

## Vocabulary Learning in the Elementary Classroom: Benefits of Orthography and Decoding

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Everyone Reading  
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### Why Vocabulary?



- Proficient readers activate multiple knowledge sources while reading. Vocabulary knowledge is a central component to effective reading.
- NAEP (2013, 2015) and ECLS-K (2011) results indicated large gaps between high and low SES children with regards to reading achievement and vocabulary skills.
- Estimates vary widely on the amount of words children learn per year and per K-12 school experience (Biemiller, 2005; Biemiller & Boote, 2006; Nagy & Herman, 1984).
- Attention has also been drawn to the vocabulary learning practices of emergent readers (Marulis & Neuman, 2013; Mol, Bus & Smeets, 2008; National Early Literacy Panel, 2009; O'Leary, 2017).

### Do We All Learn the Same?

- For children at-risk of not acquiring novel vocabulary low-SES, emergent bilinguals, and special needs learners (Ramey & Ramey, 2004; Weizman & Snow, 2001) and children living in poverty (Marulis & Neuman, 2013).
- Vocabulary differences can be compounded in formal school settings by teacher vocabulary practices (Duke, 2000; Wright & Neuman, 2014).
- Clearly we need to meet the vocabulary learning needs of all students.

## How Do We Learn Words?

- Vocabulary learning occurs via three avenues:
  - Incidentally
  - Embedded
  - Explicitly
- Instruction should be:
  - Contextualized
  - Include cyclical review
  - Be embedded throughout the school day
  - Promote word awareness
  - Occur in a print rich learning environment



• Beck et al. 2002; Buchanan & Fisher, 2003; Buchanan, Fisher, Cogh & Wynn-Tyler, 2006; Graves, 2000, 2006; Stahl & Fairbanks, 1986

## Theory of Sight-Word Learning

(Ehri, 1980, 1992, 1998, 2005, 2014)

- Successful reading occurs through the process of creating a print (spelling), pronunciation, and meaning amalgam.
- Students map pronunciations onto spellings to create mental orthographic images in memory.
- Orthographic images are recalled from memory to assist with novel word reading in conjunction with sound-symbol knowledge.
- Reading moves through four phases of reading development to establish reading, spelling, verbal memory skills.
  - The phases include:
    - Pre-alphabetic
    - Partial-alphabetic
    - Full-alphabetic
    - Consolidated-alphabetic

## Self-Teaching Hypothesis

(Jorm & Share, 1983; Share, 1995, 1999)

- Phonological recoding or word decoding promotes reading acquisition by creating print-sound connections.
- The process allows for the creation of “word-specific orthographic images” of newly decoded words.
- After exposed to orthographic, students create oral-print connections and which are “self-taught” to memory.
- These orthographic images are recalled during novel word encounters unintentionally, with little practice, and through life.

## Yes! Spelling Can Help Learn Words!!!



- These instructional approaches are focused on developing students ability to understand word meanings in both breadth and depth. This focus underutilizes the mnemonic value of orthography with regards to vocabulary learning (Beck, McKeown, & Omanson, 1987; Beiro & Carver, 2008; Dale, 1965; Ehri & Rosenthal, 2007; Stahl & Fairbanks, 1986).
- Within the last decade a theoretical shift in vocabulary research has examined the impact of orthographic exposure (word spellings) on vocabulary instruction (Beck, Spache, & Ginnelli-Ginnelli, 2011; Lucas & Norkby, 2014; Mengoni, Nash, & Hulme, 2013; Ricketts, Bishop, & Nation, 2010; Rosenthal & Eide, 2008, 2011; Sherman, 2007).

## How Sight Word Learning Impacts Vocabulary Learning

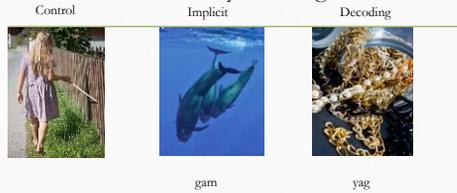
- Experimental research has examined how the creation of print, pronunciation, and meaning amalgams during vocabulary learning tasks promotes mapping of new words to memory (Ehri, 2014; Ehri & Rosenthal, 2007; Ricketts et al., 2009; Rosenthal & Eide, 2008, 2011).
- According to connectionist theories of reading instruction, when students encounter novel words they create amalgams of print, pronunciation, and meaning (Ehri, 1990, 2005, 2010).



## Who Can Benefit?

- Benefits a variety of learning populations and ages ranges including:
  - Autism Spectrum Disorders (Lucas & Norkby, 2013; Ricketts, Dockrell, Patel, Charman, & Lindsay, 2015)
  - English language learners (Carlo et al., 2004; Juhnville, Sénéchal, & Malene, 2014; Miles, Ehri, & Lauterbach, 2016; Vadasy & Sanders, 2015, 2016)
  - Students with specific language impairments (Ricketts, Dockrell, Patel, Charman, & Lindsay, 2015)
  - Children with Down's Syndrome (Mengoni, Nash, & Hulme, 2013)
- Results from research on explicit attention to print are mixed (Chambré, Ehri, & Ness, 2017; Ricketts, in press; Vadasy & Sanders, 2015, 2016).

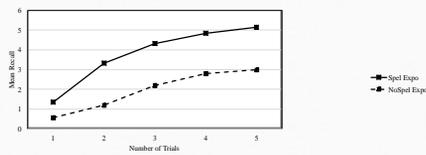
## How Does Phonological Recoding Impacted Vocabulary Learning?



## The Current Study

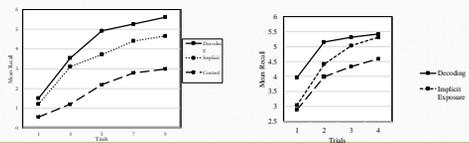
- Participants-
  - Forty five first-grader students (Study 1)
  - Fifty five first-grade students (Study 2)
- Setting-
  - Four first grade classrooms in on suburban public elementary school located in the northeastern United States.
  - Eight first grade classrooms in three Title-I public elementary schools located in the northeastern United States

## Research Question One: Does Print Matter?



## Research Question Two: To Decode or Not To Decode

- Student recall for pronunciation was enhanced by decoding ( $d = 1.64$ ) and by exposure to spellings ( $d = 1.12$ ).
- When spellings were present, decoding students outperformed implicit condition students. Difference decreasing over trials.



## Conclusions

- Amalgamations facilitated vocabulary acquisition after fewer learning trials when compared to traditional vocabulary instruction methods.
- Orthographically enhanced vocabulary instruction eliminates access barriers faced by schools with limited funding and resource.
- Next steps include:
  - Studying orthographically enhanced vocabulary during read alouds
  - Including vocabulary as part of a complete word study/spelling program

- Thank you for attending today's presentation.
- Question and answer session to follow.
- For further information please contact me at: [schambre18@gmail.com](mailto:schambre18@gmail.com)