

It's All About Word Study: A Multi-Linguistic Approach to Literacy Instruction

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What is Word Study?

Specific and focused attention to the
encoding (spelling) and decoding
(word-level reading) of words using
one's knowledge of the linguistic
properties of words (knowledge of
language)

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Why Do We Care About Word Study?

With increased knowledge of
language through word study,
reading (**decoding** and
comprehension) and writing
(**spelling** and composition) improve

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Why Else Do We Care about Word- Level Reading and Spelling?: Current US Literacy Stats

- 95% of all children should be able to be taught to read. That is, in studies that control for quality of instruction, only 5% of the subjects continue to have trouble learning to read.
- NAEP (2017)
- 4th grade: 37% performed at or above proficient; 68% at or above basic; 9% at advanced
- 8th grade: 36%; 76%, 4%

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Why Else Do We Care about Spelling?

- ▶ Educational Outcomes:
 - Spelling errors in papers written by students with disabilities have a deleterious effect on writing scores, dropping scores from the 50th percentile to between the 42nd and 29th percentiles (Graham, Harris, & Hebert, 2011).
- ▶ Society views
 - 80% of employment applications are negatively affected by misspellings (Graham, Harris, & Hebert, 2011; National Commission on Writing for American's Families, Schools, and Colleges, 2005)

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Why Else Do We Care about Spelling?

- ▶ Effects on reading
 - Building knowledge related to word study results in better reading (Moats, 2006/06)
 - Students' reading performance (word reading and reading comprehension) moves from the 50th percentile to the 67th percentile with spelling instruction (Graham, Harris, & Hebert, 2011). Improved spelling leads to better reading fluency (Ouellette, Martin-Chang, & Rossi, 2017)
- ▶ And.....

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What is Involved in Word Study Assessment and Instruction?

- ▶ The knowledge of linguistic sources that serve as the foundation of words (aka "The Five Blocks")
- ▶ An understanding of the developmental course of the language skills of spelling and word-level reading
- ▶ A repertoire of strategies for word study assessment, remediation, and instruction

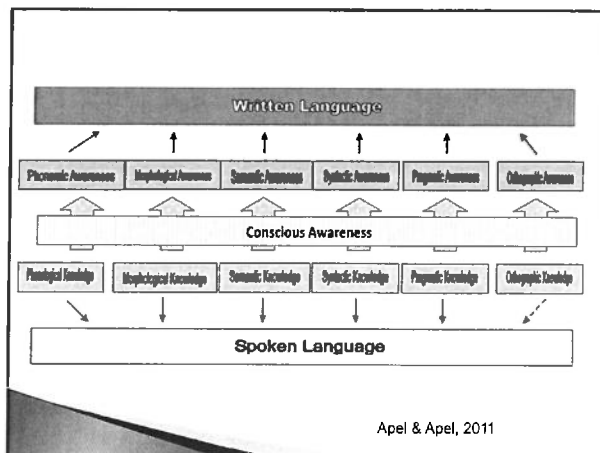
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Five Blocks of Word Study

- Phonological Awareness (PA)
- Orthographic Pattern Awareness (OPA)
- Mental Graphemic Representations (MGRs)
- Semantic Awareness (SA)
- Morphological Awareness (MA)



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Phonemic Awareness



- ▶ **Phonemic awareness**, is the ability to think about, talk about, and manipulate (i.e., sound blending and segmentation) speech sounds; it is a strong predictor of spelling and word level reading

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Phonemic Awareness

- ▶ Generally, phonemic awareness develops in the following manner:
 - rhyming/sound play/alliteration
 - word awareness (substitution of words, separating word from referent, segmenting sentences into phrases/words)
 - phoneme (sound) blending (syllables, onset-rimes, phonemes)
 - phonemic segmentation (syllables, onset-rimes, phonemes)

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Phonemic Awareness

- ▶ Has received a tremendous amount of attention (in the research, education, and clinical arenas)
 - Strong predictor of reading and spelling
 - When combined with "traditional" speech intervention, leads to improvements in both speech and PA, reading, and spelling (e.g., Gillon, 2005)
- ▶ Most elementary classrooms include some form(s) of phonological/phonemic awareness
 - Several issues, though:

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Phonemic Awareness

- ▶ Educators may not be familiar with task-influencing factors :
 - The size of the phonological unit (sentences to words to syllable to phonemes/sounds)
 - The number of phonemes in words (shorter words are easier than longer words to segment)
 - Position of the phoneme (initial consonants are easiest to delete/segment than final, which are easier than middle)
 - Properties of the phoneme (continuing sounds are easier to manipulate than stops/brief sounds). Difficult sounds include /m/, /n/, /ng/, /r/, /l/, and consonant blends.

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Phonemic Awareness

- ▶ Educators themselves may not be very PA savvy (e.g., work of Schuele and others)
 - Do educators understand phonemes vs. graphemes?
- ▶ Phonemic awareness tasks are not always tied to the target literacy skills: word-level reading and spelling

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Phonemic Awareness and Word-Level Literacy Skills

Difficulties in the area of phonemic awareness are marked by:

- ✓ **Omission/additions of phonemes (sounds)**
- ✓ Omission of letters tend to be for less salient sounds, especially in internal locations and in unstressed syllables: "sop" for "stop", "relize" for "realize"
- ✓ Letter reversals, especially for liquids (l,r) and nasals (n,m, ng) in a word or syllable sequence, such as when spelling: "flod" for "fold"

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Orthographic Knowledge

- ▶ *Orthographic knowledge* is the knowledge required to translate language from spoken to written form. It involves **orthographic pattern knowledge** (i.e., spelling patterns/conventions) and **mental graphemic representations** (i.e., pictures of written words in our heads).
- ▶ To be adequate at word-level literacy, we must be aware of these two aspects of orthographic knowledge

Apel, Henbest, & Masterson, 2019

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Orthographic Pattern Awareness and Word Study



Spelling and word-level reading require knowledge of sound-symbol correspondences (alphabetic principle).

/k/ = "k, c, ck, cc, ch, qu, x"

"gh" = /g, f/

Difficulties in this ability are marked by:

- ✓ Letter-sound confusions/illegal substitutions:
"cas" for "catch"

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Orthographic Pattern Awareness

Word study requires knowledge of rules for combining letters.

Difficulties in this ability are marked by:

- ✓ Non-allowable letter sequences
"kry" for "cry"
"jrum" for "drum"
"kween" for "queen"

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Orthographic Pattern Awareness

Word study requires knowledge of the patterns that govern spelling within roots/base words

Difficulties in this ability are marked by:

- ✓ Phonetically possible spellings that violate "rules"
✓ "ran" for rain
✓ "lader" for ladder

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Orthographic Pattern Awareness

Word study requires knowledge of positional constraints (orthotactics) on spelling patterns.

"rock" but not "ckow"

Difficulties in this ability are marked by:

- ✓ Violation of positional constraints
"tchop" for "chop"
"cacke" for "cake"

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When Does Orthographic Pattern Awareness Develop?

- There have been no specific investigations of OPA development across the early years. However, what we do know is:
 - Preschool and kindergarten-age children demonstrate letter-sound correspondence and initial spelling abilities (e.g., Bara, Gentaz, & Cole, 2007; Treiman & Broderick, 1998; Treiman & Kessler, 2004; Shatil, Share, & Levin, 2000).
 - Knowledge for how to represent consonant sounds orthographically develops prior to an understanding for representing vowel sounds (e.g., Ehri, 1986; Stage & Wagner, 1992).
 - First grade children are sensitive to onset-to-vowel influences (i.e., how an initial consonant influences the spelling of the vowel that follows) in written words, but do not become sensitive to coda-to-vowel influences (i.e., how a vowel spelling is influenced by the following, final position consonant) until fourth grade (Treiman & Kessler, 2006)
 - The OPA skills of students with reading disabilities contribute to reading fluency (Metsala & David, 2017)

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When Does Orthographic Pattern Awareness Develop?

- Children as young as kindergarten and first grade develop at least implicit knowledge for specific letter(s)-sound correspondences, such as doublets within base words (e.g., tall, balloon), and allowable orthographic sequences (i.e., orthotactic rules; e.g., Apel, 2010; Wolter & Apel, 2010; Cassar & Treiman, 1997; Hayes, Treiman, & Kessler, 2006; Treiman & Kessler, 2006).
- In sum, knowledge about orthographic patterns begins early and continues to develop over the elementary school years.
- Additional research is required, however, to thoroughly understand the acquisition of orthographic pattern knowledge.

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Additional Information on Orthographic Pattern Awareness

- Phonics interventions (aka instruction on OPA) focused on helping students to make clear and consistent links between sounds and letters/letter patterns help students with and without LLD to improve their decoding abilities (Henbest, 2017).
 - This approach is facilitative of early reading success and found to be especially effective when instruction focused on the developing skill of phoneme-grapheme correspondence, or alphabetic knowledge, in kindergarten through third grade children (Weiser & Mathes, 2011).
- Moreover, there is evidence noting the importance of a continued focus on orthographic knowledge and spelling patterns in intervention for the improved reading success for students well into the high school years (see Squires & Wolter, 2016).

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Morphological Awareness

- The awareness of the semantic aspects of a root or base word and its corresponding inflections and derivations, including:
 - awareness of morphological units (cats has 2 morphemes)
 - knowledge of morphologic forms (ly, ed, tion),
 - knowledge of modification rules (hope/hoping)
 - knowledge of the relationship between words and their derived forms (magic, magician)

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Morphological Awareness

- > **Inflectional morphemes** provide information about time or quantity without changing the meaning or class of the word.

"walked, walking, walks"
"cats"

- > **Derivational morphemes**, which can be prefixes or suffixes, change the meaning and/or the word class

"teach, teacher"
"fair, unfair"

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suffix	grammatical change	original word	suffixed word
-s	plural	dog	dogs
-en	plural (irregular)	ox	oxen
-s	3rd person singular present like		he likes
-ed	past tense past participle	work	he worked he has worked
-en	past participle (irregular)	eat	he has eaten
-ing	continuous/progressive	sleep	he is sleeping
-er	comparative	big	bigger
-est	superlative	big	the biggest

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Suffix	Meaning	Examples
-able	capable of, worthy of being	lovable, learnable & fixable
-ar	of or relating to	beggar & liar
-en	to become or cause to be	weaken, sharpen & lengthen
-er	comparative; more	hotter, bigger & smarter
-er	person connected with	teacher, painter & shipper
-ess	female	princess, waitress & actress
-est	comparative, most	smartest, fastest & quickest
-ette	small	dinette, diskette & barrette
-ible	capable of, worthy of being	gullible & durable

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-ful	full of	joyful, fearful & cheerful
-ish	relating to	childish, bookish & selfish
-less	without; not having	tireless, ageless & careless
-like	resembling or characteristic of	childlike, doglike & homelike
-ly	resembling; similar to	fatherly, scholarly & motherly
-ment	action or process	government, development & experiment
-ness	state or quality of: condition	kindness, goodness & happiness
-or	person connected with	doctor, actor & editor
-ship	state or quality of: condition	friendship, hardship & citizenship

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Morphological Awareness

- Transparent Derivations: the semantic link between the base word and the derived word is clear, or *transparent*.
- Derivational forms do not affect spelling of the base word "friend, friendly"
- Derivational forms alter the base word orthographically OR phonologically
"silly, silliness", "magic, magician"

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Morphological Awareness

- Opaque Derivations: The semantic connection between the base and derived form is less clear because BOTH phonological and orthographic properties of the base word change
"busy, "busily", "admit, admission"

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Morphological Awareness and Word Study

- Difficulties in awareness of morphological units are marked by
- ✓ Omission of morphemes
"walk" for "walked"
- Difficulties in knowledge of morphological forms marked by
- ✓ Phonetic spelling of morphemes
"walkt" for "walked", "musishun" for "musician"

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Morphological Awareness and Word Study

- Difficulties in knowledge of modification rules marked by
- ✓ Misspelling of modifications (at juncture)
"calfes" for "calves", "crazyyness" for "craziness"
- Difficulties in knowledge of the semantic relationship between a root or base word and its inflected and derived forms are marked by
- ✓ Failure to use knowledge of base word spelling to correctly spell inflected or derived form
"busy" but "bizness" for "business"

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Morphological Awareness

- Good system for experienced (and developing!) readers and spellers because morphological spelling retains relationship to base word, which would be lost if all spellings were completely phonetic:
 - Kanaduh (Canada), Kunaydeean (Canadian)
 - sine (sign), signachur (signature)

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When Does Morphological Awareness Develop?

- Morphological awareness begins early in childhood and continues to strengthen over the elementary (and later) school years (e.g., Berko, 1958; Berninger, Abbott, Nagy, & Carlisle, 2010; Carlisle, 2004; Larsen & Nippold, 2007a; Treiman, Cassar, & Zukowski, 1994).
- First grade students' spelling of consonant clusters depended on the number of morphemes in the word (e.g., *bind* vs. *rained*; Bourassa, Treiman, & Kessler, 2006; Wolter et al., 2009).
- On two different MA tasks, there was a developmental progression in abilities among kindergarten, first, and second grade students (Apel, Diehm, & Apel, 2013)
 - Awareness of the relation of base words and their inflected and derived forms (e.g., knowing *farm* and *farmer* were related by meaning)
 - conscious knowledge for the written form of affixes (i.e., for the first and second grade children, an ability to recognize the printed forms of prefixes and suffixes).

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When Does Morphological Awareness Develop?

- First through sixth grade students completed several morphological awareness tasks that contained both inflectional and derivational morphemes (Berninger, Abbott, Nagy, & Carlisle, 2010). The most pronounced growth occurred within the first three grades, but that growth continued to occur across the remaining three grades.
- More research is needed to examine MA development using consistent and varied measures.
- Currently, developing a reliable and valid morphological awareness measure for students 1st through 6th grade

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Morphological Awareness

- Helpful for decoding unfamiliar written words. Morpheme boundary knowledge helps to determine the pronunciation of the letter sequence
 - -sh in mishap versus the one morpheme pronunciation in a word like fish.
 - -ive at the ends of words has one pronunciation as a derivational suffix (e.g., detective) but usually has a different pronunciation when it does not represent a whole suffix (e.g., strive).
- For students with and without LLD, the addition of morphological awareness support is an important instructional component that is found to significantly improve word identification and reading decoding, as well as vocabulary development and reading comprehension throughout the school years (Berninger et al. 2013; Bowers et al., 2010; Carlisle, 2010; Goodwin, Lipsky, et al, 2010; Vadasy et al., 2006; Wolter & Dilworth, 2013).

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Morphological Awareness

- › Morphological awareness and its importance for literacy development increase in grades 3–6 (Mahoney, et al, 2000)
- › However, evidence for morphological awareness occurs even earlier (Carlisle, 2004; Lyster, 2002; Treiman & Cassar, 1996)
- › Correlations between MA and reading/spelling range from .46–.58; MA is sometimes THE unique predictor for some literacy skills (e.g., Apel et al., 2012)

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Morphological Awareness

- › Affixed words outnumber root words 4 to 1.
 - Research has shown that approximately 4,000 morphological families (MF) account for 93% of words in texts from Grades K through college-and-career-ready (CCR; Hiebert, 2017a; 2017b).
- › MA aids in word learning and sentence-processing
- › Correlations between MA and reading/spelling range from .46–.58; MA is sometimes THE unique predictor for some literacy skills (e.g., Apel et al., 2012)

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Semantic Awareness



Spelling requires knowledge of the effect of spelling on word meanings (or vice versa).

- Difficulties in this ability are marked by:
- ✓ Homophone confusions
 - "bear" vs. "bare"
 - "won" vs. "one"
 - "which" vs. "witch"

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Orthographic Knowledge

- › *Orthographic knowledge* is the knowledge required to translate language from spoken to written form. It involves **orthographic pattern knowledge** (i.e., spelling patterns/conventions) and **mental graphemic representations** (i.e., pictures of written words in our heads).
- › To be adequate at word-level literacy, we must be aware of these two aspects of orthographic knowledge

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Mental Graphemic Representations (MGRs)



Spelling and word-level reading are aided and become more fluent when clear MGRs of words or morphemes are established. MGRs are part of orthographic knowledge

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MGRs and Word Study

Difficulties in this knowledge area are marked by:

- ✓ Words read adequately but not spelled correctly
- ✓ Words read or spelled differently on repeated attempts
 - ✓ Same word spelled creatively several times
stopd, stopt, stoppd, stoppt
- ✓ Phonetic spelling of non-phonetic words and word units
“cidy” for “city”, “vishous” for “vicious”

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When Do MGRs Develop?

- For the most part, researchers have suggested that children acquire MGRs through the process of phonological recoding (e.g., Ehri, 1992; Share, 1995).
 - Ehri's (1992) amalgamation hypothesis (child bonds letters to sounds as she reads across new words, developing solid MGRs) or Share's (1995) self-teaching hypothesis
 - These hypotheses/studies based on children who already evidenced considerable reading abilities (generally, grades two and up)
- Preschool/kindergarten children also demonstrate initial MGR acquisition during “fast-mapping” tasks (implicit MGR acquisition; e.g., Apel, 2010; Apel, Brimo, Wilson-Fowler, Vortius, & Radach, 2013; Wolter & Apel, 2010). Implicit MGR learning ability predicted concurrent reading and spelling skills

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MGRs and Word Study

- ✓ Homophone confusions:
one, won (could be semantic awareness)
- ✓ Incorrect spelling of unstressed syllables (“buckit” for “bucket”) and vowels preceding ng, r, l (“reng” for “rang”, “whil” for “wheel”)
- ✓ Poor proofreading

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The Developmental Course of Spelling

- ▶ Theory One: Stage Theory
 - Children progress through a series of stages, marked by little understanding of written language, to the successive use of phonemic awareness, orthographic pattern awareness, and morphological awareness
- ▶ Theory Two: Repertoire Theory (or Overlapping Waves)
 - Development is not as rigid as Stage Theory suggests. It is a continuous process that is influenced by multiple factors (Five Blocks) whose contribution to development vary in degree over time and task

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"Pre-Spelling" (birth to 3–5)

- ▶ Child demonstrates an understanding or evidence of:
 - Word-environment connection
 - Written language vs pictures
 - Written language is "re-readable"
 - A growing appreciation for:
 - directionality
 - letter names
 - letter sounds

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Outcomes of "Pre" Phase

- ▶ Understanding that print has meaning and can be used for communication
- ▶ Parental (or other adults) further engagement of child in literacy events
- ▶ Groundwork established for future "true" literacy skills

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Early Spelling Phase (4–6 years)

- ▶ Phonemic Awareness: Strong impact
- ▶ Orthographic Pattern Awareness: Strong impact
 - Alphabetic Principle: One sound = One letter/digraph
 - BASIC Orthotactic Knowledge
 - "Letter Name" Strategy: Combination of PA and OK
- ▶ MGRs: Some impact (for high frequency words)
- ▶ Morphological Awareness: Some impact
 - Some attention to base words vs inflected words

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Letter-Name Strategy

- ▶ Choosing a letter to represent a sound because the sound is in the name of the letter
- ▶ Many, but not all (i.e., g, h, w, y) consonant letter names contain their sounds
- ▶ Kindergarten children use letter names 61% of time
- ▶ First graders use letter names 50% of the time
- ▶ Most common errors: r, l: schwas (e.g., doctor) and "schwals" (e.g., ladle) represented by "r" and "l"
- ▶ Most short vowels also follow letter name strategy: pet=PAT; mit=MET; hot=HIT; nut=NOT

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Outcomes of Early Phase

- ▶ Growing knowledge of letter-sound correspondence which leads to entry into spelling
- ▶ Beginning establishment of "solid" MGRs
- ▶ Adults' "excitement" about attempted spellings (not invented spelling!)

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Additional Outcomes

- ▶ Letters that look, sound, or "feel" alike (e.g., cognates) are confused
- ▶ Most short vowel patterns, blends, digraphs are spelled correctly as are some common long vowels (VCe)
- ▶ Difficulties with blends, liquids and nasals, etc
 - More likely to omit "internal" consonants of clusters (e.g., sop/stop or pot/post)
 - Stop + Liquids (dr, tr) spelled with single affricate (ch/h and j)

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Intermediate Spelling Phase (6-8 years)

- ▶ Phonemic Awareness: Some impact
 - Developments with other foundational blocks lessen need for this skill
- ▶ Orthographic Pattern Awareness: Strong impact
 - Within-word patterns: Chunk elements of written language structures.
- ▶ MGRs: Strong impact
 - Templates/images become more established
 - Developed through constant exposure to print
- ▶ Morphological Awareness: Strong impact
 - Understanding of patterns or letter sequences that relate to sound and meaning (inflections)

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Outcomes of Intermediate Phase

- ▶ Spelling of long vowel patterns gradually acquired
- ▶ Consonant Doubling (influenced by vowel)
- ▶ Schwas ("uh"), Schwars, and Schwals gradually improve due to firmer MGRs from increased exposure/experience

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Advanced Spelling Phase (8–adult)

- ▶ Phonemic Awareness: Can continue to impact
- ▶ Orthographic Pattern Awareness: Some impact
- ▶ MGRs: Strong impact
- ▶ Morphological and Semantic Awareness: Strong impact
 - Importance on meaning affecting spelling emphasized
 - Greater understanding of specific modification rules (e.g., stress - travel/commit)
 - Greater understanding and use of related words for reading/spelling derivations
 - Appropriate homonym selection occurring

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Outcomes of Advanced Phase

- ▶ Most words read by sight
- ▶ Comprehension is high and reading is conducted to learn
- ▶ Spelling accurate for base words, inflected words, and most derivations (over time)
- ▶ Written composition becomes focus of writing

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Characteristics of Good Spellers

- Use a variety of strategies and knowledge to spell
- Approach spelling as systematic
- Are self-reliant in monitoring own spelling
- Take avid interest in reading and spelling
- Take risks when writing = richer writing samples

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Characteristics of Poor Spellers

- Write as little as possible
- Are almost – but not always - poor readers
- Use few strategies, have limited knowledge about how to spell
- View spelling as chaotic, arbitrary and beyond their control
- Produce inconsistent misspellings of unfamiliar words
- Are poor monitors & proofreaders of own spelling
- Take little interest in reading and spelling

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Stages of Reading Development

- ▶ Stage 1:
 - Words "read" are those linked to environment (e.g., Kmart); stored word image is wholistic.
- ▶ Stage 2:
 - Growing knowledge of letter-sound correspondence;
 - Words read by phonological recoding;
 - Comprehension affected
 - Beginning to form analytic word images.

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Stages of Reading Development (cont.)

- ▶ Stage 3:
 - Most words read by sight and analogy
 - Word recognition for familiar words is automatic
 - Comprehension is focus.
- ▶ First two stages are learning to read
- ▶ Last stage is reading to learn

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What Do We Know About Decoding?

- ▶ On average, good readers recognize over 80,000 different words
- ▶ Looking at the first letter and making a guess in context is a poor strategy; the likelihood of a correct guess is 10% and it will not help with reading by analogy
- ▶ Decoding instruction/intervention does not occur regularly in the schools; however, when instruction/intervention does occur, students improve
- ▶ Blending and letter-sound knowledge are the skills which best predict decoding skills

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Relationship of Reading and Spelling

- ▶ Children read spellings, spell spellings, and read the spellings of words they have spelled
- ▶ Highly correlated (.68-.86), although less for non-typically developing students
- ▶ Both tap into similar knowledge sources (PA, MA, MGR, etc.)
- ▶ Both follow similar developmental patterns
- ▶ When students have "complete" MGRs, reading speed is improved.

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Relationship of Reading and Spelling

- ▶ Both require some direct instruction for most children
- ▶ Teaching spelling improves reading skills (Ehri, 2000; Ellis & Cataldo, 1988; Ehri & Wilce, 1987; Kelman & Apel, 2004)
- ▶ Spelling is the more "stringent" measure of the literacy-related skills. It requires attention to conventional form, not just a plausible spelling.
- ▶ Also, direct evidence of how spelling improvements impact reading
 - Students' reading performance (word reading and reading comprehension) moves from the 50th percentile to the 67th percentile with spelling instruction (Graham, Harris, & Hebert, 2011). Improved spelling leads to better reading fluency (Ouellette, Martin-Chang, & Rossi, 2017)

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Basic Points re: Assessment

- ▶ Standardized tests allow one to document student's performance on that task compared to many others. They do not provide you with ideas for instructional goals, procedures, prognosis via dynamic assessment. However, manipulation of findings may.
- ▶ Criterion-referenced measures allow one to document range of student's performance, provides ideas for instructional goals, procedures, prognosis via dynamic assessment.

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Norm-Referenced Word-Level Reading and Spelling Tests

- ▶ Examples include: *Woodcock Reading Mastery Test-Revised*, *Wide Range Achievement Test-3*, *Gray Oral Reading Test*, etc.
- ▶ Most word-level readings tests assess both decoding skills (e.g., Word Attack) and "sight word" skills (e.g., Word Identification). Spelling tests generally involve all-or-none scoring.
- ▶ These measures tell you a student is within or not within typical limits, but do not provide reasons for student's problems.
- ▶ Whoever administers these should look at results to problem solve and find patterns

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Criterion-Referenced Word-Level Reading Measure

- ▶ Miscue Analysis
 - Allows one to determine the type of errors a student has when reading and why those errors may occur
 - Allows you to find out student's view of reading
 - Why do people read?
 - Allows you to look at effect of text and student's view of texts, on reading outcomes
 - Student chooses easy and challenging texts
 - Why easy? Why challenging?

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Criterion-Referenced Word-Level Reading Measure

- ▶ Miscue Analysis
 - Students reads while you code errors
 - Easy vs. challenging text (check for genre, language style, vocabulary, etc.)
 - Consider rate (including too fast)
 - Note word accuracy
 - 95-100% = easy text
 - 90-94% = instructional level text
 - 89% and below = difficult text

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Types of Miscues

- ▶ Partial Word aka "Guess and Go"
- ▶ Insertions
- ▶ Deletions of sounds
- ▶ Reversals
- ▶ Semantic substitutions
- ▶ Self-corrections

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- ▶ His friend Lowly Worm was at the store, too.
- ▶ "What is the matter, Huckle?" asked Lowly. "I
- ▶ am not sure that I can remember what Mother
- ▶ needs," said Huckle. "Do not worry. I will help
- ▶ you," said Lowly.

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- › "I think we have everything," said Huckle. Just
- › then Mr. Frumble bumped into the oranges.
- › Oranges rolled everywhere. "Thank you, Mr.
- › Frumble! I almost forgot the oranges," said
- › Huckle.

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- › But Lowly had a better idea. "Get orange
- › soda," he said. "You need something to drink
- › with potato chips." "Thanks, Lowly," said
- › Huckle. "We do need a good drink."

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Spelling: A "Peek"

- › Use a child's spellings to pinpoint what is known and not known about literacy
- › Use spellings to identify target phonological, orthographic, and morphological structures for word study, which involves reading, spelling, and writing activities
- › Use spellings to identify nature of "missing" knowledge related to phonological, orthographic, and morphological structures
- › **Bottom line: It is MORE than just spelling work!!**

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Spelling Assessment Choices

- › Modified Developmental Approach: No specific assessment; instructor assumes "general" spelling level/abilities and moves into a global "Five Block Instruction" approach
- › Prescriptive Approach: Specific analysis of students' spelling abilities, including identification of the "Five Blocks"

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Selecting appropriate instructional activities

Prescriptive assessment vs. other spelling assessments

- **Standardized tests** quantify spelling performance relative to peers
Test of Written Spelling (TWS-4); Wide Range Achievement Test (WRAT-3)
- **Spelling inventories** describe what letter patterns a student can and cannot spell
Words Their Way, 2000
- A **prescriptive assessment** uses *error analysis* to determine *why* a student misspells words and precisely *what type* of word study instruction is needed.

Spelling Performance Evaluation for Language and Literacy 2 (SPELL-2), 2006

*Disclosure: Kenn Apel is a co-author and has a financial interest in SPELL-2

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Spelling Assessment

- ▶ Single word assessment
 - Requires student to write words you control
 - Does not have the linguistic/cognitive demands involved in connected writing
- ▶ Text-level writing assessment
 - Students must deal with the linguistic/cognitive demands involved in connected writing
 - Students can avoid words they can't spell
- ▶ Quantitative analysis typically tells you right or wrong, not why student is misspelling.

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Spelling Assessment

To be diagnostic and prescriptive, spelling assessment must include a systematic analysis of the nature of the spelling errors to determine the underlying causes (i.e., deficits in PA, OPA, MA, SA, MGR)

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Spelling Assessment

(Apel & Masterson, 2001)

Obtain adequate sample for each spelling pattern within student's developmental spelling level

- consonants
- digraphs
- short & long vowels
- within-word doubling
- consonant clusters
- silent consonants
- silent 'e'
- vowel + 'r', vowel + 'l'
- unstressed syllables
- inflections
- derivations

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Prescriptive Assessment

Identify spelling patterns most frequently misspelled.

For each identified and selected spelling error pattern, analyze nature of errors to determine whether underlying deficit is PA, OPA, MA, SA or MGR

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Spelling Analysis

- ▶ If a sound/phoneme is not represented with any letter/grapheme = **PA**
- ▶ Within a root/base word, if the incorrect letter or letter sequence occurs or a spelling pattern is not observed (within-word doubling, long vowels) = **OPA**
- ▶ If a word is misspelled based on meaning = **SA**
- ▶ If an affix is missing, spelling incorrectly, or its addition to the base word is not appropriately modified = **MA**
- ▶ If a derived word form does not appear to utilize knowledge of the base word or another derived form in its spelling = **MA**
- ▶ If a word is spelled phonetically correct, and no orthographic pattern or morphological rule governs the spelling = **MGR**

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Prescriptive Assessment

Conduct follow-up testing to confirm/refute hypotheses

- Phonemic segmentation
- Morphological awareness

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Follow-up Tasks

- ▶ Phonemic Segmentation
 - Can use standardized or non-standardized measures.
 - Most helpful if geared toward student's errors
- ▶ Morphological awareness
 - Likely will use non-standardized measures:
 - Observant: I need to _____ for my class.
 - Magic: David Copperfield is a good _____
 - Most helpful if geared toward student's errors

80

Prescriptive Assessment

Write goal(s) to target selected spelling patterns with appropriate instructional methods (Five Block Instructional Approach).

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Spelling and Reading



➤ **Spelling and (word-level) reading draw upon the same underlying knowledge, skills, processes (the Five Blocks):**

- Phonemic awareness (PA)
- Orthographic pattern awareness (OPA)
- Morphological awareness (MA)
- Semantic awareness (SEM)
- Mental graphemic representations (MGRs)

82

Spelling and Reading

- **There is a reciprocal relationship between spelling and reading:**
 - Students receiving spelling instruction emphasizing phonological, orthographic and morphological knowledge, and mental images of words *show significant gains* in spelling performance and word-level reading (decoding); (e.g., Kelman & Apel 2004).
 - Without attention, children may improve in reading and drop in spelling (Mehta et al., 2005)

83

Instructional Strategies

- Memorized word lists
 - Organized orthographically
 - Organized thematically
- Word study
 - Attention drawn to orthographic patterns, morphological characteristics
 - Not usually "revisited"
- Other Issues
 - Reaction to misspellings (e.g., invented spelling)
 - Cursive Writing (support for or working against establishment of MGRs)

84

Word Study Intervention: Key Points

- ▶ You may not be the only one assessing these skills (word-level reading and spelling); you may be the only one who “gets” language
 - 2nd grade teachers’ knowledge of phonemic units in words, their teaching of spelling strategies, and time spent on spelling instruction are significant predictors of weak spellers’ spelling improvement (Puliatte & Ehri, 2017).
 - Most teacher preparation programs do not provide pre-teachers with the necessary knowledge and skills to provide sufficient reading instruction (National Council on Teacher Quality, 2018)
- ▶ Word-level reading (decoding) is not the only skill required for text-level reading (comprehension); however, without it, a student is sunk!
 - Most curricula provide minimal attention to word-level reading; many curricula promote ineffective (or “misleading”) strategies)

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Word Study Intervention: Key Points

- ▶ Most commonly practiced spelling instruction is the direct method of rote memorization of weekly target words (Friday Test)
 - Applied through in-class activities (e.g., writing a word three times then putting it in a sentence), and/or rote memorization done at home
 - May be organized around semantic themes, rather than orthographic properties
 - Even when lists based on orthographic structure, little future, systematic attention paid to previous weeks’ “lessons”

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Five Block Approach to Word Study Instruction

- ▶ Growing number of studies of instruction targeting multiple linguistic factors (Five Blocks) suggest increased benefit to spelling and reading development (e.g., Apel & Masterson, 2001; Apel, Masterson, & Hart, 2004; Kelman & Apel, 2004; Wanzek, J., Gatlin, B., Otaiba, S. A., & Kim, Y. S. G., 2016; Wolter, 2009)

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Basic Points re: Word Study Intervention/Instruction

- ▶ All activities are introduced by instructor models before student attempts them (I do, we do, y’all do, you do)
- ▶ Focus on the Five Blocks
- ▶ Provide
 - direct, focused attention to the Five Blocks via naturalistic and “contrived” experiences
 - plenty of opportunities for text-level reading and writing
- ▶ Spelling (word study) instruction should be used for both reading and spelling development
- ▶ Facilitation of spelling skills should occur across the curriculum

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Instruction Choices

- ▶ **Modified Developmental Approach:**
 - For all students, curriculum follows a general developmental sequence AND a hierarchy of instruction based on understanding spelling as a complex language skill
 - Will spend time teaching skills that some students may already have
 - This more general approach is explicit and systematic but does not allow time for intensive instruction and practice

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Instruction Choices

- ▶ **Prescriptive Approach:**
 - Individualized instruction for each student/student group
 - Teach only what the student/group needs to learn and with the method of instruction that will be most effective for that student/student group
 - Provide explicit and systematic instruction; target only specific deficits, allowing time for intensive instruction and practice

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Use of Technology in Assessment and Intervention

- ▶ Programs to help with spelling analysis will be both helpful and time efficient during the assessment process
- ▶ Spell checkers, speech synthesis, and speech recognition programs may be helpful in intervention (e.g., decrease attentional demands) though not necessarily better than paper and pencil

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Use of Technology in Assessment and Intervention*

- ▶ Spell checkers catch between 30–80% of misspellings
- ▶ Spell checkers identified 53% of the misspellings of students with LLD

*Montgomery et al., 2001

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Use of Technology in Assessment and Intervention*

- ▶ When using spell checkers, students with LD detected 63% of all errors and "fixed" 37%. This is better than the non-computer checking methods where comparable figures were 28% (detection) and 9% (correction).
- ▶ Over-reliance can be detrimental (e.g., spell checkers emphasize orthographic patterns, not meaning) and do not lead to strategic learning

*Graham and colleagues

93

Technology (cont.)

- Eye have a spelling chequer
- It came with my pea sea
- It plainly marques four my revue
- Miss takes eye kin knot sea
- Eye halve run this poem threw it
- Eye am shore your pleased two no
- Its letter perfect awl the weigh
- My chequer tolled me sew.

94

Texting and Literacy Skills

- ▶ Conducted a study with 88 British 10-12-year-old children's knowledge of text message (SMS) abbreviations ('textisms') and how it related to their school literacy attainment.
- ▶ The ratio of textisms to total words used was positively associated with word reading, vocabulary, and phonological awareness measures.
- ▶ The children's textism use predicted word reading ability after controlling for individual differences in age, short-term memory, vocabulary, phonological awareness and how long they had owned a mobile phone.

Plester, Wood, & Joshi, 2009

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Texting and Literacy Skills

- ▶ Investigated the impact of predictive text use upon the literacy skills of primary school, secondary school and university cohorts.
- ▶ No differences in use of text abbreviations ('textisms') were found between predictive text users and nonusers.
- ▶ There were no significant main effects of predictive texting stability on growth in standardized spelling, orthographic processing or grammar (TROG II) scores, for any age group.

Aldron, Wood, & Kemp, 2016

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Texting and Literacy Skills

- ▶ A comprehensive, semi-systematic review of the literature into texting and literacy was conducted, with a particular focus on quantitative empirical studies.
- ▶ There were no clear positive or negative links discovered between adolescent texting practices and literacy, with the research findings in this study area best summarized as mixed and inconclusive.

Zebroff, 2017

97

Common Core State Standards – Myths and Realities

- ▶ Regardless of your political affiliation, it is important to **read** the Standards before stating a view.
- ▶ With the exception of Texas, which decided not to adopt the standards early on because they wanted to adopt their own set of “more rigorous” standards, most states have adopted the C.C.S.S. or a state version, which often looks remarkably similar to the standards they claim to be avoiding.
- ▶ Few other points about the C.C.S.S.:
 - They caused people to talk about/address writing – across the curriculum, across the genres, and in response to text. Before the C.C.S.S., reading was only addressed. As students mature, they are assessed based on their ability to **WRITE** about what they read, including on the ACT, SAT and in AP classes.
 - They were designed for mainstream students. Like any mainstream standards, they require modifications for students who struggle with reading, writing, and/or other language-based skills. This is not unique to the C.C.S.S.

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Common Core State Standards* – Myths and Realities

- ▶ Few other points about the C.C.S.S.:
 - They are just that, Standards. They aren't curriculum. All the memes and posts with bizarre math problems and weird writing assignments are based on someone's suggestion of what a curriculum based on the Standards should look like.
 - When it comes to the **WRITING** standards, students in the mainstream are cognitively able to handle the content expected of them. A bunch of English teachers sat down to discuss what should and should not be covered at what level – and they did a good job.
- ▶ The Common Core is **NOT** the reason structured literacy isn't being taught in schools or across the states. If anything, the Core makes specific reference to a number of structured literacy skills we know to be valuable for our students.

◦ William Van Cleave, Author and Educational Consultant, 2018

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(Common Core) State Standards

- ▶ C.C.S.S. (or highly similar other state standards) are consistent with a multi-linguistic approach to reading and spelling
 - For example, a multi-linguistic reading goal might be linked to achieving the Common Core Standards Initiative (2017): “Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context” (CCSS.ELA-Literacy.RF.5.3.a).

100


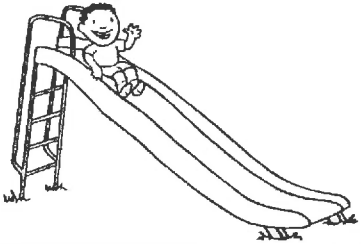
Phonemic Awareness for Word-Level Reading

- ▶ Encourage “continuous voicing” (phonemic decoding or blending)
 - Voice is maintained across word versus partial cues (guess and go) or phoneme by phoneme decoding
 - Practice initially on isolated words
 - slide vs. stairs examples
 - Discourage use of “guess and go”
 - Ring a bell
 - change speed, vowel, consonant, stress
 - practice first through models
 - Move toward use in text
 - Never let go notion of the purpose of reading: comprehension. Student should have time to be read to, and to read on his/her own, both easy and challenging texts.


Selenik M. Gonzalez-Frey & Ehri, 2019

101


My Reading Slide


1. Keep your voice on
2. Say all your sounds
3. Don't add extra sounds




Guess and Go



Wrong Sounds



Broken Voice



102

Phonemic Awareness for Spelling

- Use “Sound Strings”* to link PA to spelling
 - Adult and student(s) each have a sound string
 - After considerable modeling first (and possible “priming”), adult presents word
 - Student moves beads
 - Student places beads on top of paper
 - Student writes at least one letter per bead
 - Specialist discusses outcome, including “other knowledge” demonstrated by student (e.g., digraph awareness)
- Keep in mind to:
 - Target specific segmentation errors
 - Control and gradually increase size of word or syllable
 - Consider word position
 - Consider phoneme properties

*SPELL-Links to Reading and Writing™

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Orthographic Awareness for Word-Level Reading and Spelling

- Use Word Sorts
 - Target contrasting rules
 - Adult provides index cards with contrasting spelling rules/patterns
 - Student sorts into piles, with scaffolding as needed
 - Student is encouraged to verbalize the rule/pattern
 - Key word is established if appropriate
 - New rule/pattern is practiced in controlled writing tasks
 - Word searches occur in written text

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Sample Sort – What’s the Rule?

- › Badge
- › Page
- › Bridge
- › Hedge
- › Rage
- › Huge
- › Siege
- › Lodge

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Text Search

- › I now am the security officer for Tage Ridge Park. I think getting this job is pretty good for my age; I didn't even dodge the question when I was asked. When they decided to hire me, I didn't budge on the salary. The Parks system has now given me a gold badge for my role. The nice part of this position is that I'm not sitting in a "cage;" rather, I am out in the park walking the edges of the park and ensuring no one tries to dodge the entrance fee by sneaking in.

106

Practice Writing

- › What **age** were you when you started first grade?
- › I have a bird at home that lives in a **cage**.
- › I liked the story so much I couldn't wait to turn the **page**.
- › We hid behind the **hedge** so we could scare our friend.
- › We tried to **dodge** the dog but it was too **huge** to escape.

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Playing By The Rules

- | | | | |
|----------|----------|----------|---------|
| › wing | › wing | • wing | • hanky |
| › finger | › finger | • finger | • sink |
| › thing | › thing | • thing | • think |
| › hanky | › hanky | • sing | • junky |
| › sink | › sink | • bang | • wink |
| › think | › think | | |
| › sing | › sing | | |
| › bang | › bang | | |
| › junky | › junky | | |
| › wink | › Wink | | |

- › Not sure? Underline
- › Now put in two piles

What's the rule?
When a word has a /ng/ sound followed by a /k/ sound, you use the letter 'n' to write the /ng/ sound, followed by the 'k' letter. All other times, you use the 'ng' letters to write the /ng/ sound.

108

Morphological Awareness for Word-Level Reading and Spelling

- Use Word Sorts to improve MA
- Use **"Relatives and Friends"*** to improve MA
 - Adult discusses with student that family members can:
 - Look and sound alike
 - Look alike but not sound alike
 - Sound alike but not look alike
 - Not sound or look alike but still be related
 - Adult explains that for many "word relatives" the same situations occur
 - Adult and student brainstorm the relatives of a specific word and discuss how the "main relative" helps spell the others.
 - Adult can include foils and have student discuss why this strategy should not be apply

*SPELL-Links to Reading and Writing™

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Providing Instruction/Intervention in Morphological Awareness

- ▶ Other tasks may include (Apel & Masterson, 2001; Apel, et al, 2004; Berninger, et al, 2004; Green & McGhee, 2001; Katz & Carlisle, 2001):
 - **Word building:** given cards with prefixes, suffixes or base words (roots), combine to make or recognize word (un+clear, salt+y)
 - **Word generating:** given affix, generate a word
 - **Morpheme finding:** find roots and affixes in texts
 - **Word sorts** (e.g., similar spelling, dissimilar purpose – corner, reader)

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Word Building

Prefix	Base/root	Suffix
re	cycle	-tion
im	friend	-ly
dis	teach	-er
in	make	-able
	busy	-ness
	hard	-ship

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Word Generating

- ▶ Given affix, students generate as many words as they can think that contain that affix
 - Start with common affixes
 - Common prefixes:
 - re-, in-, dis-, im-
 - Common suffixes:
 - -tion, -y, -ly, -ant, -less, -er, -ment, -ful, -ness, -able, -ous, -ish, -ist,
 - -ive, -ic, -ary, -ern, -ship, -ent, -ing, -or, -al, -en, -ity, -ward

112

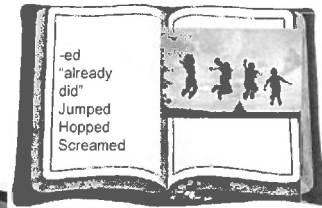
Say It Another Way

- ▶ Students verbally produce inflected or derived words based on a definition given by the interventionist
 - "How can I say...more than one stick....another way?"
 - "Sticks!"

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Morpheme Finding – Affix Book

- ▶ Students define the affix and write sample words (first and above grades) or paste in pictures (all grades) of words that contained the target affix



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Circle It/Morpheme Finding

- ▶ Students circled a target affix in lists of words created by interventionist that contain or do not contain the affix
- ▶ Student searches (reads) a text and identifies use of target affix
 - For either, student explains meaning and spelling of affix in context of text.

*Listen....David was feeling very **h**appy. He wanted to go for a bike ride but was **u**nable to because it was raining. He asked his mom if he could ride his bike in the rain but she said it would be **s**afe. David felt it was **f**air that he had to stay inside. Finally, the rain stopped and David's mom said he could go outside. David was in such a hurry that when he put on his coat, he left it **b**uttoned. He rushed into the garage and **l**ocked his bike. He was **c**ertain where he wanted to go but he didn't care. He was just so happy to be riding his bike.*

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Morpheme Finding

- ▶ Listen For It (review of inflections)
- ▶ Students listen to a story and put a thumb up for every instance of a word containing the target affix and then explain what it means
 - And so the leaf stopped **s**ighing **g**, but went on nestling **s** and singing **g**. Every time the tree shook itself and stirred **u**p all its leaves **u**, the branches **s** shook themselves **s** and the little twig shook itself, and the little leaf danced **u** up and down merrily **l**, as if nothing could ever pull it off. And so it grew all summer long, till October.

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Morpheme Fixes

- ▶ Specialist and student choose common prefix or suffix and discuss meanings/spellings
 - Common prefixes*:
 - re-, in-, dis-, im-
 - Common suffixes*:
 - -tion, -y, -ly, -ant, -less, -er, -ment, -ful, -ness, -able, -ous, -ish, -ist,
 - -ive, -ic, -ary, -ern, -ship, -ent, -ing, -or, -al, -en, -ity, -ward
- ▶ Student searches (reads) text and identifies use of target affix (prefix or suffix)
- ▶ Student explains meaning and spelling of affix in context of text.

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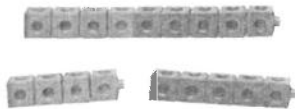
Sample Activity: Word Sort

- ▶ Word Sort for Plurals (discovering two different ways to spell plurals)
 - rocks beaches
 - porches apples
 - boxes trucks
 - bears stores
 - dogs bus

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Add-On

- ▶ Students encouraged to use connecting blocks to either add a base word and the corresponding inflected or derived affix together or to separate them.



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Improving MGRs for Word-Level Reading and Spelling

- ▶ Use "Picture This"* strategy
 - Used for words for which other strategies/knowledge sources cannot be used
 - Adult models strategy of visualizing first using a picture and then an image familiar to student (e.g., bedroom)
 - Using target word, student and adult look at written word and talk about its characteristics
 - Students spells word forward and backward
 - Student takes "picture" of word
 - Student visualizes word, spells it forward, then backward.

*SPELL - Links to Reading and Writing™

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Picture This! Mental Images of Words



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Case Study of Student with Special Needs

Kelman & Apel, 2004

122

Student

- ▶ 11-year-old, 4th grade, English-speaking female with a history of literacy difficulties
- ▶ Born at 30 weeks gestation, weighing 2.8 lbs
- ▶ Received oxygen support first year of life
- ▶ Received physical and occupational therapy until 36 months of age
- ▶ Early speech and language skills within age expectations (adjusted age for premature infants).
- ▶ Raised in a literate environment

123

Pre-Intervention Information

- ▶ Teachers described her as "average" even though:
 - Word-level reading abilities were borderline typical
 - They accommodated spelling difficulties:
 - Shortened number of spelling words for testing from 20 to 10 per week
 - Allowed extra days for studying
 - Student passed weekly tests (averaging 7 or 8/10) but did not retain correct spellings weeks later.
 - In fourth grade, accommodations did not lead to passing grades (longer multi-syllabic words) and effects of spelling on written composition seen (limited content due to replacement of multi-syllabic words with less complex words she could spell)

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Intervention

- ▶ 9.6 hours of direct intervention across 8 weeks
- ▶ Based on prescriptive assessment, intervention focused on orthographic knowledge and phonemic awareness skills
 - long/short vowels and "r-controlled" vowels
 - blending and segmentation
- ▶ Included homework assignments

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Results

- ▶ Spelling
 - Authentic writing
 - Pre: 193/26% Post: 36/16%
 - Spelling to dictation
 - Pre: 24/30% Post: 6/8%
 - Moderate effect size ($d = .5$) for pre-/post-spelling samples

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Results

- ▶ Word-level Reading
 - Word Attack
 - Pre: 86(83-88) Post: 99(96-102)
 - Word Identification
 - Pre: 88(87-90) Post: 94(92-95)

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Classroom Study Application

Apel, K., Masterson, J.J., & Hart, P. (2004)

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Participants

- ▶ *Class 1:* Third/fourth grade split (6 third graders; 11 fourth graders); 9 boys and 8 girls; 7 students were Caucasian, 1 was African-American, and 9 were classified as "other."
- ▶ *Class 2:* Third grade class; 7 boys and 12 girls; 16 students were Caucasian and 3 were classified as "other." One student was on a current IEP for language, one for math, and one student was bilingual.

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Procedures

- ▶ Class 1 received four spelling instruction "units" across a 9-week instructional period. The units targeted strategies to improve phonemic awareness skills (6 sessions), orthographic rules (6 sessions), and morphological awareness skills (5 sessions). Each session was 50 minutes long.
 - Phoneme awareness activities focused on phonemic segmentation, tying knowledge of the sounds in a word to the graphemic representation of those sounds.

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Procedures (cont.)

- ▶ *Class 1 (cont.)*
 - Orthographic awareness activities introduced specific spelling rules (e.g., long vowels, final liquid representations) via sorting tasks (e.g., Apel & Masterson, 2001; Masterson & Crede, 1999).
 - Morphological awareness activities focused on highlighting relationships between "word relatives" (i.e., base words and their inflected and derived forms) that varied in their phonological and morphological overlap.
- ▶ Class 2 received the traditional spelling curriculum of the school
- ▶ All students were administered a list of 40 words, pre- and post-instruction.

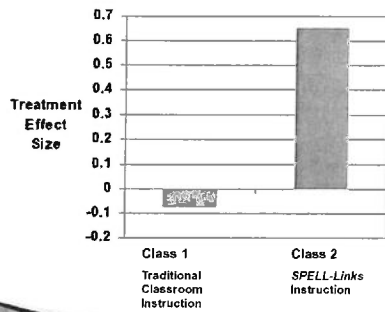
131

Results

- ▶ At the onset of the study, both classes were equivalent in their spelling abilities.
- ▶ At the conclusion of the study, Class 1 significantly improved their word accuracy spelling skills; Class 2 remained the same ($F=4.386, p<.05$).
- ▶ For Class 1, effect size was $d = .65$. For class 2, effect size was $d = -.07$.

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Classroom Study



(Apel, Masterson & Hart 2004)

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Discussion

- ▶ Results suggest that
 - A classroom-based "Five Blocks" spelling program shows great promise for facilitating spelling development in school-age children
 - growth in spelling (word-study) skills may be more linked to the type of instruction rather than the grade level or current skills of the students

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Other Studies

- ▶ Roberts & Meiring (2006). Teaching phonics in the context of children's literature or spelling: Influences on first-grade reading, spelling, and writing and fifth-grade comprehension.
- ▶ Wanzenk, J., Gatlin, B., Otaiba, S. A., & Kim, Y. S. G. (2016). The Impact of Transcription Writing Interventions for First-Grade Students.
 - In this study conducted by the Florida Center on Reading Research (FCRR), low-performing 1st grade students who received a multi-linguistic intervention in small groups outperformed the control group with moderate effect sizes across different measures of spelling and curriculum-based writing.
- ▶ Wolter, J. (June, 2009). Teaching literacy using a multiple-linguistic word-study spelling approach: A systematic review.
 - Multi-linguistic approaches facilitate word-level reading and spelling

135

Roberts, T. A., & Meiring, A. (2006). Teaching phonics in the context of children's literature or spelling: Influences on first-grade reading, spelling, and writing and fifth-grade comprehension. *Journal of Educational Psychology, 98*(4), 690.

- ▶ Compared a direct "phonics" approach to a literature-embedded approach with first grade children.
- ▶ Phonics group explicitly practiced letter-sound correspondence and phonemic segmentation skills
- ▶ Findings were:
 - At the end of first grade, that the phonics group were statistically better than the literature group.
 - at spelling phonetically regular and irregular, pseudoword reading, and length of written stories. Also benefitted low readers ability to read text.
 - At the end of fifth grade, the phonics group had significantly higher comprehension than the literature group.

136

Wanzek, J., Gatlin, B., Otaiba, S. A., & Kim, Y. S. G. (2016). *The Impact of Transcription Writing Interventions for First-Grade Students.*

- ▶ Examined the effects of transcription instruction for students in 1st grade. 81 students were randomly assigned to (a) spelling instruction, (b) handwriting instruction, (c) combination spelling and handwriting instruction, or (d) no intervention. Intervention was provided in small groups of 4 students, 25 min a day, 4 days a week for 8 weeks. Spelling instruction was based on the lessons in book 1 of *Spell-Links to Reading and Writing* (e.g., multi-linguistic instruction).
- ▶ Students in the spelling condition outperformed the control group on spelling measures, with moderate effect sizes noted for curriculum-based writing measures.
- ▶ Students in the handwriting condition outperformed the control group on correct word sequences, with small to moderate effects on other handwriting and writing measures (g s $\frac{1}{4}$ 0.31-0.71).
- ▶ *The spelling intervention demonstrated promise for improving spelling with results generalizable to a norm-referenced measure.*

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Continue the Learning...

/speltalk/
SPELLTALK PROFESSIONAL DISCUSSION GROUP



Learning professionally around the world
for discussion of current research and best practices in literacy

SPELL-Linkd
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<http://mailman.listserve.com/listmanager/listinfo/speltalk>

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Summary for Word Study Instruction/Intervention

- ▶ An appreciation and understanding of the multiple linguistic factors (Five Blocks) underlying spelling and reading development may guide SLPs and educators in targeting the most appropriate goals for students
- ▶ Tasks should focus explicitly on "how words work"

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Students with language-learning impairment often present with poor self-concept....
....and those around them don't necessarily help

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What are the Issues: Lack of Reading Experiences

- ▶ **Matthew Effect (Stanovich, 1986)**
 - Good readers get better, poor readers become poorer
 - Motivation to read becomes even more important as students who struggle reach the upper elementary grades.
 - In the early elementary grades, students who do not experience difficulty reading are more likely to seek out reading opportunities and become more fluent and proficient through these reading experiences. There is a strong, positive correlation between the amount of reading in which an individual engages and reading achievement (National Center for Education Statistics [NCES], 2011).
 - Motivation to read declines as struggling students progress to the upper elementary grades, particularly when those students experience reading deficits (Gottfried, Fleming, & Gottfried, 2001; McKenna, Conradi, Lawrence, Jang, & Meyer, 2012; Oldfather & Dahl, 1994).
- ▶ **Lack of persistence leads to**
 - missed opportunities for experiencing success
 - awareness of real capabilities
 - false comparisons, either positively or negatively

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What are the Issues: Motivation

- ▶ Sense of self is inextricably intertwined with language and learning skills
 - Intrinsic motivation for literacy and academics decreases faster when one is struggling with literacy development
- ▶ Crumbling motivation leads to increased chances of failures
- ▶ Children's anxiety about their skills is associated with poorer reading comprehension

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What are the Issues: Motivation

- ▶ Studies of motivation don't paint a good picture.
- ▶ Investigations of the relationship between reading comprehension (RC), trait anxiety (e.g., "I find it difficult to get to sleep at night," "I worry too much."), and preoccupation with reading disability (e.g., "I am worried about what other students in my classroom think of me because of my reading disability.") in third and fifth grade students suggest children's trait anxiety and preoccupation have a significant direct negative relationship with RC.
- ▶ Struggling students (7 to 18 years) demonstrate a higher proportion of internalizing (e.g., anxiety, depression) or externalizing disorders (e.g., ADHD).
 - Comorbidity with externalizing disorders can range from was 19.6% to 24.3%
 - Comorbidity with internalization disorders can range from 21.4% to 51.4%

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What are the Issues: Consequences

- ▶ History of long-term literacy difficulties may lead to broader cognitive and behavioral differences
- ▶ Possible greater chance of harm to self

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How Do Others Contribute?

- ▶ Others' view:
 - Didn't get it, never will
 - Students are lazy
 - Compensation is only route
- ▶ Mothers' (parents') "preoccupation" with their child's reading disabilities have negative associations with their child's reading comprehension.

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What Influences Motivation?

- ▶ Literacy skills improve when students
 - Are intrinsically motivated to read/write (involvement, curiosity, and preferences)
 - Provide effort
 - Are persistent in their efforts
 - Devote time to their reading/writings

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What Influences Motivation?

- ▶ Reading skills improve when teachers/specialists
 - Focus on learning and understanding the concept vs performance and test success
 - Allow student some control
 - Show care for student's learning
 - Provide hands-on learning, interesting readings, peer collaboration, and choose texts/topics that are personally relevant for students

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What Might the Teacher/Specialist Do Specifically To Increase Motivation?

- ▶ Link goals for reading to knowledge/concepts to be learned (building strategies is a by-product of building new knowledge)
- ▶ Linking reading to real-world experiences
- ▶ Allowing for some student control
- ▶ Including diversity into text selection
- ▶ Providing means for collaborative learning
- ▶ Teaching specific word study strategies
- ▶ Be an active listener/counselor

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Counseling:
An endeavor people engage in together (Webster, 1981). It involves:

- ▶ Receiving information
- ▶ Giving information
- ▶ Helping others clarify*
- ▶ Helping others change behaviors*

*These are often best accomplished through active listening

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Active Listening

"LISTENING WITH AN INQUIRING ATTITUDE/LISTENING TO UNDERSTAND"

- a) Delaying judgment
- b) Making hunches
 - * not mirror image of others' message
 - * only a hunch, doesn't need to be right
 - * way to get at why/how
 - * can focus on non-verbal behaviors
 - * silence can be golden

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Final Thoughts: What are Hurdles to Overcome?

- ▶ "English spelling is completely illogical and complex"
- ▶ Poor spellers are "just lazy" (aka spelling is just speech on paper).
- ▶ "If you don't have it by 3rd, 4th, 5th grade, you will never get it!"
- ▶ "I've always been a poor speller!"
- ▶ Spelling is a part of writing "mechanics".
- ▶ Strategies for spelling may not be taught, at least not to a great extent
- ▶ Knowledge of spelling development and its place within the domain of language

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