4th Pillar Power: Vocabulary

*Deepen vocabulary knowledge without all those words!*

Beth Lawrence, M.A., CCC-SLP & Deena Seifert, M.S., CCC-SLP
Disclosure Statement

• Beth Lawrence and Deena Seifert are speech-language pathologists. They are co-founders of Communication Apptitude Inc., which has created InferCabulary, a web-based vocabulary app, and WordQuations, an iPad app. They financially benefit from sales of these apps. The concepts presented in today’s course are concepts on which the apps were developed.

• Beth and Deena receive author royalties from Academic Therapy Publications for sales of The Test of Semantic Reasoning.
Welcome!

Participants will:

• Demonstrate understanding of Semantic Reasoning process
• Create user-friendly definitions and images for words
• Understand and use vocabulary techniques with students
Pillars of Reading

Phonemic Awareness
Phonics
Fluency
Vocabulary
Reading Comprehension

Reading First (Title I, Part B, Subpart 1), 2000 National Reading Panel
Impact on Comprehension

Silverman & Hanraft, 2011
How many words do 12th graders need to know for academic success?

50,000

Proctor, Silverman, Harring, & Montecillo, 2012
Breadth vs. Depth

Number of lexical entries predicts decoding
Ouellette & Beers, 2010

Semantic representations for each known word predicts comprehension
Walley, Metsala, & Garlock, 2003
Two Phases

Fast Mapping - *Breadth*

Extended Mapping - *Depth*

A child’s ability to learn a new word or Concept with minimal exposure to it
Vocabulary Instruction Must Emphasize

1. Active engagement
2. Multiple contexts
3. Using visuals
4. Morphology (parts of words)
5. Semantics (word relationships)
6. Kinesthetic (drama)
7. Repetition

Beck & McKeown, 2013
Pairing Verbal with Visual
What do you see?
fizbin
describes something that does not happen often
fizbin
describes something that does not happen often
Demonstration
Semantic Reasoning

is the process of using

**General Sequential Reasoning**
the ability to reason logically known premises and principles

*and*

**Inductive Reasoning**
reasoning that takes specific information and makes a broader generalization

*paired with*

**Lexical Knowledge**
Pedagogy Turned Upside-Down

Semantic Reasoning

Inference

General Sequential Reasoning

Word Knowledge

Our Discovery
We discovered that semantic reasoning is a skill that follows age-norm expectations, and that students who struggle with language and learning also struggle with semantic reasoning.
Typical Development

Home
Language rich environment

Age

1
2
3
4

Builds on existing strengths

5
6
7
8

School

Oral language
"The pets became weary..."

Decoding and comprehension skills

Hearing more complex words and ideas.
Learning how to read.

Independent reading

Deepening understanding of nuanced words.
Learning 2,000 - 3,000 new words per year.
Comprehending sophisticated text.

Prudent
Prudent
Prudent
Prudent

CAT
C - A - T

Priming the brain's language centers

Whale
Ocean
Animals
Pet
Dog
Reptiles
Lizard
Typical Instruction

Language... ...is used to teach language

Rote memorization of definitions

Vocabulary learned
- Breadth
- Depth

Devour books and examples
- Avid readership

40-50,000 words learned
OBSTACLES TO LEARNING

Limited dominant language exposure

Reading acquisition
- Poor decoding
- Lack of engagement
- Poor vocabulary

Reading avoidance

Language/learning difficulties
Students often struggle to learn, retain, and connect word meanings

English language learning
It can take 7+ years to become bilingual/biliterate
Using Semantic Reasoning

Visuals and context... + Active engagement = Deep learning in a fraction of the time

- Critical thinking
- Vocabulary & language
- Visual analysis

© InferCabulary 2018
Independent Research
Pilot Study, Fall 2015

75 Students

InferCabulary switched methods Business-as-usual Vocabulary

Weekly Quiz

both groups took the same weekly quiz

Definitions Identify new pictures Identify correct usage in sentences

Vocabulary

Weekly Quiz

Identify correct usage in sentences
Quiz Scores Significantly Higher
Weeks Students Used InferCabulary

Statistical Differences were Large to Very Large
(Delta of 1.0 or above with p = .05)
Number of Questions Teachers Asked Students During 20 Minute Instruction Blocks
5th grade stanine scores improved significantly on statewide assessment with only 20 minutes of instruction 1/week and 20 minutes of homework 1/week.
You can do this, too!

Find 6 or more images showing examples of the word in a variety of contexts.

Write captions for each picture and use synonyms for the word.

Write a user-friendly definition.
Prudent [prood-nt] adjective

Wise or judicious in practical affairs; sagacious; discreet or circumspect; sober

11th grade words in a definition to “learn” a 6th grade word
Better..., but...

**prudent**  [prood-nt]   adjective

Describes someone who makes smart decisions; wise
A __________________ is a kind of ____________

that _____________ and is or has:

function

size

shape

color

goes with

parts

smell

sound

taste

temperature

where

DEFINITION

category

© 2017 InferCabulary
Lower Level Adjective Framework Example

- Puny describes size
- That is feeling
  - That is smaller than tiny
  - That is huge
- That is medium
Higher Level Adjective Framework Example

Ostentatious describes an attitude describes a feeling of offering to help of being rich of showing off wealth
<table>
<thead>
<tr>
<th>Definition:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Using InferCabulary in the Classroom
Using InferCabulary in the Classroom
Think Aloud Script

prominent

Click all the pictures to learn more about this word.
Think Aloud Questions During Instruction

• Why are ALL of these pictures on this page?
• What do I notice about these pictures?
• What do the pictures have in common?
• How do these pictures relate to the word?
• What additional information do the captions reveal about the pictures?
• How does my definition compare with this definition?
• Should I adjust my thinking about the word?
To download this presentation or handouts,

Go to InferCabulary.com

Learn More > Resources

Beth Lawrence, MA, CCC-SLP
Deena Seifert, MS, CCC-SLP
info@inercabulary.com
Twitter and Facebook
TOSR reliability:
Internal consistency: Cronbach's alpha from 0.94 to 0.97
Test-retest: $r(86)=0.94$, $p<0.01$

TOSR validity:
Correlation between TOSR and ROWPVT-4: $r(20)=0.72$, $p<0.001$

Matched samples:
Specific language impairment: $t(34.37)=3.28$, $p=0.002$
Learning disability: $t(29.77)=3.34$, $p=0.002$