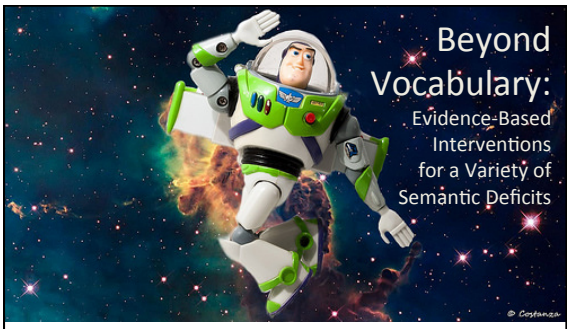


Tim Brackenbury & Elizabeth Witter

November 21, 2014

ASHA Convention

Disclosure

- *We have no relevant financial or nonfinancial relationships to disclose.*

The Full Experience of Semantics

- Semantics has an image problem
  - ~~Semantics = Vocabulary~~
- Semantics > Vocabulary
  - vocabulary is one aspect of semantics

The Full Experience of Semantics

- Problems with a Semantic = Vocabulary focus
  - Vocabulary items need to be
    - Complete
    - Interconnected
  - Semantics deals with both of these issues and more

The Full Experience of Semantics: Completeness

- What is a **word** (or vocabulary item)?
  - a unit of language, consisting of one or more spoken sounds or their written representation, that functions as a principal carrier of meaning. (www.dictionary.com)
  - a phonological form paired with a meaning

/ dʌk /
duck
+

The Full Experience of Semantics: Completeness

- The form and meaning(s) should be shared across people
  - kooba
- The meanings should be complete, but don't have to be
  - pervert

The Full Experience of Semantics: Completeness

- What are the parts of a dictionary's definition?

duck[1] [duhk] Show IPA

***noun, plural* ducks,** (especially collectively for 1, 2) **duck.**

1. any of numerous wild or domesticated web-footed swimming birds of the family Anatidae, especially of the genus *Anas* and allied genera, characterized by abroad, flat bill, short legs, and depressed body.
2. the female of this bird, as distinguished from the male. Compare drake[1].
3. the flesh of this bird, eaten as food.
4. *Informal.* person; individual: *He's the queer old duck with the knee-length gaiters and walrus mustache.*
5. a playing marble, especially one that is not used as a shooter.

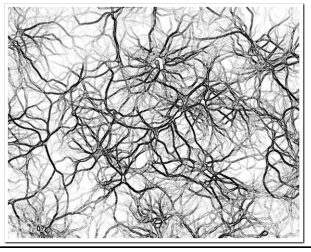
- Vocabulary entries should include all of these parts.

The Full Experience of Semantics: Interconnectedness

- A dictionary's definition is a good metaphor for vocabulary completeness
- But, a dictionary is not a good metaphor for the lexicon
  - each individual's "mental library" of word knowledge

The Full Experience of Semantics: Interconnectedness

- Rich lexicons are like three dimensional webs.
- Multiple types of connections
- Definitions vs. Metaphors



Improving Semantics: Case Examples

- Children can have variety of troubles with semantics
  - small receptive and/or expressive vocabularies
  - incomplete entries
  - fewer and/or less active connections between items
  - poor word finding

Improving Semantics: Case Examples

- Boo, 3 years, 7 months
  - first expressive words ~ 20 months
  - expressive vocabulary < 10th percentile
  - sorts and labels common objects into categories
  - vocabulary during language sample focused on
    - objects in the environment
    - attribute words
    - prototypical action words for those objects

Improving Semantics: Case Examples

- Max, 9 years, 8 months
  - receptive and expressive vocabulary scores at 18th and 14th percentile
  - accurate but slow word naming
  - definitions imprecise
  - averages 65% accuracy with classroom vocabulary
  - categorizes by common groups and functions
    - low accuracy for classroom vocabulary

Improving Semantics: Intervention for Low Vocabularies

I. Direct Vocabulary instruction
- – Targeting specific words is helpful
  - for both the short and long terms
  - increased learning over exposure only
    - – Coyne, McCoach, and Kapp (2007)
    - – Goldstein, Kelly, Haring, & Olszewski (2014)
    - – but, exposures were not matched for frequency

Improving Semantics: Intervention for Low Vocabularies

II. Increasing opportunities for and responsiveness to target words
- – Interactive Modeling
  - embed lexical models in everyday contexts
  - facilitate their use through
    - – focused stimulation
    - – milieu therapy

Improving Semantics: Intervention for Low Vocabularies

a) Parent Training Models
- training parents/caregivers as agents of change
- The Hanen Program
  - – parents are taught techniques that promote language learning through daily interactions
    - » Observe, Wait, Listen
    - » **S**ay less, **S**tress, Go **S**low, **S**how
  - – adults model target vocabulary, but do not require a response

Improving Semantics: Intervention for Low Vocabularies

- – Research Evidence
  - Positive effects on parent language facilitation
    - – Girolametto, Pearce, and Weitzman (1996)
  - Increases in children learning target words
    - – Girolametto, Pearce, and Weitzman (1996)
    - – Whitehurst et al. (1991)
  - Variable results for generalization to other word learning
    - – Significant results by Girolametto, Pearce, and Weitzman (1996)
    - – Non-significant results from Whitehurst et al. (1991)

Improving Semantics: Intervention for Low Vocabularies

- Positive effects with parents across naturalistic environments
  - – Home: Girolametto, Pearce, and Weitzman (1996) Whitehurst et al. (1991)
  - – Clinic group: Lederer (2001)
  - – Classroom: Wilcox, Kouri, and Caswell (1991)
- Positive effects with other adult conversational partners
  - – Ruston & Schwanenflugel (2010)

Improving Semantics: Intervention for Low Vocabularies

b) Clinician-based models
- Positive effects with SLP focused stimulation
  - – Kouri (2005)
    - » Milieu more effective than targeted exposure within the clinic setting
    - » similar performance in home setting

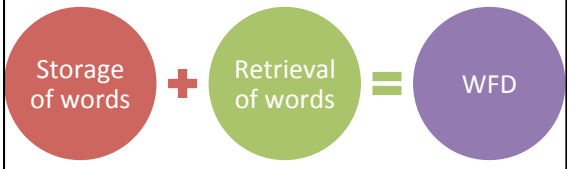
Improving Semantics: Intervention for Low Vocabularies

III. Learning strategies
- Positive effects for semantic and phonological features of new words
  - Motsch and Ulrich (2012)
  - Pirate's quest for unknown words
    - » syllabic segmentation
    - » semantic categorization

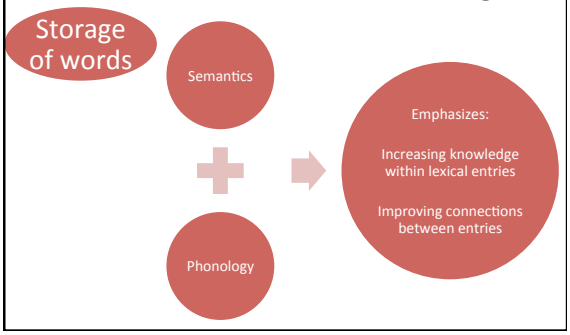
Improving Semantics: Boo

- What we did…
  - Hanen model + clinician focused stimulation
  - Sessions targeted new words and techniques
    - parent use previous technique
    - introduce new technique
    - clinician use of technique
    - parent trial of technique
    - discuss parent performance and words to target
  - Later sessions highlighted semantic & phonological features

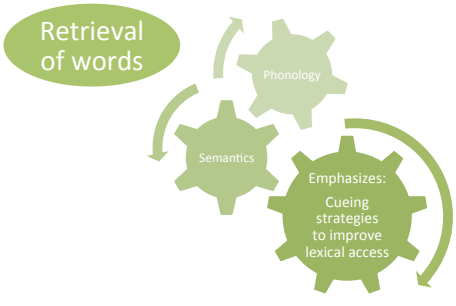
Improving Semantics: Intervention for Word Finding



Improving Semantics: Intervention for Word Finding



Improving Semantics: Intervention for Word Finding



Improving Semantics: Intervention for Word Finding

- Hodgepodge of intervention models
  - Single Linguistic Component
    - semantic
    - Phonology
  - Both Linguistic Components
    - semantic & phonological

Improving Semantics: Intervention for Word Finding

I. Semantic Only
- – Narrative-based intervention, targeting words through
  - definitional sentences
  - contextual sentences
  - exposure, imitation, and retelling
- – Significant increases in target words
- – Non-significant for control words
  - Marks and Stokes (2009)

Improving Semantics: Intervention for Word Finding

2. Phonology Only
- – Identified and practiced phonological cues of
  - syllable counting
  - phonological neighbors
  - verbal rehearsing
- – Significant increases in target words
- – Non-significant for control words
  - » German (2002)

Improving Semantics: Intervention for Word Finding

3. Semantic & Phonology
- – Semantic features
  - definition categorization similarity
    contrasts function content
    description association
- – Phonological features
  - rhyming syllable count imagery
    phoneme count

Improving Semantics: Intervention for Word Finding

- – Findings
  - Semantic group > phonological group on untrained words
    - – Wright, Gorrie, Haynes, and Shipman (1993)
  - Phonological group > semantic group on trained and untrained words
    - – Wing (1990)
  - Words trained under Both conditions were learned the best
    - – McGregor & Leonard (1989, 1995)

Improving Semantics: Intervention for Word Finding

- Children responded better to condition that matched their initial strengths
  - – Bragard, Schelstraete, Syners, & James (2012)

Improving Semantics: Intervention for Word Finding

Intervention = ↓ # WFD

Improvement = Storage + Retrieval

Improvement = Semantic + Phonology

↓ WFD = TEACHING > TESTING

Improving Semantics: Max

- What we did…
  - Teach semantic and phonological features for common words
    - sorting and grouping activities
    - identifying
  - Identify the features in low frequency words
  - Identify the features in target vocabulary words
    - within contexts

Unlocking Future Rewards

- What might the future hold???
  - Selecting groups of words based on semantic and phonological neighbors
  - Targeting "unusual words" to improve learning
    - like maximal opposition therapy
  - Addressing/Including syntactic information

Contact Information

200 College of Health & Human Services
Bowling Green State University
Bowling Green, OH 43403

BGSU

tbracke@bgsu.edu
ewitter@bgsu.edu
419.352.2515

References

(including more than what was in the presentation)

Semantic Model

Dollaghan, C. A. (1992). Adult-based models of the lexical long-term store: Issues for language acquisition and disorders. In R. S. Chapman (Ed.) *Processes in Language Acquisition and Disorders*. St. Louis, MO: Mosby-Year Book.

Semantic Development

Golinkoff, R. M., Mervis, C. B., & Hirsh-Pasek, K. (1994). Early object labels: The case for a developmental lexical principles framework. *Journal of Child Language, 21*, 125–155.

Kuhl, P. (2011). *The Linguistic Genius of Babies*. Retrieved February 26, 2013, from http://www.ted.com/talks/patricia_kuhl_the_linguistic_genius_of_babies.html

Storkel, H. L., & Morrisette, M. L. (2002). The lexicon and phonology: Interactions in language acquisition. *Language, Speech, and Hearing Services in Schools, 33*, 24–37.

References

Assessing Semantics

Brackenbury, T. & Pye, C. (2005). Semantic deficits in children with language impairments: Issues for clinical assessment. *Language, Speech, and Hearing Services in Schools, 36*, 5-16.

Research Evidence: Low Vocabularies

Cable, A. L., & Domsch, C. (2011). Systematic review of the literature on the treatment of children with late language emergence. International Journal of Language and Communication Disorders, 46(2), 138-154.

Coyne, M. D., McCoach, D. B., & Kapp, S. (2007). Vocabulary intervention for kindergarten students: Comparing extended instruction to embedded instruction and incidental exposure. Learning Disability Quarterly, 30, 74-88.

Ellis-Weismer, S., Murray-Branch, J., & Miller, J. F. (1993). Comparison of two methods for promoting productive vocabulary in late talkers. Journal of Speech and Hearing Research, 36, 1037-1050.

References

Girolametto, L., Pearce, P. S., & Weitzman, E. (1996). Interactive focused stimulation for toddlers with expressive vocabulary delays. Journal of Speech and Hearing Research, 39, 1274-1283.

Goldstein, H., Kelly, E., Haring, C., & Olszewski, A. (2014, November). Pioneering development of multi-tiered systems of support for early childhood. Annual Convention of the American Speech Language Hearing Association. Orlando, FL.

Kouri, T. A. (2005). Lexical training through modeling and elicitation procedures with late talkers who have specific language impairment and developmental delays. Journal of Speech, Language, and Hearing Research, 48, 157-171.

Lederer, S. H. (2001). Efficacy of parent-child language group intervention for late-talking toddlers. Infant-toddler intervention, 11(3-4), 223-235.

References

Loftus, S. M., Coyne, M. D., McCoach, D. B., Zipoli, R., & Pullen, P. C. (2010). Effects of a supplemental vocabulary intervention on the word knowledge of kindergarten students at risk for language and literacy difficulties. Learning Disabilities Research and Practice, 25(3), 124-136.

Motsch, H. J., & Ulrich, T. (2012). Effects of the strategy therapy 'lexicon pirate' on lexical deficits in preschool age: A randomized controlled trial. Child Language Teaching and Therapy, 28(2), 159-175.

Ruston, H. P., & Schwanenflugel, P. J. (2010). Effects of a Conversation Intervention on the expressive vocabulary development of prekindergarten children. Language, Speech, and Hearing Services in Schools, 41, 303-313.

Whitehurst, G. J., Fischel, J. E., Lonigan, C. J., Valdez-Menchaca, M. C., Arnold, D. S., & Smith, M. (1991). Treatment of early expressive language delay: If, when, and how. Topics in Language Disorders, 11(4), 55-68.

References

Wilcox, M. J., Kouri, T. A., & Caswell, S. B. (1991). Early language intervention: A comparison of classroom and individual treatment. American Journal of Speech-Language Pathology, 1, 49-62.

Research Evidence: Word Finding

Bragard, A., Schelstraete, M., Snyers, P., & James, D. (2012). Word-finding intervention for children with specific language impairment: A multiple single-case study. Language, Speech, and Hearing Services in Schools, 43, 222-234.

German, D. (2002). A phonologically based strategy to improve word-finding abilities in children. Communication Disorders Quarterly, 23 (4), 179-192.

Marks, I., & Stokes, S. (2010). Narrative-based intervention for word-finding difficulties: A case study. International Journal of Language Communication Disorders, 45 (5), 586-599.

McGregor, K., & Leonard, L. (1989). Facilitating word-finding skills of language-impaired children. Journal of Speech and Hearing Disorders, 54, 141-147.

References

McGregor, K., & Leonard, L. (1995). Intervention for word-finding deficits in children. In M. Fey, J. Windsor, & S. Warren (Eds.), Language intervention: Preschool through the elementary years (pp. 85-105). Baltimore, MD: Brookes.

Wing, C. (1990). A preliminary investigation of generalization to untrained words following two treatments of children's word-finding problems. Language, Speech, and Hearing Services in Schools, 21, 151-156.

Wright, S., Gorrie, B., Haynes, C., & Shipman, A. (1993). What's in a name? Comparative therapy for word-finding difficulties using semantic and phonological approaches. Child Language Teaching and Therapy, 9 (3), 214-229.

Image URLs

- Slide # 1
  http://imgarcade.com/1/buzz-lightyear-to-infinity-and-beyond-tumblr/
- Slide # 2
  http://www.fanpop.com/clubs/mickey-mouse/images/8526442/title/mickey-detective-photo
- Slides # 3 & 4
  http://www.allouttabubblegum.com/main/?p=12703
- Slide # 7
  http://en.wikipedia.org/wiki/Donald_Duck
- Slide # 10
  www.dictionary.com

Image URLs

- Slide # 12
  http://www.tellingmachine.com/post/How-does-IPv6-impact-web-debugging-with-VS200%2858%29.aspx
- Slides # 14 & 23
  http://pixar-roleplay.wikia.com/wiki/Boo
- Slides # 15 & 35
  http://www.fanpop.com/clubs/max-goof/images/32934183/title

Image URLs

- Slide # 18
  http://www.staspeech.com/parents.htm
- Slide # 27
  https://signal.federatedmedia.net/thursday-signal-hodge-meet-podge/
- Slides 36
  http://rlv.zcache.com/achievement_unlocked_sticker-p217613456253850489envb3_400.jpg