

# Unveiling the Logic of English Spelling

Louisa C. Moats, Ed.D.

VBIDA

March, 2009

# Why Teach Spelling?

- Better spelling leads to better writing (Berninger and Richards, 2001; Moats and Foorman, 2004; Graham et al.)
- Spelling knowledge facilitates vocabulary and reading (Vellutino et al., 2007, SSSR)
- Spellchecker is insufficient
- Spelling is not learned by reading alone

# Take This Spelling Test

What knowledge do you employ when you spell: \_\_\_\_\_?

\_\_\_\_\_?

\_\_\_\_\_?

Research suggests that spelling involves more than rote “visual” (orthographic) memory; those who spell well can think about the internal details of words:

- the sounds (phonology)
- individual sound-symbol correspondences
- letter patterns (orthographic conventions)
- meaningful parts (morphemes)
- what language the word came from
- the meaning of the word in a sentence

(Ken Apel, Julie Masterson)

## coil pot Reflection

The thing I leard about doing this project is that you shuld not trost any on with your pot. But befor some one droptet it was going fin the only problem was I did not smoth done the in side and outside.

I think that it was inportent to wach the movie "Maria Mactinez" because it mad us have ideys and poust you to finech.

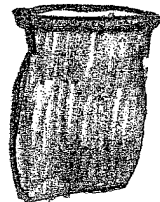
### The people

1). "we come into the world pottery we use going to leave the earth with pottery."

2). the natave amerecens us potery for eksprachen (expression)

3). a form of enter tain ment and was used daly for chores

4.



the changes I would do is make it stand up right

# Assessment

- Use a spelling inventory to determine instructional needs
- Use a norm-referenced measure such as the Test of Written Spelling – 4, or the Wide Range Achievement Test to measure relative standing

# What Can Be Taught?

1. Speech sound segmentation and identity (phoneme awareness)
2. Phoneme-grapheme mapping
3. Letter sequences, syllable patterns
4. Morphology and word origin
5. Grammar and usage
6. Proofreading, self-correction

# The Start Point: Phonological Awareness (PA)

## Phoneme Segmentation

ice \_\_\_\_\_

sigh \_\_\_\_\_

peak \_\_\_\_\_

keep \_\_\_\_\_

weight \_\_\_\_\_

cheese \_\_\_\_\_

song \_\_\_\_\_

fox \_\_\_\_\_



# The Consonant Phonemes

	lips	teeth on lips	between teeth	behind teeth	roof of mouth	back of throat	glottis
stops unvoiced voiced	/p/ /b/			/t/ /d/		/k/ /g/	
nasals	/m/			/n/		/ŋg/	
fricatives unvoiced voiced		/f/ /v/	/θ/ /ð/	/s/ /z/	/ʃ/ /ʒ/		
affricates unvoiced voiced					/tʃ/ /dʒ/		
glides unvoiced voiced					/j/	/wʰ/ /w/	/h/
liquids				/l/ /r/			

# Phoneme Substitution

shop /sh/ /ch/

chin /ch/ /f/

them /th/ /h/

shack /sh/ /h/

thick /k/ /n/

thus /th/ /f/

crush /u/ /a/

shack /a/ /o/

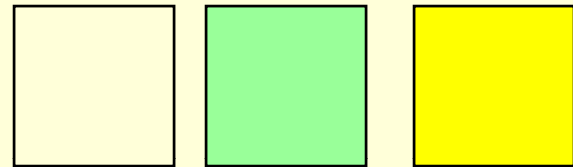
thrash /th/ /k/

thank /a/ /i/

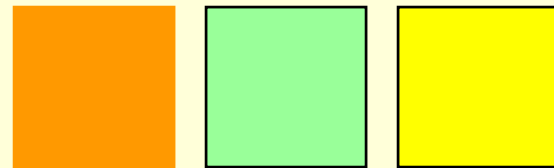


# Sound Substitution With Colored Blocks

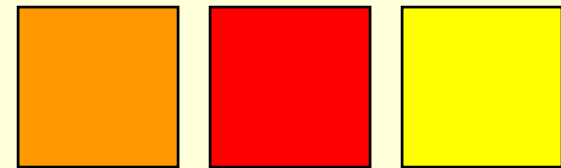
- Show me “shop.”



- Now show me “chop.”

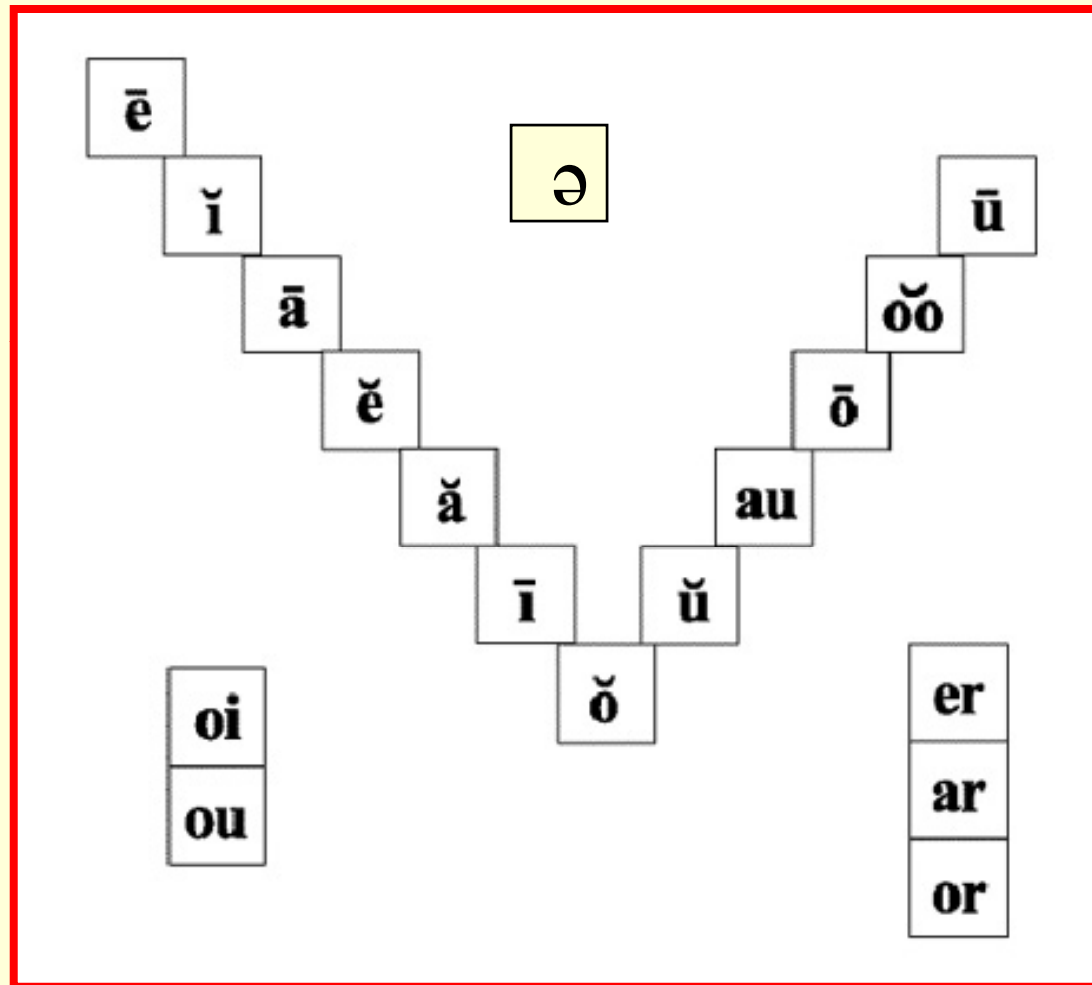


- Now show me “chip.”



- Now show me “chick.”

# Vowel Chart (Moats)



# Learning the Vowel Chart

beet

(butte)

bit

boot

bait

put

bet

boat

bat

bought

bite

butt

bottom



# Vowel Sorts – Front Vowels

Set #1: babe, pat, pie, be, pet, pit,  
flea, beg, fly, bag, big, paid

/ē/

/ī/

/ā/

/ĕ/

/ă/

/ī/

# Vowel Sorts -- Low Vowels

Set #2: pop      caught      swat      laundry  
          love      father      trouble      off  
          frog      putt      thought      of

/aw/  
(saw)

/ö/  
(ox)

/ü/  
(up)

# Building Words With Graphemes

o	i	ng	sh	ck	ll	r	d	m	s
---	---	----	----	----	----	---	---	---	---

- a) Say a word; students build the word.
- b) Students make as many words as they can, working in teams.



# Phoneme-Grapheme Mapping


- Use this grid to map phonemes to graphemes.
- Each square is one phoneme.

# Graphemes: Letters and Letter Combinations

e-gg

p-u-ck

j-a-zz

ch-u-m

s-t-r-u-ng

b-o-mb

c-a-tch

# PGM Procedure (Kathi Grace)

- Always use one sound per box
- Spell words conventionally- **no invented spelling**
- Students have grid paper, chips and a pencil. In large groups, teachers use an overhead projector, chips, and a marker
- Say the word and have students lay out chips for number of sounds in a word

# PGM Procedure (Grace, 2006)

- Then, box-by-box, write in graphemes with students, naming each letter aloud
- Ask students: *What sounds do you hear?*
- Then ask: *What letters do you write?*
- As they name the letter(s) for each sound, they write them in each box.
- Tricky patterns: digraphs (one box), blends (two boxes), *qu* (two boxes, close together) and *x* (across two boxes)
- Silent-e is mapped as having the silent-e in the corner of the box with the final consonant, as it has no sound.

# Practice, Phoneme-Grapheme Mapping

*Map these words:*

- mop
- bugs
- shut
- flash
- wax
- brag

*Map these words:*

- smoke
- which
- hang
- quit
- ring
- cake

## Word Sorting: Discovery of a “Choice” Pattern

- Why? To focus attention on both pattern and position of the sound-spelling
- To engage learners
- To provide practice
- To encourage inductive reasoning

# Examples of Grapheme Patterns ("Choice" Spellings)

/k/

cabbage

kitten

packkage

school

question

/f/

sphere

coughh

flufff

foggy

# Word Sorting to Understand a Pattern: /k/, /c/, /ck/

cactus

cost

cusp

kite

kennel

skill

napkin

stock

fleck

buckskin

blacktop

milk

stink

jerk



# The -ff, -ll, -ss Doubling Rule

-ff

puff

stuff

gruff

off

stiff

fluff

whiff

Exceptions:

if

of

-ll

will

spell

doll

still

fell

shell

dull

Exceptions:

gal

pal

-ss

dress

grass

fuss

miss

class

floss

press

Exceptions:

yes

bus

gas

Words ending  
in /z/

(is, has, his, ...)

# Consonant Oddities:

*qu* and *x*

queen = /kwēn/

mix = /mĭks/

exact = /ĕgzăkt/

# A Spelling Pattern: “Huge Smudge”

Final spellings for /j/- ‘ge’ or ‘dge’

dodge

judge

verge

village

stage

indulge

pledge

page

message

badge

fringe

damage

# Homophones Need a Meaningful Context

Using their, they're, there...

“If \_\_\_\_\_ late again, I will eat my hat,”  
said Ethyl.

When we got \_\_\_\_\_ late, we saw Ethyl  
eating her hat.

“ \_\_\_\_\_ never going home to \_\_\_\_\_ own  
house unless we drive them \_\_\_\_\_.”

# Homophone Home

Thunker **herd** a noise like a **gown** coming from **hi** above **hymn**. He **guest** that it was coming from the **beach** tree **buy** his **feat**. Thunker **staired** upward **wear** he saw something with black **fir**. "It's a **bare** up **their!**" Thunker **balled**.

Now, Thunker had never **scene** a **bare** **be** **four** and he didn't **no** what **two** **dew**. In his panic, Thunker tried to **flea**, **butt** he tripped over a tree **route**. He landed on his **knows** which caused him **grate** **pain**.

# Syntax: Split Personality Words

*Sponge* can be a noun or verb...

The \_\_\_\_\_ sponge \_\_\_\_\_  
\_\_\_\_\_.

Every day, we sponge \_\_\_\_\_  
\_\_\_\_\_.

# Syllable Spelling Conventions

Closed	Open	VCe
dap con bot	ma wri bu	trite bune tane
Vowel Team	Vowel-R	-Cle
tain geal rain	var ter dor	-gle -tle -ple

# Assorted Syllables

cab ace wait jerk table baby me path  
pipe sea idle firm sit rope go boat  
gurgle crush oil tart unit cute ripple

Closed

Open

VCe

Vowel Team

Vowel-R

-Cle



# Syllable Combining

plete

pre

sa

sal

vor

con

-y

view

com

in

ute

geal

# What Are the Ending Rules? ("Silent E Meets Its End")

1) Silent -e

2) Doubling

use + ed = \_\_\_\_\_ drip + ing = \_\_\_\_\_  
waste + ful = \_\_\_\_\_ mat + ed = \_\_\_\_\_  
smoke + less = \_\_\_\_\_ prep + ed = \_\_\_\_\_  
hope + ed = \_\_\_\_\_ fill + ed = \_\_\_\_\_  
mope + ing = \_\_\_\_\_ host + ing = \_\_\_\_\_

## Proofreading for Endings

### The Sand Which Was There

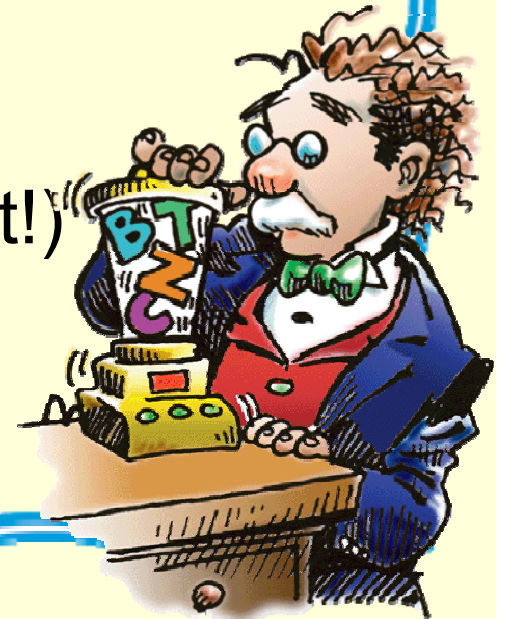
Thunker was cutting a huge peper and smokeed bovine snout sandwich in half when his cell phone starteed ringging. Thunker startted taping his head, hopping to remember where he last put the phone. Suddennly, Thunker droped his sandwich and went runing upstairs.

## Speed Read: Oyster Hoister

Roy Doyle was an oyster hoister employed by the Royal Oyster and Cracker Crumb Company. In his oilcloth slicker and soiled boots, Doyle toiled in the moist mud flats of Troy. There he foisted himself upon countless oysters that he annoyed and destroyed as he hoisted them from their warm and oozy beds. Doyle enjoyed hoisting oysters from the moist mud of Troy.

# Review: Spelling Lesson Routines

- Phonemic Awareness
- Concept Study
- Guided Word Sorts, Timed Sorts
- Dictation (Spelling in Context)
- Speed Drills and Proofreading (Orthographic Attention Enhancement!)
- Writing!



# Morphology Instruction For Older Students (Grades 4+)

What's a morpheme?

A meaningful word part, usually a prefix, root, or suffix, or parts of a compound.

non re tract able

sub tract ing

at tract ion

tele con fer enc(e) es

un dif fer ent iat(e) ed

trans fer(r) able

# Historical Layers of English

	Morpheme Structure
Anglo-Saxon	Base words ( <i>earth, moon, star, sun</i> ) Compounds ( <i>nightcrawler</i> ) Inflections ( <i>darkest; darker; parked; parking</i> ) Suffixes ( <i>neighborhood; hapless</i> )
Latin	Prefixes ( <i>peri; anti; pro; de; sub</i> ) Roots ( <i>cred; fect; vis</i> ) Suffixes ( <i>stimulus; perilous; trivial</i> ) Latin plurals ( <i>alumni; data; vertebrae</i> )
Greek	Combining forms ( <i>neuro-bio-logic-al</i> ) Plurals ( <i>crises; metamorphoses</i> )

# Two Types of Suffixes

## **inflections:**

- learned early
- do not change a word's part of speech
- a fixed set or class of words
- change tense, number, and degree (*-ed, -s, -er*)

## **derivations:**

- added to a root (usually from Latin)
- mark part of speech or grammatical role  
(*compare, comparison, comparative, comparatively*)



## Spelling Sample – Grade 3

A monkey in a zoo has  
trainers they have to share  
a cage with mother monkey  
A monkey in a rainforest does  
not need a cage they  
do NOT need trainers  
They are alike because  
they are both a monkey  
and living and have tails and  
have a body and are cute.  
And they can be different  
still because they can have  
different colored fur and does  
not have claws.

# Past Tense Inflections

	/d/	/t/	/əd/	New Syllable ?
moved				
wowed				
stalked				
hissed				
shifted				
mended				

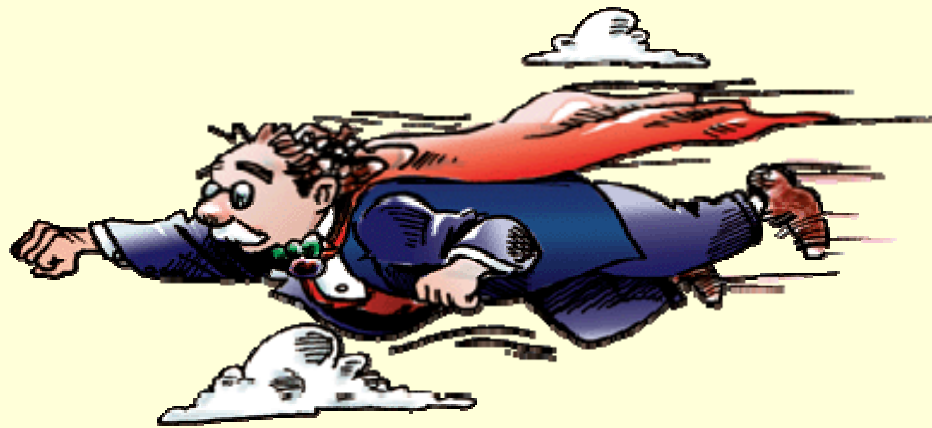
# Dictation Exercises

Provide practice using study words, irregular words, and review words.

Frequent, distributed practice is best (several sentences a day).

- Immediately correct dictated sentences together.

# Take a Tour of Spelling Territory



# References

Grace, K. (2006) *Phonics and spelling through phoneme-grapheme mapping*. Sopris West.

Henry, M. 2003. *Unlocking literacy*. Baltimore: Brookes Pub.

Javernick & Moats, *Spelling by Pattern*. Sopris West.

Joshi, Treiman, Carreker, & Moats (2008-9) How words cast their spell. *American Educator*.

Moats, L. 2000. *Speech to Print: Language Essentials for Teachers*. Baltimore: Brookes Publishing.

Moats, L. 2004. *Language Essentials for Teachers of Reading and Spelling (LETRS)*. Longmont, CO: Sopris West.

Moats, L. & Rosow, B. 2001. *Spellography*. Longmont, CO: Sopris West