

Sight Words: Comparing Approaches and Surveying the Field

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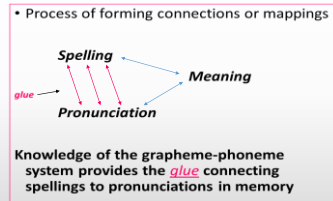
Ways Words are Read

- **By Decoding**
 - D O G --> /d/ /ə/ /g/ --> "dog"
 - CH E CK (5 letters, 3 graphemes) -> /tʃ/ /ɛ/ /k/ -> "check"
 - EXCELLENT -> /ɛx/ /sɛl/ /ɛnt/ (syllables)
 - UPHOLDING -> /ʊp/ /həʊld/ /ɪŋ/ (prefix, root, suffix)
- **By Analogy**
 - j ump → d ump
- Prediction: context clues and partial
- **By Memory/Sight**

What Students Need to Decode Words

- **Phoneme segmentation**
 - Need to analyze the word's pronunciation into the smallest sounds or phonemes
- **Grapheme-phoneme correspondences**
 - Need to know letter-sound units of the writing system (**the glue**)
- **Orthographic Mapping**
 - Need to connect graphemes to phonemes within that word
- **Word Meaning**
 - Need to bond spelling-sound connections to meaning in memory

How Words are Stored as Sight Words



Contrast this with "Sight Word" Learning

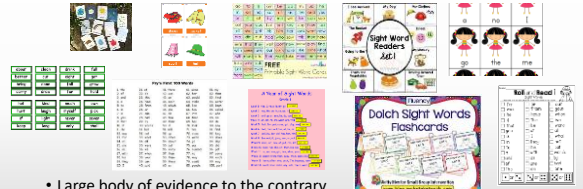
• Research



• Practice



Disconnect between Research and Practice



- Large body of evidence to the contrary
 - Boyer & Ehri, 2011; Uhry & Shepherd, 1997; Stuart, Masterson, and Dixon, 2000; Arra & Aaron, 2001; Shahar-Yames & Share, 2008; Ouellette & Sénéchal, 2008; Ehri, Sato, & Gaskins, 2009

Regularity of English Spellings

- English spellings are more regular than often perceived
 - Carreker, 2011; Ehri, 1997; Joshi, Treiman, Carreker, & Moats, 2005, 2008, 2009; Trieman & Kessler, 2013



Teacher Linguistic Knowledge

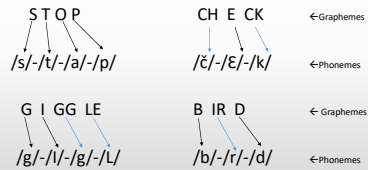
- Moats, 1994, 2002, 2009a, 2009b, 2011; Moats & Foorman, 2003; Spear-Swerling, 2010; Puliatte & Ehri, 2017



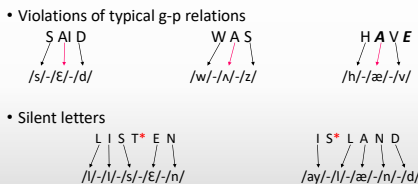
Types of Words on "Sight Word" Lists

- Regularly Spelled**
 - Follow most common g-p relations
- Temporarily Irregularly Spelled**
 - G-p relations/patterns students have not yet learned
 - Once learned can apply to multiple words that contain the spelling pattern
- Permanently Irregularly Spelled**
 - G-p relations are idiosyncratic to that word or only a few others
 - Violations of typical g-p relations or spelling rules
 - Silent letters
 - Although often times, several letters in the word may still map onto reliable g-p relations

Regular and Temporarily Irregular



Permanently Irregular



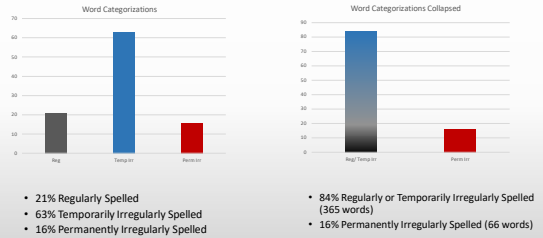
Study 1: Analyzing Word Lists

- Purpose**
 - determine how many of the words on commonly used sight word/high frequency lists have reliable grapheme-phoneme relations
- Materials**
 - Combined list of words from both Dolch and Fry
 - Moats 44 Phoneme-Grapheme Chart (most frequent spellings of phonemes)
 - CCSS, ELA, Foundational Skills, K, 3. Know and apply grade level phonics and word analysis skills in decoding words
 - Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the *primary sound* or *many of the most frequent sounds* for each consonant
 - Associate the *long and short sounds* with common spellings (graphemes) for the *five major vowels*

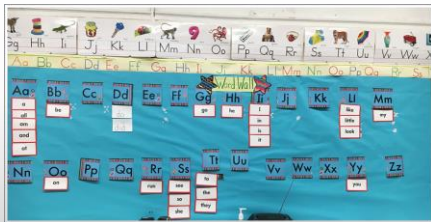
Word List Study

- Procedures
 - Total words: 419
 - Regularly Spelled (1), Temporarily Irregularly Spelled (2), and Permanently Irregularly Spelled (3)
- 3 Stage Coding Process
- Cohen's kappa: 0.90, resolved issues

Word List Study



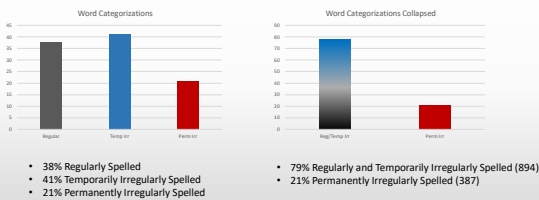
Study 2: Analyzing Word Walls



Word Wall Study

- Purpose
 - Investigate whether words on classroom Word Walls have reliable grapheme-phoneme relations
 - Investigate whether initial sounds are consistent for each letter
- Materials and Procedures
 - 46 kindergarten classroom Word Walls
 - Total words: 2,278
 - Total CODED: 1,813 (automated process)
 - Coded list of Dolch and Fry words
 - Only coded words from previously coded Dolch and Fry list for g-p relations
 - BUT included all words for initial sound analysis

Word Wall Study



Results

	A		C		E		G		K		O		I		W	
	Sound	Freq	Sound	Freq	Sound	Freq	Sound	Freq	Sound	Freq	Sound	Freq	Sound	Freq	Sound	Freq
æ	40	k	36	i:	12	g	37	k	8	o	30	o	37	w	35	
ə	32	tʃ	3	e	4	dʒ	1	n	3	ʌ	23	t	36	m	19	
ɑ:	26	s	1	et	4					ɔ:	17	θ	9	h	4	
ɒ	15			θ	3					ɒr	10			r	1	
ɔ:	8			at	1					au	15					
ee	5									Ou	4					
ɛ	3									ə	1					

A

Ab-----
Ar----
Ar---
ate
all
away
and
am
a

6 phonemes represented:

/æ/ /eɪ/ /ɑ:/ /ə/ /ɑ:r/ /ɛ/

O

on
one
or
our
out
other
of

5 phonemes represented:

/ɒ/ /w/ /ɔr/ /ɑʊ/ /ʌ/

Study 3: Teacher Survey

- 29 K and 1st grade teachers
 - 23 had MA/MS or it was in progress
 - Average of 10 years teaching (range 1-35)
 - 20 reported using a phonics curriculum
- 12 multiple choice and open ended questions
- 50 word categorization activity
 - CCSS, ELA, Foundational Skills, K, 3. Know and apply grade level phonics and word analysis skills in decoding words
 - A. Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the *primary sound* or *many of the most frequent sounds* for each consonant
 - B. Associate the *long and short sounds* with common spellings (graphemes) for the *five major vowels*

Teacher Survey

- What is your definition of the term *sight words*?
- What methods of instruction do you use to teach sight words?

the or
of one
and had
a by
to word
in but
is not
you what
that all
it were
he we
was when
for your
on can
on said
as there
with use
his an
they each
I which
at she
be do
this how
have their
from if

Results

- Definition of Sight Words
 - 69% of teachers said these words **should not/cannot be decoded**
- Methods used to teach sight words
 - 2/29 or 7% said analyze letter-sounds
- When given letter-sound as an option
 - Only 45% checked the box
- Accuracy in categorizing words
 - Average accuracy score of 67% (range 48-82%)
 - The highest frequency words intended for K and 1st grade

Results

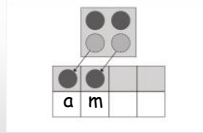
Word	Code	Total Correct	Percent Correct
or	T	7	24%
use	T	12	41%
all	T	13	45%
how	T	13	45%
is	R	14	48%
do	P	15	52%
what	P	15	52%

Survey Take-Aways

- Comprehensive execution of linguistic knowledge
- Teachers need linguistic training
 - **their, from**
- Curriculum needs to be responsible for this linguistic knowledge
- The difficulty in doing this!

Sight Word Study 1

- Intervention focused on **grapho-phonemic mapping**
- Covered **regularly spelled words** that students had yet to acquire

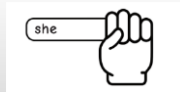
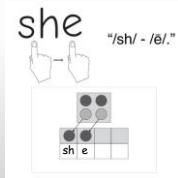


Sight Word Study 1

- Procedure:
 - 5 kindergarten students
 - 8 sessions
 - 10 target words
 - 5 words per session
 - ~10 minutes per session
- Results
 - **48%** improvement on target sight word reading
 - **3.8/10 to 8.6/10**
 - **20%** improvement on non-target sight word reading
 - **28%** improvement on entire set

Sight Word Study 2

- Compared **grapho-phonemic (G-P)** and **whole-word (W-W)** interventions
- Covered **regularly** and **temporarily irregularly spelled words** that students had yet to acquire



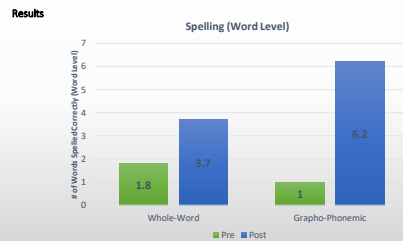
Sight Word Study 2

- Procedure:
 - 6 students: 2 groups of 3
 - Counterbalanced word lists
 - Each group focused on 1 word set for each approach
 - 6 sessions per word set/approach: 12 sessions total per group
 - 10 target words per set
 - 5 words per session
 - ~10 minutes per session

Sight Word Study 2

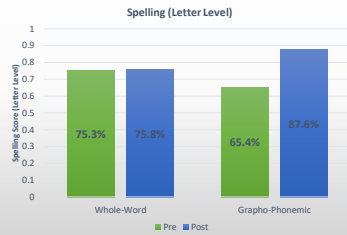


Sight Word Study 2



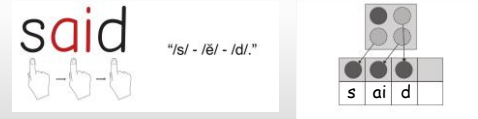
Sight Word Study 2

Results



Sight Word Study 3

- Intervention focused on **grapho-phonemic mapping**
- Covering **regularly**, **temporarily irregularly**, and **permanently irregularly** spelled words that students had yet to acquire



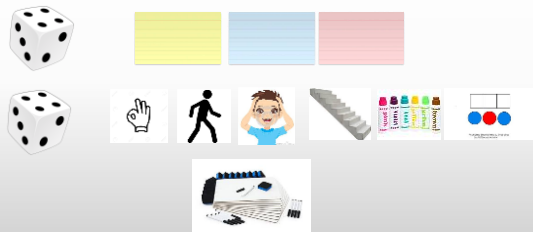
Sight Word Study 3

- Procedure:
 - 6 **1st grade** students
 - 9 sessions
 - 9 target words
 - 3 **regularly** spelled
 - 3 **temporarily irregularly** spelled
 - 3 **permanently irregularly** spelled
 - 3 words per session

Sight Word Study Next Steps

- Increase # of participants
- Control Group with random assignment
- Adaptability of the intervention

Sight Word Game



Conclusions

- Disconnect between theory/research and practice
- Orthographic regularity of words on Sight Word lists is common
- Capitalize on grapheme-phoneme relations to better secure words
- Consider student knowledge of grapheme-phoneme relations
- Support teachers with this information!

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