look like?”

“Am I making myself clear . . . wait a minute! Is that like a clear desk?”

Picture of kids in a classroom. Picture of a large temple with mountains in the background. Picture of an empty classroom.
More Talk

Model complete sentences with explicit references:

“Please put the marker in the box on the shelf”

vs.

“Put this over there”

Have students engage in talk:

• telling or retelling stories
• sharing ideas in a prewriting activity
• teach each other something
• give directions
Sources for Vocabulary

Books read aloud
Texts read in the classroom
Words whose concepts fit the text

(Picture of a book reading a book.)
What if texts do not have sophisticated words?

For the story of a boy and his dog who likes to take walks in the woods:

(Picture of a boy walking his dog.)

Add words whose concepts fit the story

companions
fond
meander
When to introduce words

When is the best time to introduce words needed for comprehension?

When is the best time to do elaborated vocabulary work?

Do words ever need to be introduced before reading?
Traditional Start: Dictionary Definitions

63% of the students’ sentences were judged “odd” (Miller & Gildea)

“The train was transitory.”

60% of students’ responses unacceptable (McKeown, 1993)

“He was devious on his bike.”

students frequently interpreted one or two words as the entire meaning (Scott & Nagy, 1997)

“The colonists were exotic in America.”
How’d that happen?

Devious  straying from the right course; not straightforward

transitory  passing soon or quickly; lasting only a short time

exotic  foreign; strange; not native
Dictionaries: Some Better Choices

Learners’ dictionaries

COBUILD: “The dictionary is designed to be read like ordinary English.”

Longman: “The definitions are written using only the 2000 most common English.”

www.amazon.co.uk
www.COBUILD.collins.co.uk
elt.heinle.com
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<th>Word</th>
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<th>Longman</th>
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<tbody>
<tr>
<td>devious</td>
<td>someone who is dishonest and secretive, often in a complicated way using tricks or lies to get what you want.</td>
<td></td>
</tr>
<tr>
<td>exotic</td>
<td>something that is exotic is strange, unusual, and interesting because it comes from a distant country.</td>
<td>unusual and exciting because of a connection with a foreign country.</td>
</tr>
</tbody>
</table>
What is a friendly explanation?

Explanation of a word’s meaning in everyday, connected language.

Which is friendlier (if you don’t know the word)?

**Diligent**  hard-working

someone who is diligent works hard at what they do
About Friendly Explanations
More words—more connections

Characterize the word: when is this word used rather than any other?
--so, go beyond a synonym

Demonstrates how word is used:

• Someone who is dignified . . .
• If you eavesdrop on someone . . .
• If you convince someone of something . .
• Something elusive is . . .
What Kind of Instruction?

Considering the goal is to affect student’s ability to comprehend text

- Both definitional and contextual information
- Multiple exposures in different contexts
- Depth of processing
- Frequent encounters

(Stahl & Fairbanks)
Evidence for Effective Features

Stahl & Fairbanks: Meta-analysis
McKeown, Beck, Omanson & Pople:

TraditionalRich

• 4 encounters    4 encounters
• 12 encounters   12 encounters
Why so many encounters??

Learning word meanings, especially of more abstract words, isn’t particularly efficient.

(recall: context)

When learning happens incidentally, outside of instruction, not aware of the enormous number of encounters

(recall: incremental)
Format for Introducing Words

• Contextualize its role in the story

distress: In the story, Wilbur cried out in distress because he was afraid he was going to be killed and turned into ham and bacon.

• Provide a friendly explanation of the word’s meaning

If someone is in distress they are in danger or pain and needing urgent help.

• Provide an example beyond the story context

If you fell off your bike and broke your arm, you would be in distress.
After a word is introduced . . .

Get students **active** with the words and their meanings _right away_!

_Even good explanations and examples are static information._
Getting Active Responses

Students make decisions about word use

Example/nonexample

• Which would be cozy, sitting on the couch covered with a warm blanket or a sitting on a bike seat?
Students create personal contexts

Student Stems

• Where do you feel cozy? Why?
• What food makes you feel cozy? Why?

Sentence Stem

• My cat looks so cozy when...
  --Always ask why?
Kindergarten Conversation, Part 1

Teacher: When you’re exhausted you’re really tired, tell us how it feels?
Student: Sweaty.
Student: Like I want to lay down.
Student: Out of breath.
Teacher: If somebody is imperious, how are they acting, what do they do?
Student: Like a king.
Student: Ordering everyone around.
Kindergarten Conversation, Part 2

Teacher: When you come in from recess, you could say, “I’m exhausted.” When you climb the stairs, you could say, “I’m exhausted.” When else could you say you were exhausted?

Student: After riding my bike.

Student: When I stay up late.

Student: When I run to see who wins.
Kindergarten Conversation, Part 3

Teacher: I saw a movie that I didn’t hate, but I didn’t really like, so I said it was tolerable. What are some things that you might say were tolerable?

Student: Baby sitting my little brother.

Student: Doing homework.

Student: My sister’s friends.
Help Students Incorporate Words

Find opportunities to keep attention on new vocabulary in the classroom

Gimmicks to move words to beyond instructional contexts: Word Wizard
Getting Visual and Physical

Find someone:
• who looks fierce
• who is ambling
• who might feel grateful

Challenge children to demonstrate:
• being scrunched
• scolding someone
• a dreadful look
Keeping Words Around

Classroom and individual records

Invest in a word bank
Extending Word Use

Word Wizard

• Points for seeing, hearing, using words outside of school

• Points tallied on chart in classroom

(Picture of an owl in a wizard hat wizard saying “Outside of vocabulary class, anytime you hear, see, or use a new word, you can earn points to help you become a WORD WIZARD!”)
Visible Vocabulary

Bulletin boards:
• word from each grade and student work to exemplify
• picture to label with a word from each grade
  --maybe even vote on “sentence of the week”

Post words being learned on classroom doors
• Visitors can join the fun!
Summing up the “How” of Instruction

- Target words of high utility and broad application
- Choose from text or that apply to a text
- Introduce after reading
- Provide examples of use
- Get students interactive
- Provide multiple encounters
- Keep words going in the classroom
- Provide for taking beyond the classroom