

International Dyslexia Association
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Four (or five) Steps to Better Spelling Instruction

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Handouts and resources available at
<http://goo.gl/EuuKsf>

Bill Keeney as no relevant financial or nonfinancial relationships to disclose.

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Structured Literacy Instruction

- **Explicit**
- **Systematic**
- **Rule-based**

- **What are the rules of the English orthographic system?**
- **We have to know what they are if we are to teach them.**

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Most people--including Reading Specialists--get spelling wrong

- **When we read, we go from Print → Sound → Meaning (automatically)**
- **When we spell, we go from Meaning → Sound → Print**

The Code Ring diagram consists of two circular arrows. The top arrow, labeled 'Reading', points clockwise from 'Meaning' to 'Sound' to 'Print' and back to 'Meaning'. The bottom arrow, labeled 'Spelling', points counter-clockwise from 'Meaning' to 'Sound' to 'Print' and back to 'Meaning'. A central box contains the text 'How to Read' and 'How to Spell'.

(Handout p 2)

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MORPHO-PHONEMIC Language

English spelling is a highly regular, *orthographic* system based in a *morphophonemic* spelling system that “takes precedence over letter-sound simplicity” (Venetzky 1999, 9).

Morphological Awareness makes a unique contribution to reading and writing—Ken Apel

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Does this sound familiar?

“Sound it out”

I'm |'bædɪŋ| it does. (American Heritage Dictionary)

|'fæm(ə)li| = *<family> or <fambly>

|'aɪ(ə)rŋ| or /ɔrŋ/ = *<iorn>

|deɪ| = *<daey>

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We Say Things Every Which Way,

- allophonic variation
- --AND, we often don't say things the way we think we do.
- Ticksin frens say, “Ah dint harya, but I kin far ya.”

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NOT Going to wander into wild old words

- Phonology and the IPA
- Phones, phonemes
- Allophones, accents and dialects
- The Great Vowel Shift
- Vowel Diphthongs & Glides:
 - /eɪ/ /aɪ/ /dɔɪ/ /ju/
- The Schwa ə

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oral : meadow :: spelling : garden



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ortho = correct, regular
graphy = writing

Instruction that

- Emphasizes and exposes the regularities
- Rule Based
- Structural regularities

Treiman T6

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NOT a Rule

- “<i> before <e>...”
 - “except after <c>,”
 - “or when it sounds like /eɪ/ (aka ā) as in neighbor and weigh”
 - Thirty-three violations of this “rule,” including <either> and <height>.
- Now, that is one weird “rule,” and one that we might not want to seize hold of.

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SPELLING is REGULAR; PRONUNCIATION VARIES

- X** sight words
 - X** red words
 - X** irregular words
 - X** misbehaving words
- How do words behave?

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Teach REGULARITIES: Structural Matrix

- say pay lay
 - says pays lays
 - said paid laid
- (why don't we say “sayed”)

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How do you spell _____?

- 1. What does it mean?**
- 2. How is it built?**
- 3. What are its relatives?**
- 4. How is it pronounced**

Handout p 1

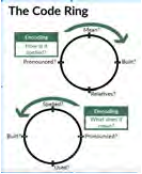
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**Word Analysis: Reading (syllable)
VS. Spelling (morpheme)**


struc • tured lit • er • a • cy in • struc • tion
struct + urø + ed liter + acy in + struct + ion

The Code Ring



Handout page 2


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Five Principles

- 1. Elements (morphemes) are stable**
--they never cross morphemic boundaries (joints) and *never change their spelling* . . .
- 2. Word families share common spellings**
- 3. Three changes at the suffix joints**
--highly regular and rule-driven.
- 4. Stable graphemes in predictable patterns**
- 5. Words with similar meaning will have similar spelling**

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Five Practices

1. Teach morphemes (base, affix, connectives) using words sums
2. Teach Word Families using matrices.
3. Teach the “joints” using the flow chart.
4. Teach graphemes and predictable graphotactics.
5. Teach structural similarities, regardless of pronunciation.

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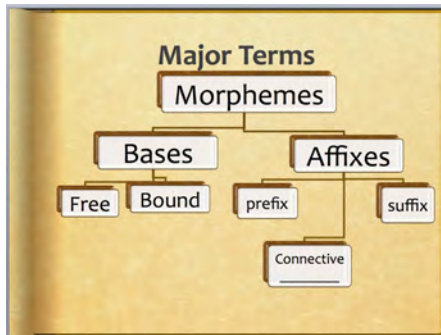


MORPHEME

- A unit of meaning (and of spelling)
- That cannot be further divided
- I.e., it NEVER CHANGES

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MORPHEMES:
base, affix, connective vowel (p 3)

THE WORD SUM

prefix + BASE + suffix

Words are built from the BASE outwards
 Words with a common BASE
 are in the same FAMILY


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Practice 1: Teach Word Sums

prefix + BASE + suffix => spelling (handout p 4)
 "gets re-written as"


Announce Spelling by LETTER NAME, Why?
Pause at Joints between morphemes, Why?
"Gets Re-written as..." Why?

in + struct + ion => instruction

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THE WORD SUM

- **foot + ball => football**
- **note + book => notebook**
- **house + boat =>**
- **boat + house =>**
- **What do they mean?**
- **Why is the <th> not pronounced /ð/ or /θ/**

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THE WORD SUM

<lead> O.E. free base "to direct or be in charge of"
 lead + s =>
 lead + ing =>
 lead + er =>
 mis + lead =>
 leader + ship =>

stem vs. base

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Bases

<u>free</u>	<u>bound</u>	<u>twin</u>
<lead>	<struct>	<vert/verse>
<cheer>	<ject>	<duct/duce>

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How do you spell...


- |ɪnˈstrækʃ(ə)n|
- |ˈstræk(t)ʃər|
- Are <tion> and <ture> suffixes?
- pressure vs. assure

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ACTIVITIES: Be a Word Nerd or Scientist, a Spelling Detective, a Linguist

- **PROVE IT!**
 - Linguistics is a science
 - Orthography is the field
 - The body of evidence is the written record
 - Dictionaries are our main secondary resource
 - Note: They can be wrong! (see <-tion> above)

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PROVE IT!

One great resource: Etymonline: An Online Etymology Dictionary
By Douglas Harper

<http://www.etymonline.com/>

Minimal pairs:

- hatched, hatchet, hatcheck
- moth, mother (thanks Julie Wolter W5)
- villa, village, villain (no -ge or -in suffixes)

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Etymology and Morphology

Hypothesis: <villa> + <-in>, + <-ge>
Morphological proof: No <-ge> suffix

Hypothesis: <vill> or <ville> + -a, -ain, -age?

Etymological proof: Etymon (Root vs. Base)
L. villa/ O.F. villain & village
villas / villains, villainous / villager


silly/salute
<http://www.etymonline.com/>

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Spelling Error Analysis

- “visible” as “visble”-- PA (syllable segmentation) deficit;
- “visible” as “vesible” --PA (sound discrimination) deficit.
- “visible” as “visibl”--orthographic knowledge deficit,
- “visible” as “visable”--deficit in storage and retrieval of the orthographic word image (MOI) in long-term memory.


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How do you spell...?

- <classified> as <calasified>
- Yes, a PA, but...
- How do you SOLVE it?
- <class> + -ify + -ed

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Activities: Invent words
(again Julie Wolter)

micro (“small”) nom (“name”) ion (“action”)
 eu (“good”) free (“let loose”) ify (“process of”)
 un (“not”) dict (“say”) ia (“condition”)

- micro + dict + ion => saying something softly
- un + free + ify => making someone less free
- eu + nom + ia => the condition of having a good name
- A note on “Is that a word?”

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Learn by Analogy

(again LLEAD)

- reverse = "turn back" research = ?
- piglet (small) owlet (small)
- so, what would be a toilet?
 - Etymonline: (a small clothes bag)
- bucket? omelet? (common root: laminate)
- poet? asset?
 - (a quick word on false etymologies...)

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Word Study, Vocabulary, and Etymologies

- Spelling is for words you *already know*
- *No one needs to spell a word they don't know the meaning of.*
- Etymology and word study can help develop
 - interest in words
 - vocabulary

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How does this inform and improve our Instruction?

- Regularity and Predictability
- Practice building words—in both directions
 - Give sum and ask for spelling
 - Give spelling and ask for sum
- Lessons and Units that have stable spelling patterns
- Morphemes matter—even in decoding

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Morphemes Matter
—even in decoding

Decode and pronounce:

- reac□
- reac **h** vs. reac **t**
- *rea ch* re • act

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Teach them to spell words they already know

NOT Ad hoc

- **New GSL** <http://www.newgeneralservicelist.org/>
– 3000 words, 92% of written words
- **New AWL**
<http://www.newgeneralservicelist.org/nawl-new-academic-word-list/>
- 83% of corpus of 243 M words
- **Arrange by structure:** morphemes and graphemes

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Practice 2: Teach word families using a matrix

prefix	base	suffix
--------	------	--------

<http://www.neilramdsen.co.uk/spelling/matrix/temp/index.html> Handout p 5 & 6 answers p 7

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<lead> and <ject>

- <lead> O.E. free base "to direct, be in charge of"
– (p.s., you have to know what it *means* to *pronounce* it correctly.)
- <ject> L. bound base "to throw"

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Find the Common Base

- lead discover
- plead discount
- mislead coverage
- leader counter
- Challenge: leaden discuss/discuss

Great Resource:
Teaching How the Written Word Works
by Peter Bowers

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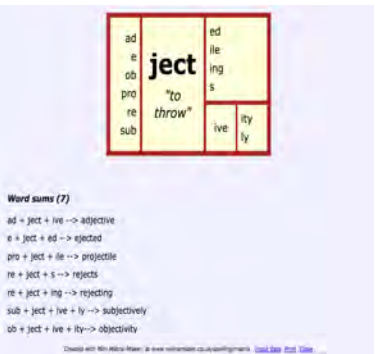


Two Great Tools

- **The Word Searcher** (see Handout p. 16)
<http://www.neilramden.co.uk/spelling/searcher/index.html>
- **The Mini-Matrix Maker**
<http://www.neilramden.co.uk/spelling/matrix/temp/index.html>

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ject
"to throw"

ad	ed
e	ile
ob	ing
pro	s
re	ive
sub	ity
	ly

Word sums (7)
 ad + ject + ive -> adjective
 e + ject + ed -> ejected
 pro + ject + ile -> projectile
 re + ject + s -> rejects
 re + ject + ing -> rejecting
 sub + ject + ive + ly -> subjectively
 ob + ject + ive + ity -> objectivity

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How can this inform their practice?

- |kəmpə'tiʃ(ə)n| = *<computishun>
- **competition = the stem is compete**
- **Relative is competitor**

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How Can this Inform our Instruction?

- **Give a spelling test with just one base**
- **Give them a matrix and ask them to spell as many words as they can**
- **Give them a word list and have them create a matrix**
- **What else could you do with this?**

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Principle 3: Three Regular Suffix Rules

1. Drop final -e
2. Final <y> changes to <i>
3. Final consonant doubles

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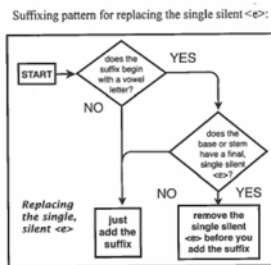
Teach as Suffixing Rules

1. **Drop** single, final, non-syllabic <e> before a vowel suffix.
 Ex. shame + -ing → shaming
 but shame + -ful → shameful
2. **Change** <y> to <i> **after** a C when adding any suffix
 --except i-suffixes
 Ex. bury + -al → burial
 but bury + -ing → burying
3. **Double** final consonant in stressed V-C base when adding a vowel suffix (1-1-1 rule)
 Ex. defer(r) + -ed → deferred
 but defer + -ment → deferment

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or Suffix Checker Flow Chart (p 8 & 9)



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Vowel Suffix vs. Consonant Suffix

- move + s => moves
- mov \emptyset + ing => moves
 - announce “no <e>”
- mov \emptyset + ed => moved
- move + ment => movement

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How to Announce the Changes

- happ y^i + ness => happiness
 - announce as “y change to l”
 - hop(p) + ing => hopping
 - “double p”
 - hop \emptyset + ing
 - “no e”
- => hopefully?

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HAPPINESS is a well-spelled word!

- <happy> <unhappy>
 - <happiness> <happily>
 - <happen> <happened>
- What is the “root” of happiness?
<hap> “event, occurrence”

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How does this improve instruction?

- Breaks it down into simple steps
- Reveals patterns
- Introduce one or two concepts at a time
- Practice builds confidence

See Handout p 10 & 11 for sample exercises

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Principle 4: Spellings are created from Graphemes, MORE SO than Letters (alone)

<u>SOUND</u>	<u>SYMBOL</u>
oral	visual
reading	writing
decoding	encoding
phone	letter
phoneme	grapheme
word (or "pronounced")	spelling

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Words that mean similar things will be spelled similarly

REGARDLESS of PRONUNCIATION

- height
- weight

SPELLED the same, MEAN the same, PRONOUNCED differently

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Words that mean similar things
will be spelled similarly

- **he**
- **she**
- **they**
- **them**

SPELLED the same, **Mean** the same, **PRONOUNCED** differently

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Not only a morpheme level, but
also at grapheme level

Even graphemes can have families

- **tw:** two, twin, twice, between
- **wr:** wrist, wring, wriggle, wrestle

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**PRACTICE 4: Teach STRUCTURAL
Similarities**

- **here**
- **there**
- **where**
- **ere**

“There’s a here in there and everywhere.”

SPELLED the same, **MEAN** the same,
PRONOUNCED differently


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Teach REGULARITIES of STRUCTURE


- **be** **do** **go**
- **being** **doing** **going**
- **been** **done** **gone**
- **-----** **does** **goes**

Why not <bene>?

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Practice 5: Teach graphemes, not letters (alone) (handout p 12)

- A grapheme is a 1-, 2-, or 3-letter string that represents a phoneme
- Almost all of the phonemes in English have multiple graphemes—and we have more digraphs than letters!
- Teach Graphotactics: frequencies and patterns
- Teach position: initial, medial, final

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**** i, m, f /b/ bread, table, rib

<bb> i, m, f /b/ rubber

 m, f / / doubt


<mb> f / / lamb, bomb

 or /b/ bombardment

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<ea>

- When you are teaching /ē/,
"The digraph <ea> sometimes is pronounced (or represents) /ē/."
- When teaching /ĕ/,
"The digraph <ea> sometimes is pronounced (or represents) /ĕ/."
- When teaching /ā/, "occasionally, the digraph <ea> is pronounced (or represents) /ā/." (9)

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**TEACH Digraphs and Trigraphs
as one string** (see Farrell T4)


- *ch sh th qu*
- *ai ea oa*
- *ck tch ugh*

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GRAPHEME Spelling Test

<igh>

• s_____t	r_____t
• n_____t	t_____t
• f_____t	l_____t
• m_____t	br_____t
• s_____	h_____

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GRAPHEMIC and PHONEMIC Awareness matching

Letters, Phonemes, Graphemes (handout p. 13)

- cat
- catch
- mate
- might

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Teach Spelling Grapheme Matrixes as you teach Phonemes

/k/ spelled <ck>

in final position, in single vowel *base*

in medial position, in accented syllable

- | | |
|----------|-----------|
| ba_____ | bu_____et |
| ta_____ | ta_____le |
| bla_____ | |
| ne_____ | |
| si_____ | |
| blo_____ | |
| du_____ | |

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Give ONE CONCEPT Spelling Tests that EVERYONE CAN ACE

Find first vowel, has to be one letter between.

- ba□k “back” /bæk/
- be□k “beak” /bik/
- ba□k “bank” /bɒŋk/

Differentiated spelling tests

- (Same for <ch>/<tch> and <ge>/<dge>)

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**Struct + urø + ed
Liter + acy
In + struct + ion**

Structural Regularities

- **Complex but NOT crazy (crazø + -y)**
- **Spelling highlights structural similarities between similar words *whether we pronounce them the same or not.***
- **Built from elements that *never change***
– Except under strict, rule-bound conditions

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Acknowledgements

- Real Spelling
http://www.realspelling.fr/Welcome_to_Real_Spelling/Choose-New.html
- Gina Cook at the LEX (Linguist-Educators Exchange)
<http://linguisteducatorexchange.com>
- Pete Bowers of The WordWorks Literacy Centre
<http://www.wordworkskingston.com/WordWorks/Home.html>
- Douglas Harper of Etymonline
<http://www.etymonline.com/>
- Neal Ramsden Word search and Mini-Matrix Maker
<http://www.neilramsden.co.uk/spelling/index.html>

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Unlocking Literacy: Effective Decoding & Spelling Instruction
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<http://www.learningbydesign.com/dr-ian-wasowicz.html>

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Handouts and resources available at

- <http://goo.gl/EuuKsf>
- bill.keeney@dvfs.org



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